



APPLICATION ACCEPTED: March 25, 2014
PLANNING COMMISSION: November 6, 2014
BOARD OF SUPERVISORS: December 2, 2014 at 3:00 PM

County of Fairfax, Virginia

October 22, 2013

STAFF REPORT

APPLICATION RZ/FDP 2014-BR-009



BRADDOCK DISTRICT

APPLICANT: NCL XI, LLC

PRESENT ZONING: R-1 (Residential 1 dwelling units per acre (du/ac))

REQUESTED ZONING: PDH-3 (Planned Development 3 du/ac)

PARCEL(S): 77-2 ((1)) 14

ACREAGE: 8.08 acres

OPEN SPACE: 54%

PLAN RECOMMENDATION: Residential at 2 to 3 du/ac

PROPOSAL: The applicant seeks to rezone 8.08 acres from R-1 to PDH-3 to permit the development of 17 single family detached dwelling units at an overall density of 2.1 du/ac.

STAFF RECOMMENDATIONS:

Staff recommends approval of RZ 2014-BR-009, subject to the execution of proffers consistent with those found in Appendix 1 of this report.

Staff recommends approval of FDP 2013-BR-003.

Staff recommends approval of a waiver of the 600 foot maximum length for a private street.

Staff recommends approval of a modification of the minor paved trail requirement in favor of the proposed trail network on the CDP/ FDP. **William O'Donnell**

Staff recommends that the Board of Supervisors direct the Director of DPWES to permit a deviation from the tree preservation target percentage in favor of the proposed landscaping shown on the CDP/FDP and as proffered.

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.

N:\ZED\Rezoning\RZ 2014-BR-009 Burke Junction\Report\01 RZ 2014-BR-009 - Burke Junction - Staff Report Cover.doc



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

Final Development Plan

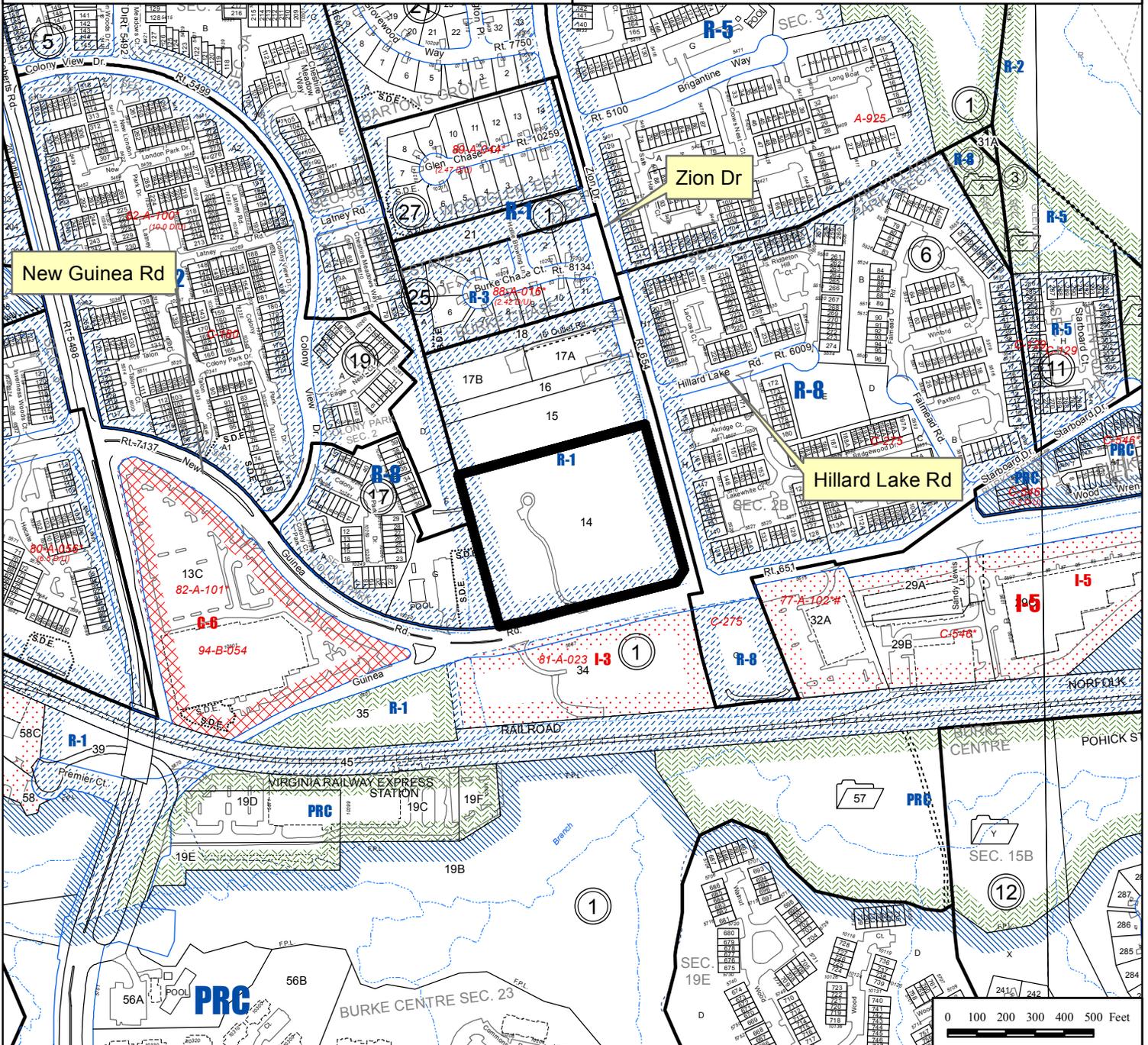
FDP 2014-BR-009

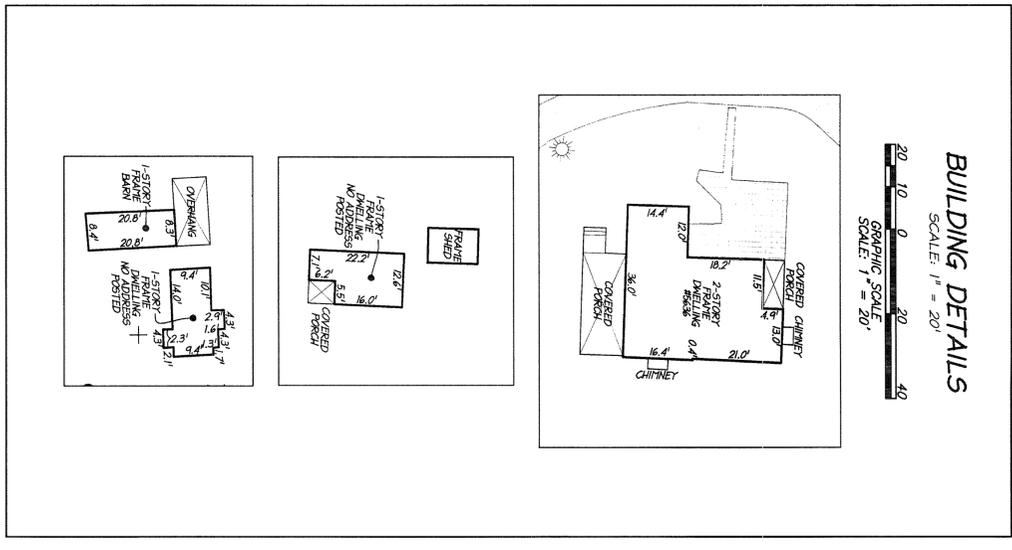
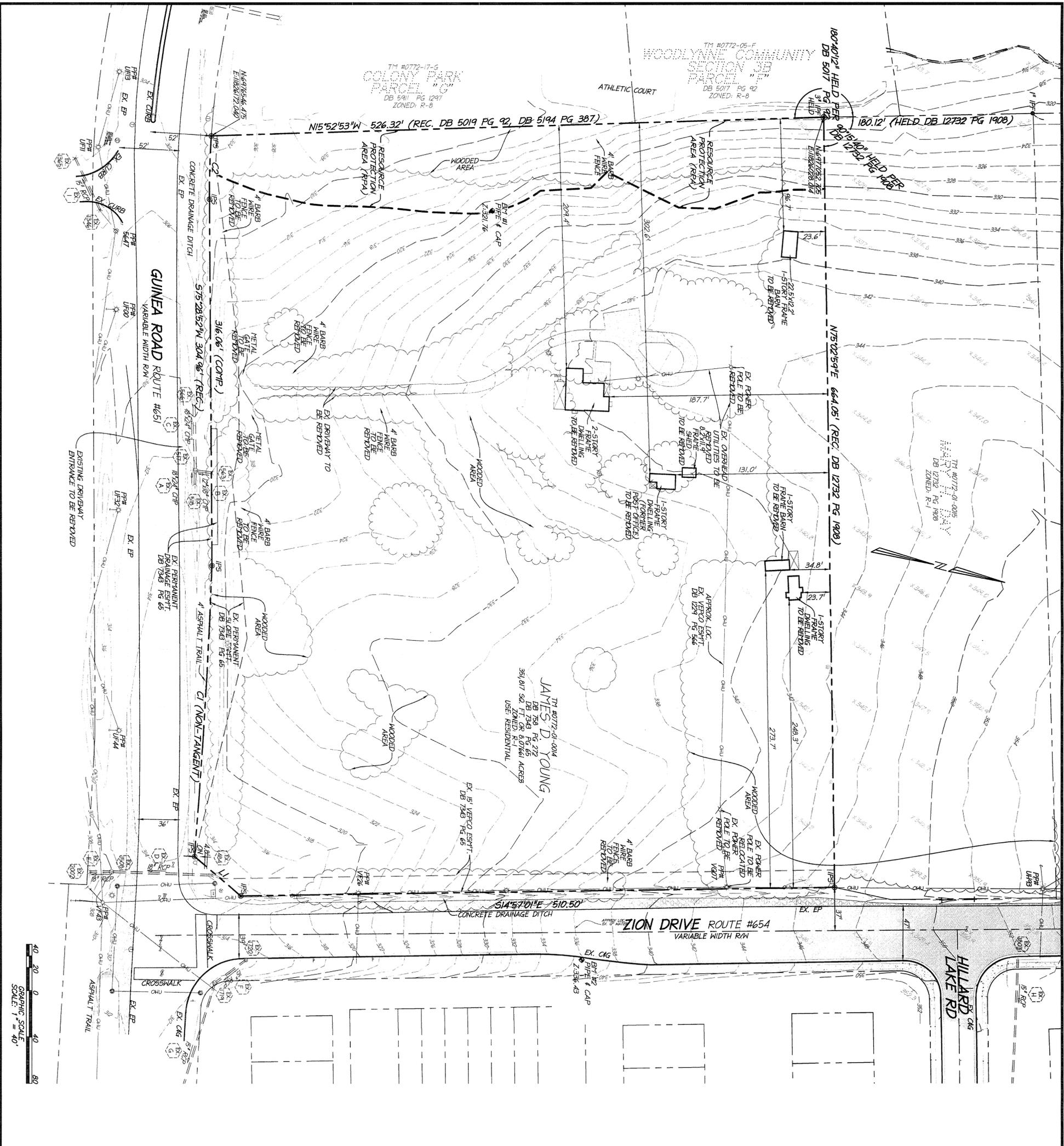
Applicant: NCL XI, LLC
Accepted: 03/25/2014
Proposed: RESIDENTIAL
Area: 8.08 AC OF LAND; DISTRICT - BRADDOCK
Zoning Dist Sect: NORTHWEST QUADRANT OF THE INTERSECTION OF ZION DRIVE AND GUINEA ROAD
Located:
Zoning: PDH- 3
Overlay Dist:
Map Ref Num: 077-2- /01/ /0014

Rezoning Application

RZ 2014-BR-009

Applicant: NCL XI, LLC
Accepted: 03/25/2014
Proposed: RESIDENTIAL
Area: 8.08 AC OF LAND; DISTRICT - BRADDOCK
Zoning Dist Sect: NORTHWEST QUADRANT OF THE INTERSECTION OF ZION DRIVE AND GUINEA ROAD
Located:
Zoning: FROM R- 1 TO PDH- 3
Overlay Dist:
Map Ref Num: 077-2- /01/ /0014

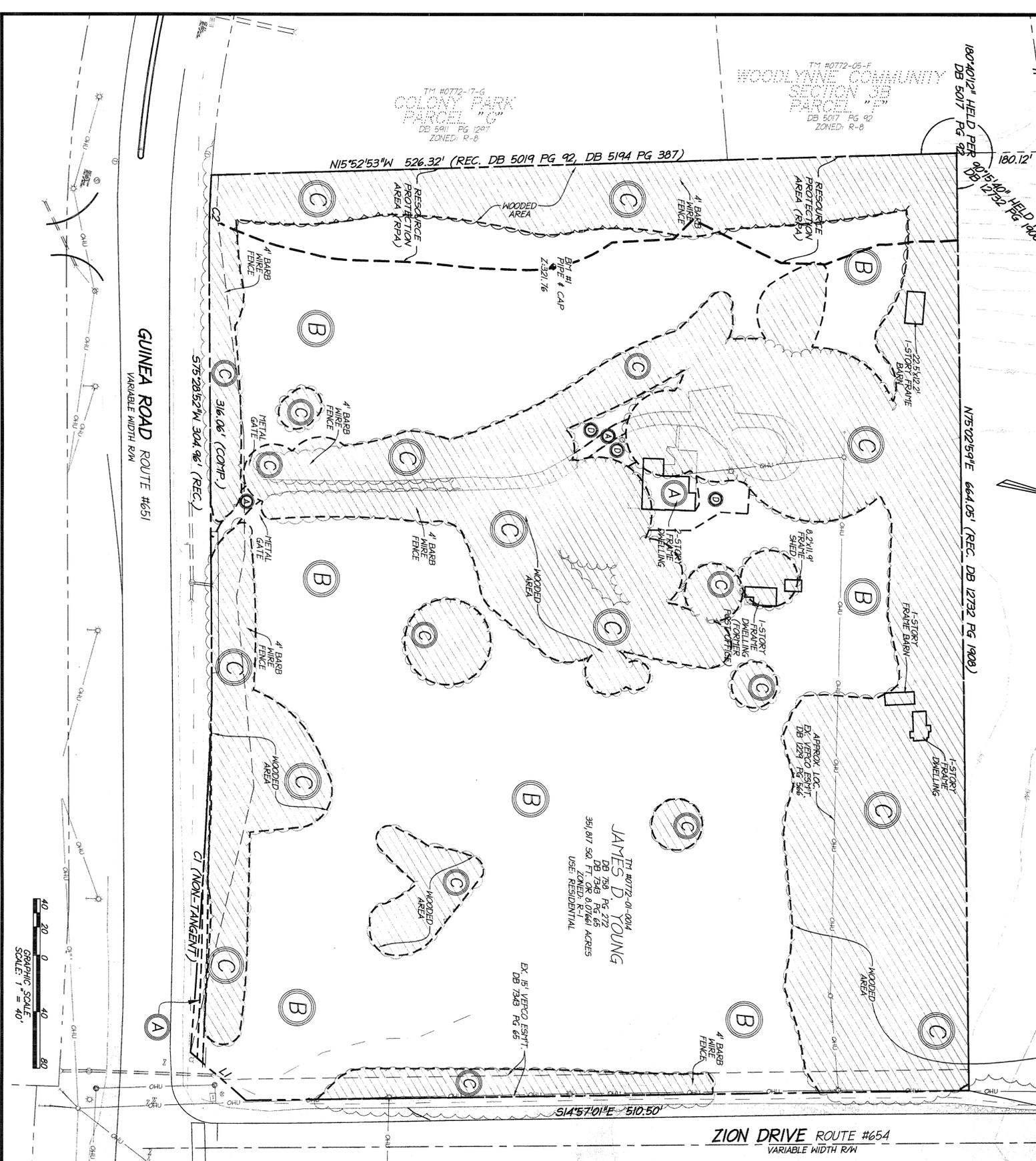




LEGEND

<ul style="list-style-type: none"> Utilities - Water: WATER VALVE, FIRE HYDRANT Utilities - Sanitary: SANITARY MANHOLE Utilities - Storm: STORM DRAIN INLET (RIG), STORM DRAIN MANHOLE, STORM CATCH BASIN (CB), STORM INVERT Utilities - Electric: LIGHT POLE, POWER POLE, GUY WIRE Utilities - Telephone: TELEPHONE PEDESTAL, TELEPHONE R/H Utilities - Misc: TREE, TRAFFIC SIGNAL, TRAFFIC CONTROL BOX, TRAIL BOX 	<ul style="list-style-type: none"> Misc. Structures: GROUND SPOT SHOT, RPA LINE, OVERHEAD UTILITY LINE, FENCE, DITCH CENTERLINE, TREE LINE, CURB & GUTTER, ADJACENT LINE (R), EX. INT. CONTROL (I) Abbreviations: RPA, C&G, RCP, ASPHALT AREA, BRICK AREA, GRAVEL AREA Surfaces: RPA, ASPHALT AREA, BRICK AREA, GRAVEL AREA Other: RPA, ASPHALT AREA, BRICK AREA, GRAVEL AREA
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<p>DATE: 01-24-2014</p> <p>SCALE: AS NOTED</p> <p>PROJECT NO.: 12134.001.01</p>	<p>CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN</p> <h2 style="margin: 0;">BURKE JUNCTION</h2> <p>FAIRFAX COUNTY, VIRGINIA</p>	<p>EXISTING CONDITIONS AND DEMOLITION PLAN</p>			<p>christopher consultants</p> <p>engineering · surveying · land planning</p> <p>9900 main street (fourth floor) · Fairfax va. 22031-3907</p> <p>703.273.6820 · fax 703.273.7636</p>
<p>DESIGN: JRS, JMT</p> <p>DRAWN: JMT</p> <p>CHECKED:</p> <p>SHEET NO.</p>	<p>2 OF 11</p> <p>101200</p>				



Existing Vegetation Map Designation Cover Type Table

Areal	Vegetation and Land Use Cover Type	Species Composition	Successional Stage	Acreage	General Health and Condition
A	Developed Land	Overstory: None Shrub/groundcover: None	N/A	0.06	Residential building with driveway.
B	Maintained Grassland	Overstory: None Shrub/groundcover: None	Intermediate	4.20	Average Health. Overall in good health. Some of the trees along the eastern property line were pruned below the overhead utilities and sprouts were observed after topping/founding over. Some fallen trees were observed along the northern property. Trees at the edge of the forest are overgrown with vines.
C	Upland Forest	Overstory: Pinus virginiana, Pinus strobus, Acer rubrum, Nyssa sylvatica, Robinia pseudacacia, Pinus serotina Shrub/groundcover: Ilex opaca, Acer rubrum Invasive: Smilax rotundifolia, Parthenocissus quinquefolia Wisteria, Vitis, Lonicera japonica, Rosa multiflora	Community	3.77	Good Health. Mature understory trees and shrubs are located along building and driveway within maintained grassland area.
D	Landscape Tree Canopy	Overstory: None Shrub/groundcover: Pinus taeda, Cornus florida, Pinus taeda, Azalea, Vitis, Cornus	Intermediate	0.06	

Total Site Acreage = 8.08 Acres

LEGEND

- RPA LINE
- OVERHEAD UTILITY LINE
- GUARD RAIL
- FENCE
- TREE CENTERLINE
- TREE LINE
- CURB & GUTTER
- PROPERTY LINE
- EX. INT. CONTOUR (2%)
- EX. INT. CONTOUR (3%)
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- LIMITS OF EIM DESIGNATION
- EXISTING TREES ON-SITE (144,200 SF)

TABLE 12.3 TREE PRESERVATION TARGET CALCULATIONS AND STATEMENT

A) Pre-development area of existing tree canopy (from existing vegetation map) =	161,210 SF
B) Percentage of gross site area covered by existing tree canopy =	47 %
C) Percentage of 10-year tree canopy required for site (see Table 12.9) =	25 %
D) Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	12 %
E) Proposed percentage of canopy requirement that will be met through tree preservation =	32.75% SF
F) Has the Tree Preservation Target minimum been met?	NO

SINCE THE TREE PRESERVATION TARGET HAS NOT MET WITH THIS SUBMISSION, THE DEVIATION LETTER IS REQUESTED. SEE BELOW.

TREE DEVIATION LETTER

August 25, 2014

christopher consultants
regional surveying & planning

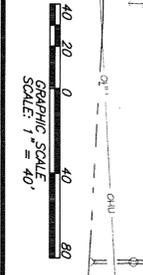
Ms. Samantha Wanggard
Urban Forester II
Forest Conservation Branch
Department of Public Works and Environmental Services
12055 Government Center Parkway
Fairfax, VA 22035-5503

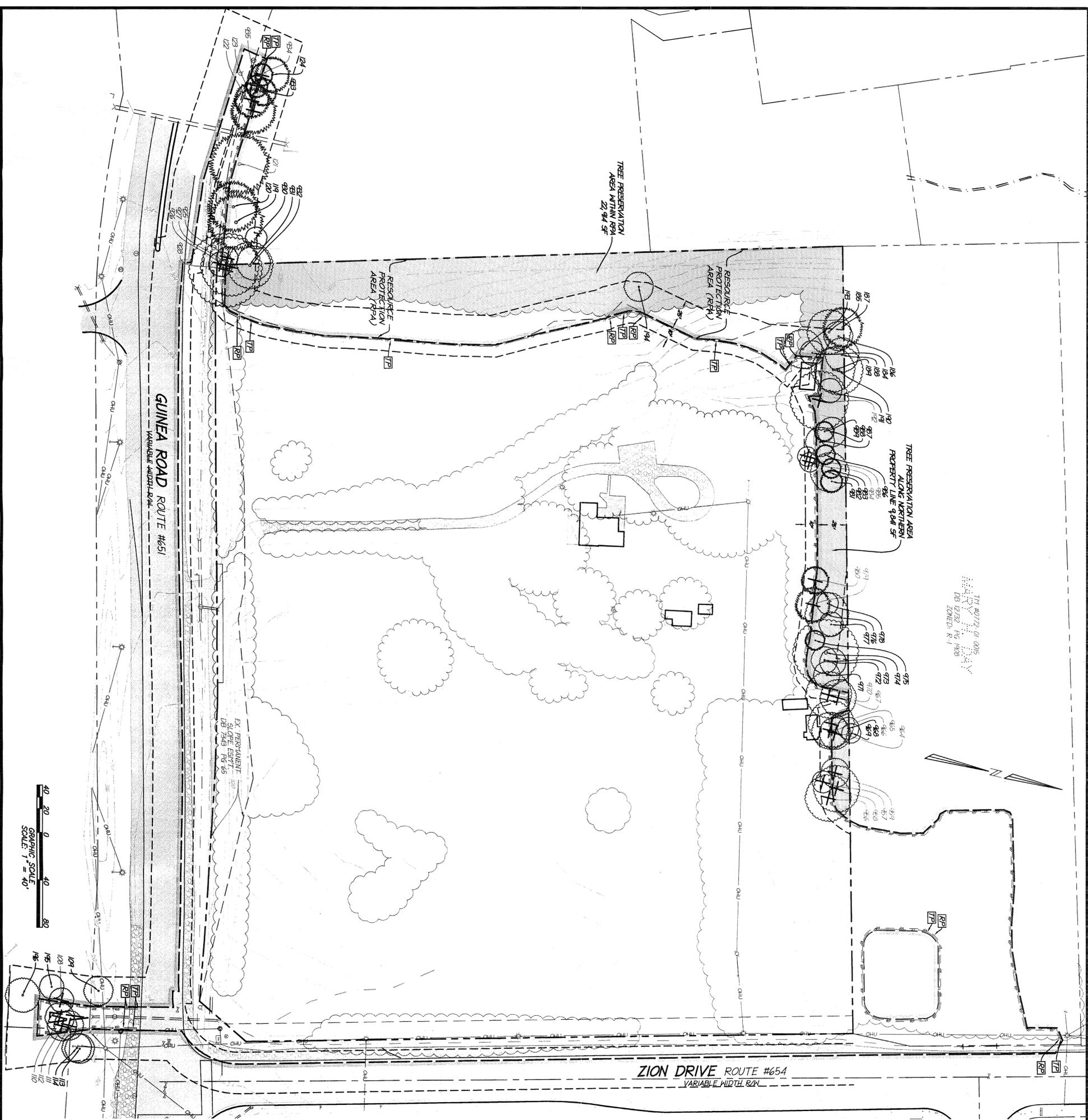
RE: Burke Junction
R2/FDP 2014-BR-009
cd Project #12134.001.01

Dear Ms. Wanggard:

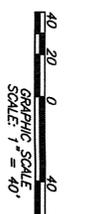
While we met the tree preservation target on our last submission, dated June 20, 2014, we are now requesting a deviation from the tree preservation target as per Section 12-505B.3(A)(3) of the Fairfax County Public Facilities Manual (PFM) for this submission. Based on the requirements from the Fairfax County Department of Planning, Zoning and Transportation, the proposed Zion Court must be aligned opposite Hillard Lake Road as the ingress/egress to the proposed Burke Junction project. As a result of this required design change with the expanded road connection and the associated construction activities, existing trees in this general area will be impacted and the efforts to save these trees will be restricted. Some of the trees that will be negatively impacted in this area are Virginia Pines, a species that is often not typically encouraged by Urban Forestry as worthy of tree preservation.

Very truly yours,
Liam Morgan, M.S.E.
Senior Landscape Planner
ISA Certified Arborist





TPA 101-110
DB 12732 PG 1908
ZONED: R-1



LEGEND

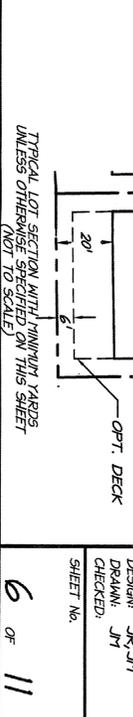
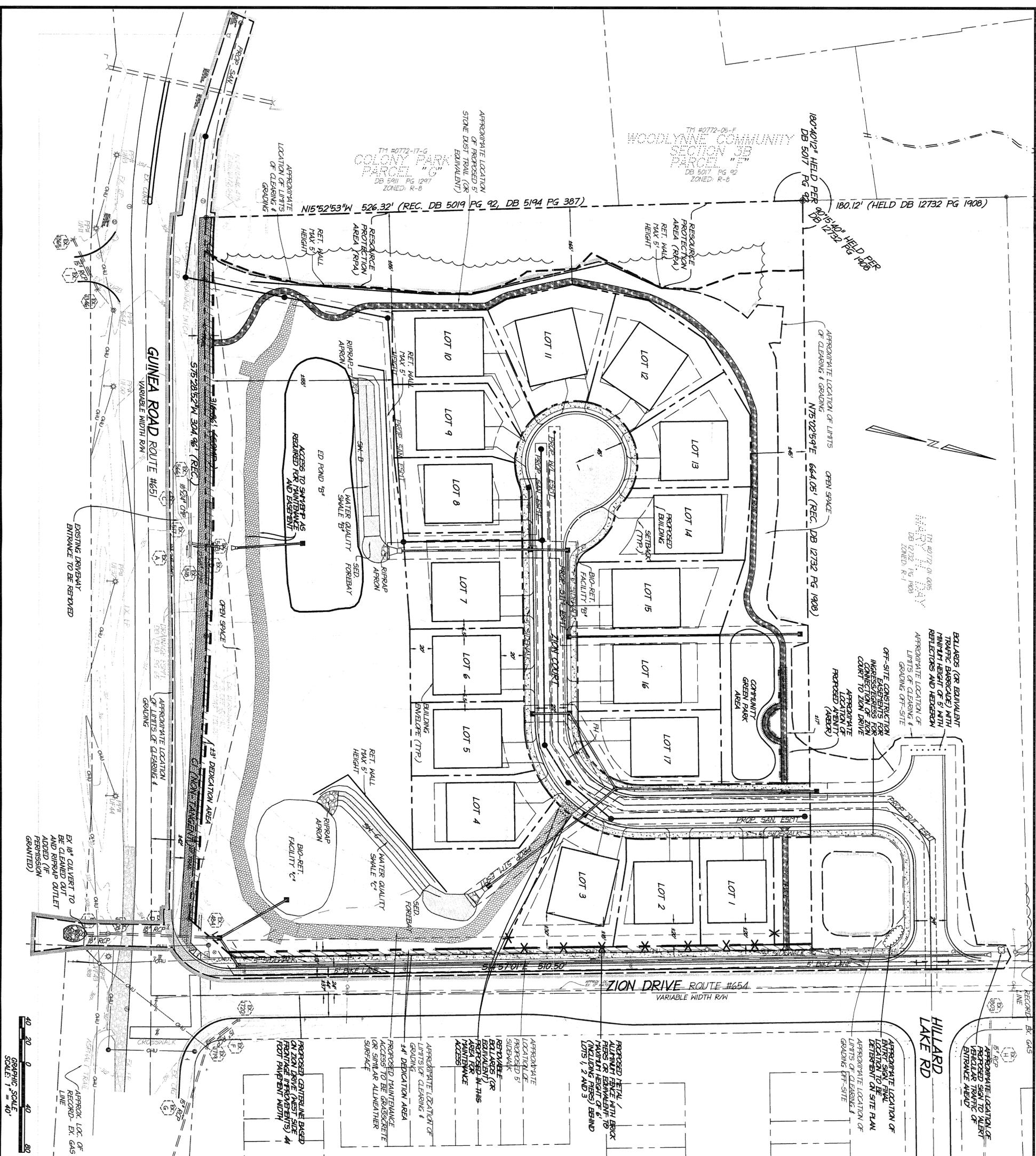
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- PROPERTY LINE
- ADJONER LINE
- EX. INT. CONTOUR (1')
- EX. INT. CONTOUR (2')
- EXISTING TREE TO BE PRESERVED
- EXISTING TREE TO BE REMOVED
- LIMITS OF CONSTRUCTION
- TREE PROTECTION FENCE (TP)
- ROOT PRUNING (RP)
- EXISTING TREES OUTSIDE OF EASEMENTS TO BE PRESERVED

NOTE:
SEE SHEET 5 FOR TREE PRESERVATION NOTES & DETAILS.

