[NO]TES

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON FAIRFAX COUNTY CADASTRAL MAP No. 28-4 ((8)) PARCELS 3-7 AND 28-4 ((9)) A AND CURRENTLY ZONED R-1.

2. THE PROPERTY SHOWN HEREON IS CURRENTLY IN THE NAME OF THE FOLLOWING ALL AMONG THE LAND RECORDS OF FAIRFAX COUNTY:

   LOT 3 - OAKCREST FARMS, L.C. BY DEED RECORDED IN DEED BOOK 22957 AT PAGE 332
   LOTS 4,5 - OAKCREST FARMS, L.C. BY DEED RECORDED IN DEED BOOK 22876 AT PAGE 1590
   LOT 6 - OAKCREST FARMS, L.C. BY DEED RECORDED IN DEED BOOK 22956 AT PAGE 2191
   LOT 7 - OAKCREST FARMS, L.C. BY DEED RECORDED IN DEED BOOK 22957 AT PAGE 681
   PARCEL A - OAKCREST FARMS, L.C. BY DEED RECORDED IN DEED BOOK 22876 AT PAGE 1595

THE APPLICANT IS SEKAS HOMES, LTD.

3. THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD SURVEY BY THIS FIRM PERFORMED ON NOVEMBER 28, 2012. TITLE REPORT FURNISHED BY STEWART TITLE GUARANTY COMPANY, FILE NUMBER 12V-1103, WITH AN EFFECTIVE DATE OF SEPTEMBER 12, 2-12 (LOT 3), FILE NUMBER 12V-1097, WITH AN EFFECTIVE DATE OF SEPTEMBER 25, 2012 (LOT 4), FILE NUMBER 12V-1099, WITH AN EFFECTIVE DATE OF SEPTEMBER 25, 2012 (LOT 5), FILE NUMBER 12-V-1113, WITH AN EFFECTIVE DATE OF NOVEMBER 1, 2012 (LOT 6) AND FILE NUMBER 12V-1085, WITH AN EFFECTIVE DATE OF SEPTEMBER 5, 2012 (LOT 7).

4. THE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD SURVEY BY THIS FIRM PERFORMED ON NOVEMBER 28, 2012. THE VERTICAL DATUM IS REFERENCED TO NGVD 29. THE CONTOUR INTERVAL IS TWO (2) FEET.

5. THE PROPERTY SHOWN HEREON LIES WITHIN A ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS DELINEATED ON FLOOD INSURANCE RATE MAP, COMMUNITY PANEL No. 51059C0115E, DATED SEPTEMBER 17, 2010.

6. ALL CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS OF FAIRFAX COUNTY AND VDOT EXCEPT AS REQUESTED HEREIN. THE APPLICANT RESERVES THE RIGHT TO APPLY FOR ANY FUTURE MODIFICATIONS OF PFM DESIGN CRITERIA AT THE TIME OF SUBDIVISION PREPARATION PROVIDED THE MODIFICATIONS ARE IN SUBSTANTIAL CONFORMANCE WITH THE C/FDP.

7. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION AS PER REQUIREMENTS OF THE STATE OF VIRGINIA AND THE CODE OF FAIRFAX COUNTY.

8. LAND DESIGN CONSULTANTS, INC. IS NOT AWARE OF ANY UTILITY EASEMENTS WHICH EXIST ON THE SUBJECT PROPERTY WITH A WIDTH OF 25 FEET OR MORE.

9. ALL UTILITIES INSTALLED AS PART OF THIS PROJECT SHALL BE PLACED UNDERGROUND. THE UTILITY LOCATIONS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO CHANGE WITH FINAL ENGINEERING. LIMITS OF CLEARING AND GRADING SHALL BE IN GENERAL CONFORMANCE WITH THOSE SHOWN HEREON.

10. AIR QUALITY PERMITS SHALL BE OBTAINED, IF REQUIRED, AND PROVIDED PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION.

11. THE SITE WILL BE SERVED BY PUBLIC WATER AND SANITARY SEWER.

12. A RESOURCE PROTECTION AREA (RPA) IS NOT LOCATED ON THE SUBJECT PROPERTY. A RESOURCE MANAGEMENT AREA (RMA) IS LOCATED ON THE SUBJECT PROPERTY.

13. THE COMPREHENSIVE PLAN RECOMMENDS DEVELOPMENT OF THE PROPERTY AS RESIDENTIAL AT A DENSITY OF 1-2 DWELLING UNITS PER ACRE. THE PROPOSED DENSITY OF 1.66 DU/ACRE MEETS THE INTENT OF THE COMPREHENSIVE PLAN. THE SITE DESIGN, DENSITY, ADJOINING USES AND PROPOSED PRESERVATION AND PLANTINGS WILL ENHANCE THIS PROPERTY AND WILL MEET THE APPLICABLE CRITERIA FOR STAFF REVIEW.

14. IN ACCORDANCE WITH THE FAIRFAX COUNTY TRAILS PLAN, A TRAIL IS REQUIRED ON THE SUBJECT PROPERTY. THE APPLICANT REQUESTS A WAIVER, AS NOTED BELOW.

15. LDC IS NOT AWARE OF ANY BURIAL SITES LOCATED ON THE SUBJECT PROPERTY.

16. BESLEY ROAD AND TETTERTON AVENUE ARE NOT SHOWN ON THE COUNTY'S TRANSPORTATION PLAN OR VDOT 6 YEAR PLAN TO BE WIDENED OR IMPROVED. NO ADDITIONAL DEDICATION IS PROPOSED. THE PROPOSED PRIVATE STREET WILL BE PRIVATELY MAINTAINED.

17. AN ENVIRONMENTAL QUALITY CORRIDOR (EQC) AS DEFINED IN THE ADOPTED COMPREHENSIVE PLAN DOES EXIST ON THE SUBJECT PROPERTY. THE COMPONENTS OF A MAXIMUM DENSITY REDUCTION DO NOT EXIST ON SITE.

18. LDC DOES NOT BELIEVE ANY HAZARDOUS OR TOXIC SUBSTANCES HAVE BEEN GENERATED, UTILIZED, STORED, TREATED, AND/OR DISPOSED OF OR HAVE BEEN OBSERVED ON THE SUBJECT PROPERTY.

19. DEVELOPMENT OF THIS PROJECT SHALL COMMENCE AT SUCH TIME AS APPROPRIATE COUNTY APPROVALS HAVE BEEN OBTAINED AND SUBJECT TO THE DISCRETION OF OWNER/DEVELOPER.

20. A GEOTECHNICAL REPORT SHALL BE SUBMITTED FOR REVIEW BY FAIRFAX COUNTY CONCURRENTLY WITH THE FINAL SUBDIVISION PLAN.

21. THE SUBJECT PROPERTY WILL MEET SWM/BMP REQUIREMENTS THROUGH USE OF AN ONSITE INFILTRATION TRENCH, BIO-RETENTION FILTER AND CONSERVATION AREA. PLEASE SEE SHEETS 2 & 7 FOR ADDITIONAL INFORMATION. THESE FACILITIES WILL BE PRIVATELY MAINTAINED.

22. ALL DIMENSIONS ARE APPROXIMATE AND TYPICAL HOUSE FOOTPRINTS AND ELEVATIONS SHOWN ON THESE LOTS MAY BE MODIFIED PROVIDED THAT MODIFICATIONS ARE IN SUBSTANTIAL CONFORMANCE WITH THE C/FDP AND THE MINIMUM YARDS ARE PROVIDED.

23. THE APPLICATION HAS BEEN DESIGNED WITH THE PRIMARY FOCUS OF CREATING A DEVELOPMENT THAT IS SIMILAR TO ADJACENT DEVELOPMENTS AND WILL MINIMIZE ADVERSE EFFECTS TO ADJACENT PROPERTY OWNERS. THE APPLICANT WILL BE PRESERVING NATURAL FEATURES ON SITE AS SHOWN ON SHEETS 2 & 5. ADDITIONAL PLANTING AROUND THE PROPOSED STREET WILL BE PROVIDED. THE APPLICANT WILL ENSURE THAT THE POST DEVELOPMENT RUNOFF IS LESS THAN THE PRE DEVELOPMENT RUNOFF.

24. ADDITIONAL TREE PLANTINGS AND PRESERVATION, AS SHOWN ON THE C/FDP, WILL PROVIDE SCREENING AND AN AMENITY TO THIS COMMUNITY.

25. MINOR ADJUSTMENTS TO THE LOT LINES AND UTILITY LOCATIONS SHALL BE PERMITTED IN ACCORDANCE WITH THE FINAL GRADING AND UTILITY LAYOUT AND SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THAT PROVIDED HEREIN.

26. EXISTING STRUCTURES CONSTRUCTED IN 1960, 1963 AND 1975 AND SHALL BE REMOVED. THE APPROXIMATE HEIGHT OF THE EXISTING STRUCTURES IS 30 FEET. A CONSERVATION PLAN HAS BEEN APPROVED TO REMOVE THE DWELLING ON LOT 3 AND LOT 7 PRIOR TO REZONING APPROVAL (6447-CON-002-1 AND 6447-CON-001-1).