DATE	REVISION
2014-03-14	REVISED PER COUNTY COMMENTS
2014-06-23	REVISED PER COUNTY COMMENTS
2014-08-26	REVISED PER COUNTY COMMENTS
2014-09-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS

TREE PRESERVATION SCHEDULE

TREE #	BOTANICAL NAME	COMMON NAME	TRUNK DIAMETER (INCHES)	CROWN RADIUS (FEET)	CRITICAL ROOT ZONE RADIUS (FEET)	CONDITION RATING	COMMENTS
108	ACER RUBRUM	RED MAPLE	10	10	10	75	TO BE REMOVED
109	PRUNUS GALEYANA	BRADY OAK PEAR	12	12	12	68.8	TO BE PRESERVED
110	SAULI NIGRA	BLACK WILLOW	12	12	12	60	TO BE REMOVED
111	ULMUS CRUCIATA	WAXY WILLOW	12	12	12	67.5	TO BE REMOVED
112	ULMUS CRUCIATA	TULIP POPLAR	12	12	12	67.5	TO BE REMOVED
113	ULMUS CRUCIATA	TULIP POPLAR	12	12	12	67.5	TO BE REMOVED
114	ROBINIA PSEUDOACACIA	BLACK LOCUST	12	12	12	58.4	TO BE PRESERVED
115	ROBINIA PSEUDOACACIA	BLACK LOCUST	12	12	12	62.5	TO BE PRESERVED
116	ROBINIA PSEUDOACACIA	BLACK LOCUST	12	12	12	62.5	TO BE PRESERVED
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APPROX. LOC. OF RECORD EX. GAS LINE

APPROX. LOC. OF EX. 18" CULVERT TO BE CLEANED OUTLET AND RIRAP-OUTLET PERMITS (GRANTED)

PROPOSED CENTERLINE BASED ON ZION DRIVE (PRESENT) 4' FOOT PAVEMENT WIDTH

PROPOSED DEVELOPMENT TABULATIONS	
PROPERTY AREA (GROSS):	361,817 SF (8,288 AC)
DEDICATION AREA FOR GUINEA ROAD:	3,627 SF (0.08 AC)
DEDICATION AREA FOR ZION DRIVE:	2,536 SF (0.06 AC)
PROPERTY AREA (NET):	345,654 SF (7.94 AC)
MAXIMUM BUILDING HEIGHT:	35 FEET
MINIMUM YARD SETBACKS:	AS SHOWN ON PLAN ON THIS SHEET
DENSITY:	± 21 DU/AC (17 STD UNITS PROPOSED)
OPEN SPACE:	± 184,025 SF ± 54%
TREE COVER:	± 84,430 SF ± 23%
PARKING:	4 SPACES PER UNIT (417-48)

APPROXIMATE LOCATION OF PROPOSED 5' STONE DIST TRAIL (OR EQUIVALENT)

APPROXIMATE LOCATION OF PROPOSED 5' RET. WALL MAX 5' HEIGHT

RESOURCE PROTECTION AREA (RPA)

PROPOSED 18" SANITARY FACILITY

WATER QUALITY FOREBAY

SED. FOREBAY

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- TREE LINE
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- PROPERTY LINE
- EX. INT. CONTOUR (10')
- EX. INT. CONTOUR (25')
- EXISTING TREE
- PROPOSED FENCE
- PROPOSED CURB & GUTTER
- LIMITS OF CONSTRUCTION
- PROPOSED STORM STRUCTURE
- PROPOSED SANITARY
- PROPOSED WATER LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED ASPHALT TRAIL
- PROPOSED STONE DUST TRAIL

NOTES:
 1. UNLESS OTHERWISE INDICATED ON PLAN, SETBACKS FOR ALL UNITS AS FOLLOWS:
 REAR 20'
 REAR 20'
 2. AVERAGE LOT SIZE IS 7,200 SF.
 3. DRIVEWAY LOCATIONS SHOWN ON PLAN ARE APPROXIMATE. PENDING ON FINAL ENGINEERING, DRIVEWAY LOCATION MAY SHIFT.
 4. THE PROPOSED PRIVATE ROAD ZION COURT SHOWN HEREON SHALL BE PRIVATELY OWNED AND MAINTAINED.
 5. FIRE LANE PAINT & SIGNAGE WILL BE INSTALLED AS REQUIRED ALONG ZION COURT. ALL AREAS IDENTIFIED AS FIRE LINES, FIRE DEPARTMENT TURNAROUNDS, FIRE DEPARTMENT ACCESS AREAS, SKIDDER AND STRICED AREAS, SHALL HAVE BOLLARDS, PAINT, REFLECTORS AND SIGNAGE INSTALLED PRIOR TO STRUCTURE OCCUPANCY.
 6. THE CONTINGENT GREEN PARK AREA WILL BE AN OPEN SPACE ATENITY AREA THAT WILL INCLUDE SEATING AREAS, OUTDOOR GRILLS AND AN ARBOR WITH PROPOSED LANDSCAPING FOR PASSIVE RECREATION USES, AS WELL AS A LARGER OPEN SPACE AREA FOR MORE ACTIVE RECREATIONAL PROGRAMMING ACTIVITIES SUCH AS YOGA, TAI CHI, AND VOLLEBALL, BUT NOT LIMITED SPECIFICALLY TO THESE ACTIVE RECREATIONAL USES.

ZONING TABULATION REQUIREMENTS
 PDH-3 (PLANNED DEVELOPMENT HOUSING DISTRICT)
 ZONING REGULATIONS REQUIREMENTS:
 LOT SIZE REQUIREMENTS:
 MINIMUM LOT AREA: NO REQUIREMENT
 MINIMUM LOT WIDTH: NO REQUIREMENT
 BULK REGULATION REQUIREMENTS: NO REQUIREMENT
 MINIMUM YARDS: AS SHOWN ON DRAWING - BUILDING ENVELOPE DENSITY: MAXIMUM 3 DU/AC
 OPEN SPACE: 23%
 PARKING: THREE (3) SPACES PER UNIT FOR LOTS WITH BACKYARD ON A PRIVATE STREET (301-25)

DEVELOPMENT TABULATIONS
 PROPERTY AREA (GROSS): 361,817 SF (8,288 AC)
 DEDICATION AREA FOR GUINEA ROAD: 3,627 SF (0.08 AC)
 DEDICATION AREA FOR ZION DRIVE: 2,536 SF (0.06 AC)
 PROPERTY AREA (NET): 345,654 SF (7.94 AC)
 MAXIMUM BUILDING HEIGHT: 35 FEET
 MINIMUM YARD SETBACKS: AS SHOWN ON PLAN ON THIS SHEET
 DENSITY: ± 21 DU/AC (17 STD UNITS PROPOSED)
 OPEN SPACE: ± 184,025 SF ± 54%
 TREE COVER: ± 84,430 SF ± 23%
 PARKING: 4 SPACES PER UNIT (417-48)

REVISION

DATE	REVISION
2014-03-24	REVISED PER COUNTY COMMENTS
2014-08-20	REVISED PER COUNTY COMMENTS
2014-09-28	REVISED PER COUNTY COMMENTS
2014-01-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS

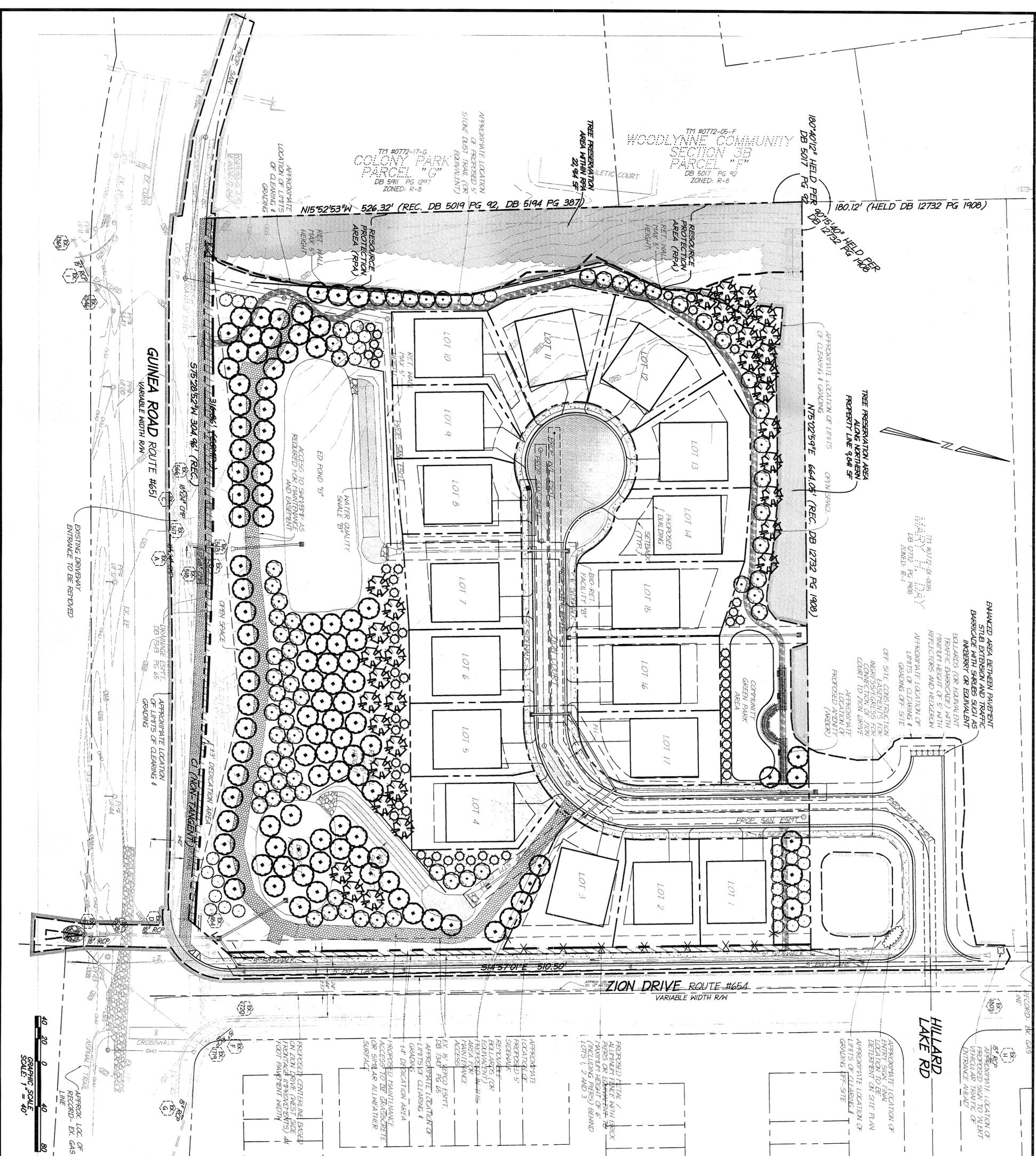
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COMMONWEALTH OF VIRGINIA
 JAMIE C. LETOV
 Lic. No. 53535
 10/16/2014
 PROFESSIONAL ENGINEER

CONCEPTUAL AND FINAL DEVELOPMENT PLAN

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO: 12134.001.01
 SCALE: AS NOTED
 DATE: 01-24-2014
 DESIGN: JR, JM
 DRAWN: JM
 CHECKED:
 SHEET NO. 6 OF 11



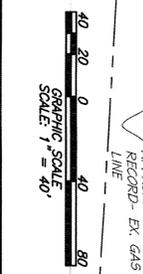
DATE	REVISION
2014-03-19	REVISED PER COUNTY COMMENTS
2014-06-24	REVISED PER COUNTY COMMENTS
2014-08-28	REVISED PER COUNTY COMMENTS
2014-09-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS

- LEGEND**
- RPA LINE
 - OVERHEAD UTILITY LINE
 - GUARD RAIL
 - FENCE
 - DITCH CENTERLINE
 - TREE LINE
 - CURB & GUTTER
 - PROPERTY LINE
 - ADJACENT LINE (R)
 - EX. IN. CONCRETE (C)
 - EX. IN. CONCRETE (S)
 - PROPOSED FENCE
 - PROPOSED CURB & GUTTER
 - LIMITS OF CONSTRUCTION
 - PROPOSED STORM STRUCTURE
 - PROPOSED STORM SEWER
 - PROPOSED SANITARY
 - PROPOSED WATER LINE
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED ASPHALT TRAIL
 - PROPOSED STONE DUST TRAIL
 - EXISTING TREES TO BE PRESERVED
 - PROPOSED DECIDUOUS TREE CATEGORY I (200 SF)
 - PROPOSED DECIDUOUS TREE CATEGORY II (75 SF)
 - PROPOSED DECIDUOUS TREE CATEGORY III (75 SF)
 - PROPOSED DECIDUOUS TREE CATEGORY IV (200 SF)
 - PROPOSED EVERGREEN TREE CATEGORY I (200 SF)
 - PROPOSED EVERGREEN TREE CATEGORY II (200 SF)

- 10-Year Tree Cover Calculations**
- Tree Cover Required:
 NET Site Area: 345,654 SF
 Percent of tree cover required: 25 %
 Total area of tree cover required: 86,414 SF
- Tree Cover Provided:
 Tree cover from preservation within RPA x 1.0 multiplier: 22,914 SF
 Tree cover from preservation outside of RPA x 1.0 multiplier: 9,241 SF
 Total tree cover from preservation: 32,155 SF
- Tree Cover Provided:
 09 - 3' Caliper Deciduous Category IV (250 SF): 27,250
 67 - 3' Caliper Deciduous Category III (175 SF): 11,725
 33 - 2' Caliper Deciduous Category II (100 SF): 3,300
 34 - 3' Caliper Evergreen Category IV (250 SF): 8,500
 58 - 2' Caliper Evergreen Category I (50 SF): 2,900
 Total Proposed Tree Planting: 53,675 SF
- Total Tree Cover Provided: 86,430 SF 25.0 %

PROPOSED TREE SPECIES

PROPOSED TREE SPECIES SHALL INCLUDE BUT NOT BE LIMITED TO: RED MAPLE, NORTHERN RED OAK, AMERICAN BEECH, SYCAMORE, BLACK WALNUT, EASTERN REDBUD, SWEETBAY MAGNOLIA, AMERICAN HOLLY, SOUTHERN RED CEDAR, AND WHITE PINE. THESE NATIVE SPECIES ARE CHOSEN FOR THEIR ADAPTABILITY AND AVAILABILITY AT THE TIME OF THE SITE PLAN PROCESS AND FINAL ENGINEERING.



DATE	REVISION
2014-03-19	REVISED PER COUNTY COMMENTS
2014-06-26	REVISED PER COUNTY COMMENTS
2014-09-24	REVISED PER COUNTY COMMENTS
2014-01-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS

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BEST MANAGEMENT PRACTICES & STORM WATER MANAGEMENT COMPUTATIONS

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO. 12134.001.01
 SCALE: 1"=60'
 DATE: 01-24-2014
 DESIGN: JL
 DRAWN: JL
 CHECKED:
 SHEET NO. **8.1 of 11**
 101200

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 (8-011.21 & 22) Special Exceptions (9-011.21 & 22)
 Cluster Subdivision (9-615.1 G & H) Commercial Re-zoning Districts (9-622.2A (12) & (14))
 PRC Plan (16-303.1 E & (10))
 FPP P Districts (except FPP) (16-502.1 F & (10)) Amendments (16-202.10 F & (10))

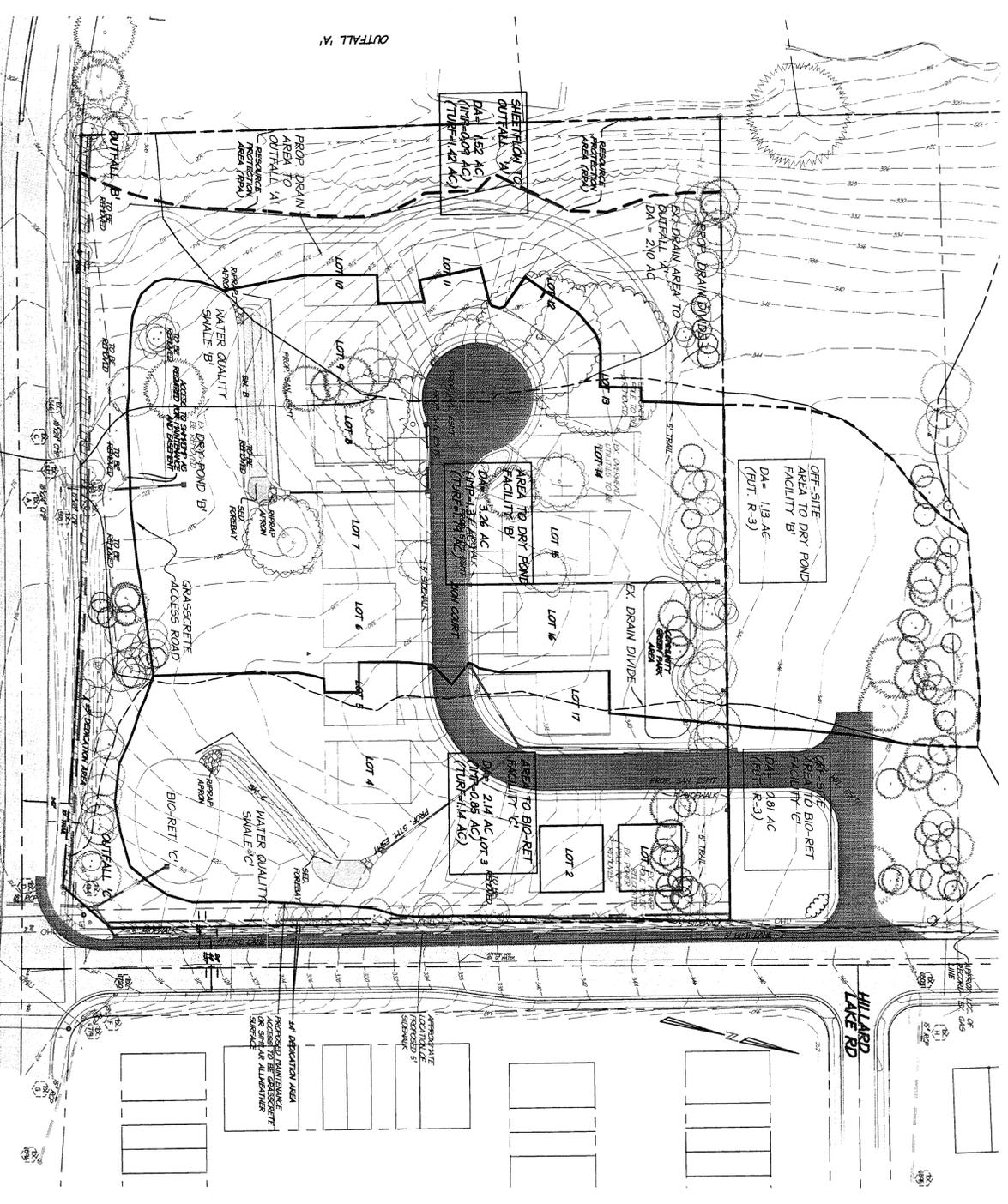
1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet connection,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

Facility Name	On-site area (acres)	Off-site area (acres)	Drainage area (acres)	Footprint area (sq ft)	Storage Volume (cu ft)	If pond, dam height (ft)
DRY SHALE 'A'	0.28	1.33	3.54	2,190	3,550	6.0
DRY SHALE 'B'	0.28	4.75	0.38	580	1,220	6.0
DRY SHALE 'C'	0.21	0.21	2.45	2,450	0.000	1.9
BIO-RET 'C'	2.14	0.01	0.01	2,450	0.000	1.9
4. On-site drainage channels, outfalls and pipe systems are shown on Sheet 6.
 Pond inlet and outlet pipe systems are shown on Sheet 6.
5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 6.
 Type of maintenance access (road surface noted on the plat is GRAVEL (asphalt, gravel, etc.).
6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 7.
7. A stormwater management narrative which contains a description of how detention and best management practices requirements will be met is provided on Sheet 8L.
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 9.
9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 9.
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.
11. A submission waiver is requested for N/A.
12. Stormwater management is not required because N/A.

LEGEND

- RPA LINE
- GENERATED UTILITY LINE
- GUARD RAIL
- FENCE
- DITCH CENTERLINE
- TREE LINE
- CURB & GUTTER
- PROPERTY LINE
- ADJACENT LINE
- EX. INT. CONTROL (1")
- EXISTING SINGLE TREE

* NO BMP PROVIDED FOR OFFSITE DEVELOPERS OF THE SITE HAS AGREED TO PROVIDE STORMWATER DETENTION FOR THE FUTURE DEVELOPMENT OF THE PARCEL TO THE NORTH (P.L. 5) ON THE CONDITION THAT THE OFFSITE PROPERTY PROVIDES THE REQUIRED STORMWATER QUALITY TREATMENT PRIOR TO DISCHARGING TO THIS SITE



STORMWATER DETENTION AREA MAP

PRE-DEVELOPMENT SITE CONDITIONS (ENTIRE SITE)
 FLOW CALCULATIONS PREPARED USING NRCS (TR-55) METHODS
 AREA = 8.08 AC Tc = 0.19 hr RCI = 62
 Q24 I = 1", 1 YR I = 2.70", 2 YR I = 3.20", 10 YR I = 5.20"
 PEAK FLOWS:
 1 YR Qp = 1.40 cfs
 2 YR Qp = 4.04 cfs
 10 YR Qp = 16.19 cfs

POST-DEVELOPMENT SITE CONDITIONS (ENTIRE SITE)
 FLOW CALCULATIONS PREPARED USING NRCS (TR-55) METHODS
 AREA = 8.08 AC Tc = 0.14 hr RCI = 76
 Q24 I = 1", 1 YR I = 2.70", 2 YR I = 3.20", 10 YR I = 5.20"
 PEAK FLOWS (NO/OUT DETENTION):
 1 YR Qp = 9.04 cfs
 2 YR Qp = 12.97 cfs
 10 YR Qp = 30.96 cfs



STORM WATER QUALITY/TREATMENT:

THE WATER QUALITY TREATMENT MEASURES FOR THIS PROJECT ARE DESIGNED TO COMPLY WITH THE NEW STATE REQUIREMENTS. MULTIPLE PRACTICES ARE PROPOSED THROUGHOUT THE DEVELOPMENT PROVIDE WATER QUALITY TREATMENT AND RUNOFF REDUCTION IN ACCORDANCE WITH THE NEW DEVELOPMENT COMPLIANCE SPREADSHEET ISSUED BY VIRGINIA DEQ. THE SPREADSHEET RESULTS ARE SHOWN ON SHEETS 8.3 AND 8.4.

THE FIRST PRACTICE EMPLOYED IS TO PROVIDE ROOFTOP DISCONNECT ON THE SMALL PORTION OF THE SITE ON THE WEST END THAT SHEET FINDS OVERLAND TO PREVENT OPEN SPACE IN B-SOIL. THE FLOW THROUGH THE OPEN SPACE NARROWS CONCENTRATES AND CONTINUES DOWN A SLOPE TO AN EXISTING CHANNEL OFFSITE. THE SHEET FLOW RATE AND VOLUME IS REDUCED SINCE A PORTION OF THE EXISTING DRAINAGE AREA IS DIRECTED TO THE PROPOSED DETENTION POND B1. THE REMAINDER OF THE SITE IS CAPTURED IN THE PROPOSED STORM TREATMENT SYSTEM EXCEPT FOR THE AREAS IMMEDIATELY ADJACENT TO THE WATER QUALITY TREATMENTS THAT DRAIN TO THEM OVERLAND.

A PORTION OF THE CURBSIDE AND ADJACENT DEVELOPMENT DRAIN TO A PROPOSED CURBSIDE URBAN BIORETENTION FACILITY. THE REMAINDER OF THE SITE WILL DRAIN TO TWO PROPOSED LEVEL 2 DRY SWALES. THE DRY SWALES EMPTY TO THE FINAL PHASE OF TREATMENT. THE WESTERN PORTION OF THE DEVELOPMENT DRAINS TO A PROPOSED LEVEL 1 EXTENDED DETENTION POND OF THE EASTERN PORTION OF THE DEVELOPMENT DRAINS TO A PROPOSED LEVEL 1 BIORETENTION FACILITY THAT IS DESIGNED TO PROVIDE STORMWATER TREATMENT AS WELL.

STORMWATER MANAGEMENT NARRATIVE:

THE PROPOSED PROJECT INVOLVES THE DEVELOPMENT OF 8.08 ACRES OF LAND THAT IS CURRENTLY SPARSELY DEVELOPED WITH A SINGLE RESIDENTIAL DWELLING AND SEVERAL ACCESSORY BUILDINGS. THE SITE IS WOODED ON THE NORTH AND WEST SIDES OF THE PROPERTY WITH SOME TREE COVER IN THE CENTER AND SOUTH. THE TERRAIN IS NEARLY FLAT AND ROLLING WITH MEDIUM SLOPE GRADIENTS BUT IS STEEP ON THE SOUTHERN BOUNDARY APPROACHING THE RIGHT OF WAY FOR GUNNA ROAD AS A RESULT OF THE ROAD CONSTRUCTION.

IN ADDITION, THE DETENTION FACILITIES (POND B AND BIORETENTION C) ARE SIZED TO ACCOMMODATE FUTURE DEVELOPMENT ON PARCEL 16 TO THE NORTH. THE DEVELOPER HAS ENTERED INTO AN AGREEMENT WITH THE OWNER OF PARCEL 16 TO PROVIDE DETENTION ON PARCEL 16 AND WATER QUALITY TREATMENT. P.L. 5 FIRST PROVIDE THE REQUIRED WATER QUALITY TREATMENT BEFORE DISCHARGING TO THIS SITE.

THESE ARE 3 OUTFALLS TO THE PROPERTY.

OUTFALL 'A' IS TO THE WEST. THAT PORTION OF THE PROPERTY SHEET FLOWS TO THE WEST THROUGH THE FORESTED AREA PARTIALLY COMPRISED OF RPA. THE RUNOFF IS NEVER CONCENTRATED ENOUGH TO BECOME CHANNELIZED. THE RUNOFF LEAVES THE PROPERTY AS SHEETFLOW AND DRAINS TO AN EXISTING EARTHEN CHANNEL ON THE ADJACENT DEVELOPMENT (COLONY PARK SEC 2) AND THEN TO TWO DETENTION FACILITIES IN SERIES. THE LOWER DETENTION FACILITY THEN OUTFALLS ACROSS GUNNA ROAD IN A 36" CULVERT AND EMPTIES INTO AN EXISTING BED AND BANKS CHANNEL.

PRE DEV. DRAIN AREA = 2.10 AC, CN = 60
 POST DEV. DRAIN AREA = 1.52 AC, CN = 61

NO STORMWATER DETENTION IS REQUIRED FOR THIS OUTFALL SINCE THE RUNOFF IS SHEETFLOW TO CONSERVATION OPEN SPACE AND THE DRAINAGE AREA, PEAK FLOW AND VOLUME IS REDUCED. SEE COMPUTATION RESULTS ON SHEET 8.

OUTFALL 'B' IS TO THE SOUTHWEST. THAT COLLECTS RUNOFF FROM THE MIDDLE OF THE PROPERTY WHICH DRAINS TO THE SOUTH. THE RUNOFF IN EXISTING CONDITION FLOWS OVERLAND AND COLLECTS IN A WIDE GRASS SWALE THAT NEVER CONCENTRATES ENOUGH TO GAIN CHANNEL PROPERTIES. IT THEN IS PICKED UP IN AN EXISTING STORM PIPE THAT CARRIES THE FLOW UNDER THE SIDEWALK AND OUTLETS TO THE EXISTING CONCRETE CHANNEL ON THE ROAD FRONTAGE OF GUNNA ROAD. THAT CHANNEL THEN DRAINS DOWN TO TWO GATE INLETS THAT CONNECT TO A 24" CULVERT TO OUTFALL ACROSS GUNNA ROAD NEXT TO THE 36" CULVERT FROM OUTFALL 'A'. A PORTION OF OUTFALL 'B' DOES NOT DRAIN TO THE PIPE BUT FLOWS THE SAME EXISTING ROADSIDE CONCRETE CHANNEL BY WAY OF OVERLAND FLOW.

PRE DEV. DRAIN AREA = 4.83 AC, CN = 66
 POST DEV. DRAIN AREA = 4.75 AC, CN = 75/76.7% TO POND (1.33 AC FROM OFFSITE)
 + 0.71 AC, CN = 62 UNCONTR.

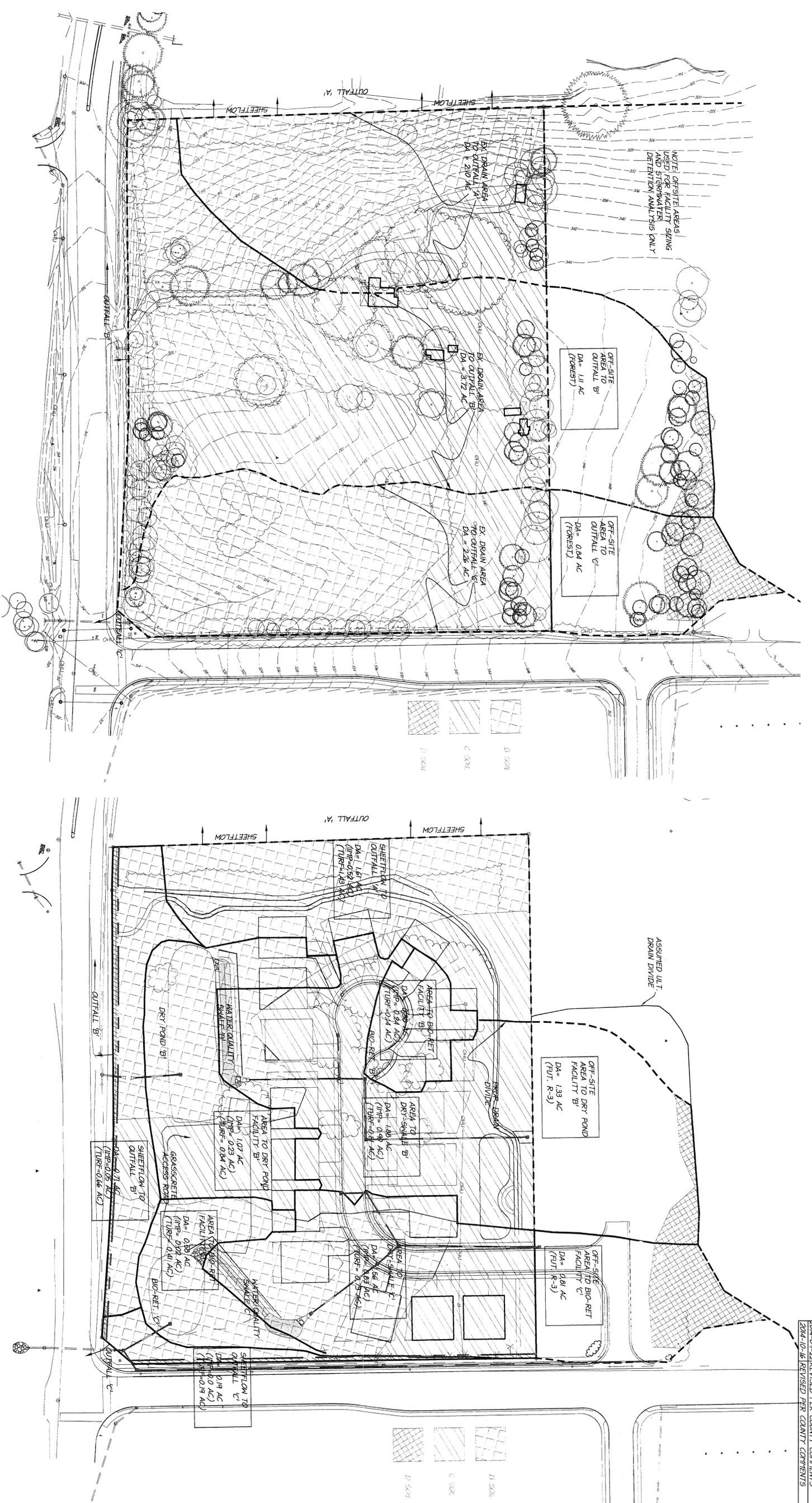
STORMWATER MANAGEMENT AND RUNOFF REDUCTION IS PROPOSED TO ACCOUNT FOR THE DIMENSION OF RUNOFF AND THE INCREASED PERMEABLE AREA. PRACTICES TO BE USED WILL BE URBAN CURBSIDE BIORETENTION, LEVEL 1 DRY SWALE (WATER QUALITY SWALE 'B' ON THAP) AND A LEVEL 1 EXTENDED DETENTION POND (DRY POND 'B' ON THAP).

OUTFALL 'C' IS TO THE SOUTHEAST. THIS COLLECTS RUNOFF FROM THE EAST PORTION OF THE PROPERTY. THIS RUNOFF DRAINS OVERLAND IN A GRASSY SWALE AND NEVER CHANNELIZES. THE SWALE EMPTIES TO THE EXISTING ROADSIDE DITCH ALONG ZION DRIVE. THAT ROADSIDE DITCH DRAINS SOUTH TO A CULVERT THAT DRAINS UNDER GUNNA ROAD AND OUTLETS PARTIALLY SUBMERGED INTO AN EXISTING BED AND BANKS CHANNEL.

PRE DEV. DRAIN AREA = 3.10 AC, CN = 62
 POST DEV. DRAIN AREA = 2.45 AC, CN = 67/70.7% TO BIORET. (0.91 AC FROM OFFSITE)
 + 0.19 AC, CN=61 UNCONTR.

STORMWATER DETENTION AND RUNOFF REDUCTION IS PROPOSED TO ACCOUNT FOR INCREASED IMPERVIOUS AREA. PRACTICES TO BE USED WILL BE A LEVEL 1 DRY SWALE (WATER QUALITY SWALE 'C' ON THAP) AND A LEVEL 1 BIORETENTION FACILITY WITH EXTRA STORAGE FOR DETENTION (BIO-RET 'C' ON THAP).

SEE SHEETS 8.5 AND 8.6 FOR DETENTION ESTIMATE CALCULATIONS.



EX. DRAINAGE DIVIDE AND SOIL TYPE MAP

OUTFALL A
DA = 2.04 AC
CN = 60

OUTFALL B
DA = 4.83 AC (INCLUDES 1.11 OFFSITE)
CN = 66

OUTFALL C
DA = 3.10 AC (INCLUDES 0.84 OFFSITE)
CN = 62



PROP. DRAINAGE DIVIDE AND SOIL TYPE MAP

OUTFALL A
DA = 1.61 AC
CN = 60/61/63 (17R/21R/10TR)

OUTFALL B
DA = 4.75 AC TO POND (INCLUDES 1.33 OFFSITE AT ULT. DEV.)
CN = 75/76/78
DA = 0.71 AC UNCONTROLLED
CN = 62

OUTFALL C
DA = 2.95 AC TO BIOP-RET. (INCLUDES 0.81 OFFSITE AT ULT. DEV.)
CN = 69/70/72
DA = 0.19 AC UNCONTROLLED
CN = 61

DATE	REVISION
2014-09-19	REVISED PER COUNTY COMMENTS
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2014-10-16	REVISED PER COUNTY COMMENTS



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BMP MAPS

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN
BURKE JUNCTION
FAIRFAX COUNTY, VIRGINIA

PROJECT NO. 12134.001.01	SCALE: 1"=60'
DATE: 01-24-2014	DESIGN: JL
	DRAWN: JL
	CHECKED:
SHEET NO.	8.2 of 11

DATE	REVISION
2014-02-18	REVISED PER COUNTY COMMENTS
2014-06-20	REVISED PER COUNTY COMMENTS
2014-08-28	REVISED PER COUNTY COMMENTS
2014-09-24	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.33	0.57	0.00	1.90	18.56
Turf (acres)	0.00	2.61	1.98	0.00	4.76	51.98
Impervious (acres)	0.00	0.58	1.88	0.00	2.38	22.46
					8.98	200.00

Site By

Post Development Treatment Volume (ft ³)	11556
Post Development TP Load (lb/yr)	7.26
Post Development TN Load (lb/yr)	51.94
Total TP Load Reduction Required (lb/yr)	3.95

Total Runoff Volume Reduction (ft³)

Total TP Load Reduction Achieved (lb/yr)	5221
Total TN Load Reduction Achieved (lb/yr)	47.97
Adjusted Post Development TP Load (lb/yr)	2.97
Remaining Phosphorous Load Reduction (lb/yr) Required	0.00

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.93	0.43	0.15	0.00	0.00	1.50
Turf (acres)	0.52	2.35	1.33	0.00	0.00	4.20
Impervious (acres)	0.18	1.38	0.83	0.00	0.00	2.38
						8.08

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	0.47	2.01	1.80	0.00	0.00	4.29
TN Load Red. (lb/yr)	4.53	26.50	16.94	0.00	0.00	47.97

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.75	0.17	0.00	0.92	56.79
Turf (acres)	0.00	0.37	0.15	0.00	0.52	32.10
Impervious (acres)	0.00	0.11	0.07	0.00	0.18	11.11
					1.62	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
9.a. Sheetflow to Conservation Area with A/B Soils (Spec #2)	Impervious: 0.18	
	Turf (Previous): 0.52	

Total Impervious Cover Treated (acres)	0.18
Total Turf Area Treated (acres)	0.52
Total TP Load Reduction Achieved in D.A. A (lb/yr)	0.47
Total TN Load Reduction Achieved in D.A. A (lb/yr)	4.53

Drainage Area B Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.46	0.00	0.46	36.51
Turf (acres)	0.00	1.14	1.12	0.00	2.35	146.06
Impervious (acres)	0.00	0.09	1.26	0.00	1.35	43.33
					4.13	

BMP Selections

Practice	Credit Area (acres)	Downstream Practice
5.a. Dry Swale #1 (Spec #10)	Impervious: 0.08	Practice 8.a. ED #1
	Turf (Previous): 0.88	
6.a. Bioretention #1 or Urban Bioretention (Spec #9)	Impervious: 0.24	5.a. Dry Swale #1
	Turf (Previous): 0.14	
8.a. ED #1 (Spec #15)	Impervious: 0.16	
	Turf (Previous): 0.74	

Total Impervious Cover Treated (acres)	1.30
Total Turf Area Treated (acres)	1.88
Total TP Load Reduction Achieved in D.A. A (lb/yr)	2.01
Total TN Load Reduction Achieved in D.A. A (lb/yr)	26.50

Drainage Area C Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.15	0.00	0.00	0.15	9.26
Turf (acres)	0.00	1.10	0.23	0.00	1.33	82.10
Impervious (acres)	0.00	0.38	0.47	0.00	0.85	52.47
					2.33	

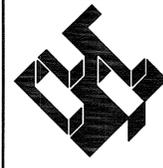
BMP Selections

Practice	Credit Area (acres)	Downstream Practice
5.a. Dry Swale #1 (Spec #10)	Impervious: 0.83	6.a. Bioretention #1
		Turf (Previous): 0.73
6.a. Bioretention #1 or Urban Bioretention (Spec #9)	Impervious: 0.02	Bioretention #1
	Turf (Previous): 0.41	

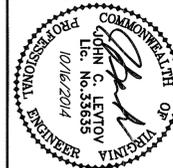
Total Impervious Cover Treated (acres)	0.85
Total Turf Area Treated (acres)	1.14
Total TP Load Reduction Achieved in D.A. A (lb/yr)	1.80
Total TN Load Reduction Achieved in D.A. A (lb/yr)	16.59

Channel and Flood Protection

Target Rainfall Event (in)	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
D.A. A CN	64	2.70	3.20	5.15
D.A. B CN	78	75	75	76
D.A. C CN	75	69	N/A	72
D.A. D CN	0	N/A	N/A	N/A
D.A. E CN	0	N/A	N/A	N/A



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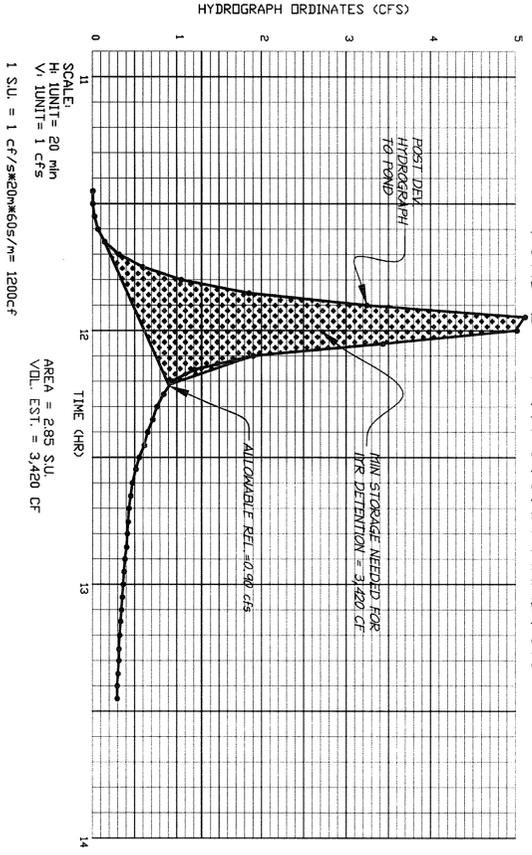
RUNOFF REDUCTION CALCULATIONS

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

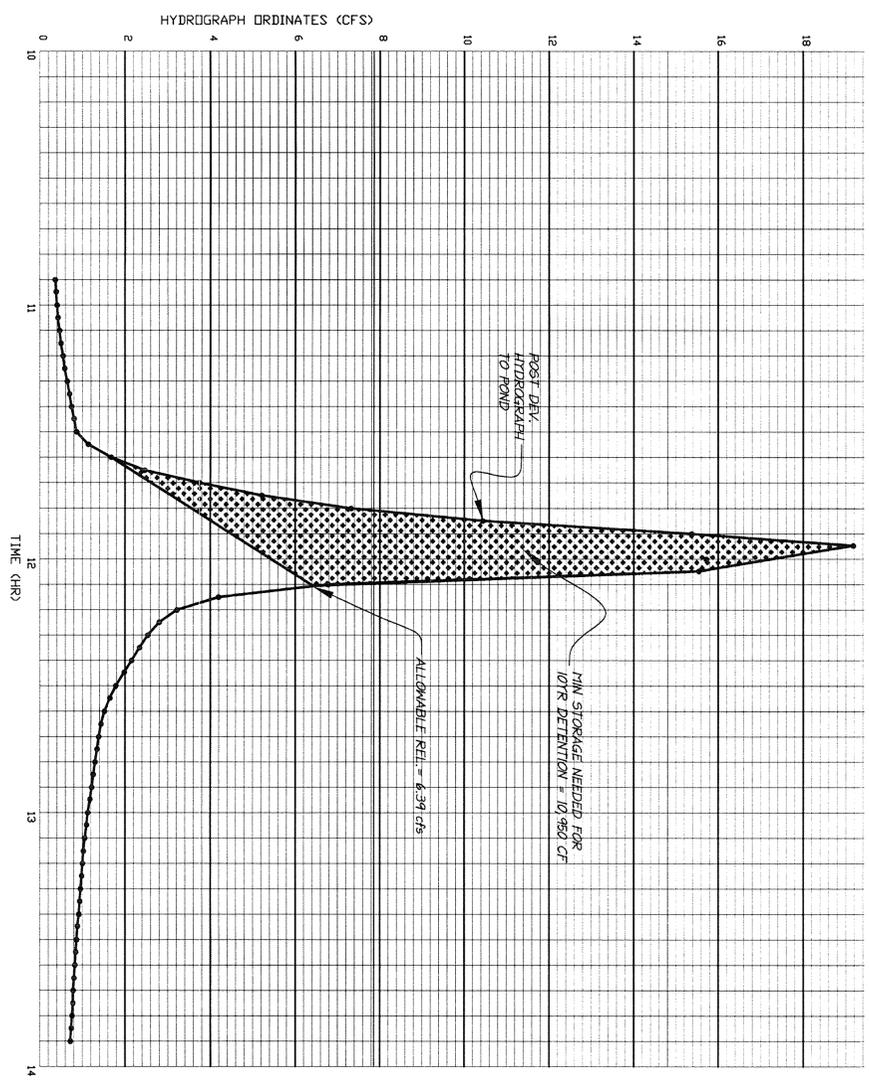
PROJECT NO: 12134.001.01
 SCALE: N/A
 DATE: 01-24-2014
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 SHEET NO.
8.4 of 11
 101200

DATE	REVISION
2014-03-18	REVISED PER COUNTY COMMENTS
2014-06-24	REVISED PER COUNTY COMMENTS
2014-09-24	REVISED PER COUNTY COMMENTS
2014-09-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS

POND B - 1 YR STORM ANALYSIS



ESTIMATED DETENTION VOLUME NEEDED = 2,532 CF



SCALE:
H1 UNIT = 20 min
V1 UNIT = 2 cfs
1 S.U. = 2 cf/s * 20 min * 60 s / min = 2400 cf

AREA = 4,56 S.U.
VOL. EST. = 10,950 CF



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SWM DETENTION ESTIMATES

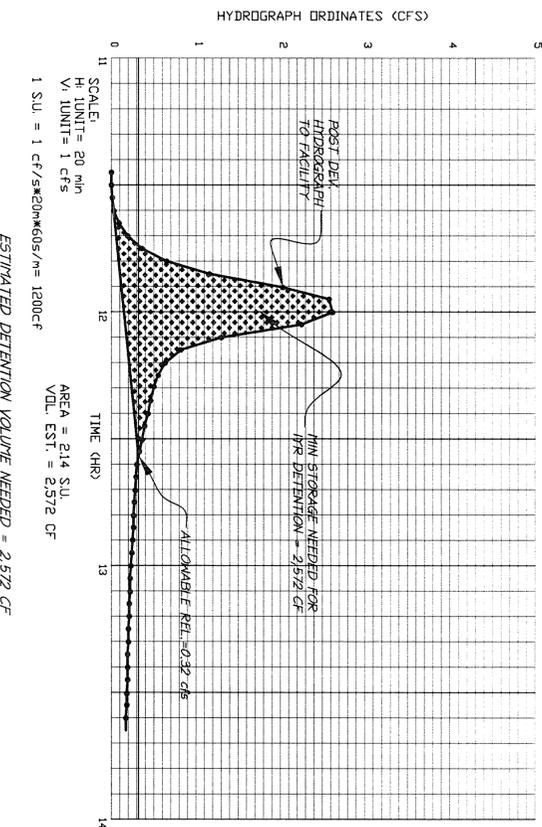
CONCEPTUAL DEVELOPMENT PLAN /
FINAL DEVELOPMENT PLAN
BURKE JUNCTION
FAIRFAX COUNTY, VIRGINIA

PROJECT NO: 12194.001.01
SCALE: 1"=60'
DATE: 01-24-2014
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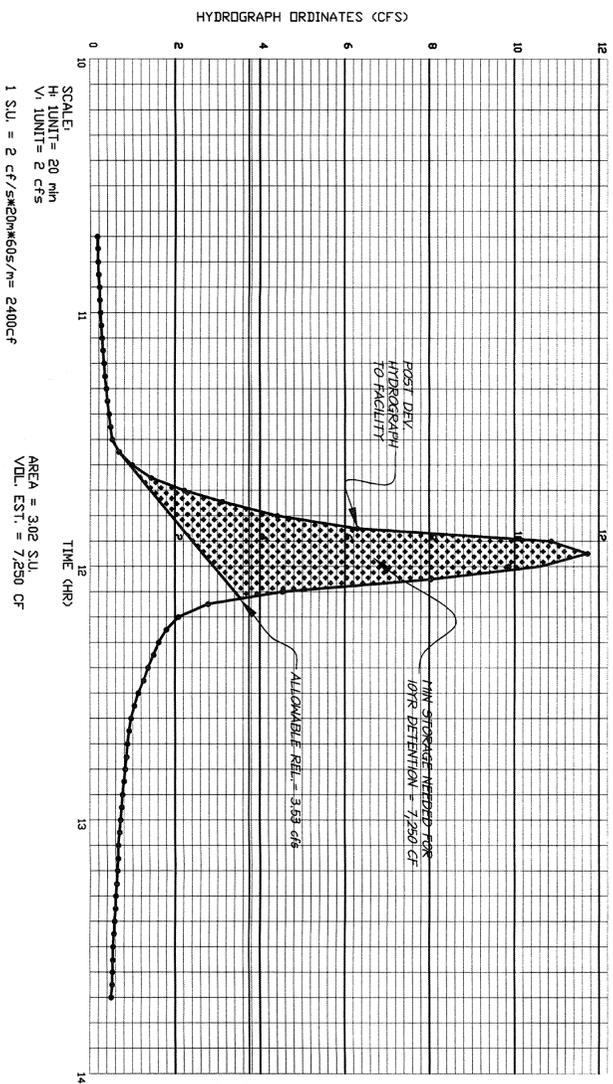
OUTFALL C

DATE	REVISION
2004-03-19	REVISED PER COUNTY COMMENTS
2004-06-20	REVISED PER COUNTY COMMENTS
2004-08-26	REVISED PER COUNTY COMMENTS
2004-09-21	REVISED PER COUNTY COMMENTS
2004-10-16	REVISED PER COUNTY COMMENTS

BIO RET C - 1 YR STORM ANALYSIS



BIO RET C - 10 YR STORM ANALYSIS



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SWM DETENTION
ESTIMATES

CONCEPTUAL DEVELOPMENT PLAN /
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BURKE JUNCTION
FAIRFAX COUNTY, VIRGINIA

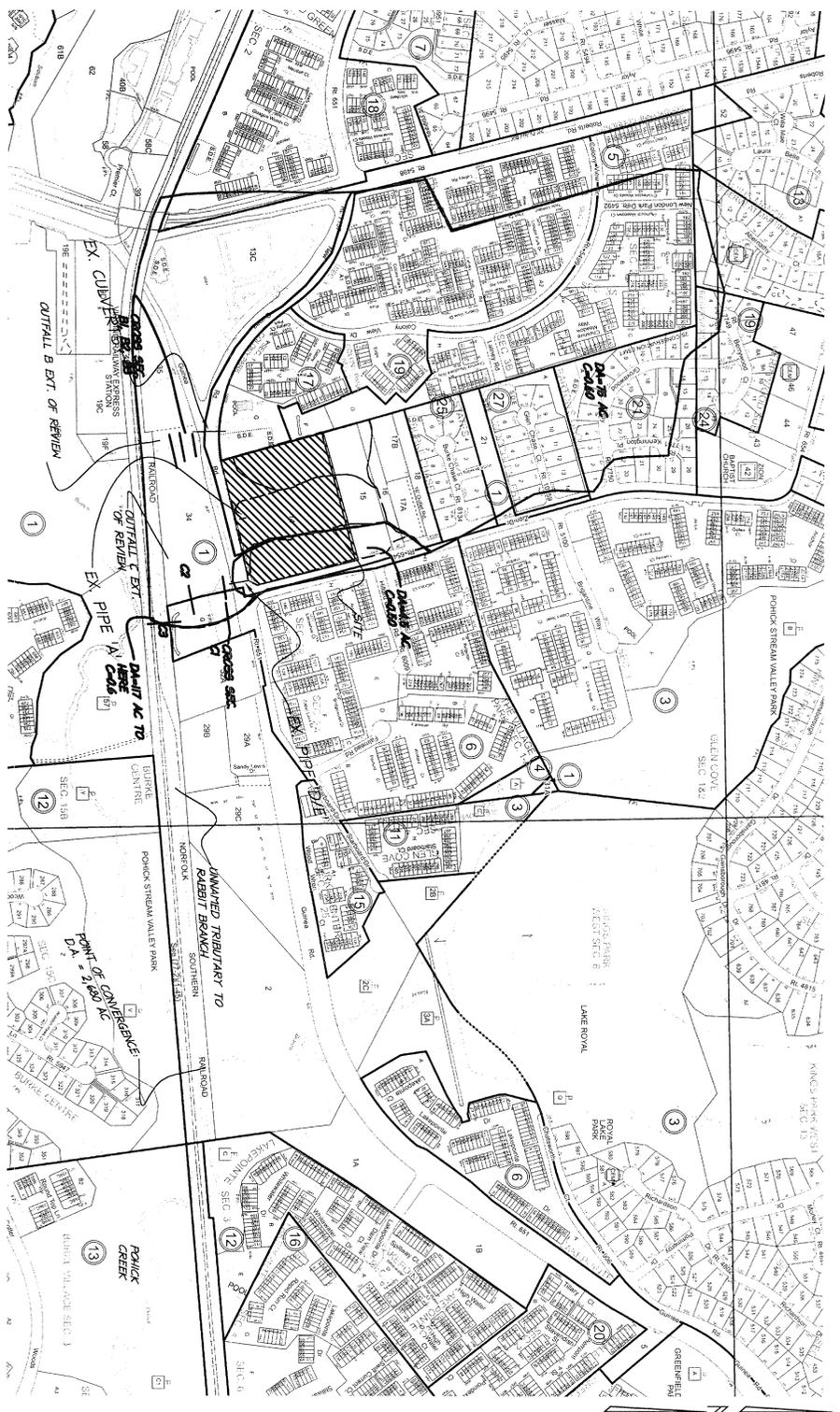
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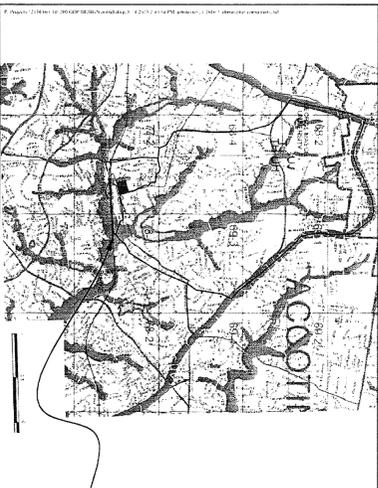
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8.6 of 11

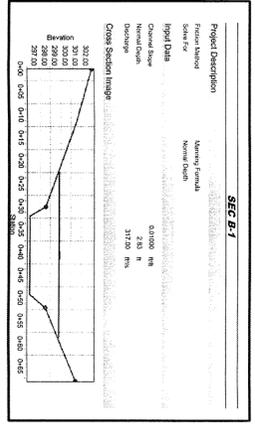


OVERALL DRAINAGE DIVIDE MAP

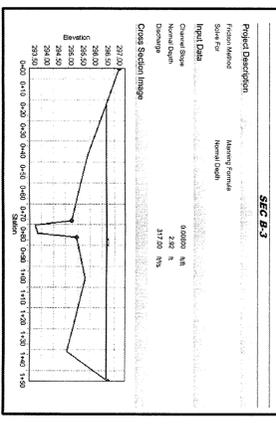
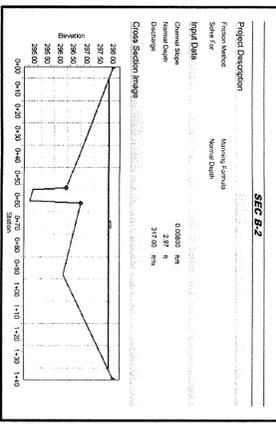


SCALE: 1" = 1 mile

OUTFALL A' - SHEETLON TO WEST PROPERTY LINE
 PRE-DEV DRAINAGE AREA = 2.10 AC
 WEIGHTED RUNOFF CN = 60 (WOODS-GOOD COND.)
 POST-DEV DRAINAGE AREA = 1.61 AC
 WEIGHTED RUNOFF CN = 64 (RPA/WOODS AND DEVELOPED LAWN W/ SCHE ROOF)
 PRE-DEV 1-YR 0.28cfs
 POST-DEV 1-YR 0.23cfs
 PRE-DEV 10-YR 2.9cfs
 POST-DEV 10-YR 2.6cfs
 SHEETLON IS REDUCED FOR POST-DEVELOPED CONDITION



CROSS SECTION B FLOW CALCULATIONS:
 DRAINAGE AREA = 75 AC, C = 0.60, Tc = 15 min, 100 YR L = 7.05
 Q = 0.60x7.05x75 = 317 cfs



OUTFALL NARRATIVE:

THE SITE HAS THREE DIFFERENT OUTFALL POINTS, OUTFALL POINTS 'A', 'B', AND 'C'. THE OUTFALL 'A' DRAINAGE AREA TAKES UP ROUGHLY A QUARTER OF THE SITE AREA AND IS LOCATED ON THE WESTERN SIDE OF THE SITE. THE OUTFALL 'B' AREA CONSISTS OF THE MIDDLE PORTION OF THE SITE AND IS COMPRISED OF ABOUT 1/2 THE SITE AREA. OUTFALL 'B' DRAINS SOUTH TOWARDS GUNEA ROAD TO AN EXISTING CULVERT (PIPE 18") THAT OUTFALLS TO A GRAVELY SLOPE ALONG GUNEA ROAD. THE OUTFALL 'C' AREA IS SLIGHTLY LARGER THAN THE OUTFALL 'A' AREA AND DRAINS SOUTH INTO A GRAVELY SLOPE THAT OUTFALLS TO A CULVERT (PIPE 18") DRAINING ACROSS GUNEA ROAD. ALL SITE OUTFALLS DRAIN ACROSS GUNEA ROAD AND OUTFALL INTO EXISTING CHANNELS WHICH CONTINUE TO DRAIN SOUTH THROUGH WOODS AREA TO A CHANNEL ALONG THE NORTH SIDE OF THE RAILROAD TRACKS HOWEVER, THE MAJORITY OF THE SITE AREA WILL ULTIMATELY DRAIN TO RABBIT BRANCH, A TRIBUTARY STRAY OF THE POWICK WATERSHED.