27. LOCATION OF EXISTING STRUCTURES ON OFFSITE PROPERTIES ARE APPROXIMATE AND FROM INFORMATION OF RECORD.

28. THE APPLICANT IS PROPOSING OPEN SPACE AND TREE PRESERVATION ABOVE THE MINIMUM REQUIRED, PRESERVATION OF AN ONSITE INTERMITTENT STREAM AND ADJACENT BUFFER, AND PRESERVATION OF STEEP TOPOGRAPHY AS AN AMENITY WITH THIS PLANNED COMMUNITY.

29. THE SUBJECT PROPERTY IS CURRENTLY SERVED BY ONSITE SEPTIC AND PRIVATE WELLS. THE SEPTIC TANKS, SEPTIC FIELDS AND WELLS WILL BE PROPERLY ABANDONED PRIOR TO APPROVAL OF ANY DEMOLITION PERMITS BEING RELEASED.

WAIVERS AND MODIFICATIONS

1. THE APPLICANT RESPECTFULLY REQUESTS A WAIVER OF THE TRAIL REQUIREMENT AS NOTED IN SECTION 8-0201.3 OF THE PUBLIC FACILITIES MANUAL AND SECTION 101-2-2(10) OF THE COUNTY CODE AND AS SHOWN ON THE COUNTYWIDE TRAILS MAP IN LIEU OF THE PROPOSED SIDEWALK ALONG TETTERTON AVENUE, WHICH WILL PROVIDE A PEDESTRIAN ACCOMMODATION. AN ADDITIONAL CONNECTION, PARALLEL TO THE SIDEWALK, WILL BE AN UNNECESSARY MAINTENANCE BURDEN FOR THE COUNTY SINCE THE FACILITY WILL HAVE LIMITED EFFECTIVENESS, BUT STILL REQUIRE ROUTINE MAINTENANCE.

2. THE APPLICANT RESPECTFULLY REQUESTS A WAIVER OF THE SIDEWALK REQUIREMENTS ALONG ONE SIDE OF THE PROPOSED PRIVATE STREET AND BESLEY ROAD AS NOTED IN SECTION 8-0101.1 AND 8-0102 OF THE PUBLIC FACILITIES MANUAL AND SECTION 101-2-2(10) OF THE COUNTY CODE. THE APPLICANT RESPECTFULLY REQUESTS THIS WAIVER TO PRESERVE EXISTING TREES, THE EXISTING SEVERE SLOPED TOPOGRAPHY, AND PRESERVE THE RURAL CHARACTER OF THE NEIGHBORHOOD. THERE IS NO EXISTING SIDEWALK LOCATED ALONG BESLEY ROAD, AS THERE IS SIDEWALK ON TETTERTON AVENUE, ACROSS THE STREET FROM THE SUBJECT PROPERTY IN THE MANORS AT WOLFTRAP SUBDIVISION, THE APPLICANT WILL PROVIDE A SIDEWALK ALONG THE TETTERTON AVENUE FRONTAGE TO PROVIDE A CONTINUOUS PEDESTRIAN CONNECTION TO BESLEY ROAD.

3. THE APPLICANT RESPECTFULLY REQUESTS A WAIVER OF THE STREETLIGHT REQUIREMENT AT THE PROPOSED PRIVATE STREET ENTRANCE AS NOTED IN SECTION 7-1002.1B(2) OF THE PUBLIC FACILITIES MANUAL AND SECTION 101-2-2(20) OF THE COUNTY CODE IN ORDER TO PRESERVE THE RURAL CHARACTER OF THE NEIGHBORHOOD AND PRESERVE THE DARK SKY.

P:\PY 2012\12265-1-0 Besley Road and Tetterton Avenue Property\ENG\GDP\12265CV.dwg

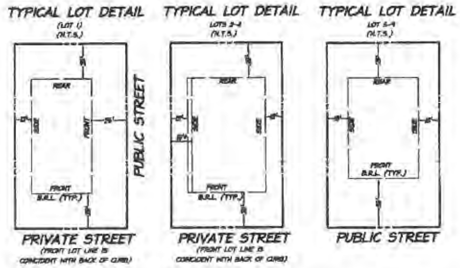
TABULATIONS

SITE AREA =236,431 # OR 5.43 ACRES
EXISTING ZONING = R-1
PROPOSED ZONING = PDH-2
PROPOSED USE = SINGLE FAMILY DETACHED
MAXIMUM BUILDING HEIGHT REQUIRED/PROVIDED. = 35 FEET
MINIMUM DISTRICT SIZE REQUIRED = 2 ACRES
AVERAGE LOT SIZE REQUIRED = NONE REQUIRED
AVERAGE LOT SIZE PROVIDED = ±18,000 #
MINIMUM LOT SIZE REQUIRED = NONE
MINIMUM LOT SIZE PROVIDED = ±14,100 #
MINIMUM LOT WIDTH REQUIRED = NONE REQUIRED
MINIMUM YARDS:
REQUIRED: NONE
PROVIDED: SEE BELOW

OPEN SPACE REQUIRED: 20% OR 47,286 SF
OPEN SPACE PROVIDED: ±30% OR ±73,000 SF
ENVIRONMENTAL QUALITY CORRIDOR: ±12% OR ±29,000 SF
CONSERVATION EASEMENT: ±14% OR ±35,000 SF

PARKING:
REQUIRED (2 SPACES/UNIT FOR LOTS WITH FRONTAGE ON PUBLIC STREET) = 10 SPACES
REQUIRED (3 SPACES/UNIT FOR LOTS WITH FRONTAGE ON PRIVATE STREET) = 12 SPACES
PROVIDED (4 SPACES/UNIT) = 36 SPACES (MIN. 18' DRIVEWAY WITH 2 SPACES IN DRIVEWAY & 2 SPACES IN GARAGE)

DENSITY:
PERMITTED = 2.00 DU/AC
PROPOSED = 1.66 DU/AC



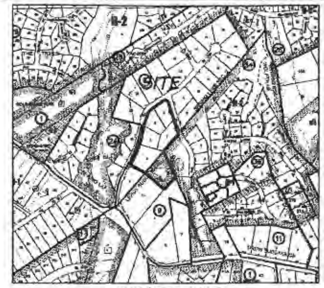
*LOT 4 EASTERLY PERIPHERAL SIDE YARD SETBACK

IN ACCORDANCE WITH SECTION 2-412 OF THE ZONING ORDINANCE, ANY OPEN DECK WITH NO PART OF ITS FLOOR HIGHER THAN 4' ABOVE FINISHED GROUND LEVEL MAY EXTEND INTO THE SIDE YARD 5' BUT NOT CLOSER THAN 5' TO ANY SIDE LOT LINE AND INTO THE REAR YARD 20' BUT NOT CLOSER THAN 5' TO ANY SIDE OR REAR LOT LINE.

IN ACCORDANCE WITH SECTION 2-412 OF THE ZONING ORDINANCE, ANY OPEN DECK WITH ANY PART OF ITS FLOOR HIGHER THAN 4' ABOVE FINISHED GROUND LEVEL MAY NOT EXTEND INTO A SIDE YARD AND MAY EXTEND 12' INTO A REAR YARD, BUT NOT CLOSER THAN 5' TO ANY REAR LOT LINE AND NOT CLOSER THAN A DISTANCE EQUAL TO THE MINIMUM REQUIRED SIDE YARD TO THE SIDE LOT LINE.

SHEET INDEX

1. COVER SHEET
2. CONCEPTUAL/FINAL DEVELOPMENT PLAN
3. LANDSCAPE PLAN
4. EXISTING CONDITIONS PLAN
5. EXISTING VEGETATION MAP
5A. TREE PRESERVATION AND PROTECTION PLAN
5B. TREE PRESERVATION NARRATIVES
6. ELEVATIONS
7. STORMWATER MANAGEMENT INFORMATION



VICINITY MAP
SCALE : 1" = 500'

SOILS MAP
SCALE : 1" = 500'

SOIL INFORMATION

SOIL #	SOIL NAME	PROBLEM CLASS	FOUNDATION SUPPORT	DRAINAGE	EROSION POTENTIAL
30	CODORUS - HATBORO	III	POOR	POOR	LOW
39	GLENELG SILT LOAM	I	GOOD	GOOD	HIGH
105	WHEATON-GLENELG COMPLEX	IVB	GOOD	GOOD	HIGH

RESIDUE PARENT SUBDIVISION DENSITY

EXISTING SPRING LAKE, SECTION 2 (BEFORE REZONING)
THE PARCELS LOCATED ON TAX MAP 28-4 ((8)) 3-7 ARE CURRENTLY PART OF THE SPRING LAKE, SECTION 2 SUBDIVISION. THIS SUBDIVISION WAS CREATED IN DEED BOOK 1134, PAGE 22. PER THIS DEED, PLEASE NOTE THE FOLLOWING:

TOTAL AREA SUBJECT TO SUBDIVISION AFTER RIGHT-OF-WAY DEDICATION: 28.4 ACRES (PLEASE NOTE PARCEL A, WHICH IS 5.5 ACRES, IS NOT INCLUDED)
NUMBER OF LOTS: 24
DENSITY: .85 DU/ACRE

SUBSEQUENT TO THIS DEED, THE AFOREMENTIONED PARCEL A (5.5 ACRES) AND LOTS 1 AND 24 (8.1 ACRES) OF SPRING LAKE, SECTION 2 WERE RE-SUBDIVIDED IN DEED BOOK 5040, PAGE 368 AND INCLUDED IN SPRING LAKE, SECTION 2. PLEASE NOTE THE FOLLOWING:

TOTAL AREA SUBJECT TO SUBDIVISION AFTER RIGHT-OF-WAY DEDICATION: 13.15 ACRES
NUMBER OF NEW LOTS: 10 (PLEASE NOTE THAT WHILE THIS RE-SUBDIVISION ULTIMATELY CREATED 12 LOTS, LOTS 1 AND 24 IN THE ORIGINAL SPRING LAKE, SECTION 2 WERE INCLUDED IN THIS RE-SUBDIVISION SO THERE IS A NET INCREASE OF 10 LOTS).
DENSITY: .91 DU/ACRE

FINAL ACREAGE OF SPRING LAKE, SECTION 2 AFTER RE-SUBDIVISION AND RIGHT-OF-WAY DEDICATION: 33.45 ACRES
FINAL NUMBER OF LOTS IN SPRING LAKE, SECTION 2 AFTER RE-SUBDIVISION: 34
FINAL DENSITY OF SPRING LAKE, SECTION 2: 1.01 DU/ACRE

PROPOSED SPRING LAKE, SECTION 2 (AFTER REZONING AND REMOVAL OF LOTS 3-7 FROM SUBDIVISION = 4.13 ACRES)
ACREAGE OF SPRING LAKE, SECTION 2: 29.32 ACRES
NUMBER OF LOTS: 29
DENSITY: .99 DU/ACRE, WHICH IS BELOW THE MAXIMUM OF 1 DU/ACRE

EXISTING LEROY SUBDIVISION (BEFORE REZONING)
THE PARCEL LOCATED ON TAX MAP 28-4 ((9)) A IS CURRENTLY PART OF THE LEROY SUBDIVISION. THIS SUBDIVISION WAS CREATED IN DEED BOOK 1716, PAGE 73. PER THIS DEED, PLEASE NOTE THE FOLLOWING:

TOTAL AREA SUBJECT TO SUBDIVISION AFETR RIGHT-OF-WAY DEDICATION: 7.14 ACRES
NUMBER OF LOTS: 2
DENSITY: .28 DU/ACRE

PROPOSED LEROY SUBDIVISION (AFTER REZONING AND REMOVAL OF PARCEL A FROM SUBDIVISION = 1.29 ACRES)
ACREAGE OF LEROY SUBDIVISION: 5.85 ACRES
NUMBER OF LOTS: 2
DENSITY: .34 DU/ACRE, WHICH IS BELOW THE MAXIMUM OF 1 DU/ACRE

LDC
UNLOCKING YOUR LAND'S POTENTIAL
4585 DAISY REID AVENUE, SUITE 201
WOODBRIDGE, VIRGINIA 22192
PH: 703-680-4585 FX: 703-680-6775

COVER SHEET

SPRING LAKE
SECTION 3
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE	DESIGN	NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE
8/13	KMA	1	REVISE NOTE 26 & 29, UPDATE TABS; UPDATE TYPICAL LOT DETAILS			
10/13	KMA	2	UPDATE WAIVERS & MODIFICATIONS; UPDATE TITLE & SHEET NUMBER			
11/13	KMA	3	UPDATE NOTES 16 AND 17; UPDATE WAIVERS, TABS; UPDATE SHEET INDEX			
ENGINEER			REVISION APPROVED BY:			

I HEREBY CERTIFY THAT OTHER THAN THE REVISIONS SHOWN HEREON, NO OTHER CHANGES HAVE BEEN MADE.

COMMONWEALTH OF VIRGINIA
MATTHEW T. MARSHALL
Lic. No. 1535-B
11.4.13
LAND SURVEYOR

SCALE: N/A

SHEET 1 OF 7

DATE: MARCH, 2013

DRAFT: KMA | CHECK: MTM

FILE NUMBER: 12265-1-0 3.0B

Application No: RZ / FDP 2013-HM-012 Staff: M.Duca

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Mar 4, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Mar 4, 2014 (XBOS) (_PC) (_BZA)
Comments: FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013

FAIRFAX COUNTY DEPARTMENT OF PLANNING & ZONING

Sheet 1 of 9

Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: **Mar 4, 2014**

SEE CONDITIONS DATED:

Date of Final Approval: **Mar 4, 2014** (XBOS) (_PC) (_BZA)

Comments: **FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013**

Sheet **2** of **9**

DEPARTMENT OF PLANNING & ZONING

FIRE MARSHAL NOTE:
THE MAXIMUM SLOPE OF THE PRIVATE ROAD WILL NOT EXCEED 6.5%.

MATCHLINE

PARCEL A
(OPEN SPACE)
PROP. CONSERVATION AREA

PARCEL B
(OPEN SPACE)
PROP. CONSERVATION AREA

PARCEL C
(OPEN SPACE)
PROP. CONSERVATION AREA

PRIVATE STREET

TETTERTON AVENUE
RTE. #32021

BESLEY ROAD
RTE. #13201

LOT 1 thru LOT 12

LOT 1-A
JAMES L. BILLINGER, TR.
MARY JANE BILLINGER, TR.

LOT 2
LISA L. DAVIS
RICHARD B. HATHEWAY

LOT 11
HUBERT CHANDLER
MARY CHANDLER

LOT 12
CHRISTOPHER MOORE
CAROL MOORE

LOT 10
GEORGE HAVAS

LOT 9
ROGER ALDRIHAND
EVELYN NORSHAND

LOT 8
CRAIG BOZZELLE, TR.
TERESA BOZZELLE, TR.

LOT 7
ROBERT FORBES
CECILIA FORBES

LOT B
JEANNE PIERCE

MANORS AT WOLFTRAP HOMEOWNERS ASSN. INC.
PARCEL "A"
PARCEL "B"

LOT 2
ANANDAKUMAR SIVASELVARAJAN
ANILA VELUNAYI

LOT 4
LOT 3
LOT 2
LOT 1

RESUBDIVISION OF LOT 1 LEROY SUBDIVISION
D.B. 3380 PG. 384

1) CHESAPEAKE & POTOMAC TELEPHONE COMPANY ESM'T D.B. 1755 PG. 20

DENOTES ALUMINUM SURVEY PIPE TO DEMARCATE NORTHERLY BOUNDARY OF PARCEL A AND C.

LDC
LAND DEVELOPMENT CONSULTANTS
4084 DUKE STREET AVENUE, SUITE 201
WOODBRIDGE, VIRGINIA 22192
PH: 703-680-4768 FX: 703-680-4775

CONCEPTUAL/FINAL DEVELOPMENT PLAN

SPRING LAKE
SECTION 3
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE	DESCRIPTION	BY	APPROVED	DATE
10/23/2013	1. REVISE LAYOUT, REDUCE PRIVATE STREET WIDTH, ADD SHED, ADD LOT LINES AT OUTFALL	KMA		
12/23/2013	2. REVISE LOT LINES AT OUTFALL	KMA		

DATE DESIGN: MD
ENGINEER

I HEREBY CERTIFY THAT OTHER THAN THE REVISIONS SHOWN HEREON, NO OTHER CHANGES HAVE BEEN MADE.