OUTFALL POINT 'A'
 OUTFALL POINT 'A' CONSISTS OF A TOTAL DRAINAGE AREA OF ROUGHLY 2.10 ACRES. STORMWATER RUNS OFF BY WAY OF SHEET FLOW IN A WESTERLY DIRECTION TO THE WESTERN PROPERTY LINE. OPPOSITE THE RUNOFF ULTIMATELY REACHES A CHANNEL FLOWING SOUTH TO AN EXISTING STORMWATER MANAGEMENT POND JUST NORTH OF GUNEA ROAD. THE EXISTING STORMWATER MANAGEMENT POND IS NOT CURRENTLY DESIGNED TO TREAT DEVELOPED LAND FROM THIS SITE. THERE IS AN RPA BUFFER SET OFF FROM THE EXISTING CHANNEL THAT EXTENDS ONTO THE PROJECT SITE WHICH WILL REMAIN UNDISTURBED.
 APPROXIMATELY 0.49 AC OF LAND WILL BE DIVERTED TO THE NEW WATER QUALITY DRY SWALE AND STORMWATER DETENTION POND. THE DIVERSION WILL HAVE ONLY A BENIGN IMPACT ON THE DOWNSTREAM SYSTEM DUE TO THE DETENTION AND RUNOFF REDUCTION ACHIEVED. THE DIVERTED RUNOFF WILL THEET UP WITH THE REST OF THE RUNOFF FROM OUTFALL 'A' SEVERAL HUNDRED FEET DOWN STRAY IN THE CULVERT SYSTEM LEAVING THE DETENTION POND THAT CROSSES UNDER GUNEA ROAD. THE SHEETLON SUMMARY SHOWN ON THIS PAGE SHOWS THAT THE SHEETLON OFF THE PROPERTY ALONG OUTFALL 'A' IS REDUCED AND THEREFORE MEETS THE ADEQUATE OUTFALL REQUIREMENTS.

EXTENT OF REVIEW FOR OUTFALL 'A'
 THE EXTENT OF REVIEW FOR OUTFALL 'A' IS THE WESTERN PROPERTY LINE BECAUSE THE RUNOFF IS NOT CONCENTRATED FLOW AND IS REDUCED.

OUTFALL POINT 'B'

OUTFALL POINT 'B' CONSISTS OF A TOTAL DRAINAGE AREA OF APPROXIMATELY 4.8 ACRES IN THE REDEVELOPED CONDITION AND ABOUT 5.5 ACRES POST DEVELOPED. 1.11 ACRES OF THAT AREA IS OFF-SITE AREA DRAINING FROM THE NORTH. THE NORTHERN BORDER EDGE OF THE PROPERTY WILL REMAIN UNDEVELOPED IN A WOODS CONDITION. THIS WILL BE CONTIGUOUS WITH THE OFF SITE AREA TO THE NORTH ALSO TO REMAIN WOODS.
 APPROXIMATELY 0.99 ACRES WILL BE DIVERTED FROM THE OUTFALL 'A' SHED TO BE TREATED IN THE WATER QUALITY DRY SWALE AND DETENTION POND IN THE OUTFALL 'B' SHED. THE STORMWATER FROM THE SITE DOES DISCHARGE INTO A NATURAL SYSTEM WITHIN THE EXTENT OF REVIEW SO IN ACCORDANCE WITH THE NEW STORMWATER REGULATIONS THE POSTDEVELOPED FLOW IS TO BE REDUCED USING THE ENERGY BALANCE EQUATION (FFX 124-4-4B.3.d) SHOWN IN CALCULATIONS ON THIS PAGE. THE ALLOWABLE RELEASE FROM THE POND IS THE STORMWATER DRAINS FROM THE POND TO THE EXISTING CULVERT AND LEAVES THE SITE. IT THEN OUTFALLS TO A ROADSIDE CONCRETE-LINED DITCH ON GUNEA ROAD. THIS DITCH FLOWS WEST AND ENTERS TWO GRATE INLETS. JUST WEST OF THE SITE BOUNDARY, STORMWATER ENTERS THE DITCH ON BOTH SIDES OF THE EXISTING DRIVEWAY WHICH HAS A PIPE RUNNING BENEATH IT TO CONNECT THE DITCH FROM THE INLETS. STORMWATER ENTERS A TRIPLE CULVERT RUNNING UNDERNEATH GUNEA ROAD FROM THERE IT IS DISCHARGED INTO A NATURAL CHANNEL WHICH RUNS SOUTH APPROXIMATELY 225 FEET BEFORE BEGAINING AN UNMANNED TRIBUTARY TO RABBIT BRANCH. ALONG THE DRAINAGE PATH THESE ARE SECTIONS OF CHANNEL SHOWING SOME SIGNS OF EROSION BUT THE CHANNEL BECOMES STABLE AND LESS DEFINED AND THEN CEASES TO HAVE ANY DEFINED BED AND BANKS. THE FLOW PATH CONTACTS TO THE UNMANNED TRIBUTARY WHICH HAS AN ENTRENCH BED AND BANKS AND STANDING WATER. IT IS VEGETATED AND APPEARS STABLE. THIS UNMANNED TRIBUTARY IS LOCATED JUST NORTH OF THE RAILROAD TRACKS AND FLOWS APPROXIMATELY 2,400 FEET UNTIL MEETING RABBIT BRANCH.

EXTENT OF REVIEW FOR OUTFALL 'B'

CHANNEL PROTECTION:
 EON 124-4-4B.3.d IS USED FOR 1 YR DETENTION SO THE EXTENT OF REVIEW IS IN ACCORDANCE WITH 124-4-4B.6.c TO A POINT 150' DOWNSTREAM OF WHERE THE RECEIVED STORM CHANNEL IS JOINED BY ANOTHER OF AT LEAST 90% THE SIZE OF OUTFALL 'B'. OUTFALL 'B' IS THE EXISTING ROADSIDE CHANNEL SERVING APPROXIMATELY 5.3 AC OF THE SITE AND IT JOINS THE EXISTING DRAINING UNDER GUNEA ROAD WHICH SERVE APPROXIMATELY 61 AC OF EXISTING COLONY PARK. SO THE EXTENT OF REVIEW IS 150' DOWNSTREAM FROM THE CONJUNCTION WHICH IS THE EXISTING 36" CULVERT UNDER GUNEA AND THEN INTO THE CHANNEL ON THE SOUTH SIDE OF GUNEA. THE DOWNSTREAM REVIEW IS LIMITED TO SHOWING A FLOOD PROTECTION.
 EON 124-4-4B.3.d IS USED FOR 10 YR DETENTION SO THE EXTENT OF REVIEW IS IN ACCORDANCE WITH 124-4-4C.6.d TO A POINT 150' DOWNSTREAM OF WHERE THE RECEIVED STORM CHANNEL IS JOINED BY ANOTHER OF AT LEAST 90% THE SIZE OF OUTFALL 'B'. THE SAME EXTENT AS ABOVE. THE CHANNEL IS LOCATED IN AN UNDEVELOPED WOODS AREA AND NO STRUCTURES ARE IN THE VICINITY OF THE 100 YEAR FLOOD LIMITS. CROSS SECTIONS ARE SHOWN ON THIS PAGE.

OUTFALL 'B' - SOUTH PROPERTY LINE

PRE-DEV DRAINAGE AREA = 4.83 AC (111 FROM OFF-SITE)
 WEIGHTED RUNOFF CN = 66 (WOODS-GOOD COND.)
 TO POND, POST-DEV DRAINAGE AREA = 4.75 AC (133 FROM OFF-SITE)
 1 YR WEIGHTED RUNOFF CN = 75 (OFF-SITE AND ON-SITE DEV.)
 10 YR WEIGHTED RUNOFF CN = 76 (OFF-SITE AND ON-SITE DEV.)
 1 YR Q10r = 2.37cfs, 10 YR Q10r = 12.8cfs
 1 YR R10r = 7160 CF, 10 YR R10r = 32667 CF
 1 YR R10r dev = 13800+888+4163 CF, 10 YR R10r dev = 46594+4411+50980 CF

EW 124-4-4B.3c
 Qdev (Q10r/R10r/R10r dev)

POST-DEV UNCONTROLLED DRAINAGE AREA = 0.71 AC
 WEIGHTED RUNOFF CN = 44
 Qpeak 1-YR=0.35cfs, Qpeak 10-YR=1.85cfs
 1 YR R10r dev = 893 CF, 10 YR R10r dev = 4411 CF

ALLOWABLE RELEASE FROM POND B

EW 124-4-4B.3c	POST-DEV ALLOW RELEASE FROM POND (PAK 0 - UNCONT.)
Qpeak 1-YR 2.37cfs	1.20 cfs
Qpeak 10-YR 12.8cfs	0.24 - 0.30 = 0.27 cfs
Qpeak 10-YR 12.8cfs	0.24 - 1.05 = 6.39 cfs

SEE DETENTION BASIN SIZING CALCULATIONS ON SHEET 8.5

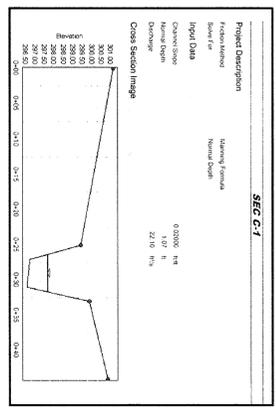
DATE	REVISION
2014-03-19	REVISION PER COUNTY COMMENTS
2014-06-26	REVISION PER COUNTY COMMENTS
2014-08-28	REVISION PER COUNTY COMMENTS
2014-07-22	REVISION PER COUNTY COMMENTS
2014-10-16	REVISION PER COUNTY COMMENTS

OVERALL DRAINAGE DIVIDES MAP & ADEQUATE OUTFALL ANALYSIS

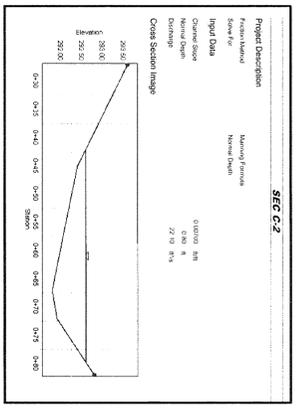
CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO: 12134.001.01
 SCALE: AS NOTED
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 DESIGN: JL
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 SHEET NO. 91 of 11
 101200

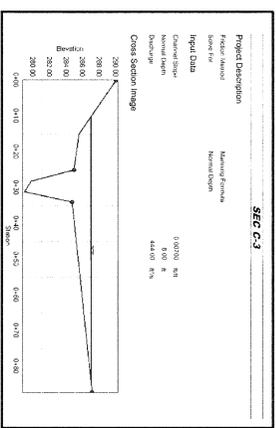
DATE	REVISION
2014-03-24	REVISED PER COUNTY COMMENTS
2014-08-24	REVISED PER COUNTY COMMENTS
2014-09-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS



CROSS SECTION C1 AND C2 FLOW CALCULATIONS:
 DRAINAGE AREA = 4.5 AC, C = 0.50, Tc = 5 min, 100 YR I = 9.84
 $Q = 0.50 \times 9.84 \times 4.5 = 22.1 \text{ cfs}$



CROSS SECTION C3 FLOW CALCULATIONS:
 DRAINAGE AREA = 117 AC, C = 0.60, Tc = 20 min, 100 YR I = 6.32
 $Q = 0.60 \times 6.32 \times 117 = 44.4 \text{ cfs}$



OUTFALL POINT #C11
 OUTFALL POINT #C11 CONSISTS OF A TOTAL DRAINAGE AREA OF APPROXIMATELY 3.1 ACRES IN THE PREDEVELOPED CONDITION AND APPROXIMATELY 3.1 ACRES IN THE POSTDEVELOPED CONDITION. ROUGHLY 2.3 ACRES OF THIS AREA IS ON-SITE WHILE ABOUT 0.8 ACRES OF RUNOFF ENTERS THIS SECTION OF THE SITE FROM THE NORTH. THE OFF-SITE AREA AND THE NORTHERN EDGE OF THE PROPERTY WILL REMAIN UNDEVELOPED IN A WOODED CONDITION. THIS DRAINAGE AREA IS BEING ROUTED THROUGH A SERIES OF WATER QUALITY AND RUNOFF REDUCTION TREATMENTS. THE STORM SYSTEM WILL DIRECT MOST OF THE DRAINAGE SHED TO A WATER QUALITY DRY SWALE. THAT THEN LEADS TO A BIORETENTION FACILITY THAT IS OVERSIZED TO PROVIDE DETENTION AS WELL.
 THE STORMWATER FROM THE SITE DISCHARGES ACROSS GUINEA ROAD IN AN EXISTING CULVERT INTO AN EARTHEN CHANNEL. SO IN ACCORDANCE WITH THE NEW REGULATIONS THE POSTDEVELOPED FLOW IS TO BE REDUCED USING THE "ENERGY BALANCE" EQUATION (124-4-4B3d) SHOWN IN CALCULATIONS ON THIS PAGE.
 THE ALLOWABLE RELEASE FROM THE BIORETENTION FACILITY IS CALCULATED AND THE NEEDED DETENTION SIZE HAS DETERMINED BASED ON THE ALLOWABLE RELEASE.
 AFTER LEAVING THE FACILITY THE STORMWATER DRAINS TO THE EXISTING CULVERT AT THE CORNER OF GUINEA AND ZION. THE CULVERT CARRIES THE STORMWATER UNDERNEATH GUINEA ROAD AND DISCHARGES TO A RIPRAP APRON AND THEN TO A NATURAL EARTHEN CHANNEL. RUNNING SOUTH THROUGH AN UNDEVELOPED WOODED AREA. TRAVELING ROUGHLY 385 FEET IN A VERY SIMILAR SITUATION AS THE OUTFALL CHANNEL #9, SECTIONS OF CHANNEL SHOW SOME SIGNS OF EROSION BUT THE CHANNEL BECOMES STABLE AND LESS DEFINED AND THEN CEASES TO HAVE ANY DEFINED BED AND BANKS AND DISPLAYS A BRAIDED CHANNEL CONFIGURATION. IT IS VEGETATED AND APPEARS STABLE.
 APPROXIMATELY 340' SOUTH OF THE CULVERT OUTFALL THE CHANNEL CONNECTS TO THE SAME UNMAINTAINED RABBIT TRIBUTARY THAT THE CENTRAL PORTION OF THE SITE FEEDS. THIS UNMAINTAINED TRIBUTARY IS LOCATED JUST NORTH OF THE RAILROAD TRACKS AND FLOWS APPROXIMATELY 2,300 FEET IMPACTS THE CAPACITY OF THAT OUTFALL SO FOR THAT REASON WE ARE RECOMMENDING THAT THE DEVELOPER CLEAN OUT THE CULVERT AND RE-ESTABLISH THE RIPRAP AT THE OUTFALL TO THE EXTENT POSSIBLE GIVEN THE LIMITED ACCESS AT THAT POINT.
 THE EXISTING CULVERT CROSSING UNDER GUINEA ROAD IS CURRENTLY IN A SILTED IN AND SUBMERGED CONDITION ON THE DOWNSTREAM END. THIS IMPACTS THE CAPACITY OF THAT OUTFALL SO FOR THAT REASON WE ARE RECOMMENDING THAT THE DEVELOPER CLEAN OUT THE CULVERT AND RE-ESTABLISH THE RIPRAP AT THE OUTFALL TO THE EXTENT POSSIBLE GIVEN THE LIMITED ACCESS AT THAT POINT.
EXTENT OF REVIEW FOR OUTFALL #C1
 THE EXTENT OF REVIEW OCCURS 150' DOWNSTREAM OF WHERE THE CHANNEL CONNECTS TO THE UNMAINTAINED TRIBUTARY TO RABBIT BRANCH IN ACCORDANCE WITH 124-4-4-C.6d AND IS SHOWN ON THE MAP ON SHEET 91.
 THE CHANNEL IS LOCATED IN AN UNDEVELOPED WOODED AREA AND NO STRUCTURES ARE IN THE VICINITY OF THE 100 YEAR FLOOD LIMITS. CROSS SECTIONS ARE SHOWN ON THIS PAGE.
OUTFALL DESCRIPTION TO PROJECT EXTENT OF REVIEW (IN ACCORDANCE W/ 10.16-502)
 THE OUTFALL CHANNELS FROM #9 AND #C1 CONNECT TO THE CHANNEL THAT RUNS PARALLEL TO THE NORTHEAST SOUTHERN RAILROAD TRACKS. THE FIRST TO CONNECT IS OUTFALL #9 THAT CONSISTS OF RUNOFF FROM THE SITE IN THE AREAS OF OUTFALL #1 AND #9 AS WELL AS THE DRAINAGE FROM URBESTREAN SINGLE FAMILY RESIDENTIAL NEIGHBORHOOD AND THE COLONY PARK DEVELOPMENT. THERE IS ALSO CONTRIBUTING AREA FROM THE INDUSTRIAL DEVELOPMENT DOWNSTREAM FROM THE SITE.
 INITIALLY THE CHANNEL ALONG THE RAILROAD IS NOT PERMANENT AND HAS NO BED AND BANKS. AFTER THE CONNECTION OF THE CHANNEL THAT DRAINS AREA #C1 THERE IS STILL NO PERMANENT FLOW AND NO DEFINED BED AND BANKS BUT SHORTLY AFTER IT IS JOINED BY ANOTHER VEGETATION ON PIPE AND BED BANKS IS EVIDENT AND THE CHANNEL CONTAINS WATER. THERE IS VERY THICK VEGETATION ON THE OVERBANKS OF GRASS AND BRAMBLES. THE CHANNEL IS CONSISTENTLY ABOUT 4' ACROSS AND ABOUT 15" DEEP. THE CHANNEL CONTINUES ALONG THE RAILROAD AND RECEIVES RUNOFF FROM SEVERAL INTERSECTING CHANNELS ALONG THE WAY THAT DRAIN RESIDENTIAL AND INDUSTRIAL DEVELOPMENT TO THE NORTH. THE CHANNEL BECOMES MORE PROTRUDING AS IT FLOWS DOWNSTREAM TO THE EAST. AT THE CONFLUENCE WITH RABBIT BRANCH THE CHANNEL IS ABOUT 5'-6" WIDE AND 5" DEEP. THE CHANNEL BED IS MOSTLY STONY AND THE BANKS ARE BARE EARTH. THE OVERBANKS ARE HEAVILY VEGETATED.
 THE EXTENT OF REVIEW IS TO THE CONFLUENCE OF THE UNMAINTAINED TRIBUTARY TO RABBIT BRANCH AND RABBIT BRANCH IDENTIFIED ON THE MAP AS POINT OF CONVERGENCE. AT THIS POINT THE TOTAL DRAINAGE AREA IS APPROXIMATELY 2,680 ACRES AND THE SUBJECT PROPERTY DRAINAGE AREA IS 8 ACRES SO THEREFORE IS LESS THAN 1% OF THE TOTAL DRAINAGE AREA.

OUTFALL #C1 - TO CULVERT ZION DR.
 PRE-DEV DRAINAGE AREA = 3.10 AC (0.84 FROM OFF-SITE)
 WEIGHTED RUNOFF CN = 62 (WOODS-GOOD COND.)
 TO BIOPET. C, POST-DEV DRAINAGE AREA = 2.95 AC (0.81 FROM OFF-SITE)
 1 YR WEIGHTED RUNOFF CN = 72 (OFF-SITE WOODS AND ON-SITE DEV.)
 10 YR WEIGHTED RUNOFF CN = 75 (OFF-SITE WOODS AND ON-SITE DEV.)
 1 YR Q₁₀₀ = 0.9025, 10 YR Q₁₀₀ = 6.7845
 1 YR R₁₀₀ = 3204 CF, 10 YR R₁₀₀ = 17520 CF
 1 YR R₁₀₀dev = 6808+2594-767 CF, 10 YR R₁₀₀dev = 28257+12333-29490 CF

EON 124-4-4B.3d
 Q_{dev} < Q₁₀₀dev for R₁₀₀dev
 POST-DEV UNCONTROLLED DRAINAGE AREA = 0.19 AC
 WEIGHTED RUNOFF CN = 65
 Q_{peak} 1-YR = 0.09824/7637 = 0.01 cfs, Q_{peak} 10-YR = 0.52215
 1 YR R₁₀₀dev = 2594 CF, 10 YR R₁₀₀dev = 12333 CF

ALLOWABLE RELEASE FROM BAND B
 EON 124-4-4B.3d
 Q_{peak} 1-YR = 0.09824/7637 = 0.01 cfs, Q_{peak} 10-YR = 0.52215
 Q_{peak} 10-YR = 6.7845/7029490 = 4.05 cfs, 4.05 - 0.52 = 3.53 cfs

SEE DETENTION BASIN SIZING CALCULATIONS ON SHEET 8.6

CONCLUSION
 TWO OUTFALLS FROM THIS SITE DISCHARGE CONCENTRATED STORMWATER FLOWS. THE STORMWATER FLOWS HAVE BEEN REDUCED IN ACCORDANCE WITH 124-4-4B.3 AND 124-4-4C.4. CROSS SECTIONS HAVE BEEN PROVIDED TO SHOW A DEFINED CHANNEL AND THAT NO STRUCTURES ARE FLOODED BY THE 100 YR EVENT.
 WITH THIS INFORMATION, IT IS IN THE ENGINEER'S OPINION THAT THE DEVELOPMENT MEETS THE CRITERIA FOR AN ADEQUATE OUTFALL.



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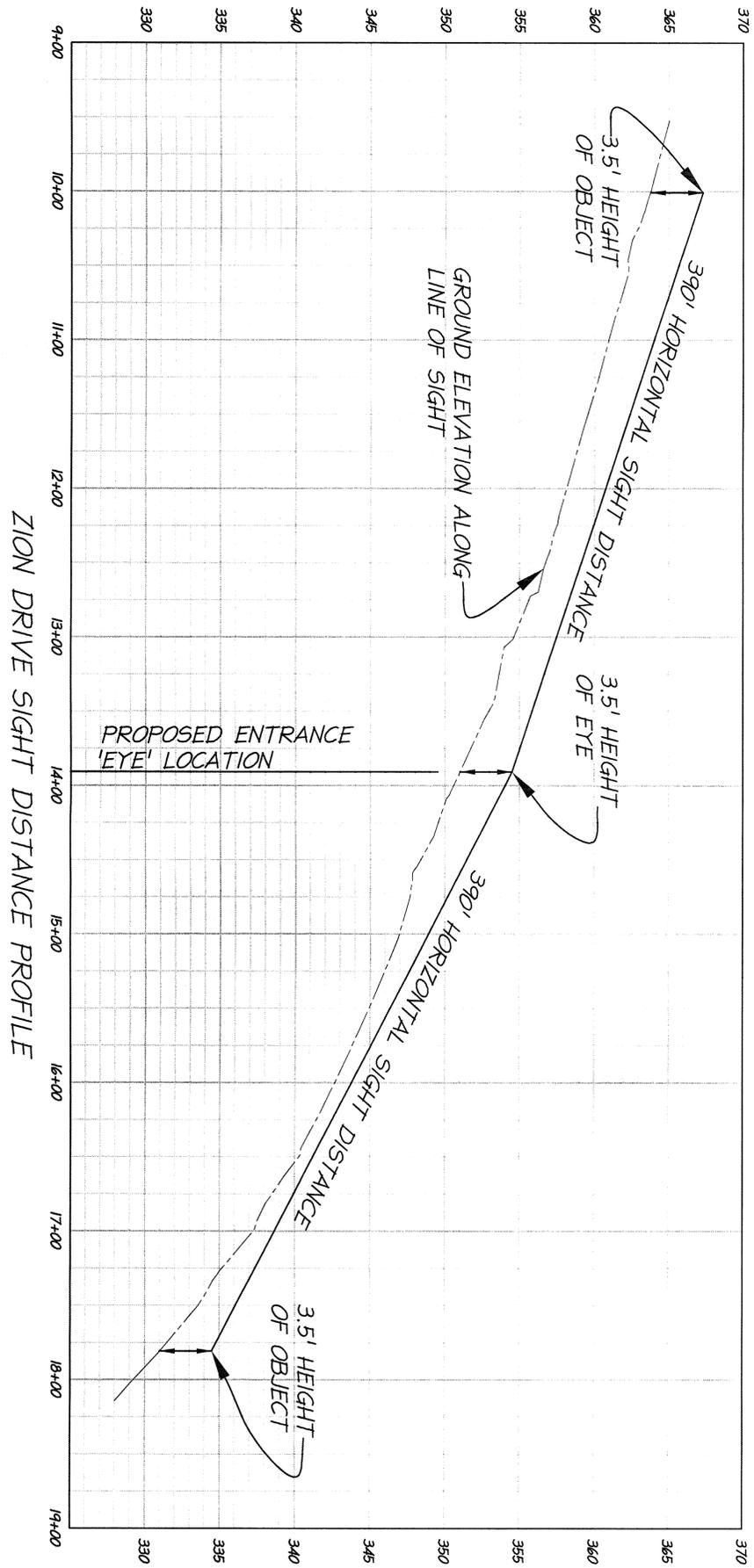
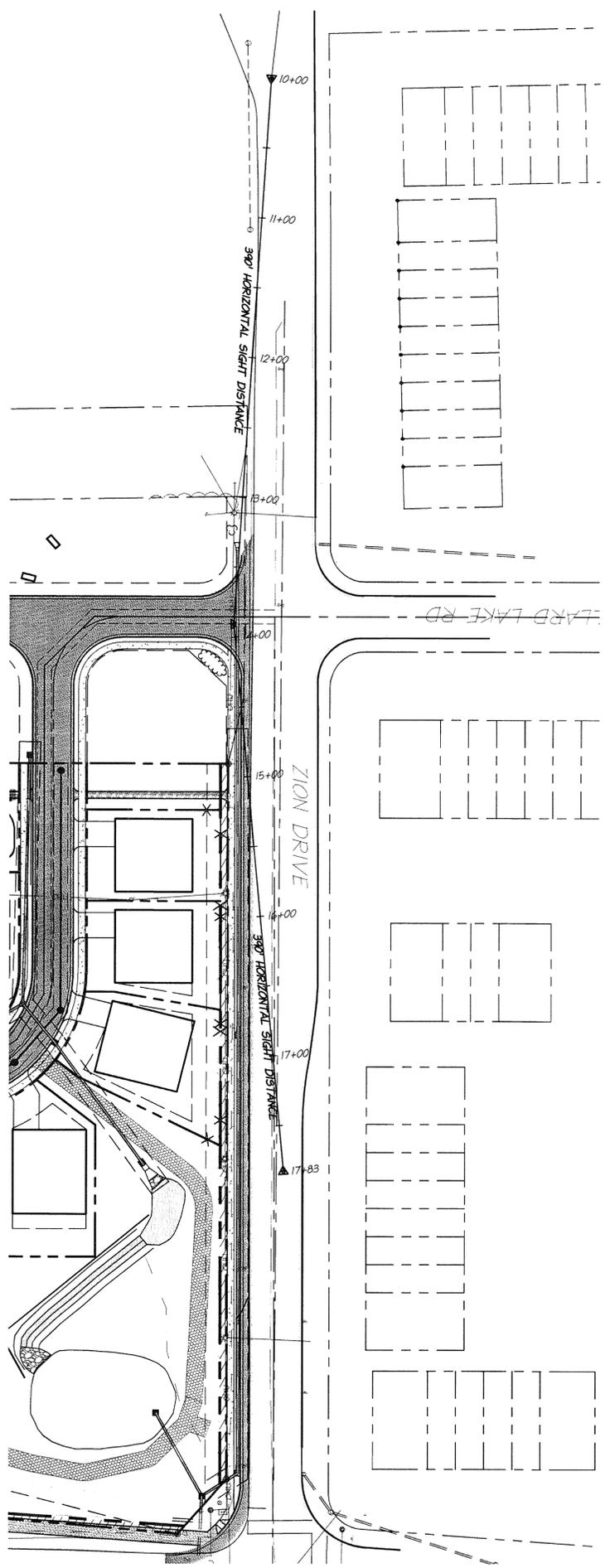


OVERALL DRAINAGE DIVIDES MAP & ADEQUATE OUTFALL ANALYSIS

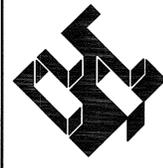
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 FAIRFAX COUNTY, VIRGINIA

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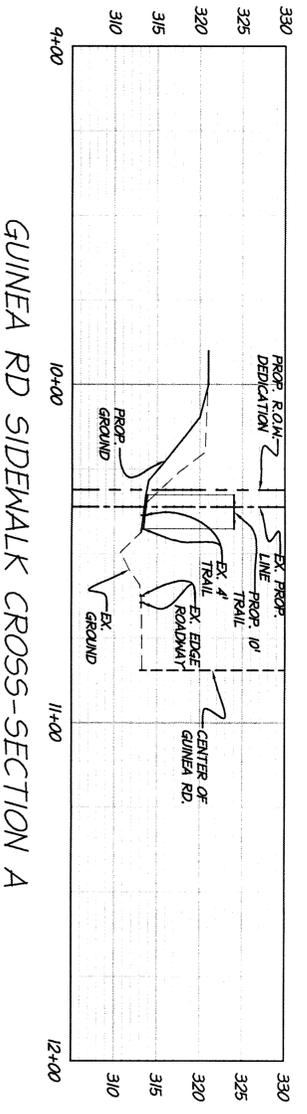
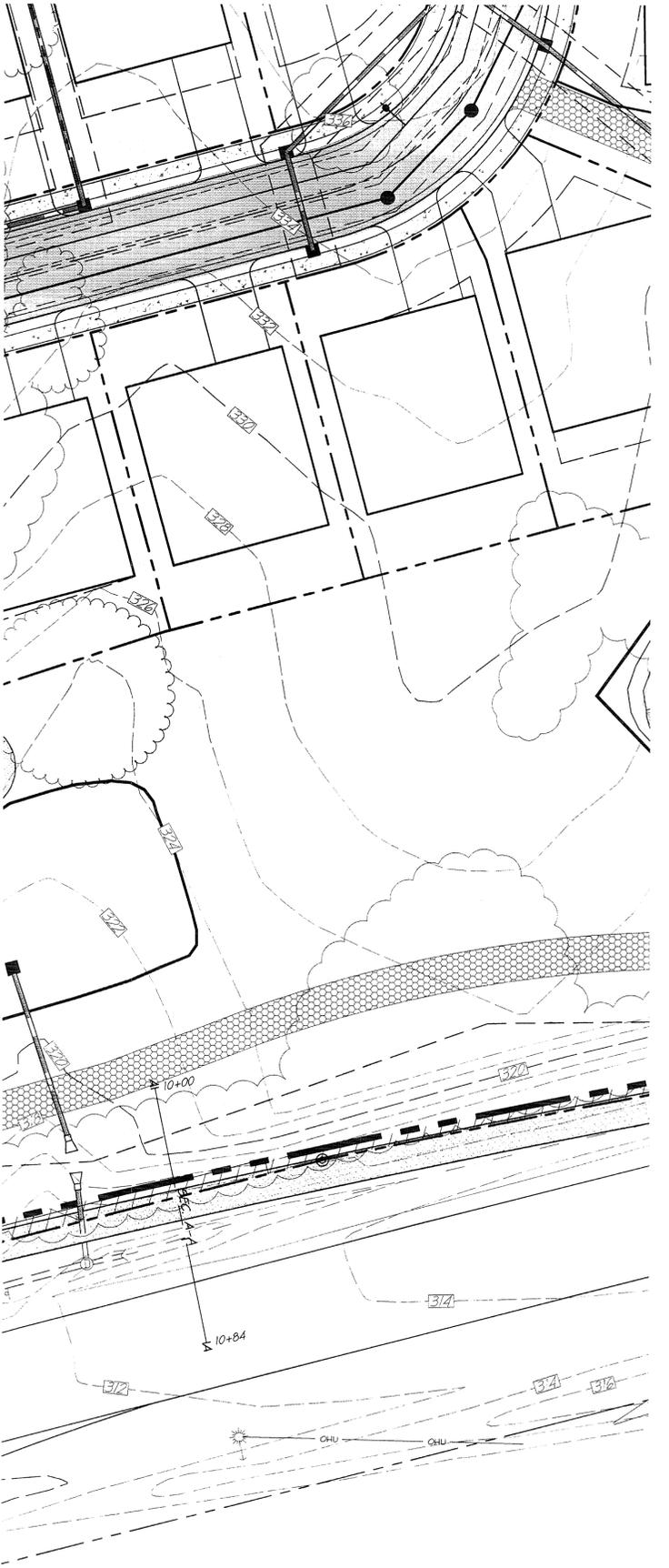
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ZION DRIVE
 SITE DISTANCE PROFILE

CONCEPTUAL DEVELOPMENT PLAN /
 FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO. 12134.001.01
SCALE: 1" = 50'
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GUINEA RD SIDEWALK CROSS-SECTION A

DATE	REVISION
2014-03-19	REVISED PER COUNTY COMMENTS
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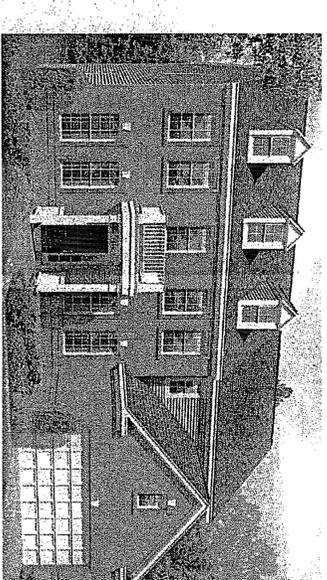
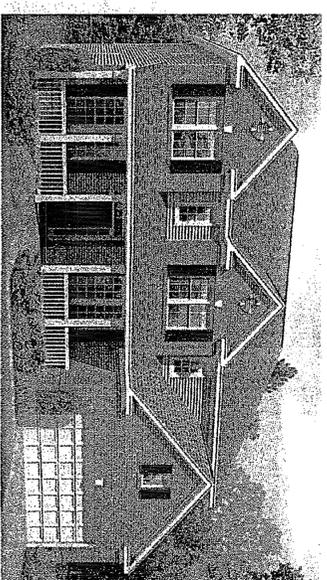
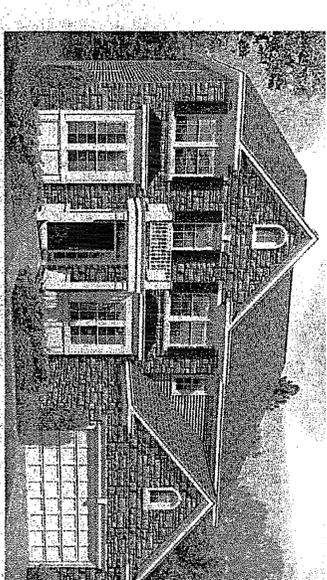
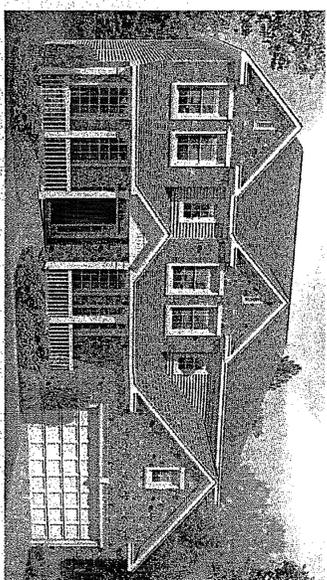
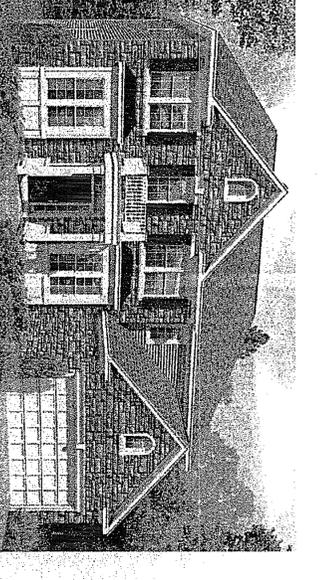
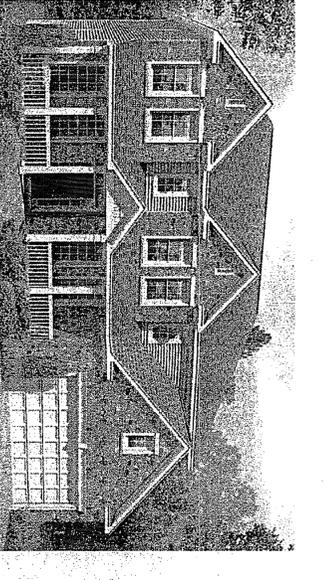
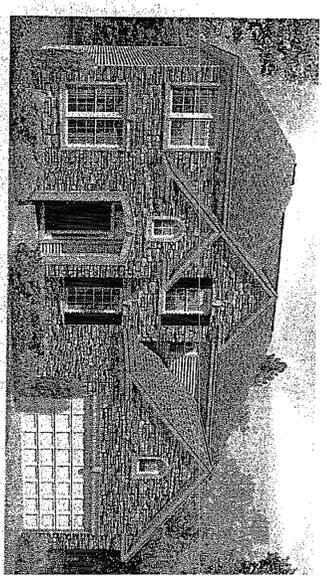
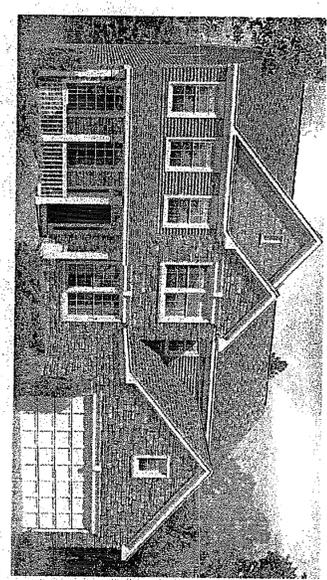
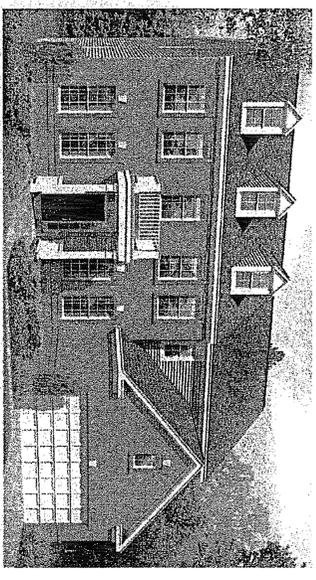
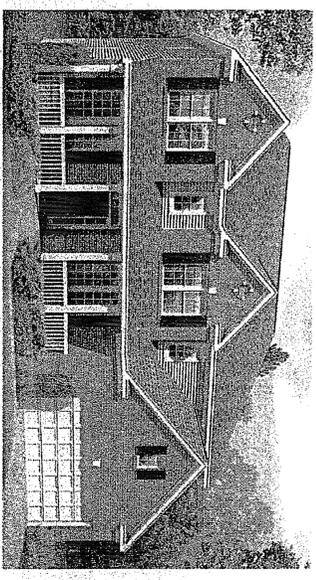
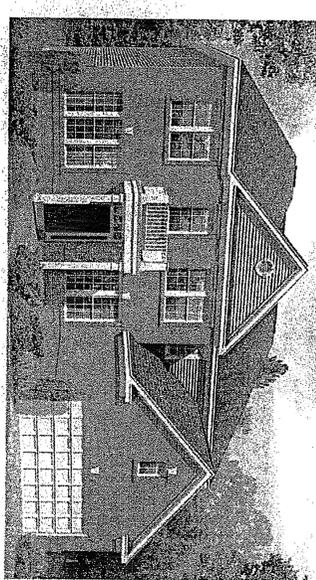
TRAIL SECTION
 ON GUINEA RD

CONCEPTUAL DEVELOPMENT PLAN /
 FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO. 12134.001.01
 SCALE: AS NOTED
 DATE: 01-24-2014
 DESIGN: BD
 DRAWN: BD
 CHECKED:
 SHEET NO.

10.2 of 11
 101200

DATE	REVISION
2014-03-10	REVISED PER COUNTY COMMENTS
2014-06-20	REVISED PER COUNTY COMMENTS
2014-08-28	REVISED PER COUNTY COMMENTS
2014-09-22	REVISED PER COUNTY COMMENTS
2014-10-16	REVISED PER COUNTY COMMENTS



THIS SHEET IS BY OTHERS FOR ILLUSTRATIVE PURPOSES ONLY. THIS IS NOT FOR CONSTRUCTION.



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 703.273.6820 · fax 703.273.7636

CONCEPTUAL ELEVATIONS

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN
BURKE JUNCTION
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO: 12134.001.01
 SCALE: NOT TO SCALE
 DATE: 01-24-2014

DESIGN: JR, JY
 DRAWN: JM
 CHECKED: JM
 SHEET NO.

11 of 11
 101200

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

DESCRIPTION OF THE APPLICATION

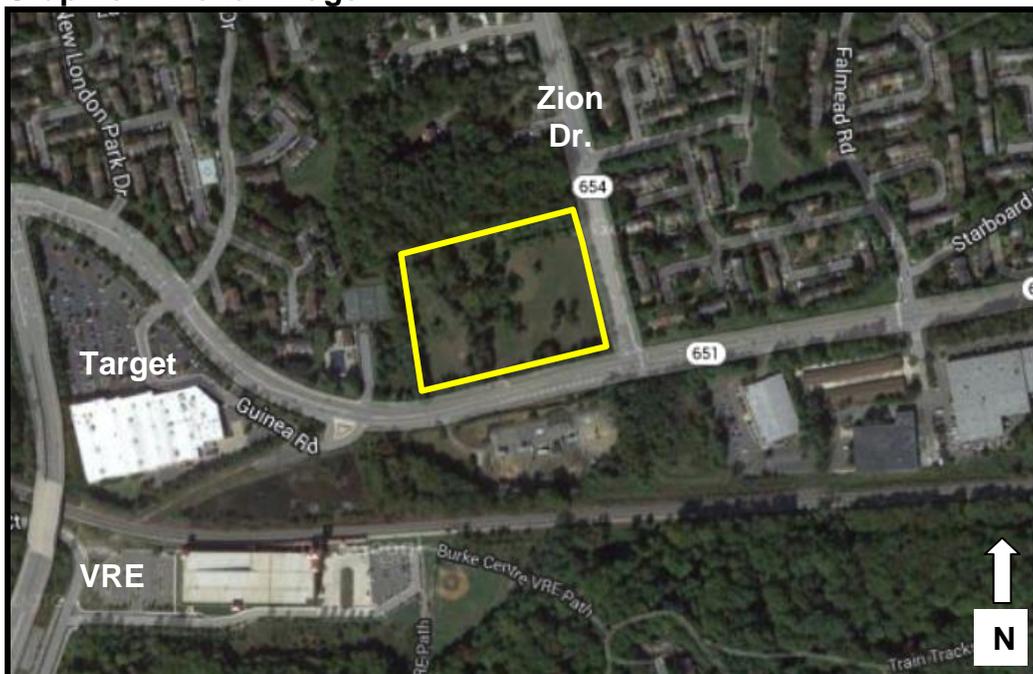
- Applicant:** NCL XI, LLC
- Location:** Tax Map 77-2 ((1)) 14
- Request:** Rezone 8.08 acres from R-1 to PDH-3 to permit the development of 17 single family detached dwelling units at an overall density of 2.10 du/ac.
- Waivers/Modifications:** Waiver of the 600-foot maximum length for a private street
- Modification of the Minor Paved Trail Requirement
- Deviation from the tree preservation target percentage.

A reduced copy of the proposed Conceptual Development Plan and Final Development Plan (CDP/FDP) is included at the front of this report. The proffers, Affidavit and the statement of justification are included as Appendices 1 through 3.

LOCATION AND CHARACTER

Site Description

Graphic 1: Aerial Image



The subject property consists of one parcel located on the west side of Zion Drive near its intersection with Guinea Road. The property is currently developed with one 2-story single family detached home, two 1-story secondary dwellings and two 1-story barns. The main dwelling was constructed in 1900 and one of the secondary dwellings is the Old Burke Post office, which was moved to the property in 1970. The main house is currently vacant with land disturbance located in the center of the property; the age of the post office building is unknown. Open space on the property consists of grassy areas accompanied by hardwood forest and Resource Protection Areas (RPA) along the western boundary line. Access is provided through an unpaved driveway from Guinea Road.

The property is also surrounded on three sides with residentially zoned parcels and on the south side across Guinea Road by industrially zoned property with an electrical substation. The Burke Virginia Railway Express (VRE) Station is located to the southwest of the substation. To the north is an undeveloped residential parcel zoned R-1, to the east and west are single family attached residences zoned R-8. The table below lists the surrounding characteristics.

	Use	Zoning	Plan
North	Vacant	R-1	Residential, 2-3 du/ac
East and West	Single Family Attached	R-8	Residential, 5-8 and 8-12 du/ac
South	Electrical Substation Burke VRE Station	I-3	Public Facilities

BACKGROUND

No previous rezoning applications were filed.

COMPREHENSIVE PLAN PROVISIONS (Appendix 4)

Plan Area/Planning District: Area III; Pohick Planning District
Planning Sector: P2-Main Branch Community Planning Sector
Plan Map: 2-3 dwelling units per acre (du/ac)

Fairfax County Comprehensive Plan, 2013 Edition, Area III, Pohick Planning District, as amended through March 4, 2013, P2-Main Branch Community Planning Sector, page 31:

- “4. Parcels 77-2((1)) 14-18 along the west side of Zion Drive are planned for residential use at 2-3 dwelling units per acre. To reach the high end of the density range, total consolidation and a single access to Zion Drive opposite Hillard Lake Road is required. With or without parcel consolidation, consolidated access is encouraged to reduce the number of entrances onto Zion Drive, and all access should be limited to Zion Drive.”

ANALYSIS

Conceptual Development Plan and Final Development Plan (CDP/FDP) (Copy at front of staff report)

Title: Conceptual Development Plan and Final Development Plan Burke Junction

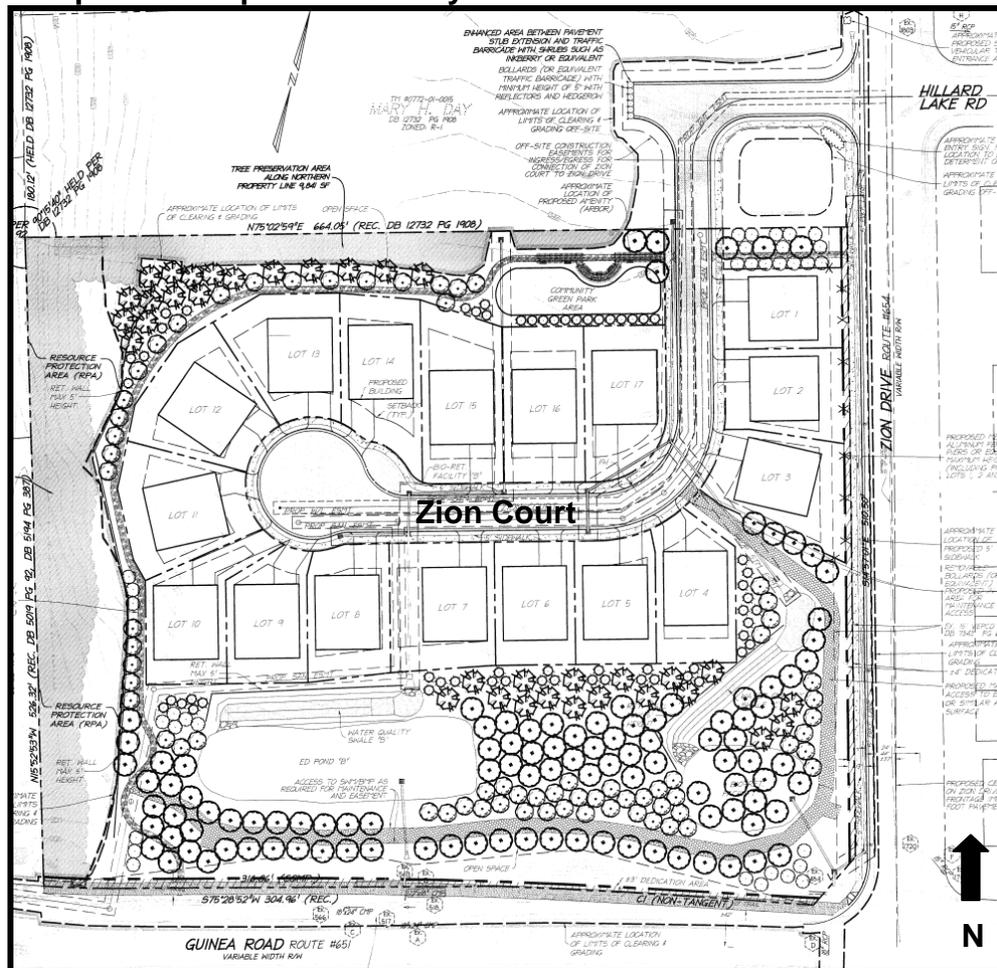
Prepared By: Christopher Consultants

Original and Revision Dates: January 24 2014, as revised through September 22, 2014.

The combined CDP/FDP consists of 18 sheets. The following features are depicted on the proposed CDP/FDP:

Site Layout: The subject property consists of one parcel developed with one 2-story single family detached home, two 1-story secondary dwellings and two 1-story barns with vehicular access from Guinea Road. The applicant seeks to rezone the property from R-1 to PDH-3 to permit 17 single-family detached dwelling units, which would yield 2.10 dwelling units per acre (du/ac). Graphic 1 shows the general layout of the proposed redevelopment.

Graphic 1: Proposed Site Layout



As shown on the graphic, 17 single-family detached dwelling units would be constructed along both sides of a new private road (shown as Zion Court). This new private road would begin off-site on Tax Map 77-2 ((1)) 15 to the northeast across from Hillard Lake Road and terminate in a cul-de sac on the western portion of the subject property. An ingress/ egress easement has been secured with the property owner to the north (Tax Map 77-2 ((1)) 15) to allow construction of the private road entrance. The applicant proposes to construct this private road to meet public street standards and to allow for on-street parking for visitors within a 29-foot wide cross street section, as well as future interparcel connection/access for properties to the north.

Sheet 6 of the CDP/FDP shows a proposed typical lot layout showing 6.5-foot minimum side setbacks, 20-foot minimum rear setbacks, 20-foot minimum front setbacks, and 20-foot long driveways. The applicant has proffered to allow areas for decks, screened-in porches and windows within the rear yards of the dwelling units in accordance with Section 2-412 of the Zoning Ordinance. The average lot size would also be approximately 7,200 square feet.

Architectural elevations are included on Sheet 11 of the CDP/FDP and shown in Graphic 2 below.

Graphic 2: Proposed Architectural Elevations



The proposed maximum height for the single-family detached dwelling units is 35 feet and the elevations in Graphic 2 show 2½ story units. The applicant has proffered to design these dwellings in substantial conformance with the bulk, mass and type and quality of materials as shown on the elevations included in the CDP/FDP. Additional commitments for building materials provide for a primary material of brick, stone, or cementitious siding supplemented with trim and detail features.

Vehicular Access: As previously discussed, access is proposed to be provided into the site through a private road with an ingress/egress easement over Tax Map 77-2 ((1)) 15 across from Hillard Lake Road. The applicant proposes to construct the private road as a 29-foot wide street, which would enter the site from the northeast and terminate in a cul-de sac on the western portion of the site. This road would also serve as future access for adjacent properties to the north (Tax Maps 77-2 ((1)) 15 through 18), per the Comprehensive Plan recommendations.

Parking: The Zoning Ordinance requires three spaces for single-family detached dwelling units along a private road (17 units require 51 parking spaces). The applicant is proposing to provide 68 parking spaces (two spaces per garage, two parking spaces in the driveway). Proffers include commitments to construct driveways with a minimum of 20 feet in length from the garage door to the sidewalk (to permit the parking of two vehicles without overhanging onto the sidewalk) and to build garages that will accommodate two vehicles. In addition, any conversion of the garages or use of the garages that precludes the parking of vehicles within the garages is also prohibited as indicated in the proffers. On-street parking would also be permitted for additional visitor parking.

Pedestrian Access: Five foot wide concrete sidewalks are shown on both sides of the proposed private street and a 5-foot wide trail is proposed along the northern and western boundary lines within the proposed landscaped open space areas to provide an alternative pedestrian connection through the site toward the Burke Station VRE station. Along the eastern and southern boundaries of the site, the applicant proposes a 5-foot wide concrete sidewalk along Zion Court with an on-road bike lane and a 10-foot wide major paved trail

along Guinea Road. The applicant has proffered to provide public access easements for all trails and sidewalks shown on the CDP/FDP.

Tree Save and Landscaping: The subject property was previously developed with one single-family detached home with two secondary buildings located primarily in the center of the subject property. Vegetation on the undeveloped portions of the site consists of primarily Upland Forest ranging from fair to good condition. Resource Protection Area is also located along the western boundary of the site. The applicant proposes to retain approximately 54 percent of the property as open space. This open space would be located along the perimeter of the site, primarily along the northern, western (including RPA area) and southern boundary lines. Sheets 7 of the CDP/FDP provides the proposed new plant schedule and tree canopy calculations associated with the new landscaping plan, yielding approximately 86,000 square feet of tree canopy, with approximately 37 percent of that tree canopy provided through tree preservation. Proffers to protect and preserve the trees in these open space areas through walk-throughs, monitoring, and tree appraisals are provided.

Stormwater Management: There are currently no stormwater controls on the site. According to the Stormwater Management and Quality narratives on Sheet 8.1 of the CDP/FDP, the applicant proposes multiple techniques throughout the development that would be designed to meet the new Virginia State requirements. These techniques would include a detention pond, a bio-retention facility and a system of dry swales and rooftop systems, which would all be designed to exceed quality and quantity requirements of the County Public Facility Manual (PFM). Design details for the proposed facilities are included on Sheets 8.1 through 8.6 of the CDP/FDP. Best Management Practices (BMP) would be provided by the facilities and the proposed preservation areas. The SWM narrative further indicates that the detention facilities would be sized to accommodate stormwater detention for future development on the adjacent Parcel 15 to the north. The applicant has also proffered to provide SWM facilities as shown on the CDP/FDP.

Residential Development Criteria (Appendix 5)

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 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. For the complete Residential Development Criteria text, see Appendix 5.

Planned Zoning Districts are also reviewed in accordance with the General and Design Standards of Sections 16-101 and 16-102 of the Zoning Ordinance. Those standards are also summarized as part of the review below and provided in its entirety in Appendix 6. The PDH District was established to encourage innovative and creative design, to ensure ample provision and efficient use of open space; to promote balanced development of mixed housing types and to

encourage the provision of affordable dwelling units.

Staff has combined the review of the Residential Development Criteria with the review of the Planned District General and Design Standards, along with the staff analysis reflected in the agency memos found in the appendices of this report. The following review uses the Residential Development Criteria as the format for the analysis (*references to the standards and guidelines are in italics*).

Residential Development Criteria 1 and 2: Site Design and Neighborhood Context (*see Planned District General and Design Standards 1, 2 and 4 in Appendix 6*)

The Site Design Development Criterion #1 requires that the development proposal address consolidation goals in the plan, further the integration of adjacent parcels, and not preclude adjacent parcels from developing in accordance with the Plan. In addition, the proposed development should provide useable, accessible and well-integrated open space, appropriate landscaping and other amenities. The Neighborhood Context Development Criterion requires the development proposal to fit into the fabric of the community. The subject property consists of one parcel developed with one single-family detached dwelling unit and two secondary buildings, which are accessed by a private driveway with access from Guinea Road. The main dwelling was constructed in 1900 and one of the secondary dwellings is the Old Burke Post office, which was moved to the property in 1970. Vacant properties (Tax Maps 77-2 ((1)) 15 through 18) are located to the north, which are zoned R-1 and planned for residential development at 2-3 du/ac. The Comprehensive Plan recommends residential use at 2 to 3 dwelling units per acre (du/ac) for Parcels 77-2((1)) 14-18. To reach the high end of the density range, total consolidation and a single access to Zion Drive opposite Hillard Lake Road is required. With or without parcel consolidation, consolidated access is encouraged to reduce the number of entrances onto Zion Drive, and all access should be limited to Zion Drive. The applicant is pursuing the Plan recommendation to rezone one of the six parcels (Tax Map 77-2((1)) 14) recommended at 2 to 3 du/ac to the PDH-3 District and develop 17 single-family detached dwellings at the low end of the recommended density range, which would be a density of 2.10 du/ac. The applicant has also secured an ingress/egress easement over Tax Map 77-2((1)) 15 to provide a private access road to the subject property opposite Hillard Lake Road and allow for the future development of Parcels 15 - 18 according to the Plan recommendations. The proposed lots would be oriented on both sides of the private street with no pipe stems or irregularly shaped lots. The subject application also includes approximately 54 percent open space, which is proposed to be located along the perimeter of the site and to incorporate tree preservation to blend with the existing open space associated with the Resource Protection Areas to the west. With these commitments, staff finds that the proposal meets this criterion.

Development should also provide for a logical design with appropriate relationships within the neighborhood, including appropriately oriented units and useable yards. Access should be provided to transit facilities where available,

and utilities should be identified to the extent possible. Seventeen single-family detached dwelling units are proposed to be located on both sides of a private street, terminating in a cul-de-sac. Sheet 6 of the CDP/FDP shows a typical lot layout showing 6.5-foot minimum side setbacks, 20-foot minimum rear setbacks, 20-foot minimum front setbacks, and 20-foot long driveways. The applicant has proffered to allow areas for decks, screened-in porches and windows within the rear yards of the dwelling units in accordance with Section 2-412 of the Zoning Ordinance. The average lot size would also be approximately 7,200 square feet, which is comparable to the smaller single family attached lot sizes to the west and east. In addition, a 5-foot wide trail is proposed along the northern and western boundary lines within the proposed landscaped open space areas to provide an alternative pedestrian connection through the site toward the Burke VRE station. Along the eastern and southern boundaries of the site, the applicant proposes a 5-foot wide concrete sidewalk along Zion Court with an on-road bike lane and a 10-foot wide major paved trail along Guinea Road, which would also lead to the Burke VRE station. The applicant has also proffered to provide a public access easement along all of these trail and sidewalk connections. With these commitments, staff finds that the proposal would meet this criterion.

Open space should be useable, accessible, and integrated with the development. Appropriate landscaping should be provided. The applicant has provided over half the site (54 percent) as open space. The majority of this area would be a landscape buffer, with tree preservation along the north and western boundary lines abutting the existing Resource Protection Area to the west. The applicant has proffered to protect and preserve these trees through walk-throughs, monitoring, retaining walls and tree appraisals, which adhere to County Policies.

In addition, a small community green park is proposed on the northeast corner of the site, which would be accessed from internal/external sidewalks and a new 5-foot wide trail located along the northern and western boundary lines within the proposed landscaped open space areas leading toward the Burke VRE station. The applicant has proffered to provide playground equipment, outdoor grills, benches, a volleyball court and other similar recreational facilities within this park. With these commitments, staff feels that the proposal meets this criterion.

Development should fit into the fabric of the community as evidenced in the architectural elevations and materials. Existing vacant properties and one to two story single-family detached dwelling units are located to the north, and existing two story single-family attached dwelling units are located to south, west and east of the subject property. Sheet 6 of the CDP/FDP shows the maximum building height for the proposed single-family detached dwelling units is 35 feet or 2 to 2½ stories. Sheet 11 of the CDP/FDP shows elevations of the proposed single-family dwelling units, and the applicant has proffered to use the same quality, general appearance, style and proportion of materials depicted on the illustrative perspective and elevations on the CDP/FDP. Staff finds that the proposal would fit into the fabric of the community.