COMMONWEALTH OF VIRGINIA
MATTHEW T. MARSHALL
Lic. No. 1035.B
12/17/13
LAND SURVEYOR

SCALE: 1" = 30'

SHEET 2 OF 7

DATE: MARCH, 2013

DRAFT: KMA CHECK: MTM

FILE NUMBER: 12065-1-0 3.DB

P:\FY 2013\12065-1-0 Besley Road and Tetterton Avenue Process\Land\GDP\12065GDP.dwg

Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: **Mar 4, 2014**

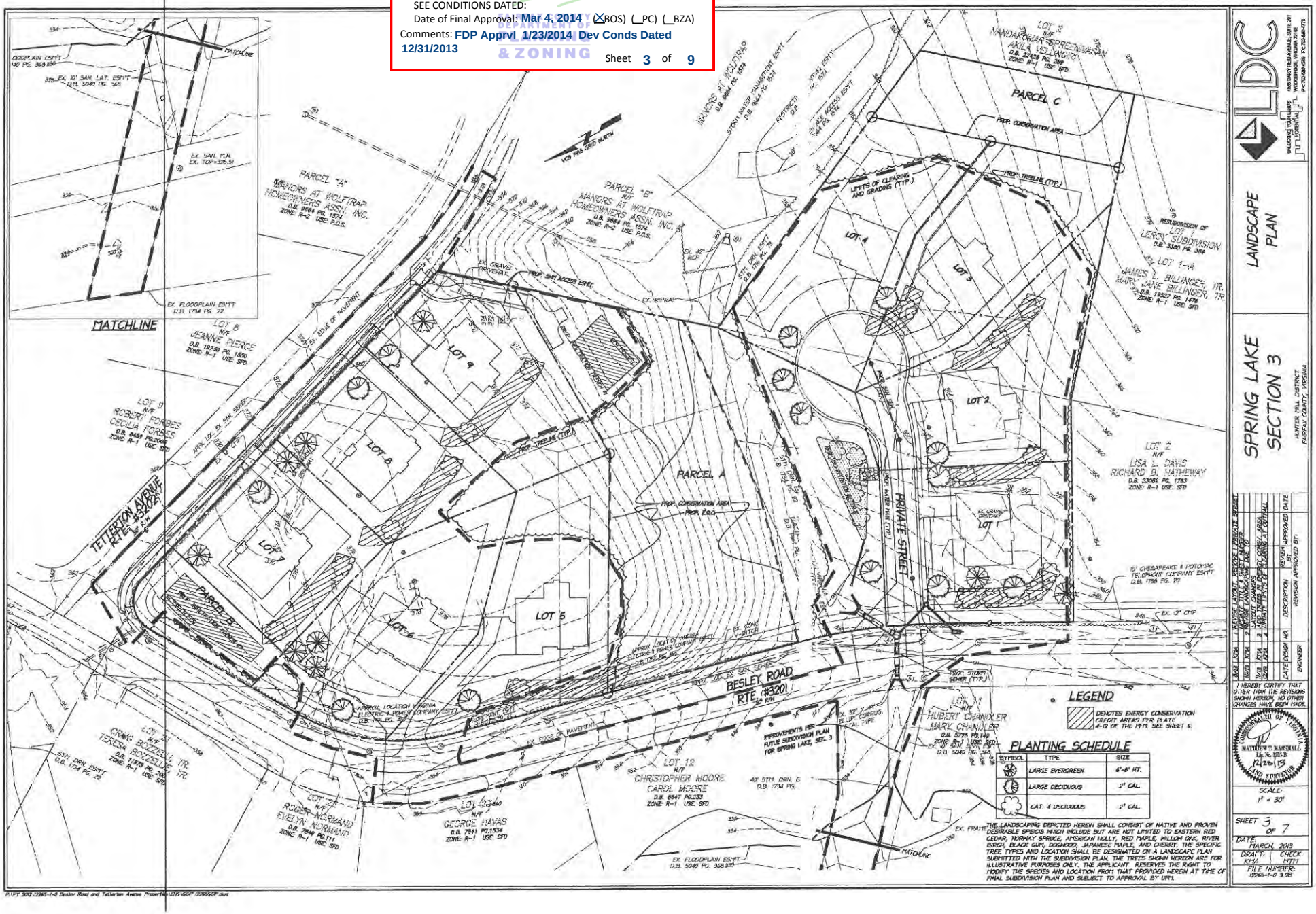
SEE CONDITIONS DATED:

Date of Final Approval: **Mar 4, 2014** (XBOS) (_PC) (_BZA)

Comments: **FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013**

Sheet **3** of **9**

DEPARTMENT OF PLANNING & ZONING



Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: **Mar 4, 2014**

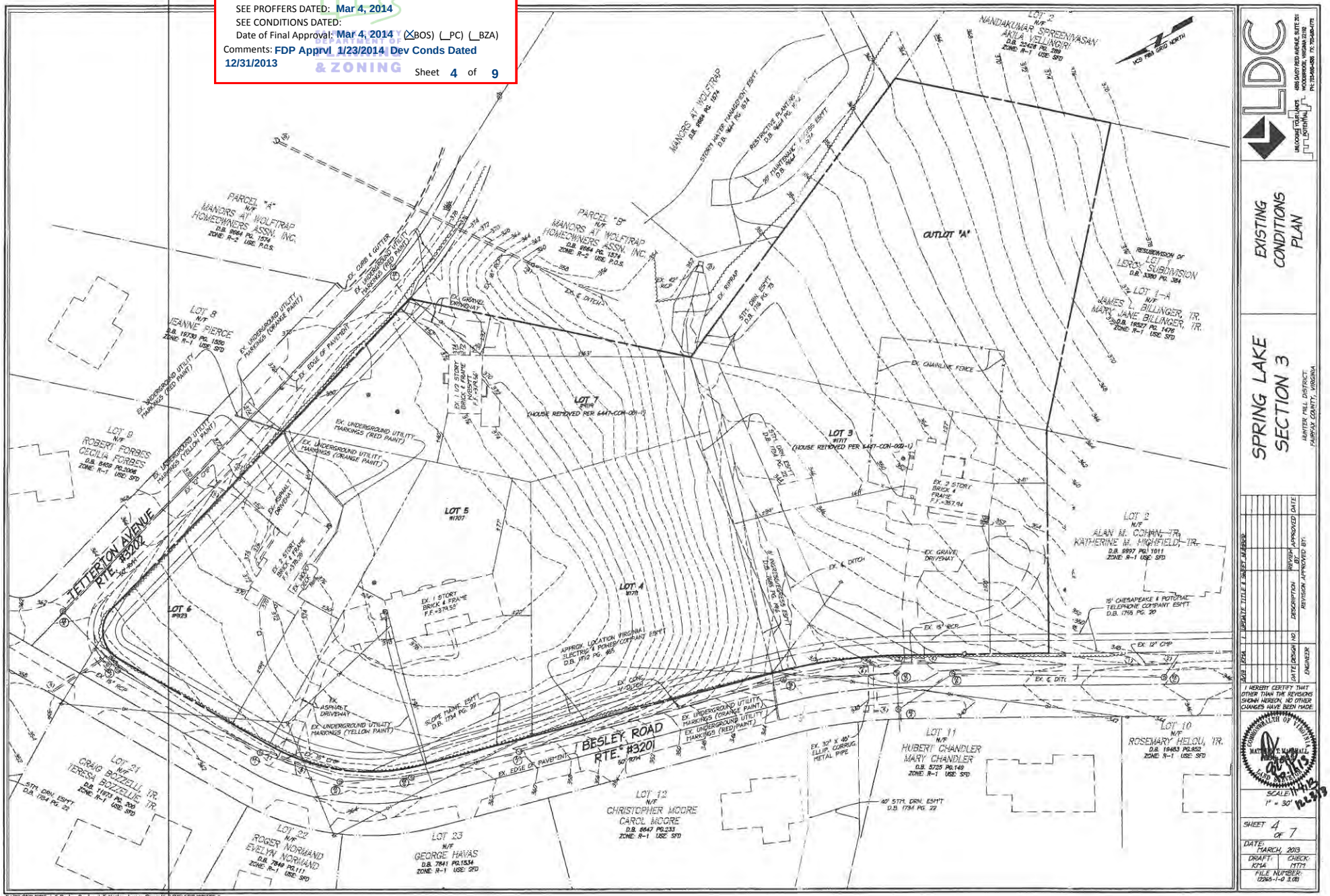
SEE CONDITIONS DATED:

Date of Final Approval: **Mar 4, 2014** (XBOS) (_PC) (_BZA)

Comments: **FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013**

Sheet **4** of **9**

DEPARTMENT OF PLANNING & ZONING



LDC
LAND DEVELOPMENT CONSULTANTS, INC.
LAND PLANNERS
LANDSCAPE ARCHITECTS
LAND SURVEYORS
4084 OAKLEY NICHOLS DRIVE, SUITE 201
WOODBRIDGE, VIRGINIA 22192
PH: 703-680-4868 FX: 703-680-4778

EXISTING CONDITIONS PLAN

SPRING LAKE SECTION 3

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

NO.	DATE	DESCRIPTION	REVISION APPROVED BY:	DATE
1	12/04	UPDATE TITLE & SHEET NUMBER		

DATE	DESIGN NO.	ENGINEER

I HEREBY CERTIFY THAT OTHER THAN THE REVISIONS SHOWN HEREON, NO OTHER CHANGES HAVE BEEN MADE.

COMMONWEALTH OF VIRGINIA
MATTHEW T. MARSHALL
LICENSE NO. 042948
LAND DEVELOPMENT
12/13

SCALE:
1" = 30'

SHEET 4 OF 7

DATE: MARCH, 2013

DRAFT: KMA CHECK: MTM

FILE NUMBER: 12265-I-0 3.0B

P:\PT 2012\12265-I-0 Besley Road and Tellerton Avenue Proper-Use\ENG\GDP\12265RC.dwg

Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X FDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: **Mar 4, 2014**

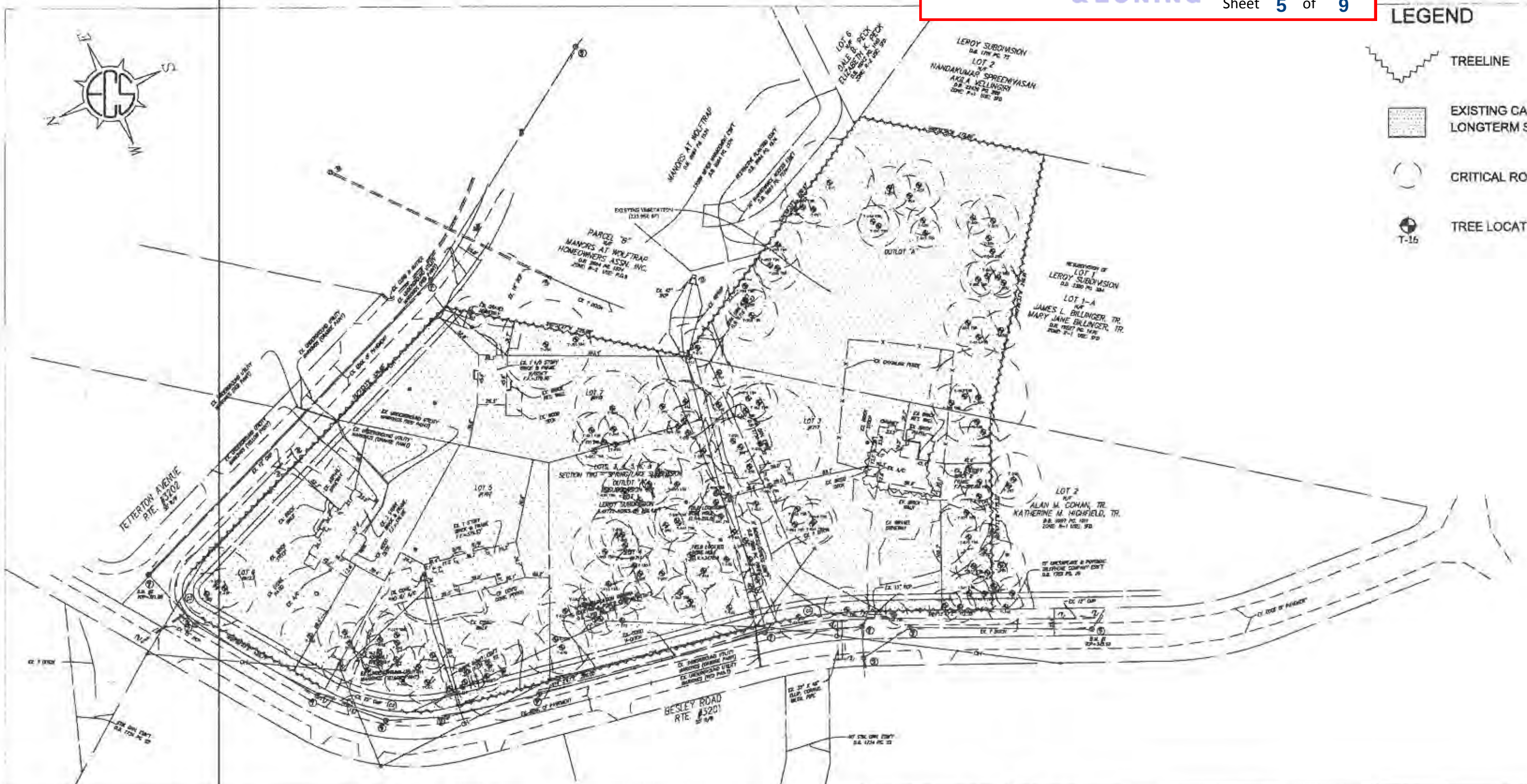
SEE CONDITIONS DATED:

Date of Final Approval: **Mar 4, 2014** (X BOS) (_PC) (_BZA)

Comments: **FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013**

Sheet **5** of **9**

FAIRFAX COUNTY DEPARTMENT OF PLANNING & ZONING



LEGEND

TREELINE

EXISTING CANOPY (2) UPLAND FOREST (233,952-SF)
LONGTERM SUCCESSIONAL FOREST

CRITICAL ROOT ZONE (CRZ)

T-16 TREE LOCATION

Tree Number	Common Name	Size (Inches DBH)	Critical Root Zone (feet)	Condition	Remove	Notes
345	Red Maple	13.8	13.8	59%		Girdling, cavity near base, large dead limbs
346	Tulip Poplar	19.9	19.9	68%		
347	Northern Red Oak	14.2	14.2	78%		Slight lean, small dead limbs
348	Northern Red Oak	25.5	25.5	84%		Some dead limbs
349	Chestnut Oak	13.8	13.8	84%		Some dead limbs
350	Chestnut Oak	34.3	34.3	78%		Double trunk, some large dead limbs
351	Dead		0.0		X	
352	White Oak	41.1	41.1	72%		Double trunk, slight lean, trunk damage, dead limbs
353	Red Maple	14.6	14.6	69%		Dead limbs, pruned for power lines
354	Black Oak	22.2	22.2	88%		
355	Chestnut Oak	19.2	19.2	84%		One-sided, small dead limbs
356	White Oak	36.2	36.2	80%		Triple trunk, one-sided, trunk damage
357	Northern Red Oak	17.8	17.8	86%		Lean, trunk growths
358	Chestnut Oak	28.7	28.7	69%		Girdling, dead limbs
359	Chestnut Oak	18.4	18.4	83%		Cavity at base, trunk disease, dead limbs
360	Chestnut Oak	16.8	16.8	81%		Some dead limbs
361	White Oak	13.5	13.5	72%		Trunk disease, one-sided, small dead limbs
362	Chestnut Oak	16.1	16.1	69%		Trunk damage, dead limbs
363	Chestnut Oak	17.0	17.0	78%		Small dead limbs
364	Chestnut Oak	17.4	17.4	72%		Root growths, lean, small dead limbs
365	Chestnut Oak	15.8	15.8	69%		Trunk crooked, one-sided
366	Chestnut Oak	18.8	18.8	78%		Dead limbs
367	Chestnut Oak	20.8	20.8	60%		Large dead limbs
368	Chestnut Oak	18.4	18.4	78%		Small dead limbs, double trunk
369	Chestnut Oak	15.0	15.0	75%		One-sided, top crooked, dead limbs
370	Northern Red Oak	17.3	17.3	66%		Root growths, large dead limbs
371	Chestnut Oak	22.2	22.2	63%		Large cavity at base, large dead limbs, girdling roots
372	Chestnut Oak	14.3	14.3	72%		One sided, small dead limbs
373	White Oak	18.2	18.2	81%		Small dead limbs
374	Chestnut Oak	45.4	45.4	72%		Double trunk, large dead limbs
375	Chestnut Oak	33.7	33.7	66%		Double trunk, large dead limbs, trunk crooked, girdling roots
376	Chestnut Oak	24.3	24.3	72%		Large dead limbs
377	Chestnut Oak	12.4	12.4	75%		Small dead limbs
378	Chestnut Oak	15.1	15.1	75%		Dead limbs
379	Northern Red Oak	14.8	14.8	59%		Dead leader
380	Chestnut Oak	15.5	15.5	75%		Dead limbs
381	Chestnut Oak	13.3	13.3	81%		Dead limbs
382	Chestnut Oak	25.0	25.0	75%		Double trunk, small dead limbs
383	Chestnut Oak	14.3	14.3	78%		Dead limbs
384	Chestnut Oak	12.8	12.8	75%		Large dead limbs
385	Chestnut Oak	20.2	20.2	69%		Double trunk, weak crotch, small dead limbs
386	Northern Red Oak	16.3	16.3	78%		Large dead limbs
387	Chestnut Oak	22.8	22.8	81%		Dead limbs
388	Northern Red Oak	15.2	15.2	34%	X	Half dead, severe lean, roots exposed
389	Northern Red Oak	14.8	14.8	78%		Small dead limbs
390	White Oak	25.5	25.5	69%		Root growths, large dead limbs
391	White Oak	21.1	21.1	69%		One-sided, dead limbs
392	Chestnut Oak	16.0	16.0	81%		Offsite, dead limbs
393	White Oak	15.0	15.0	72%		Offsite, root growths, dead limbs
394	Chestnut Oak	23.3	23.3	78%		Shared, double trunk, slight lean, small dead limbs
395	Chestnut Oak	22.7	22.7	75%		Offsite, double trunk, one-sided, small dead limbs
396	Northern Red Oak	12.0	12.0	38%		Shared, top broken, root growth