In addition to the site design and neighborhood context criteria, Planned Development General Standards 1, 2 and 4, and Design Standard 1 state the development shall result in a development achieving more of the stated purpose and intent than a conventional zoning district, shall be designed to prevent substantial injury to the use and value of existing surrounding development and shall generally conform to the provisions of the corresponding conventional district to complement adjacent properties. Furthermore, the Policy Plan encourages land use patterns that maintain stability in established neighborhoods, and encourages infill development that is compatible with the existing land use and at a compatible scale.

The PDH District bulk regulations require building heights and yard requirements controlled by the provisions of Article 16 of the Zoning Ordinance; and a maximum density of 3.0 dwelling units an acre for the PDH-3 District, excluding bonus density associated with affordable and workforce dwelling units. The proposed density is 2.01 du/ac. The building heights and yard requirements, as controlled by Article 16, would require the development to be generally in conformance with the R-3 Cluster District, which requires minimum yards of 20 feet (front), 10 feet (side) and 25 feet (rear) with no requirement for an average lot area. The applicant's PDH-3 development proposes 20 foot minimum front setbacks, 6.5-foot minimum side setbacks, and 20-foot minimum rear setbacks. The applicant has also proffered to allow areas for decks, screened-in porches and windows within the rear yards of the dwelling units in accordance with Section 2-412 of the Zoning Ordinance for permitted extensions into the minimum required yards. Although the setbacks proposed with this project are less than those which would be required by a conventional district, staff feels that the proposal complements development on adjacent properties with lot orientation to a private street, tree preservation and open space. The average lot size would also be approximately 7,200 square feet, which is comparable to the smaller existing single family attached lot sizes to the west and east.

The applicant is also proposing to provide 68 parking spaces (two spaces per garage, two parking spaces in the driveway). Proffers include commitments to construct driveways with a minimum of 20 feet in length from the garage door to the sidewalk (to permit the parking of two vehicles without overhanging onto the sidewalk) and to build garages that will accommodate two vehicles. Any conversion of the garages or use of the garages that precludes the parking of vehicles within the garages is also prohibited as indicated in the proffers. On-street parking would also be permitted for additional visitor parking.

With these commitments, staff feels that the proposal meets the Comprehensive Plan recommendations and complements the existing surrounding developments. In summary, staff feels that the applicant has provided a quality site layout required for a PDH District and has met Residential Development Criteria 1 and 2.

Residential Development Criteria 3: Environment (See Appendix 7 for Environmental Analysis and Planned District General Standards 3 and 4 in Appendix 6)

This Criterion requires that developments respect the natural environment by conserving natural environmental resources, account for soil and topographic conditions and protect current and future residents from the impacts of noise and light. Developments should minimize off-site impacts from stormwater runoff and adverse water quality impacts.

This section characterizes environmental concerns that arose from staff's evaluation of this site and the proposed development. Solutions are suggested to remedy these concerns, but there may be other acceptable solutions. Particular emphasis is given to opportunities provided by this application to conserve the county's remaining natural amenities.

Water Quality

No stormwater management controls exist for the site. The subject property is currently developed with one 2-story single family detached home, two 1-story secondary dwellings and two 1-story barns. The development plan depicts a Resource Protection Area (RPA) in the western portion of the property. The Environmental Quality Corridor follows this same delineation. In conformance with the Policy Plan, the applicant is proposing no development in this environmentally sensitive area. A variety of water quantity and quality control measures are proposed as part of the new development. The development plans depict a conventional stormwater management pond near the southwest corner of the property. The plans also depict a bioretention facility near the southeast corner of the property, with two smaller bioretention facilities (swales) to the north. These measures, combined with the preservation of existing tree cover, landscaping, and a grasscrete access road for the stormwater management pond combine to provide a broad spectrum approach to managing runoff from the proposed development. Final determination regarding standards for stormwater management will be made by the Department of Public Works and Environmental Services (DPWES) at the time of subdivision plan review.

Green Building Certification

The Comprehensive Plan recommends attainment of certification under an established green building rating system that incorporates multiple green building concepts for zoning proposals for residential development. A number of green building certification options are available for this project, such as, LEED-Homes, EarthCraft and National Green Building Standard (NGBS) with the Energy Star path for energy performance. The applicant has provided a commitment to develop the property with options to pursue either EarthCraft or NGBS with the Energy Star path. Either of these options would meet the recommendations of the Comprehensive Plan for green building development.

Residential Development Criteria 4: Tree Preservation & Tree Cover Requirements *(See Appendix 8 for Urban Forest Management of the Department of Public Works and Environmental Services (UFM, DPWES) Staff Analysis, and Planned District General Standard 3 in Appendix 6)*

This Criterion states that all developments should be designed to take advantage of existing tree cover and developed appropriately to disturb as little existing tree cover as possible, including the extension of utility improvements to the site.

The applicant proposes to retain approximately 54 percent of the property as open space. This open space would be located along the perimeter of the site, primarily along the northern, western (including RPA area) and southern boundary lines. Sheet 7 of the CDP/FDP provides the proposed new plant schedule and tree canopy calculations associated with the new landscaping plan, yielding approximately 86,000 square feet of tree canopy, with approximately 37 percent of that tree canopy provided through tree preservation. Proffers to protect and preserve the trees in these open space areas through walk-throughs, monitoring, and tree appraisals are provided.

UFM has reviewed the application (Appendix 8) and indicated that the applicant has addressed all tree and landscape concerns. No issues remain. With these commitments, staff feels this criterion and Planned District General Standard have been met. Final determination will be made during subdivision plan review. An additional modification from the tree preservation target percentage requirements was requested and review of that request is in the waivers and modifications analysis below under Zoning Analysis.

Residential Development Criteria 5: Transportation *(See Appendix 9 for FCDOT and VDOT Staff Analysis, and Planned District General Standards 5 and 6 and Design Standard 3 in Appendix 6)*

Criterion 5 requires that development provide safe and adequate access to the surrounding road network, and that transit and pedestrian travel and interconnection of streets should be encouraged. In addition, alternative street designs may be appropriate where conditions merit.

As previously discussed, access is proposed to be provided into the site through a private road with an ingress/egress easement over Tax Map 77-2 ((1)) 15 across from Hillard Lake Road. The applicant proposes to construct the private road as a 29-foot wide street with 5-foot sidewalks on both sides, which would enter the site from the northeast and terminate in a cul-de sac on the western portion of the site. This road would also serve as future access for adjacent properties to the north (Tax Maps 77-2 ((1)) 15 through 18), per the Comprehensive Plan recommendations. The applicant has also proposed full frontage improvements along Zion Drive, which include curbs, 5-foot wide sidewalks and a striped bicycle lane and a 10-foot wide major paved trail along Guinea Road. Additional right of way is also proposed to be dedicated along Guinea Road and Zion Drive for future road improvements. No significant issues remain.

Staff from the Fairfax County Department of Transportation (FCDOT) and the Virginia Department of Transportation (VDOT) have reviewed the application and indicated that all of the previous comments have been addressed on the CDP/FDP or within the proffers, except the following:

- A pedestrian signal head should be installed at the Zion Drive and Guinea Road intersection to allow pedestrians to safely utilize the existing crosswalks and sidewalks leading to the Burke VRE Station. The applicant has addressed this concern and proffered to provide a powered signal at this intersection.

Overall, staff feels that Development Criterion 5 and the Planned District General Standards 5 and 6 have been addressed.

Residential Development Criteria 6: Public Facilities *(See Appendices 10 through 15 for Specific Staff Analysis and Planned District General Standard 5 in Appendix 6)*

Criterion 6 states that residential developments should offset their impacts upon public facility systems (i.e. schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). Impacts may be offset by the dedication of land, construction of public facilities, contribution of in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects. (Specific Public Facilities issues are discussed in detail in Appendices 10 – 15).

Fairfax County Park Authority *(Appendix 10)*

The proposed development would add approximately 43 new residents to the current population of the Braddock District. The CDP/FDP shows approximately 4.4 acres of open space distributed around the subject property for tree preservation, stormwater management, and onsite park space uses. In addition, a small community green park is proposed on the northeast corner of the site, which would be accessed from a 5-foot wide trail located along the northern and western boundary lines within the proposed landscaped open space areas leading toward the Burke VRE Station. Staff finds that these open space areas are appropriate amenities for the scale and size of the development.

The Zoning Ordinance requirement for recreational facilities for the residents of this development is \$1,700 per non-ADU (affordable dwelling unit). In addition, since these funds offset only a portion of the impact to provide recreational facilities for the future residents of this development, the Fairfax County Park Authority requested an additional contribution of \$893 per resident for its “fair share” use of County facilities. The applicant has committed to meet the on-site recreational facility requirements and to provide (at the time of subdivision approval), a contribution of \$38,399 for recreational opportunities off-site as determined in consultation with the Braddock District Supervisor. In addition to these commitments, the Fairfax County Park Authority requested the applicant to include a description of the amenities in the proffers that would be contained in

the small community green park located on the northeast corner of the site. The applicant has revised the proffers to indicate that playground equipment, outdoor grills, benches, a multipurpose volleyball court and other similar recreational facilities would be included in the park. No issues remain.

Fairfax County Public Schools (Appendix 11)

The proposed development would be served by Bonnie Brae Elementary School, Robinson Middle School and Robinson High School. If development occurs within the next five years, Robinson High School is projected to a slight capacity deficit.

The development proposal is anticipated to add 10 students: five elementary students; two middle school student; and three high school students (based on the number of dwelling units (17) shown on the CDP/FDP). Since this an increase students above that generated by the existing zoning district, staff requested that the applicant contribute \$54,125 to offset potential impacts on the schools. The applicant has proffered to contribute this amount and escalate the contribution to reflect future changes to the Fairfax County Public School contribution formula.

Fire and Rescue (Appendix 12)

The subject property would be serviced by the Fairfax County Fire and Rescue Department Station #414, Burke. The requested rezoning currently meets fire protection guidelines.

Sanitary Sewer Analysis (Appendix 13)

The subject property is located within the Pohick (N-1) watershed and would be sewered into the Norman M. Cole Pollution Plant (NMCP). Existing 10-inch lines located in the street are adequate for the proposed use.

Fairfax County Water Authority (Appendix 14)

The subject property is located within the Fairfax County Water Authority service area. Adequate domestic water service is available to the site from an existing 12-inch water main located in Zion Drive and a 30-inch transmission line in Guinea Road. Depending upon the configuration of the on-site water mains, additional water main extensions may be necessary to satisfy fire flow requirements. Final determination of these facilities will be made by the DPWES during subdivision plan review.

Stormwater Management, DPWES (Appendix 15)

Staff has reviewed the proposal and offered the following comments:

Chesapeake Bay Preservation Ordinance (CBPO): As previously mentioned, there is RPA areas on the property. A site specific RPA boundary delineation study will be required during subdivision plan review.

No encroachment is proposed in these areas. Staff commented that there is a 5-foot tall retaining wall located adjacent to the 5-foot wide trail on the western boundary of the site and to the east of the RPA area. Construction of this retaining wall may not encroach into the RPA. The applicant has proffered to adhere to the limits of clearing and grading shown on the CDP/FDP and not impact the RPA during construction of the trail.

Water Quality Control: Sheets 8.1 through 8.6 of the CDP/FDP indicate that the stormwater water quality requirements would be met by rooftop disconnection, an urban bio-retention facility, two level-2 dry swales, a level-1 extended detention pond and a level-1 bioretention facility. Preliminary Virginia Runoff Reduction Method (VRRM) calculations have been provided to show that these facilities will meet the phosphorous reduction requirement.

Stormwater Detention: Sheets 8.1 through 8.6 of the CDP/FDP indicate that the stormwater detention requirements would be met by a level-1 extended detention pond and a level-1 bioretention facility. Preliminary calculations have been provided to show that these facilities will meet the post-development discharge restrictions.

Downstream Drainage System: The outfall narrative has been provided with a description of the types of existing drainage systems extended downstream from the site to a point which is more than 100 times the site area. The applicant has also provided descriptions of how the adequate outfall requirements of the Public Facilities Manual will be satisfied.

With the proposed proffers, staff feels that these comments will be addressed during subdivision review. Proffer 17 has also been updated to ensure that the proposed stormwater facilities will be designed to meet the new County and State requirements. No significant issues remain.

Residential Development Criteria 7: Affordable Housing

This Criterion states that 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 Fairfax County. This Criterion may be satisfied by the construction of units, dedication of land, or by a contribution to the Housing Trust Fund.

The applicant has proffered to contribute one half of one percent (0.5%) of the aggregate sales price of all units to the Housing Trust Fund prior to the issuance of the first building permit, which is in accordance with Fairfax County policy. The projected sales price of the units will be determined by the applicant in consultation with the Fairfax County Department of Housing and Community Development (HCD) and DPWES through an evaluation of the sales prices of comparable units in the area.

Residential Development Criteria 8: Heritage Resources

This Criterion requires that developments address potential impacts on historical and/or archaeological resources through research, protection, preservation, or recordation.

The applicant has conducted a Phase I Cultural Resource Survey and no potential for significant historic or archaeological resources was identified on the subject property. However, since two of the existing structures are more than 50 years old, the applicant has agreed to photographically document the interiors and exteriors of the structures using the Virginia Department of Historic Resources survey methods and submit the documentation to the Virginia Room of the Fairfax County Public Library for record keeping. In addition, the applicant has agreed to relocate existing Historic Post Office building (shown as a secondary dwelling on the CDP/ FDP, which was moved to the property in 1970) to another site within Fairfax County in consultation with the Burke Historic Society and the Braddock District Supervisor. This building has been recognized by the Burke Historic Society as significant to Burke's history. If a new location cannot be identified, the applicant will contribute \$10,000 to the Burke Historic Society and demolish the building after proper notice and time has been given to the society to decide.

ZONING ORDINANCE PROVISIONS

Article 6

Sect. 6-101 Purpose and Intent

This section states that the PDH District is established to encourage innovative and creative design, to ensure ample provision and efficient use of open space; to promote balanced development of mixed housing types and to encourage the provision of affordable dwelling units.

The development proposes 17 single-family detached dwelling units at an overall density of 2.10 du/ac with approximately 54 percent open space. The proposed 4.4 acres of open space (distributed throughout the property for tree preservation, RPA, stormwater management, and landscaped open space uses), coupled with: 1) the extension of a private road onto Tax Map 77-2((1)) 15 across from Hillard Lake Road, which would allow development of the subject property and the future development of the adjacent properties to the north (Tax Maps 77-2 ((1)) 15 through 18) a commitment to design the stormwater detention facilities to account for the future development of adjacent properties to the north, are the applicant's justification for a "P" District. When considering that the proposal incorporates 54 percent open space (including RPA protection), which blends with existing off-site open space along the western boundary line and these off-site commitments, staff finds that the proposal meets the purpose and intent of the PDH District.

Sect. 6-107 Lot Size Requirements

This section states that a minimum of two acres is required for approval of a PDH District. The area of this rezoning application is 8.08 acres. This standard has been satisfied.

Sect. 6-109 Maximum Density

This section states that the maximum density for the PDH-3 District is 3 dwelling units per acre (du/ac). The applicant proposes a density of 2.10 du/ac; therefore, this standard has been satisfied.

Sect 6-110 Open Space

Par. 1 of this section requires a minimum of 20% of the gross area as open space in the PDH-4 District. Par. 2 of this section requires that recreational amenities be provided in the amount of \$1,700/du. The applicant proposes to retain 54 percent of the site as open space. The applicant has also proffered to provide the required monetary contribution to the FCPA if expenditures on site do not equate to the full amount required by the Zoning Ordinance. This standard has been satisfied.

Article 16

Section 16-101 (General Standards) and 16-102 (Design Standards) have been evaluated as part of the review of the Residential Development Review Criteria of this report. Staff finds that these standards have been met.

Waivers and Modifications**Modification of the private street limitations of Section 11-302 of the Fairfax County Zoning Ordinance.**

The applicant has requested a waiver of the 600 foot maximum length for a private street on the west side of the property serving office and residential uses. The use of private streets provides the applicant with opportunities to increase the peripheral buffers of the site and provide stormwater detention facilities for the subject property and the adjacent property to the north. The applicant has proffered to construct private streets in conformance with the Public Facilities Manual (PFM) and utilize materials and depth of pavement consistent with the PFM. The applicant also proffered to establish a maintenance account within a Homeowners Association. Staff supports the waiver request.

Modification of the minor paved trail requirement in favor of the proposed trail network shown on the CDP/FDP

The Fairfax Countywide Trails Plan recommends a minor paved trail shown diagonally across the subject property from the northwest to the southeast at the intersection of Zion Drive and Guinea Road. As an alternative, the applicant proposes to provide a 5-foot wide trail along the northern and western boundary lines within the proposed landscaped open space areas, which would provide an alternative pedestrian connection through the site toward the Burke VRE station. The applicant is also providing a 5-foot sidewalk and a striped bicycle lane along Zion Drive and a 10-foot wide major paved trail along Guinea Road. With these commitments, staff can support the waiver of the minor paved trail in favor of the trails and sidewalks shown on the CDP/ FDP.

Deviation from the tree preservation target percentage in favor of the proposed landscaping shown on the CDP/FDP and as proffered.

The Zoning Ordinance requires 25 percent of the site to include tree cover (10-year tree canopy). The applicant is proposing to meet this requirement through the proposed landscaping plan shown on Sheet 7 of the CDP/FDP and tree preservation. As calculated on the existing vegetation map on Sheet 3 of the CDP/FDP of the CDP/FDP, 12 percent of the 10-year tree canopy requirement should include tree preservation. However, the applicant is providing 10 percent tree preservation and requests a modification of this tree preservation target indicating that conformance would preclude development of the use and intensity permitted by the Zoning Ordinance and the ability to provide an access road that would align with Hillard Lake Road. While the portion of the property where vehicular access would be provided from Zion Drive contains some mature trees, the proposed design provides for potential joint vehicular access with the adjacent property to the north and an opportunity to coordinate tree preservation with this property when it redevelops in the future. With this proposal, staff feels that the prerequisites for the deviation have been met, and as such, staff supports the requested waiver.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

The applicant proposes to rezone the subject property from the R-1 District to the PDH-3 District to construct 17 single-family detached dwelling units at an overall density of 2.10 dwelling units per acre (du/ac). The proposed density is in accordance with the Comprehensive Plan range. In staff's opinion, the proposed lots are compatible with the adjacent parcels and the proposed development fits into the context of the neighborhood. In general, staff finds that the application meets the residential development criteria, and the general and design standards of a planned district.

Recommendations

Staff recommends approval of RZ 2014-BR-009, subject to the execution of

proffers consistent with those found in Appendix 1 of this report.

Staff recommends approval of FDP 2013-BR-003.

Staff recommends approval of a waiver of the 600-foot maximum length for a private street.

Staff recommends approval of a modification of the minor paved trail requirement in favor of the proposed trail network on the CDP/ FDP.

Staff recommends that the Board of Supervisors direct the Director of DPWES to permit a deviation from the tree preservation target percentage in favor of the proposed landscaping shown on the CDP/FDP and as proffered.

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 recommendations of staff; it does not reflect the position of the Board of Supervisors.

APPENDICES

1. Draft Proffers
2. Affidavit
3. Statement of Justification
4. Comprehensive Plan Recommendations
5. Comprehensive Plan Residential Development Criteria
6. Zoning Ordinance Provisions – Article 16 – Planned District Guidelines
7. Environmental Analysis
8. Urban Forest Management Analysis
9. Transportation Analysis
10. Fairfax County Park Authority
11. Fairfax County Public Schools
12. Fire and Rescue
13. Sanitary Sewer Analysis
14. Fairfax County Water Authority
15. Stormwater Management Analysis, DPWES
16. Glossary

PROFFER STATEMENT

October 20, 2014

RZ/FDP 2014-BR-009

NCL XI, LLC

Burke Junction

Pursuant to Section 15.2-2303(a), Code of Virginia, 1950 as amended, the property owners and Applicant in this rezoning proffer that the development of the parcel under consideration and shown on the Fairfax County Tax Maps as Tax Map Reference 77-2-001-14 (hereinafter referred to as the "Property") will be in accordance with the following conditions if, and only if, said rezoning request for the PDH-3 District is granted by the Board of Supervisors of Fairfax County, Virginia (the "Board"). In the event said application request is denied or the Board's approval is overturned by a court of competent jurisdiction, these Proffers shall be null and void. The owners and the Applicant ("Applicant"), for themselves, their successors and assigns, agree that these Proffers shall be binding on the future development of the Property unless modified, waived or rescinded in the future by the Board, in accordance with applicable County and State statutory procedures. The Proffered Conditions are:

General

1. **Conceptual/Final Development Plan.** The Property shall be developed in substantial conformance with the Conceptual Development Plan ("CDP") and Final Development Plan ("FDP") entitled "Burke Junction", prepared by christopher consultants dated January 24, 2014 and revised through October 16, 2014, consisting of eleven (11) sheets.
2. **Elements of CDP.** Notwithstanding the fact that the CDP and FDP are presented on the same plan, it shall be understood that the CDP shall be only those elements of the plan that depict the number and the general location of points of access, peripheral setbacks, limits of clearing and grading, building heights, the total number, type, uses and the general location of buildings and roads (the "CDP Elements"). The Applicant reserves the right to request a Final Development Plan Amendment ("FDPA") for elements other than CDP Elements from the Planning Commission for all or portion of the FDP in accordance with Section 16-402 of the Zoning Ordinance if such an amendment is in accordance with these Proffers as determined by the Zoning Administrator.
3. **Minor Modifications.** Minor modifications from what is shown on the CDP/FDP and these Proffers, which may become occasioned as a part of final architectural and/or engineering design, may be permitted as determined by the Zoning Administrator in accordance with the provisions set forth in Section 16-403 of the Zoning Ordinance.
4. **Architecture.** The primary building materials shall be a combination of brick, stone and siding supplemented with trim and detailed features; minor modifications may be made with the final architectural designs provided such modifications are in substantial conformance with the illustrative elevations shown on the CDP/FDP. The extension into the minimum required side and rear yards for open and roofed decks (to include

but not limited to pergolas and hanging plant fixtures) shall be permitted in accordance with Section 2-412 of the Fairfax County Zoning Ordinance. Decks with lattice below or above the deck floor may extend into the minimum required side and rear yards as an open or roofed deck but shall not encroach into the minimum required setbacks shown on Sheet 6 of the CDP/FDP in accordance with Section 2-412 of the Zoning Ordinance. Restrictions placed on the location of open and roofed decks per Section 2-412 of the Zoning Ordinance shall be disclosed to all prospective homeowners as a disclosure memorandum prior to entering into a contract of sale, included in the Homeowner's Association documents, and included as a covenant in the deed of subdivision.

5. Establishment of HOA. Prior to record plat approval, the Applicant shall establish a Homeowners Association ("HOA") in accordance with Section 2-700 of the Zoning Ordinance for the purpose of, among other things, establishing the necessary residential covenants governing the use and operation of common open space and other facilities of the approved development, maintenance of SWM/BMP facilities, 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. The HOA governing documents shall contain provisions to allow expansion of the membership to include single family detached homes constructed on Tax Map 77-2-001-15 and 16 should the owner(s) indicate a unanimous willingness to join the HOA. If the owner(s) all desire to join, membership shall be of the same Class as the existing membership for individual lot owners and at the same monthly dues level.
6. Dedication to HOA. At the time of record plat recordation, open space, common areas, private roadways, and amenities not otherwise conveyed or dedicated to the County shall be dedicated to the HOA and be maintained by the same.
7. Disclosure. Prior to entering into a contract of sale, initial and subsequent purchasers shall be notified in writing by the Applicant of maintenance responsibility for the private streets, stormwater management facilities, common area landscaping, preservation areas, sidewalks/trails, and any other open space amenities and shall acknowledge receipt of this information in writing. The HOA covenants shall contain clear language delineating the tree save areas as shown on the CDP/FDP. Covenants shall prohibit the removal of the trees except those trees which are dead, diseased, noxious, or hazardous (as determined by UFMD) and shall outline the maintenance responsibility of the HOA and individual homeowners. The initial deeds of conveyance and HOA governing documents shall expressly contain these disclosures as well as the provisions concerning additions in Proffer 4 and conversions in Proffer 9. The HOA documents shall stipulate that a reserve fund to be held by the HOA be established for maintenance. The Applicant shall be responsible for placing the sum of Sixty-Eight Thousand Dollars (\$68,000), (\$4,000 per lot) into the reserve fund in three (3) equal allotments as follows: (i) at time of issuance of the first RUP; (ii) at the time of issuance of the sixth RUP; and (iii) at the time of the issuance of the twelve RUP. After establishing the HOA pursuant to these Proffers, the Applicant shall provide the HOA with written materials describing proper maintenance of the approved BMP's in

accordance with the PFM and County guidelines. Applicant shall deposit in the reserve fund an additional sum of \$8,000 for maintenance of the BMPs.

8. Public Access Easement. The public access easement in a form approved by the County Attorney shall be placed on the private streets, sidewalks and trails within the approved development. This requirement of the Proffer Conditions shall be disclosed in the HOA documents.
9. Garage Conversion. Any conversion of garages or use of garages that precludes the parking of vehicles within the garage is prohibited. 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 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.
10. Driveways. All driveways shall be a minimum of twenty feet (20') in length as measured outward from the face of the garage door to the back of the sidewalk.

Transportation

11. Sidewalks. The Applicant shall construct 5' sidewalks on both sides of the private street as shown on the CDP/FDP. The 5' sidewalk contiguous to Zion Drive (Rte 654) shall be subject to review and approval by the Virginia Department of Transportation (VDOT).
12. Private Street. The onsite private street shall be constructed in conformance with the Public Facilities Manual ("PFM") and shall be constructed of materials and depth of pavement consistent with the PFM, subject to any design modifications as to pavement and easement width and use of curb, that are approved by the Director of DPWES. The HOA shall be responsible for the maintenance of the onsite private streets and sidewalks. All prospective purchasers shall be advised of this maintenance obligation prior to entering into a contract of sale and said obligation will be disclosed in the HOA documents.
13. Right-Of-Way Dedication. At the time of subdivision plat recordation, the Applicant shall dedicate at no cost to Fairfax County in fee simple, unencumbered to the Board of Supervisors, an additional 3,627 sq. ft. (+/-0.08 Ac) of right-of-way along the site frontage of Guinea Rd and 2,536 sf (+/- 0.06 Ac) of right-of-way along the site frontage of Zion Drive as shown on Sheet 6 of the CDP/FDP and any associated ancillary easements. Density credited is reserved consistent with provisions of the Fairfax County Zoning Ordinance for all eligible dedications described herein or as may be required by Fairfax County or VDOT. Applicant shall construct per VDOT standards the ten (10) foot wide trail shown on Sheet 6 of the CDP/FDP prior to all bonds being released. Applicant shall construct on the west side of Zion Drive curb, gutter, sidewalk and striping for a five (5) foot bike lane along the frontage from Guinea Road to the south side of the proposed entrance on Parcel 77-2-001-15.

14. Ingress/Egress Easement. Applicant shall obtain permanent ingress/egress easements from the property to the north (Tax Map 077-2-01-0015, hereinafter the “Adjacent Property”) to permit connection of Zion Court to Zion Drive in the location shown on Sheets 6 and 7 and 8.1 of the CDP/FDP . The Applicant shall grant all easements necessary for inter-parcel access to the Adjacent Property. Applicant shall be responsible for construction of the street extension, shall have maintenance obligations for the same, and shall be responsible for any costs associated with the maintenance of the extension. The sidewalk will be connected to the property line of the Adjacent Property at Applicant’s expense.
15. Pedestrian Beacon. To address the needs of pedestrians crossing at Guinea Road and Zion Drive (East side of the intersection) a pedestrian twenty-four (24) hour flashing beacon meeting VDOT standards shall be installed.

Construction

16. Construction Hours. Exterior construction shall occur between the hours of 7:00 a.m. until 7:00 p.m. Monday through Friday, 8:00 a.m. until 6:00 p.m. on Saturday and 9:00 a.m. until 6:00 p.m. Sunday. Exterior construction activities shall not occur on the holidays of Memorial Day, July 4th, Labor Day, Thanksgiving, Christmas, Easter and New Year’s Day. The aforesaid construction hours shall be posted on the property. The allowable hours of construction as specified in this Proffered Condition shall be listed within any contract with future subcontractors associated with exterior construction on the site. An individual with authority to force all work to cease at the Property shall be identified by the Applicant with twenty-four (24) hour seven (7) day a week contact information and that name and contact information shall be prominently posted on the Property from commencement of construction until bond release. Construction vehicles will be parked on-site.

Environment

17. Stormwater Management Facilities and Best Management Practices.
 - A. The Applicant shall implement stormwater management techniques to control the quantity and quality of stormwater runoff from the Property in accordance with the current County Stormwater Ordinance and Fairfax County Public Facilities Manual as reviewed and approved by DPWES. The stormwater management techniques may include but are not limited to the following: rain gardens, dry ponds, filtera systems, infiltration ditches, bay filters, storm tech changer and drainage swales. Stormwater management facilities/Best Management Practices (“BMPs”) shall be provided as generally depicted on the CDP/FDP. The Applicant reserves the right to pursue additional or alternative stormwater management measures provided the same area in substantial conformance with the CDP/FDP.
 - B. Should the U.S. Environmental Protection Agency, DEQ the Commonwealth of Virginia, Fairfax County, or their designee, issue new or additional stormwater

management requirements or regulations affecting the Property, the Applicant shall have the right to accommodate necessary changes to its stormwater management designs without the requirement to amend the CDP/FDP or these Proffers or gain approval of an administrative modifications to the CDP/FDP or Proffers. Such changes to the stormwater management design shall not materially impact the limits of clearing and grading, building locations, or road layouts and shall be in substantial conformance with the CDP/FDP..