397	White Oak	12.3	12.3	75%		Offsite, one-sided, small dead limbs, root growths
398	Northern Red Oak	25.0	25.0	69%		Offsite
399	Chestnut Oak	13.8	13.8	81%		
400	Chestnut Oak	16.1	16.1	75%		Root growth, small dead limbs
401	Chestnut Oak	44.8	44.8	75%		Triple trunk, small dead limbs
402	Chestnut Oak	17.7	17.7	59%		Trunk growths, small dead limbs
403	Chestnut Oak	13.6	13.6	75%		Small dead limbs
404	Chestnut Oak	15.9	15.9	75%		Dead limbs
405	White Oak	23.6	23.6	69%		Large dead limbs
406	Northern Red Oak	15.4	15.4	63%		Root growths, large dead limbs, cavity at base
407	Chestnut Oak	23.3	23.3	81%		Dead limbs
408	Northern Red Oak	18.7	18.7	75%		Dead limbs
409	White Oak	19.7	19.7	69%		Root growths, dead limbs
410	Chestnut Oak	40.6	40.6	75%		Double trunk, small dead limbs
411	Tulip Poplar	13.4	13.4	75%		Vines, small dead limbs
412	White Oak	17.3	17.3	81%		
413	White Oak	30.3	30.3	72%		Dead leader, cavity
414	Tulip Poplar	12.9	12.9	91%		
415	Tulip Poplar	19.9	15.9	100%	X	
416	Red Maple	17.3	17.3	72%	X	Trunk growths, slight lean
417	Tulip Poplar	17.3	17.3	88%	X	
418	Northern Red Oak	19.7	19.7	66%	X	Lean, dead limbs
419	Northern Red Oak	41.7	41.7	63%	X	Double trunk, catch cavity, large dead limbs
420	Chestnut Oak	13.0	13.0	75%		
421	Chestnut Oak	28.2	28.2	69%	X	Double trunk
422	Chestnut Oak	13.8	13.8	66%	X	Dead limbs, root growths, lean
423	Chestnut Oak	16.6	16.6	69%	X	Large dead limbs, one-sided, root growths,
424	Chestnut Oak	26.3	26.3	75%		Double trunk, dead limbs
425	Chestnut Oak	25.7	25.7	75%		Double trunk, dead limbs
426	Chestnut Oak	27.8	27.8	72%		Double trunk, dead limbs
427	Chestnut Oak	15.0	15.0	61%	X	Small dead limbs
428	Chestnut Oak	12.7	12.7	75%		Dead limbs, slight lean
429	Chestnut Oak	24.5	24.5	61%	X	Dead limbs
430	Chestnut Oak	10.0	10.0	66%	X	Cavity at base
431	Chestnut Oak	13.0	13.0	81%	X	One-sided
432	Chestnut Oak	25.8	25.8	63%	X	Double trunk, cavity between trunks, dead limbs
433	Chestnut Oak	31.1	31.1	56%	X	Multi trunk, massive disease at base
434	Chestnut Oak	12.5	12.5	78%		Dead limbs
435	Chestnut Oak	30.5	30.5	81%		Double trunk
436	Chestnut Oak	14.3	14.3	75%		Dead limbs
437	White Oak	20.2	20.2	78%		Large dead limbs
438	Dead		0.0		X	
439	Chestnut Oak	20.1	20.1	72%	X	Dead limbs, small cavity in roots
440	Northern Red Oak	23.5	23.5	75%	X	Large dead limbs
441	Chestnut Oak	20.3	20.3	75%	X	Dead limbs
442	Chestnut Oak	17.1	17.1	75%	X	Dead limbs
443	Chestnut Oak	20.1	20.1	84%		Small dead limbs
444	Chestnut Oak	16.4	16.4	69%		Large dead limbs
445	Red Maple	12.5	12.5	68%		Large dead limbs
446	Chestnut Oak	14.2	14.2	41%		Small dead limbs
447	Chestnut Oak	12.0	12.0	72%		Root growths
448	White Oak	15.0	15.0	78%		Small dead limbs
449	Dead		0.0		X	
450	Tulip Poplar	20.8	20.8	84%		Large dead limbs

451	White Oak	20.3	20.3	84%	X	Dead limbs
452	White Oak	12.3	12.3	59%	X	Root growths, dead limbs
453	White Oak	21.1	21.1	63%		Cavity at base, large dead limbs
454	Tulip Poplar	14.3	14.3	81%	X	Root growths, small dead limbs
455	Tulip Poplar	12.0	12.0	81%	X	Small dead limbs
456	Tulip Poplar	23.0	23.0	81%		Small dead limbs
457	Red Maple	28.5	28.5	72%		Double trunk, small dead limbs
458	Tulip Poplar	55.5	55.5	69%	X	Double trunk
459	Red Maple	14.0	14.0	66%		Dead leader, dead limbs
460	White Oak	14.7	14.7	75%	X	Small dead limbs, growing against shed
461	White Oak	18.9	18.9	86%		Girdling roots, dead limbs
462	White Oak	13.9	13.9	66%	X	Root growths, dead limbs
463	Chestnut Oak	17.0	17.0	59%	X	One-sided, dead trunk
464	Chestnut Oak	18.7	18.7	75%	X	Crooked at top, trunk damage
465	Northern Red Oak	21.0	21.0	72%	X	Large dead limbs
466	White Oak	20.8	20.8	72%	X	Large dead limbs
467	White Oak	20.8	20.8	63%	X	Dead limbs
468	Tulip Poplar	12.5	12.5	81%	X	Small dead limbs
469	White Oak	14.7	14.7	78%	X	Dead limbs
470	Chestnut Oak	14.2	14.2	75%	X	Large dead limbs
471	Black Oak	17.8	17.8	59%	X	Root growths, large dead limbs
472	Northern Red Oak	16.3	16.3	66%	X	Dead trunk, dead limbs
473	Northern Red Oak	18.2	18.2	56%		Large root disease, lean, dead limbs
474	Northern Red Oak	18.1	18.1	72%	X	Root growths
475	Chestnut Oak	24.4	24.4	72%		Double trunk, dead limbs, weak crotch
476	Northern Red Oak	35.0	35.0	72%	X	Triple trunk, broken trunk
477	Chestnut Oak	17.3	17.3	75%	X	Dead limbs
478	Chestnut Oak	12.5	12.5	84%	X	Small dead limbs
479	Black Oak	17.4	17.4	81%	X	One-sided, small dead limbs
480	Chestnut Oak	37.5	37.5	66%	X	Double trunk, weak crotch, dead limbs
481	White Oak	17.3	17.3	72%	X	Large dead limbs
482	Chestnut Oak	13.1	13.1	59%	X	Small cavity at base
483	Black Oak	18.6	18.6	34%	X	Half dead
484	Chestnut Oak	22.0	22.0	72%	X	Crooked trunk, small dead limbs
485	Chestnut Oak	18.0	18.0	81%	X	
486	Chestnut Oak	18.2	18.2	72%		Double trunk, weak crotch
487	Dead		0.0		X	
488	Chestnut Oak	18.5	18.5	75%		Large dead limbs
489	Black Oak	13.4	13.4	75%	X	Small dead limbs
490	Black Oak	13.4	13.4	75%		Large dead limbs
491	Chestnut Oak	19.2	19.2	78%	X	Dead limbs
492	White Oak	14.6	14.6	69%	X	Root growth, one-sided, small dead limbs
493	Chestnut Oak	12.9	12.9	75%		Dead limbs
494	Dead		0.0		X	
495	Chestnut Oak	21.8	21.8	78%	X	One-sided, dead limbs
496	Tulip Poplar	20.2	20.2	75%	X	Dead limbs
497	Chestnut Oak	15.1	15.1	81%	X	One-sided
498	Tulip Poplar	18.0	18.0	78%	X	One-sided
499	Tulip Poplar	18.7	18.7	38%	X	Leaning
500	Tulip Poplar	23.7	23.7	75%	X	Supporting fallen tree

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

LDC
UNLOCKING YOUR LAND'S POTENTIAL
4585 DAISY REED AVENUE, SUITE 201
WOODBRIDGE, VIRGINIA 22192

COMMONWEALTH OF VIRGINIA
MATTHEW C. MARSHALL
LAND SURVEYOR
10/11/13 11/4/13 12/31/13

ECS - MID-ATLANTIC, LLC
14026 THUNDERBOLT PLACE
SUITE 100
CHANTILLY, VA 20151
1-800-822-3489
703-471-8400
(FAX) 703-834-5527

CELEBRATING 25 YEARS OF EXCELLENCE

SETTING THE STANDARD FOR SERVICE

ECS LLC MID-ATLANTIC

SUMMER HILL ESTATES
VIENNA, VIRGINIA
FAIRFAX COUNTY

EXISTING VEGETATION MAPPING
SEKAS HOMES, LTD

ECS REVISIONS

ENGINEER	DRAFTING
MS	IMR

SCALE 1" = 50'

PROJECT NO. 01:20820

SHEET 5 of 7

DATE 03/07/13

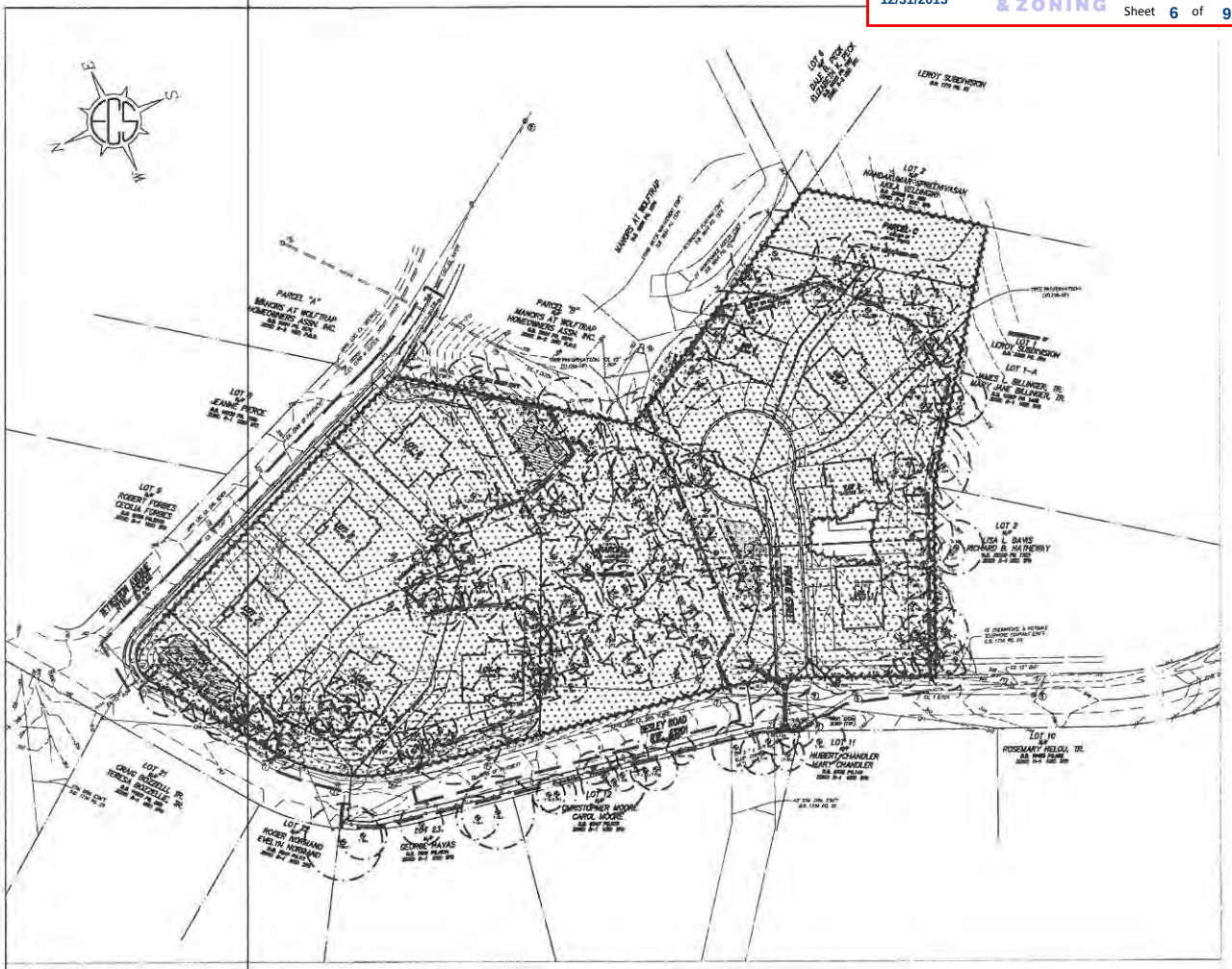
#12265-1-0

Application No: RZ / FDP 2013-HM-012 Staff: M.Duca

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Mar 4, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Mar 4, 2014 (XBOS) (_PC) (_BZA)
Comments: FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013

DEPARTMENT OF PLANNING & ZONING

Sheet 6 of 9



LEGEND

- TREELINE
- EXISTING CANOPY (2) UPLAND FOREST (233,952-SF) LONGTERM SUCCESSIONAL FOREST
- TREE PRESERVATION AREA (2) UPLAND FOREST (71,244-SF) LONGTERM SUCCESSIONAL FOREST
- CRITICAL ROOT ZONE (CRZ)
- T-16 TREE LOCATION
- TREE PROTECTION FENCING & ROOT PRUNING

Table 12.10 - 10-Year Tree Canopy Calculation Worksheet

Step		Totals
A. Tree Preservation Target & Statement		
A1	Tree Preservation Target calculations and statement	
B. Tree Canopy Requirement		
B1	Gross Site Area =	238,460.0
B2	Subtract area dedicated to parks, road frontage =	0.0
B3	Subtract area of exemptions (wetlands/stream and streambed) =	0.0
B4	Adjusted gross site or lot =	238,460.0
B5	Identify site's zoning and/or use =	R-2
B6	Percentage of 10-year canopy required =	30%
B7	Area of 10-year canopy required =	70,838
B8	Modification of 10-year Tree Canopy Requirement Requested?	No
B9	If B8 is yes, list plan sheet where modification is located	N/A
C. Tree Preservation		
C1	Tree Preservation Target Area =	70,155.6
C2	Total canopy area meeting standards of § 12-0400 =	71,244.0
C3	C2 x 1.25 =	89,055.0
C4	Total canopy area provided by unique or valuable forest/woodland communities =	0.0
C5	C4 x 1.5 =	0.0
C6	Total of canopy area provide by Heritage, Memorial, Specimen, or Street Trees =	0.0
C7	C6 x 1.0 to 3.0 =	0.0
C8	Canopy area of trees within Resource Protection Areas and 100-year floodplains =	0.0
C9	C8 x 1.0 =	0.0
C10	Total of C3, C5, C7, and C9 =	89,055
D. Tree Planting		
D1	Area of canopy to be met through tree planting =	0.0
D2	Area of canopy planted for air quality benefits =	0.0
D3	D2 x 1.5 =	0.0
D4	Area of canopy planted for energy conservation =	0.0
D5	D4 x 1.5 =	0.0
D6	Area of canopy planted for water quality benefits =	0.0
D7	D6 x 1.25 =	0.0
D8	Area of canopy planted for wildlife benefits =	0.0
D9	D8 x 1.5 =	0.0
D10	Area of canopy provided by native trees =	0.0
D11	D10 x 1.5 =	0.0
D12	Area of canopy provided by improved cultivars and varieties =	0.0
D13	D12 x 1.5 =	0.0
D14	Area of canopy provided through tree seedlings =	0.0
D15	Area of canopy provided through native shrubs or woody seed mix =	0.0
D16	Percentage of 14 represented by D15 (must be less than 33%) =	0.0%
D17	Total of canopy area provided through tree planting =	0
D18	Is an offsite planting relief requested?	No
D19	Tree Bank or Tree Fund?	No
D20	Canopy area requested to be provided through offsite banking of tree funds?	No
D21	Amount to be deposited into the Tree Preservation and Planting Fund =	$0.00
E. Total of 10-year Tree Canopy Provided		
E1	Total of canopy area provided through tree preservation =	89,055
E2	Total of canopy area provided through tree planting =	0
E3	Total of canopy area provided through offsite mechanism =	0
E4	Total of 10-year Tree Canopy Provided =	89,055

INVASIVE SPECIES CONTROL NARRATIVE:

1. ANY APPLICATION OF ENVIRONMENTALLY SENSITIVE APPROVED HERBICIDES SHALL BE APPLIED BY A VIRGINIA CERTIFIED APPLICATOR OR REGISTERED TECHNICIAN.

2. ENGLISH IVY: REMOVE FROM TREES BY CUTTING ALL VINES AT GROUND LEVEL. VINES SHOULD BE CUT AGAIN SEVERAL FEET UP THE TRUNK. PEAL THE CUT SECTION OF IVY OFF BUT CARE SHOULD BE TAKEN NOT TO STRIP THE BARK OF THE TREE. PULL GROUND IVY BACK A FEW FEET FROM THE BASE OF THE TREE TO SLOW REGROWTH UP THE TREE TRUNK. REMOVE GROUND IVY BY HAND PULLING, CUTTING AND MULCHING OVER TOP, AND/OR APPLYING A SYSTEMIC HERBICIDE LIKE TRICLOPYR TO LEAVES OR FRESHLY CUT LARGE STEMS. RETREATMENT MAY BE NECESSARY FOR COMPLETE ERADICATION. THE ENGLISH IVY REMNANTS SHALL BE BAGGED AND REMOVED FROM THE PROJECT SITE.