- C. In addition, the detention facilities (Pond B and Bioretention C) shall be sized to accommodate future development on Parcel Tax Map 77-02-001-15 (“Parcel 15”) for detention purposes only; no water quality treatment will be provided. All required water quality treatment must be provided by Parcel 15 before discharge onto the Property.
18. Energy Conservation. To promote energy conservation and green building techniques; the Applicant shall select one of the following programs, within its sole discretion at time of Site Plan submission.
- A. Certification in accordance with the Earthcraft House Program as demonstrated through documentation provided to DPWES and DPZ prior to the issuance of a RUP; or
 - B. Certification in accordance with the 2012 National Green Building Standard (NGBS) using the ENERGY STAR® Qualified Homes path for energy performance, as demonstrated through documentation submitted to DPWES and the Environment and Development Review Branch of DPZ 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 unit/building.
19. Landscaping. At the time of site plan review, the Applicant shall submit to DPWES a landscape plan showing, at a minimum, landscaping consistent with the quality, quantity and general location shown on the Landscape Plan on the CDP/FDP. This plan shall be subject to review and approval by the Urban Forest Management, DPWES. At the time of planting, the minimum caliper for deciduous trees shall be two and one-half (2.5) inches to three (3) inches and the minimum height for evergreen trees shall be six (6) feet. Actual types and species of vegetation shall be determined pursuant to more detailed landscape plans approved by Urban Forest Management at the time of Site Plan approval. All proposed landscaping installed on the Property shall be native species, except as specifically identified and approved by UFM. No invasive species shall be permitted.

Tree Preservation

20. Tree Preservation. The applicant shall submit a Tree Preservation plan as part of the first and all subsequent site plan submissions. The preservation plan shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a

Certified Arborist or Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 10 inches in diameter and greater within 25 feet within the undisturbed area and 10 feet of the limits of clearing and grading in the disturbed area shown on the CDP/FDP for the entire site. 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 CPD/FDP and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. 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.

21. 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 Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made, if any, 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.
22. 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. The retaining wall construction shall not encroach into the RPA. 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.
23. 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 structures. The installation of all tree protection fencing shall be performed under the direct 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.

24. Root Pruning. The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the submitted plan. 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 under the supervision of a certified arborist.
 - An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.

25. 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 per specific proffered conditions 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 adjacent to any vegetation to be preserved and tree preservation efforts in order to ensure conformance with all tree preservation proffers, 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.

26. 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 UFMD, DPWES.

27. Recreation Parks and Recreation.

- A. Pursuant to Section 6-110 of the Zoning Ordinance, the Applicant shall provide on-site recreational facilities to serve the Property. Recreational facilities such as recreational trails, walking paths (excluding any trails required by the Comprehensive Plan), play areas, outdoor grills, benches, a surface volleyball court and similar outdoor recreational features may be used to fulfill this requirement. At the time of Subdivision Plat review, the Applicant shall demonstrate that the value of any proposed recreational amenities is equivalent to a minimum of \$1,700 per dwelling 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 \$28,900 to the Fairfax County Park Authority (“FCPA”) for off-site recreational facilities intended to serve the future residents, as determined by FCPA in consultation with the Supervisor for the Braddock District in consultation with FCPA. The Applicant at time of Subdivision Plat approval shall also contribute the sum of \$38,399 to the FCPA for development of recreational facilities located in Parks within the service area of the Property.
- B. Applicant shall construct a five (5) foot wide stone dust trail (or equivalent) along the western and northern portions of the Property connecting the Guinea Road ten (10) foot asphalt trail to the Zion drive five (5) foot wide sidewalk in the general location shown on CDP/FDP Sheet 6.

Miscellaneous

- 28. Septic Tank/Well Abandonment. The existing septic tank and well shall be properly abandoned as required by the Fairfax County Health Department prior to the approval and/or issuance of the demolition permit for the existing single family detached residential unit.
- 29. Universal Design. Dwelling units shall offer optional features at the time of initial purchase designed with selection of Universal Design features as determined by the Applicant which may include, but not be limited to, clear knee space under the sink in the kitchen, lever door handles instead of knobs, light switches forty-eight inches (48”) high, thermostats a maximum of forty-eight inches (48”) high, electrical outlets at a minimal eighteen inches (18”) high and/or studs in bathrooms for handbars. Additional Universal Design options shall be offered to each purchaser at the purchaser’s own cost. These additional options may include but not be limited to, one (1) no step pathway into the house and 36” wide doorways and/or zero threshold doorways.
- 30. School Contribution. Prior to the issuance of the first RUP a contribution of \$54,125 for the seventeen (17) new dwelling units to be built on the property shall be made to the public schools serving the Property to be utilized for capital improvements to Fairfax

County Public Schools (“FCPS”) to address impacts on the school division resulting from Burke Junction. Said contribution shall be deposited with DPWES for transfer to the Fairfax County School Board. Notifications shall be give to FCPS when construction is anticipated to commence to assist the FCPS by allowing the timely projection of future students as part of the Capital Improvement Program. Following approval of this Application and prior to 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.

31. Affordable Dwelling Units. Prior to the issuance of the first building permit, the Applicant shall contribute to the Fairfax County Housing Trust Fund the sum equal to one half of one percent (1/2%) of the value of all the units approved on the Property. The one half of one percent (1/2%) contribution shall be based on the aggregate sales price of all the units subject to the contribution, as if those units were sold at the time of the issuance of the first building permit. The projected sales price shall be determined by the Applicant through an evaluation of the sales prices of comparable units in the area in consultation with the Fairfax County Department of Housing and Community Development (HCD) and DPWES.
32. Maintenance Easements. The record subdivision plat shall contain easements between adjacent homeowners to permit one another to use temporarily each other’s property to perform house maintenance such as painting, roof repairs, siding replacement (by way of example), provided that all property shall be reasonably restored to its prior condition.
33. Escalation. All monetary contributions required by these Proffers, except as provided for in the School Contribution Proffer 30, 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 Statistic, 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.
34. Heritage Resource Documentation. For the purpose of recording and documenting relevant historic information prior to demolition, the Applicant shall cause the Dudley E. and Mary T. Young House (hereinafter “House”) located at Tax Map 77-2-001-14 to be photographed and documented, prior to demolition, by a consultant listed either in the Virginia Department of Historic Resources (“VDHR”) or the Maryland Historical Trust Preservation Consultant Directory or by a certified professional architectural historian. Photographic recordation and written documentation and description of the house, its construction, its occupants and significant events that occurred on the Property shall be accomplished to a standard as required for a VDHR “Intensive Level Survey” using VDHR Preliminary Information Form, and shall be completed prior to demolition of the House. Said documentation shall include a sketch plan drawing, as

indicated in the Historic American Building (“HABS”) Documentation Level III. All photographs (including negatives), written documentation and sketches shall be submitted to the Virginia Room of the Fairfax County Public Library and to the Fairfax County Department of Planning and Zoning (“DPZ”). A minimum of thirty (30) days prior to demolition of the House, the Applicant shall provide the Braddock District Office with written notice and shall permit representatives of Burke Historic District or invitees access to the house during said 30-day period at their sole risk and expense to remove desired fixtures or materials from the House and vegetation from the grounds. Said representatives and/or invitees shall be required to sign waivers of liability for their presence on the Property, as provided by the Applicant.

35. Historic Post Office. Prior to any land disturbing activities on the Property, the Applicant at a cost not to exceed \$10,000 shall relocate the existing structure shown on Sheet 2 of the CDP/FDP that was the historic post office for Burke to a site within the Burke area of Fairfax County in consultation with the Burke Historic Society and the Braddock District Supervisor. Should the amount exceed \$10,000, Applicant shall contribute \$10,000 to the Historic Society and cooperate in the removal of the structure provided the additional sum for the cost of removal can be raised within thirty (30) days of notice to the Historic Society. Notices shall be sent within 10 days of Applicant filing for subdivision review and approval and the Historic Society shall have up to the time of approval of the subdivision plat to raise the additional funds for removal, if needed. If the additional funds cannot be raised within that timeframe, the structure may be demolished and the aforesaid payment shall not be made.
36. Successor and Assigns. Each reference to “Applicant” in this Proffer Statement shall include within its meaning, and shall be binding upon, Applicant’s successor(s) in interest assigns and/or developer(s) of the Property or any portion of the Property.

These Proffers may be executed in counterparts and the counterparts shall constitute one and the same Proffer statement.

James D. Young
(Owner of Tax Map Reference 007-2-01-0014)

Signature: _____
James D. Young

NCL, XI, LLC

(Applicant/Contract Purchaser of Tax Map
Reference 007-2-01-0014)

By: _____

Name: _____

Title: _____

REZONING AFFIDAVIT

DATE: September 29, 2014
 (enter date affidavit is notarized)

I, Frank W. Stearns, 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

124879

in Application No.(s): RZ 2014-BR-009
 (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)
NCL XI, LLC Francis G. Garczynski a/k/a F. Gary Garczynski	13662 Office Place Suite 201-B Woodbridge, VA 22192	Applicant/Contract Purchaser Applicant/Agent Applicant/Agent
Christopher Consultants, Ltd. John Rinaldi	9900 Main Street, Fourth Floor Fairfax, VA 22031	Engineers/Agents Engineer/Agent
Donohue & Stearns, PLC Frank W. Stearns Edward L. Donohue	201 Liberty Street Leesburg, VA 20175	Attorneys/Agents Attorney/Agent Attorney/Agent
James D. Young Trustee u/w of Dudley Young & Executor Estate Mary Young Mary Ellen Zuyus Anne Timmons Young Lawrence Young	5636 Guinea Road Fairfax, VA 22032	Title Owners of Tax Map No 0772 01-0014

(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: September 29, 2014
(enter date affidavit is notarized)

for Application No. (s): RZ 2014-BR-009
(enter County-assigned application number (s))

124879

(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)
James D. Young, Trustee u/w of Dudley E. Young and James D. Young, Executor of the Estate of Mary T. Young for the benefit of: Mary Ellen Zuyus Anne T. Young Lawrence E. Young James D. Young	5636 Guinea Road Fairfax, VA 22032	Trustee and Executor for the Title Owners of Tax Map No. 0772 01-0014

*Dudley E. Young and Mary T. Young, deceased.

(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: September 29, 2014
(enter date affidavit is notarized)

124879

for Application No. (s): RZ 2014-BR-009
(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)

NCL XI, LLC
13662 Office Place, Suite 201-B
Woodbridge, VA 22192

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)

Francis G. Garczynski
John D. Long
Joseph E. Falcone

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

John D. Long, Manager
Francis G. Garzynski, Manager

(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: September 29, 2014
(enter date affidavit is notarized)

124 879

for Application No. (s): RZ 2014-BR-009
(enter County-assigned application number (s))

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

Christopher Consultants, Ltd.
9900 Main Street, Fourth Floor
Fairfax, VA 22031

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)

Christopher W. Brown	Michael S. Kitchen
William R. Goldsmith, Jr.	Jeffrey S. Smith
Louis Canonico	Ruth R. Fields
William R. Zink	

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)

Donohue & Stearns, PLC
201 Liberty Street
Leesburg, VA 20175

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)

Edward L. Donohue
Frank W. Stearns

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: September 29, 2014
(enter date affidavit is notarized)

124879

for Application No. (s): RZ 2014-BR-009
(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)

NONE

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

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

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

DATE: September 29, 2014
(enter date affidavit is notarized)

124879

for Application No. (s): RZ 2014-BR-009
(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: September 29, 2014
(enter date affidavit is notarized)

124879

for Application No. (s): RZ 2014-BR-009
(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.)

During the twelve month period, Frank W. Stearns, Esq., a partner in the law firm of Donohue & Stearns, PLC, made a contribution in excess of \$100 to Supervisor Pat Herry. Francis G. Garczynski of NCL XI, LLC made a contribution in excess of \$100 to Supervisor Pat Herry.

(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

Frank W. Stearns, Attorney/Agent

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

Subscribed and sworn to before me this 29th day of September 2014, in the State of Virginia (County/City of Loudoun)

My commission expires: 4/30/18



Tammy S. McHenry
Notary Public

STATEMENT OF JUSTIFICATION
NCL XI, LLC
January 29, 2014

Pursuant to Section 16-401 et seq. and 18-201 et seq. of the Fairfax County Zoning Ordinance, dated August 14, 1978 as amended (“Zoning Ordinance”), NCL XI, LLC (“Applicant”) hereby requests approval of a rezoning application from the R-1 District to the PDH-3 Zoning District, with approval of the combined Conceptual Development Plan and Final Development Plan (“CDP/FDP) filed herewith as fully described below.

I. Existing Conditions

The Applicant is a contract purchaser of a parcel consisting of 8.08 acres in the Braddock Magisterial District, which is identified among the Fairfax County Tax Map Records as 77-2-((1))-14 (“Property”) and is located on the west side of Zion Drive and its intersection with Guinea Road. The Property is currently developed with one (1) two-story single family detached home, two (2) one-story single-family detached dwellings and two one-story small frame barns and an outbuilding. All existing structures will be removed as part of this development. There is an unpaved driveway currently serving as the Property access onto Guinea Road.

The Property is surrounded on three sides with residentially zoned parcels and on the south side across Guinea Road by industrially zoned (I-3) property. To the north is an undeveloped residential parcel zoned R-1. To the east across Zion Drive is an R-8 development improved with single-family attached residences. To the west is property zoned R-8 also developed and improved with single-family attached residences. The parcel zoned I-3 to the south across Guinea Road is developed with an electrical substation.

II. Proposed Development

The Applicant requests a rezoning to the PDH-3 Zoning District to permit the development of seventeen (17) single-family detached dwellings. The proposed dwellings are designed around a private road/cul-de-sac (Zion Court) providing access onto Zion Drive (Route 654), approximately 450 feet north of Guinea Road. The parcel to the north (77-2 ((1)) 15) will allow access for the entrance which will allow access to Zion Road at a point directly across from Hillard Lake Road to the east. The seventeen lots will be surrounded by green space that will be maintained by a homeowners’ association. The green space to the west is in a Resource Protection Area (“RPA”) that will be predominantly a common area. The overall density of the development will be 2.1 dwelling units to the acre. This density is less than that of the properties to the west and to the east across Zion Drive, zoned and developed at 8 units per acre, and the nearest residentially developed properties to the north that are zoned and developed R-3.

The development conforms to the intent of the PDH District regulations by permitting the creation of an innovative design that blends a new development into the neighborhood fabric while protecting resource protection areas and natural features of the site. The flexibility provided by the PDH regulation permits a layout that maximizes the amount of

open space on the project. This design and layout would not be possible under conventional zoning. A conventional R-2 or R-3 layout would require larger lot sizes which in turn reduces the amount of community open space. Although the overall density of the PDH-3 development will be 2.1 du/ac, the range of approximate lot sizes is between 0.15 acres and 0.21 acres. Additionally, the flexibility of the PDH district permits the use of Low Impact Development (LID) storm water techniques, including an attractive rain garden feature.

The amount of open space for the proposed development will be +/- 54%. The area of tree cover will be +/- 25%. The PDH-3 zoning with a density of 2.1 dwelling units per acre will allow for smaller lot sizes to preserve open space and the resource protection areas as natural and scenic features along the north, south and west property lines. While there will still be sufficient location for substantial side yards and room for decks in the rear on the residential properties, the overall design allows for a pedestrian trail to be incorporated in the open space and resource protection areas providing site amenities that include a walking trail with an open space recreational area that connects to sidewalks. As well, the open space area will include various LID features, including the rain garden and vegetated dry swales.

III. **Comprehensive Plan**

The subject Property is located within the Area III, Pohick Planning District, P2 Main Branch Community Planning Sector. It is located at the intersection of Guinea Road and Zion Drive in close proximity to the Virginia Railway Express (“VRE”) station south of the Norfolk Southern Railroad line at Guinea and Rolling Roads. Land Use recommendation #4 states that this area along Zion Drive is planned for residential use at 2 - 3 dwelling units per acre. It further states that all access should be limited to Zion Drive. Parcel consolidation is suggested to reach the high end of the density range. At 2.1 dwelling units per acre, the Applicant is at the low end of the density range. The Plan also calls for conformance with Policy Plan Land Use Objectives 8 and 14. The Applicant’s proposal with sustainable perimeter buffers protect and enhance the stability of the established higher density residential neighborhoods to the west and east, and provides protection for the future undeveloped parcel to the north. The proposed development is harmonious and attractive and minimizes visual, auditory and environmental impacts. This infill development is compatible with the existing land uses to the north zoned R-3 in terms of scale and can be adequately supported by existing public facilities and transportation systems. It is within 1,400 feet and walking distance of the VRE station to the southwest. It provides an appropriate transition between the undeveloped land to the north and the industrial use to the south as well as the attached single-family dwellings to the east and west. It creates substantial usable open space and will add potential ridership to the public transportation provided by the VRE.

IV. **Residential Development Criteria**

The unique techniques allowed by the PDH District permits infill development at a density and scale comparable to the surrounding development in a manner allowing flexibility to provide for buffering of adjacent properties and protecting natural features and RPA. The proposed layout is compatible in density and scale with the surrounding

development further to the north. With the exception of the undeveloped parcel to the north the immediately surrounding properties to the east and west are actually developed at a higher density with single family attached dwellings than this proposed development. Additionally, the Applicant meets the Plan Residential Development Criteria as follows:

A. Site Design:

i. Consolidation:

The proposed rezoning is for an existing 8.08-acre parcel. Attempts to consolidate the parcels to the north were unsuccessful but access across the parcel (77-2-001-05) immediately to the north enables the entrance to align with Hillard Lake Road. The development pattern, however, is consistent with the other infill development zoned R-3 farther to the north along Zion Drive. Therefore it is consistent with surrounding residential subdivisions that are single family detached. If the undeveloped property to the north does develop in consolidation with the other parcels north of it, the proposed development will not preclude those parcels from developing.

ii. Layout:

The proposed layout integrates elements of open space, landscaping, and a functional quality design in a manner that conforms to Plan recommendations and the surrounding neighborhoods. All lots have direct frontage on a private street and are situated so the side yards abut other side yards. The proposed lots also include usable front and rear yards of substantial size to accommodate decks and/or accessory structures. Access to Zion Drive will be provided by a private street. The Homeowners Association will maintain the private street.

iii. Open Space:

The proposed development provides for open space that exceeds the requirement of the Zoning Ordinance (54% of the existing parcel will be open space) and there is additional landscaping integrated into the proposed layout which provides substantial buffering to surrounding properties. The open space is well planned to buffer the proposed development from surrounding existing residential development and the industrial development to the south across Guinea Road. The open space will be owned by the homeowners association that will manage the use of the gazebo, trail and the preservation of the RPA. Sidewalks will be provided from the development onto Zion Drive with easy access to the VRE train station. There will be a bio-retention facility, which will consist of a rain garden that will serve as an attractive recreational amenity near the intersection of Zion Drive and Guinea Road. A large portion of the open space is adjacent to the existing open space recreational area to the west belonging to the R-8 development. This provides an effective buffer to the existing and proposed homes in both communities. There is little potential conflict between the proposed development and the development to the west. The community to the east is separated from the

proposed development by Zion Drive. The layout for this project is such that there is no conflict between any of the homes proposed or existing. The proposed open space is located so as to be accessible and usable by the residents, including by means of the proposed trail. The low density and smaller lots of the PDH-3 District allows for the open space to be consolidated around the perimeter as a buffer and placed in common ownership under a HOA rather than under the private ownership of each individual lot owner. This affords greater protection to the RPA and open space and is a further community benefit of this proposal.

iv. Landscaping:

Landscaping will be provided throughout the site and on individual lots. Landscape details are provided Sheet 5 of 8 on the Conceptual Development Plan/ Final Development Plan included with the application package to illustrate the quality and quantity of the proposed vegetation.

v. Amenities

In the common open space area, recreational activities will be available. As well, a walking trail will be integrated into the site to connect to the sidewalks provided. Rain gardens and vegetated dry swales will also be included as both aesthetic and environmental features for the project.

B. Integration and Compatibility with Neighborhood Context

The proposal fits into the surrounding community and is compatible with the existing density of the single-family dwellings to the north along the west side of Zion Drive. The wide areas of open space surrounding the 3 sides of the project provide for a good transition to the abutting adjacent uses. Lot sizes are of sufficient length and depth to provide for side yards and usable rear yards. The bulk and mass of the proposed dwelling units is in scale with other developments in the area. The orientation of the proposed dwelling units provides for frontage on the private street for all lots. Sidewalks will be constructed to Zion Drive to provide pedestrian connection to the VRE across Guinea Road to the south. The design layout preserves the RPA and existing mature trees to the north, as well as a tree grove to the south. All access to the development is from Zion Drive and does not impact the existing neighborhoods.

An illustrative elevation of the proposed houses is shown on Sheet 11 of 11 of the Conceptual Development Plan/Final Development Plans included in the application package.

C. Environment

The proposal is a design that incorporates the existing natural environment through tree preservation and provides for a large sustainable open space area with proposed tree planting. The open space area will be managed and maintained through a homeowners association. Water quality will be addressed through a dry pond detention facility and a bio-retention facility, as well as dry vegetated swales. LID techniques will be used where appropriate both on the

individual lots and within the common area. The existing topography of the site has been considered as part of the design layout to minimize site grading and to allow for some tree preservation. The drainage impacts have been mitigated through proper design facilities as stated above. All of the Storm Water Management/BMPs for the site will be finalized as the plan evolves through the entitlement process. Noise and lighting impacts have been minimized due to the relatively low density of the project and the amount of vegetation provided. At the time of construction, the installation of energy efficiency measures will be considered for the individual homes on site.

Assessment of the environmental quality corridor (EQC) on the subject property, shows that the EQC does extend beyond the limits of the Delineated Resource Protection Area (RPA) due to the existence of slopes greater than 15% adjacent to the RPA. However, given the existing condition of the stream corridor generating the RPA on the subject site, it is clear that extension of the EQC outside the RPA is not warranted in that it will provide no appreciable benefit in terms of achieving the stated objectives of the EQC. The RPA stream corridor in question is wholly located on the neighboring property to the west and the reach immediately adjacent to the subject property is highly degraded, consisting of two stormwater management ponds and an approximate 150-foot piped segment running under a tennis court. This stream corridor transitions to a more natural condition with an intact forested buffer to the north of the upper stormwater management pond and beyond the vicinity of the subject site. There are no potentially jurisdictional waters of the U.S. (WOUS) features located on the subject site, as verified by the U.S. Army Corps of Engineers preliminary jurisdictional determination.

The stated objectives of preserving the EQC include habitat quality, connectivity, stream/riparian buffer protection and water quality protection/pollution reduction. The extension of the RPA buffer onto the subject site will help to achieve these objectives. However, given the highly degraded nature of the adjacent segment of the stream corridor in question, expansion of an EQC area beyond the limits of the RPA on the subject site will not appreciably enhance the value of a preservation area as measured by any of these objectives. The enhanced stormwater management measures and open space preservation and plantings being proposed on the subject site, both of which will exceed current County minimum standards, will further aid in achieving the overall environmental benefits that are the aim of the EQC policy. Limiting the preserved area along the western boundary of the subject site to the extent of the delineated RPA will also facilitate a proposed lot layout that will permit a greater amount of overall site preservation.

D. Tree Preservation Tree Cover Requirements

The tree cover requirements have been met with a combination of tree preservation and tree plantings as depicted on the GDP. The tree coverage

required is 25% and the total tree coverage provided through planting and preservation is 25%.

E. Transportation

The proposed development will be accessed from Zion Drive through a new private road entrance north of Guinea Road aligned with Hillard Lake. This will provide safe and adequate access to the property, as the amount of traffic accessing Zion Drive will be minimal. The existing access to the property from Guinea Road will be used for maintenance purposes only.

At such time as the parcel to the north (77-2 ((1)) 15) develops, the Zion Drive access point will be shared allowing access from both parcels to Zion Road at a point directly across from Hillard Lake Road to the east.

The project also includes pedestrian access to sidewalks along both sides of the new private road. These sidewalks will connect to sidewalks on Zion Drive and provide a pedestrian connection to the VRE transit station to the south. An area of dedication has been provided with this project along the Guinea Road property frontage for a future County planned 10-foot wide trail. When this trail is ultimately built in the future, it will further enhance the pedestrian infrastructure in the area.

To allow for the future widening of Guinea Road shown on the Comprehensive Plan, a thirty (30) foot dedication is provided as shown on the Development Plan.

To accommodate parking, four (4) parking spaces per unit are provided.

F. Public Facilities

The seventeen (17) proposed single-family detached homes will be served by existing public facilities and the proposal will not have a measurable impact on any schools, public safety facilities, libraries or parks. Fairfax County public water and sewer serve the property. Contribution to the public schools and parks will be made, as is appropriate and dictated by formulas adopted by the Board of Supervisors.

G. Affordable Housing

Due to the development of only seventeen (17) homes, the requirements of the Affordable Dwelling Unit Ordinance do not apply to the proposed development. A contribution for affordable housing will be provided in accordance with the policy adopted by the Board of Supervisors.

H. Heritage Resources

The applicant has a Phase I Cultural Resources Survey completed by Circa Cultural Resources Management, LLC for the property and will consult with the Department of Planning and Zoning should any further architectural surveys or documentation be necessary. The site is not located in a Historical Overlay

District nor are the existing structures located on property mentioned in the Plan as historic and designated for preservation.

V. **Conclusion**

This proposal is modest density infill in keeping with the Comprehensive Plan and compatible with the surrounding community. This development provides for substantial open space and community amenities such as public trails and sidewalks. The design layout of the homes and lots is sensitive to the environment and addresses mature tree conservation and surface water facilities in a manner to enhance the attractiveness of the site.

To the best of Applicant's knowledge, no waivers are required to the proposed development. The proposed development complies with all applicable standards and regulations. There are no hazardous or toxic substances to be generated, utilized, stored, treated and/or disposed of on site.

Respectfully Submitted,

Frank W. Stearns
Agent

Figure 14 indicates the geographic location of land use recommendations for this sector. Where recommendations are not shown on the General Locator Map, it is so noted.

Zion Drive/Guinea Road Area

In general, this area should be planned for single-family residential uses that are compatible with existing development. The residential densities should be generally distributed as follows:

1. Parcels 68-3((1))8A, 9A, 10A, 11A and 12A along the east side of Ox Road, north of the intersection with Zion Drive, are planned for residential use at 1-2 dwelling units per acre as shown on the Comprehensive Plan map. Consolidation of these parcels is encouraged to limit the number of access points to Ox Road through a service road or common drive. Severe drainage problems exist in the area. Any development should include steps to mitigate existing drainage problems on these properties.
2. Parcel 68-3((1))7A in the northeast quadrant of the intersection of Zion Drive and Ox Road contains an existing service station and is planned for retail use in order to retain the existing service station use for a neighborhood-oriented market. Hours of operation should be limited to be compatible with adjacent residential uses, and design should be architecturally compatible with the neighborhood. Expansion of the service station use may be appropriate provided it:
 - Develops in conjunction with modernization/renovation of the existing establishment;
 - Retains its neighborhood orientation by minimizing visual impacts through appropriate landscaping and screening;
 - Provides access to the site as far from the intersection as practicable; and
 - Is compatible with the surrounding residential community.

If the service station is no longer viable, the property should be redeveloped as residential use at 1-2 dwelling units per acre.

3. The area north and south of the segment of Zion Drive between Ox Road and the western boundary of the Glen Cove subdivision should be generally developed at a density of 1-2 dwelling units per acre. With substantial land consolidation that benefits circulation and limits access, single-family detached housing at a density of 2-3 dwelling units per acre may be considered.
4. Parcels 77-2((1))14-18 along the west side of Zion Drive are planned for residential use at 2-3 dwelling units per acre. To reach the high end of the density range, total consolidation and a single access to Zion Drive opposite Hillard Lake Road is required. With or without parcel consolidation, consolidated access is encouraged to reduce the number of entrances onto Zion Drive, and all access should be limited to Zion Drive.

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.

ROLE OF DENSITY RANGES IN AREA PLANS

Density ranges for property planned for residential development, expressed generally in terms of dwelling units per acre, are recommended in the Area Plans and are shown on the Comprehensive Plan Map. Where the Plan text and map differ, the text governs. In defining the density range:

- the "base level" of the range is defined as the lowest density recommended in the Plan range, i.e., 5 dwelling units per acre in the 5-8 dwelling unit per acre range;
- the "high end" of the range is defined as the base level plus 60% of the density range in a particular Plan category, which in the residential density range of 5-8 dwelling units per acre would be considered as 6.8 dwelling units per acre and above; and,
- the upper limit is defined as the maximum density called for in any Plan range, which, in the 5-8 dwelling unit per acre range would be 8 dwelling units per acre.
- In instances where a range is not specified in the Plan, for example where the Plan calls for residential density up to 30 dwelling units per acre, the density cited in the Plan shall be construed to equate to the upper limit of the Plan range, and the base level shall be the upper limit of the next lower Plan range, in this instance, 20 dwelling units per acre.

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 planned development district, 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.
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.



County of Fairfax, Virginia

MEMORANDUM

DATE: September 15, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

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

SUBJECT: ENVIRONMENTAL ASSESSMENT for: **RZ/FDP 2014-BR-009**
Burke Junction

This memorandum, prepared by John R. Bell, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the above referenced special exception plat as revised through August 26, 2014. Possible solutions to remedy identified environmental impacts are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are also compatible with Plan policies.

COMPREHENSIVE PLAN CITATIONS:

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

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, on page 7 through 10, the Plan states:

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

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

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



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

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

Programs to improve water quality in the Potomac River/Estuary, and Chesapeake Bay will continue to have significant impacts on planning and development in Fairfax County. There is abundant evidence that water quality and the marine environment in the Bay are deteriorating, and that this deterioration is the result of land use activities throughout the watershed.

In order to protect the Chesapeake Bay and other waters of Virginia from degradation resulting from runoff pollution, the Commonwealth has enacted regulations requiring localities within Tidewater Virginia (including Fairfax County) to designate "Chesapeake Bay Preservation Areas", within which land uses are either restricted or water quality measures must be provided. Fairfax County has adopted a Chesapeake Bay Preservation Ordinance pursuant to these regulations.

The more restrictive type of Chesapeake Bay Preservation Area is known as the "Resource Protection Area (RPA)." With a few exceptions (e.g. water wells, recreation, infrastructure improvements, "water dependent" activities, and redevelopment), new development is prohibited in these areas. In Fairfax County, RPAs include the following features:

- water bodies with perennial flow;
- tidal wetlands;
- tidal shores;
- nontidal wetlands contiguous with and connected by surface flow to tidal wetlands or water bodies with perennial flow;
- a buffer area not less than 100 feet in width around the above features; and
- as part of the buffer area, any land within a major floodplain.

The other, less sensitive category of land in the Preservation Areas is called the "Resource Management Area (RMA)." Development is permitted in RMAs as long as it meets water quality goals and performance criteria for these areas. These goals and criteria include stormwater management standards, maintenance requirements and reserve capacity for on-site

sewage disposal facilities, erosion and sediment control requirements, demonstration of attainment of wetlands permits, and conservation plans for agricultural activities. In Fairfax County, RMAs include any area that is not designated as an RPA.

A *Chesapeake Bay Supplement* has been prepared to address a range of issues related to water quality protection and is incorporated by this reference as part of the Comprehensive Plan. This Supplement includes a map of the county's Chesapeake Bay Preservation Area components as well as discussions and analyses of water quality issues as they relate to pollution sources, infill development, redevelopment, shoreline erosion control, and shoreline access.

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, as applied to Chesapeake Bay Preservation Areas adopted by the Board of Supervisors . . .”

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, on page 14 through 17, the Plan states:

“Objective 9: Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.

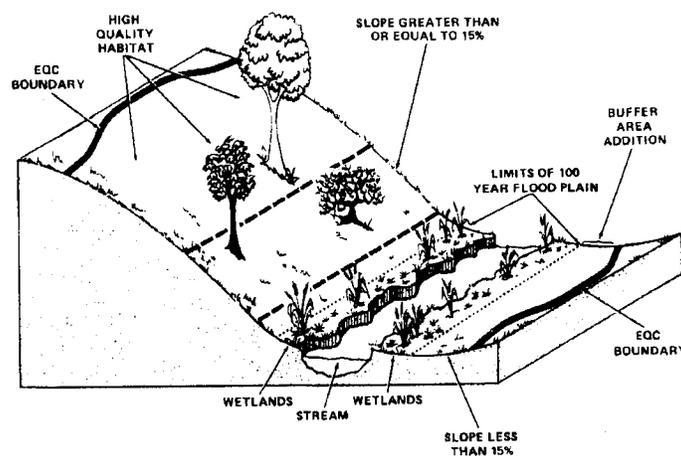
Policy a: Identify, protect and restore an Environmental Quality Corridor system (EQC). (See Figure 4.) Lands may be included within the EQC system if they can achieve any of the following purposes:

- **Habitat Quality:** The land has a desirable or scarce habitat type, or one could be readily restored, or the land hosts a species of special interest. This may include: habitat for species that have been identified by state or federal agencies as being rare, threatened or endangered; rare vegetative communities; unfragmented vegetated areas that are large enough to support interior forest dwelling species; and aquatic and wetland breeding habitats (i.e., seeps, vernal pools) that are connected to and in close proximity to other EQC areas.
- **Connectivity:** This segment of open space could become a part of a corridor to facilitate the movement of wildlife and/or conserve biodiversity. This may include natural corridors that are wide enough to facilitate wildlife movement and/or the transfer of genetic material between core habitat areas.
- **Hydrology/Stream Buffering/Stream Protection:** The land provides, or could provide, protection to one or more streams through: the provision of shade; vegetative stabilization of stream banks; moderation of sheet flow stormwater runoff velocities and volumes; trapping of pollutants from stormwater runoff and/or flood waters; flood control through temporary storage of flood waters and

dissipation of stream energy; separation of potential pollution sources from streams; accommodation of stream channel evolution/migration; and protection of steeply sloping areas near streams from denudation.

- Pollution Reduction Capabilities: Preservation of this land would result in significant pollutant reductions. Water pollution, for example, may be reduced through: trapping of nutrients, sediment and/or other pollutants from runoff from adjacent areas; trapping of nutrients, sediment and/or other pollutants from flood waters; protection of highly erodible soils and/or steeply sloping areas from denudation; and/or separation of potential pollution sources from streams.

The core of the EQC system will be the county's stream valleys. Additions to the stream valleys should be selected to augment the habitats and buffers provided by the stream valleys, and to add representative elements of the landscapes that are not represented within stream valleys. The stream valley component of the EQC system shall include the following elements (See Figure 4):



A TYPICAL ENVIRONMENTAL QUALITY CORRIDOR

Source: Fairfax County Office of Comprehensive Planning

FIGURE 4

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and

- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Modifications to the boundaries so delineated may be appropriate if the area designated does not benefit any of the EQC purposes as described above. In addition, some disturbances that serve a public purpose such as unavoidable public infrastructure easements and rights of way may be appropriate. Disturbances for access roads should not be supported unless there are no viable alternatives to providing access to a buildable portion of a site or adjacent parcel. The above disturbances should be minimized and occur perpendicular to the corridor's alignment, if practical, and disturbed areas should be restored to the greatest extent possible

Preservation should be achieved through dedication to the Fairfax County Park Authority, if such dedication is in the public interest. Otherwise, EQC land should remain in private ownership in separate undeveloped lots with appropriate commitments for preservation. The use of protective easements as a means of preservation should be considered.

When preservation of EQC land is achieved through the development process it is appropriate to transfer some of the density that would otherwise have been permitted on the EQC land to the non-EQC portion of the property to provide an incentive for the preservation of the EQC and to achieve the other objectives of the Plan. The amount of density transferred should not create an effective density of development that is out of character with the density normally anticipated from the land use recommendations of the Plan. For example, town homes should not normally be built adjacent to an EQC in an area planned for two to three dwelling units per acre. Likewise, an increase in the effective density on the non EQC portion of a site should not be so intense as to threaten the viability of the habitat or pollution reduction capabilities that have been preserved on the EQC portion of the site.

- Policy b. To provide an incentive for the preservation of EQCs while protecting the integrity of the EQC system, allow a transfer of some of the density from the EQC portion of developing sites to the less sensitive areas of these sites. The increase in effective density on the non-EQC portion of a site should be no more than an amount which is directly proportional to the percentage of the site that is preserved. Overall site yield will decrease as site constraints increase. Maximum density should be determined according to a simple mathematical expression based upon the ratio of EQC land to total land. This policy is in addition to other plan policies which impact density and does not supersede other land use compatibility policies.

The retention of environmental amenities on developed and developing sites is also important. The most visible of these amenities is the county's tree cover. It is possible to design new development in a manner that preserves some of the existing vegetation in landscape plans. It

is also possible to restore lost vegetation through replanting. An aggressive urban forestry program could retain and restore meaningful amounts of the county's tree cover.”

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

“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 land use. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions.

Green Building

The Comprehensive Plan recommends attainment of certification under an established green building rating system that incorporates multiple green building concepts for zoning proposals for residential development. The subject property consists of 8.08 acres and is proposed to be developed with 16 single family detached dwellings at a density of .1.9 dwelling unit per acre. A number of green building certification options are available for this project, such as, LEED-Homes, EarthCraft and National Green Building Standard (NGBS) with the Energy Star path for energy performance. The applicant has provided a commitment to develop the property with options to pursue either EarthCraft or NGBS with the Energy Star path. Either of these options would meet the recommendations of the Comprehensive Plan for green building development.

Water Quality

The subject property is currently developed with a single-family home. The development plan depicts a Resource Protection Area (RPA) in the western portion of the property. The Environmental Quality Corridor follows this same delineation. In conformance with the Policy Plan, the applicant is proposing no development in this environmentally sensitive area. A variety of water quantity and quality control measures are proposed as part of the new development. The development plans depict a conventional stormwater management pond near the southwest corner of the property. The plans also depict a bioretention facility near the southeast corner of the property. Two other smaller bioretention facilities are also noted. These measures combined with the preservation of existing tree cover, landscaping, a grasscrete access road for the stormwater management pond combine to provide a broad spectrum approach to managing runoff from the proposed development. Any final determination regarding standards for stormwater management will be made by the Department of Public Works and Environmental Services (DPWES).

PGN:JRB



County of Fairfax, Virginia

MEMORANDUM

DATE: September 10, 2014

TO: Mr. William J. O'Donnell Jr. AICP, Staff Coordinator
Department of Planning and Zoning

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

SUBJECT: Sideburn-Burke Junction; RZ/FDP 2014-BR-009

RE: Request for assistance dated August 29, 2014

This review is based on the resubmission of the RZ/FDP 2014-BR-009, NCL XI, LLC, Burke Junction date stamped, "Received, Department of Planning and Zoning, August 27, 2014".

Based on this review, all tree and landscape related comments from the memo dated July 8, 2014 and all previous memos appear to have been adequately addressed and the Urban Forest Management Division does not have any further comments at this time.

SW/

UFMDID #: 190300

cc: DPZ File

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





County of Fairfax, Virginia

MEMORANDUM

DATE: October 8, 2014

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

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

FILE: RZ/FDP 2014-BR-009

SUBJECT: RZ/FDP 2014-BR-009 NCL XI, LLC Burke Junction
5636 Guinea Road, Fairfax VA 22032
Tax Map: 077-2 ((1)) 014

This Department has reviewed the subject application and Conceptual/Final Development Plan (CDP/FDP) dated January 24, 2014 and revised through September 22, 2014, and proffers dated September 22, 2014. All identified concerns have been addressed except the following:

- Applicant should provide a pedestrian signal head installed at the Zion Drive leg of the intersection. This pedestrian signal would permit pedestrians from this community as well as the surrounding area to safely utilize the existing crosswalks. The pedestrian signal should meet VDOT standards.

Comments on the proposed proffers were submitted under separate cover.

MAD/RP

Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, VA 22033-2895
Phone: (703) 877-5600 TTY: 711
Fax: (703) 877-5723
www.fairfaxcounty.gov/fcdot





COMMONWEALTH of VIRGINIA
DEPARTMENT OF TRANSPORTATION

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

4975 Alliance Drive
Fairfax, VA 22030
May 2, 2014

To: Ms. Barbara Berlin
Director, Zoning Evaluation Division

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

Subject: RZ/FDP 2014-BR-009 NCL XI, LLC (Burke Junction)
Tax Map # 77-2((01))0014

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 April 2, 2014, and received April 8, 2014. The following comments are offered:

1. A curb and gutter half section should be provided along Zion Drive. This should be 40' from curb to curb for three laned sections and 52' from curb to curb along four laned sections.
2. A right turn lane should be provided for the site entrance.
3. A left turn lane should be provided for the site entrance.
4. The reverse curve should be removed from proposed Zion Court.
5. A 29' wide typical section should be provided on Zion Court.
6. A minimum length of 20' should be provided on the driveways beyond the sidewalks to prevent blocking of the pedestrian facilities.
7. The signing strip on Zion Court should be reduced to 4' in width.
8. A half section of the proposed Countywide Transportation Plan improvements should be provided along Guinea Road.
9. The trail along Guinea Road should be in conformance with the County Trails Plan and be 10' wide if it is placed within the proposed right of way.
10. The SWM facility access should be provided from the site or from Zion Drive. This will eliminate the heavy maintenance vehicle crossing of the proposed trail and place the access on a lower volume road.
11. The Zion Court centerline radii do not appear to meet the required VDOT minimum of 200'.

RZ/FDP 2014-BR-009
NCL XI, LLC (Burke Junction)
May 2, 2014
Page 2

12. Sight distance should be demonstrated for the proposed site entrance location.

If you have any questions, please call me.

cc: Ms. Angela Rodeheaver
fairfaxrezoning2014-BR-009rz1NCLXILLCBurkeJunction5-2-14BB



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VA 22030

August 8, 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-009 NCL XI, LLC (Burke Junction)
Tax Map # 77-2((01))0014

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 June 24, 2014, and received June 25, 2014. The following comments are offered in addition to those previously provided (with comment numbering beginning where the previous comments ended):

13. The turn lane warrant review indicates a left turn lane is not warranted and VDOT agrees with this assessment based on the currently proposed number of lots.
14. The proposed interparcel connection appears to be offset an acceptable distance from Zion Drive to allow future connections.

If you have any questions, please call me.

cc: Ms. Angela Rodeheaver
fairfaxrezoning2014-BR-009rz2NCLXILLCBurkeJunction8-8-14BB



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: September 23, 2014

SUBJECT: RZ-FDP 2014-BR-009, Burke Junction, Revised
Tax Map Number: 77-2 ((1)) 14

BACKGROUND

The Park Authority staff has reviewed the proposed Development Plan dated August 26, 2014, for the above referenced application. The Development Plan shows 17 new single-family detached dwelling units on an eight acre parcel to be rezoned from R-1 to PDH-3 with proffers. Based on an average single-family household size of 3.10 in the Pohick Planning District, the development could add 43 new residents (17 new – 3 existing = 14 x 3.10 = 43) to the Braddock Supervisory District. This memorandum replaces a prior one dated May 9, 2014.

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 P2 Main Branch Community Planning Sector recommendations in the Area III Plan describe the presence of locally significant heritage resources and the high potential for additional resources in undeveloped portions of the sector (Area III, Pohick Planning District, P2 Main Branch Planning Sector, Character, p.30). Guidance for the Planning Sector further suggests that any development or ground disturbance in the sector should be preceded by heritage resource studies (ibid, Heritage Resources, p.42). Text from the Pohick District chapter of the Great Parks, Great Communities Park Comprehensive Plan echoes these recommendations.

ANALYSIS AND RECOMMENDATIONS

Park Needs:

Using adopted service level standards, staff has identified a need for all types of parkland and recreational facilities in this area. Existing nearby parks (Pohick Stream Valley, Woodglen Lake) meet only a portion of the demand for parkland generated by residential development in the area. In addition to parkland, the recreational facilities in greatest need in this area include basketball courts, playgrounds, trails, and rectangle fields.

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 outdoor recreational facilities to serve the development population. Whenever possible, the facilities should be located within the residential development site. With 17 non-ADUs proposed, the Ordinance-required amount to be spent onsite is \$28,900. 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 \$38,399 to the Park Authority for recreational facility development at one or more park sites located within the service area of the subject property.

Onsite Facilities:

An "Amenity Recreational Uses" area is shown on the CDP/FDP (sheet #6) and described in the applicant's response memo (dated 6/23/2014). Staff suggests that the description the applicant has provided in the response memo, regarding likely contents and uses of the area, be included in a proffer or in a note on the CDP/FDP.

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	\$28,900	\$38,399	\$67,299

In addition, the Park Authority recommends the following:

- Include a description of the likely contents and uses of the “Amenity Recreational Uses” area in a proffer or note on the CDP/FDP.

Please note the Park Authority would like to review and comment on proffers related to park and recreation issues. We request that draft and final proffers 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: Anna Bentley
DPZ Coordinator: William O'Donnell

Copy: Cindy Walsh, Director, Resource Management Division
Liz Crowell, Manager, Cultural Resource Management & Protection Section
William O'Donnell, DPZ Coordinator
Chron File
File Copy



FAIRFAX COUNTY
PUBLIC SCHOOLS

Department of Facilities and Transportation Services

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

October 7, 2014

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

FROM: Aimee Holleb, Assistant Director *AH*
Office of Facilities Planning Services

SUBJECT: RZ/FDP 2014-BR-009, NCL XI, LLC. (Updated)

ACREAGE: 8.08 acres

TAX MAP: 77-2 ((1)) 14

PROPOSAL:

The application requests to rezone the site from R-1 to PDH-3 district. The proposal would permit a maximum of 17 single family detached homes. The site currently contains three single family detached houses, however under the current R-1 zoning, the site could be developed with up to 8 single family detached houses. A prior review memo for this application was provided on April 22, 2014.

ANALYSIS:

School Capacities

The schools serving this area are Bonnie Brae Elementary, and Robinson Secondary schools. 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
Bonnie Brae ES	817 / 817	701	713	104	740	77
Robinson MS	1,296 / 1,296	1,219	1,162	134	1,098	198
Robinson HS	2,568 / 2,568	2,709	2,793	-225	2,570	-2

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, Bonnie Brae and Robinson MS are projected to have surplus capacity; Robinson HS is projected to have a slight capacity deficit. Beyond the six year projection horizon, enrollment projections are not available.

Capital Improvement Program Projects

The 2015-19 Capital Improvement Program (CIP) does not include any specific projects at the impacted schools.

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	8	2
Middle	.086	8	1
High	.177	8	1

4 total

2012 Countywide student yield ratios (September 2013)

Proposed

School level	Single Family Detached ratio	Proposed # of units	Estimated Student yield
Elementary	.273	17	5
Middle	.086	17	1
High	.177	17	3

9 total

2012 Countywide student yield ratios (September 2013)

RECOMMENDATIONS:

Proffer Contribution

A net of 5 new students is anticipated (3 Elementary, 0 Middle, 2 High). Based on the approved Residential Development Criteria, a proffer contribution of \$54,125 (5 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.

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.

AJH/gjb

Attachment: Locator Map

cc: Megan McLaughlin, School Board Member, Braddock District
Elizabeth Schultz, School Board Member, Springfield District
Ted Velkoff, Vice-Chairman, School Board Member, At-Large
Ilryong Moon, School Board Member, At-Large
Ryan McElveen, School Board Member, At-Large
Jeffrey Platenberg, Assistant Superintendent, Facilities and Transportation Services
Angela Atwater, Assistant Superintendent, Region 4
Kevin Sneed, Special Projects Administrator, Design and Construction Services
Matthew Eline, Principal, Robinson Secondary School
Kathy Bruce, Principal, Bonnie Brae Elementary School



County of Fairfax, Virginia

MEMORANDUM

DATE: April 22, 2014

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

FROM: Eric Fisher, GIS Coordinator
Information Technology Section
Fire and Rescue Department

SUBJECT: Fire and Rescue Department Preliminary Analysis of Rezoning/Final
Development Plan Application RZ/FDP 2014-BR-009

The following information is submitted in response to your request for a preliminary Fire and Rescue Department analysis for the subject:

1. The application property is serviced by the Fairfax County Fire and Rescue Department Station #414, **Burke**
2. After construction programmed ___(n/a)___ this property will be serviced by the fire station _____(n/a)_____





County of Fairfax, Virginia

MEMORANDUM

DATE: April 11, 2014

TO: Billy O'Donnell
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sharad Regmi, P.E.
Engineering Analysis and Planning Branch

SUBJECT: Sanitary Sewer Analysis Report

REF: **Application No. RZ/FDP 2014-BR-009**
Tax Map No. 077-2-((01))-0014

The following information is submitted in response to your request for a sanitary sewer analysis for above referenced application:

- The application property is located in Pohick Creek (N-1) watershed. It would be sewerred into the Noman M. Cole Pollution Control Plant (NMCPCP).
- Based upon current and committed flow, there is excess capacity in the NMCPCP. For purposes of this report, committed flow shall be deemed that for which fees have been paid, building permits have been issued, or priority reservations have been established by the Board of Supervisors. No commitment can be made, however, as to the availability of treatment capacity for the development of the subject property. Availability of treatment capacity will depend upon the current rate of construction and the timing for development of this site.
- An existing 10 inch line located in the Guinea Road and approximately 173 ft from the property is adequate for the proposed use at this time.
- The following table indicates the condition of all related sewer facilities and the total effect of this application.

	Existing Use <u>+Application</u>		Existing Use + Application <u>+Previous Applications</u>		Existing Use + Application <u>+ Comp Plan</u>	
	<u>Adeq.</u>	<u>Inadeq</u>	<u>Adeq.</u>	<u>Inadeq</u>	<u>Adeq.</u>	<u>Inadeq</u>
<u>Sewer Network</u>						
Collector	X		X		X	
Submain	X		X		X	
Main/Trunk	X		X		X	

- Other pertinent comments:**





FAIRFAX COUNTY WATER AUTHORITY
8560 Arlington Boulevard, Fairfax, Virginia 22031
www.fairfaxwater.org

**PLANNING & ENGINEERING
DIVISION**

Jamie Bain Hedges, P.E.
Director
(703) 289-6325
Fax (703) 289-6382

April 4, 2014

Ms. Barbara Berlin, Director
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5505

Re: FDP 2014-BR-009
RZ 2014-BR-009
Burke Junction
Tax Map: 77-2

Dear Ms. Berlin:

The following information is submitted in response to your request for a water service analysis for the above application:

1. The property can be served by Fairfax Water.
2. Adequate domestic water service is available at the site from an existing 12-inch water main located in Zion Drive. See the enclosed water system map.
3. Please be aware that Fairfax Water operates a 30-inch transmission main in Guinea Road. In accordance with Fairfax Water policy (copy enclosed) all developer proposed relocations of Fairfax Water transmission mains greater than 16-inches in diameter require the approval of the Fairfax Water Board. If it is determined that the proposed construction requires relocation of this transmission main, the applicant must submit a letter to the attention of Ms. Jamie Bain Hedges, P.E., Director, Planning and Engineering, requesting permission to relocate the existing transmission main. Submission of such a request, if necessary, is recommended as soon as possible to avoid subsequent project delays or rework. Relocation of the transmission main, if approved, will be at the owner's expense. After staff review, the request will be forwarded to the Board for consideration.

4. Depending upon the configuration of the on-site water mains, additional water main extensions may be necessary to satisfy fire flow requirements and accommodate water quality concerns.

If you have any questions regarding this information please contact Ross Stilling at (703) 289-6385.

Sincerely,

A handwritten signature in cursive script that reads "Traci K. Goldberg".

Traci K. Goldberg, P.E.
Manager, Planning Department

Enclosure

Transmission Main Relocation Policy

Adopted April 23, 2009

Water mains larger than 16-inches in diameter constitute the backbone of the Fairfax County Water Authority's (Authority) transmission system. Their continuous operation is necessary to best ensure adequate flow and pressure throughout the system for the provision of domestic service and fire protection. These transmission mains are located in easements benefitting the Authority and in state right-of-ways with approval of the Virginia Department of Transportation.

Occasionally, private land developers request permission to relocate portions of the Authority's transmission mains to facilitate best use of the developer's property. Given the significant risk and high degree of coordination necessary to effectively relocate transmission mains without compromising the integrity of the Authority's operations during these activities, all proposed relocations of water mains larger than 16-inches in diameter that are initiated by private development activity must be submitted to the Authority Board for approval

When reviewing proposed relocations, the Board will consider various factors, including but not limited to:

- 1) The extent of the relocation.
- 2) The anticipated transmission main outage duration during tie-ins.
- 3) The impact to the local service area and the overall system.
- 4) The level of staff effort required to effectively coordinate and execute the relocation.
- 5) The benefits to the Authority of the proposed relocation.

Upon a request from a private developer to relocate a water main larger than 16-inches in diameter, Authority staff will prepare an item discussing the above factors for the Board's consideration.

All such transmission relocations approved by the Authority shall be designed, constructed and completed at the sole cost and expense of the developer, including a reasonable fee to compensate the Authority for staff time devoted to the review, inspection and approval of such relocation. For all approved transmission relocations, the Authority shall require the developer to enter into a written agreement that obligates the developer to complete all work in accordance with the plans approved by the Authority for such relocation. Whether the subject property will be served by the Authority or by another public water utility shall not be a factor in the Board's consideration of whether to approve a relocation request.



County of Fairfax, Virginia

MEMORANDUM

DATE: August 8, 2014

TO: William O'Donnell, 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-009
NCL XI, LLC (aka, Sideburn-Burke Station)
Conceptual/Final Development Plan (REVISED dated June 20, 2014)
LDS Project No.: 006128-ZONA-001-1
Tax Map No.: 077-2-01-0014
Braddock District

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

The County's Stormwater Management Ordinance (SWMO) and current, updated version of the Public Facilities Manual are applicable to the development of this CDP/FDP and the ultimate design of this project.

Chesapeake Bay Preservation Ordinance (CBPO)

There is Resource Protection Area (RPA) on this site. A site-specific RPA boundary delineation study will need to be submitted and approved prior to Subdivision Plan submittal (PFM 6-1701.3). Land disturbance in, or other encroachment into an RPA is not permitted without a separately approved Waiver for a specific activity. Also, once the site-specific RPA boundary is approved, proposed facilities and the limits of land disturbance will need to be adjusted again if the final RPA expands beyond the currently depicted RPA.

It appears a retaining wall is now proposed to help avoid planned site encroachments into the RPA. However, most of this wall appears to be on or very near the currently estimated RPA boundary. The work area for the wall construction, a width of at least 10' along both sides of the wall perimeter must be included in the limits of planned land disturbance, and will encroach into the depicted RPA. The wall will need to be relocated further away from the boundary so that the associated land disturbance work area is also outside of the final site-specific RPA.



SWMO Article 4 design criteria are applicable to this proposed project, and water quality controls are required (PFM 6-0401 & SWMO 124-4-2.2.c). The SWM/BMP's proposed to generate the required annual phosphorus removal from the project's post-development stormwater flows include: rooftop disconnection, an urban bioretention facility, two level-2 dry swales, a level-1 extended detention pond, and a level-1 bioretention facility. Preliminary VRRM (Virginia Runoff Reduction Method) calculations have been provided to estimate the phosphorus reduction requirement, as well as to identify the design engineer's expectation that the proposed SWM/BMP facilities will provide compliance with this requirement. Calculation and design details will be reviewed at the final design/site plan stage.

Please note, as identified previously, the "simple disconnection" option for the rooftop disconnection BMP is not permitted without approval from the Director on a case-by-case basis (PFM 6-1312.2.A). Credit for this type of BMP has been claimed in the provided VRRM spreadsheet for Drainage Area A. The "Sheetflow to a Conserved Open Space" BMP is the recommended sheet flow BMP practice.

Floodplains

There are no regulated floodplains on the property/site.

Downstream Drainage Complaints

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

Stormwater Management/Detention

SWMO Article 4 design requirements/criteria are applicable to this proposed project, and stormwater management/detention facilities are required (PFM 6-0301.2 & SWMO 124-4-4.D). The SWM/BMP facilities proposed to provide the project's required post-development stormwater detention/retention storage volume include: a level-1 extended detention pond and a level-1 bioretention facility. The bioretention facility is to be upsized to detain/retain some additional stormwater volume. Preliminary calculations have been provided to identify the design engineer's expectation that the post-development discharge restrictions can be achieved. Calculation and design details will be reviewed at the final design/site plan stage.

Additionally, any proposed impoundment with embankment/dam height > 2' will need to adhere to the requirements of PFM 6-1600 (including the dam breach analysis requirement) at the final design/site plan stage.

Site Outfall

A preliminary Outfall Narrative has been included, and the engineer has provided a professional opinion that the development meets the criteria for an Adequate Outfall. Three site outfalls are identified. Outfall A is identified as a sheetflow outfall in the predevelopment condition, and is proposed to remain a sheetflow outfall in the post-development condition. Outfalls B & C are concentrated flow outfalls that ultimately discharge to a natural channel within the limits of

William O'Donnell, Staff Coordinator
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analysis. The design engineer has proposed the use of (and shall use) the Energy Balance Equation identified at SWMO 124-4-4.B.1.a, to establish the allowable post-development Outfalls B & C discharges for the 1-yr and 10-yr storm events, and shall also use this equation to develop the discharges for the 2-yr event (SWMO 124-4-4.C.4) and possibly the 100-yr event (SWMO 124-4-4.C.7). The calculation and design details associated with the required outfall discharge restrictions will be reviewed with the adequate outfall analysis and stormwater detention design at the final design/site plan stage.

Stormwater Planning Comments

This site is located in the Pohick Creek Watershed and the Pohick-Sideburn Branch Watershed Management Area. There is a future County buffer restoration project (PC9819) proposed for the stream running immediately adjacent to this property and Zion Road.

Dam Breach

The property is located adjacent to, but not within a dam breach inundation zone.

Miscellaneous

The stormwater management plan to be prepared at final design, and submitted to the County for review and ultimate VSMP permit approval, must address all of the items listed in SWMO 124-2-7.B.

The latest BMP specifications provided on the Virginia Stormwater BMP Clearinghouse website must be used for final design. The design engineer is also referred to LTI 14-13 (copy attached) with regard to selection of the appropriate BMP specifications.

Proposed Proffer #16 (dated June 20, 2014) must be updated to reflect the SWMO and other stormwater management regulations and criteria that became effective on July 1, 2014. For example, proprietary SWM/BMP facilities (i.e., filteras, bayfilters, etc.) are not currently permitted. The requirement to use the Energy Balance Equation (SWMO 124-4-4.B.1.a) to determine allowable concentrated flow discharges from the site should also be proffered to help ensure adequate outfall will be achieved at final design for the proposed development.

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

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		