3. JAPANESE HONEYSUCKLE: SHALL BE REMOVED BY HAND TO MINIMIZE SITE DISTURBANCE. IN THE GROWING SEASON, AN APPLICATION OF AN ENVIRONMENTALLY SENSITIVE APPROVED HERBICIDE MAY BE APPLIED BY A VIRGINIA CERTIFIED APPLICATOR. TO REDUCE DAMAGE TO NON-TARGET PLANTS, HERBICIDES SUCH AS GLYPHOSATE AND TRICLOPYR MAY BE APPLIED TO FOLIAGE BY A CERTIFIED APPLICATOR IN AUTUMN, SINCE JAPANESE HONEYSUCKLE CONTINUES TO PHOTOSYNTHESIZE AFTER MANY OTHER SPECIES LOSE THEIR LEAVES.

4. INVASIVE SPECIES CONTROL SHALL BE CONDUCTED UNTIL THE PLANTS NOTED ABOVE ARE NO LONGER IN ABUNDANCE OR UNTIL BOND RELEASE, WHICHEVER IS LATER.

TREE PRESERVATION & CANOPY CALCULATIONS

GROSS SITE AREA	5.43 - AC	238,431 SF
ADJUSTED SITE AREA		238,431 SF
MULTIPLY PERCENT REQUIRED (ZONED PDH-2)		30%
EQUALS TREE COVER TO BE PROVIDED		70,929 SF
EXISTING TREES TO BE PRESERVED		71,244 SF
PROPOSED CREDIT REQUIRED BY PLANTING		0 SF
HAS THE TREE PRESERVATION TARGET BEEN MET?		YES
ADJUSTED CANOPY COVER PER SECTION 12-0404.4		89,055 SF
TOTAL TREE COVER PROVIDED	37.7%	89,055 SF

Table 12.3 - Tree Preservation Target Calculations & Statement

A	Pre-development area (sf) of existing tree canopy (From Existing Vegetation Map) =	233,952.0
B	Percentage of gross site area covered by existing tree canopy =	98.9%
C	Percentage of 10-year tree canopy required for site per zoning =	30%
D	Percentage of the 10-year tree canopy requirement that should be met through preservation =	98.9%
E	Proposed percentage of canopy requirement that will be met through tree preservation =	126.9%
F	Has the Tree Preservation Target minimum been met?	YES
G	If no for line F, provide sheet number where deviation request is located	N/A
H	If step G requires a narrative it shall be prepared and attached	N/A

GRAPHIC SCALE
25 0 50 100
1" = 50'

ECS LLC MID-ATLANTIC
CELEBRATING 25 YEARS OF EXCELLENCE
SETTING THE STANDARD FOR SERVICE

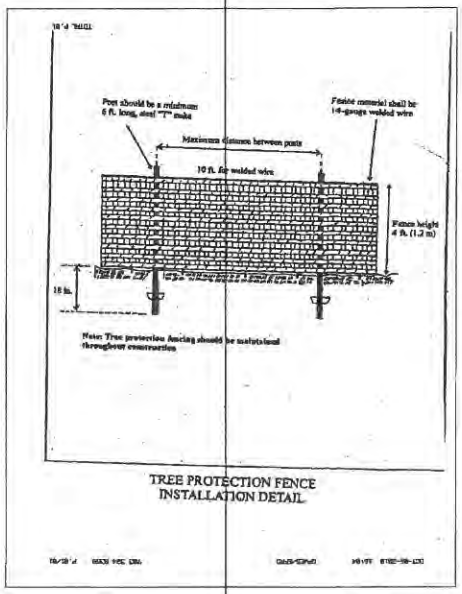
SPRING LAKE SECTION 3
VIENNA, VIRGINIA
FAIRFAX COUNTY

TREE PRESERVATION & PROTECTION PLAN
SEKAS HOMES, LTD

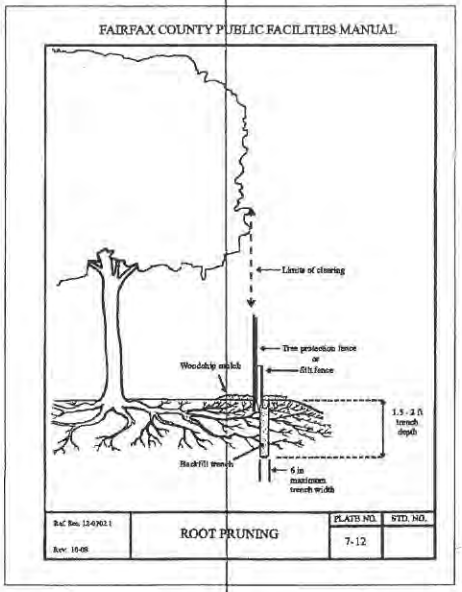
ECS REVISIONS
10/25/13 - AEA

ENGINEER	DRAFTING
AMS	IMR

SCALE 1" = 50'
PROJECT NO. 01:20820
SHEET 5A of 7
DATE 01/07/13



TREE PROTECTION FENCE INSTALLATION DETAIL



TREE CONDITION ANALYSIS

ECS Mid-Atlantic, LLC (ECS) conducted a site reconnaissance to evaluate the wooded habitat on the project site in February 2013. The undeveloped portions of the site are comprised primarily of Upland Hardwoods (i.e. Oak species, Red Maple, and Tulip Poplar). The species of trees assessed near the limits of clearing are listed in the Tree Table on the Existing Vegetation Map. In addition to those species, American Sycamore, Red Cedar, Virginia Pine, White Pine, Eastern Hemlock, American Holly, and American Beech were also observed onsite.

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

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

TREE PRESERVATION NARRATIVE

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

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

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

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

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

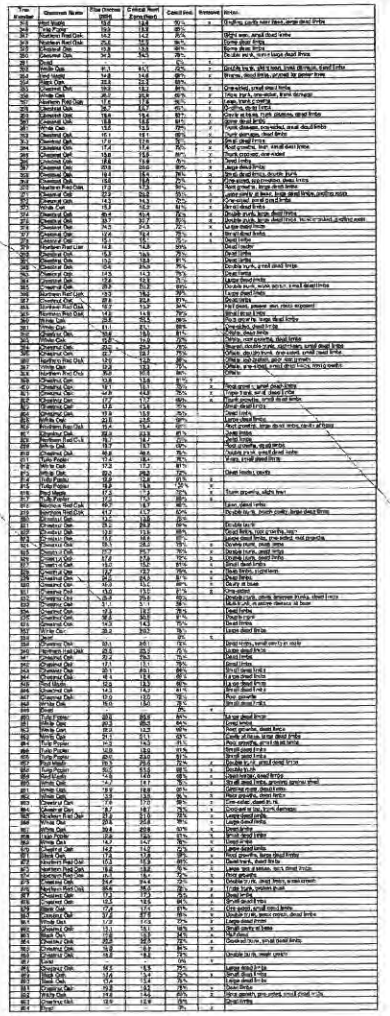
§ 12-0509.3G: Prior to land disturbing activities, root pruning with a vibratory plow, trencher or other device approved by the Director shall be conducted along the limits of clearing adjacent to tree preservation areas. Root pruning shall be conducted along the proposed limits of clearing and grading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

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

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

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

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



NOTES:
*TAG NUMBERS REPEATED IN SECOND SITE VISIT.

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

Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: **Mar 4, 2014**

SEE CONDITIONS DATED:

Date of Final Approval: **Mar 4, 2014** (XBOS) (_PC) (_BZA)

Comments: **FDP Apprvl 1/23/2014 Dev Conds Dated 12/31/2013**

DEPARTMENT OF PLANNING & ZONING

Sheet **7** of **9**

ECS MID-ATLANTIC LLC
14026 THUNDERBOLT PL, SUITE 100
CHANTILLY, VA 20151
(703) 471-8400
(FAX) 703-834-5977

CELEBRATING 25 YEARS OF EXCELLENCE

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SPRING LAKE SECTION 3
VIENNA, VIRGINIA
FAIRFAX COUNTY

TREE PRESERVATION NARRATIVES
SEKAS HOMES, LTD

ECS REVISIONS
10/30/13 - AEA

ENGINEER	DRAFTING
AMS	IMR

SCALE NTS

PROJECT NO. 01:20820

SHEET 5B of 7

DATE 03/07/13

Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

(__GDP) (X CDP) (X FDP) (__PRC) (__DP) (__CP) (__SE) (__CSP) (__SP) (__VC)

SEE PROFFERS DATED: **Mar 4, 2014**

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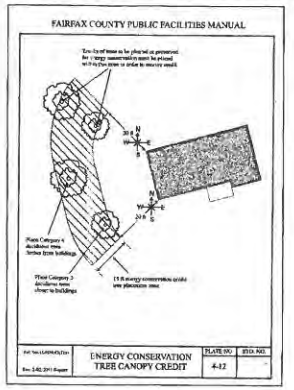
Sheet **8** of **9**

FAIRFAX COUNTY DEPARTMENT OF PLANNING & ZONING



FOR ILLUSTRATIVE PURPOSES ONLY!

LDC

ELEVATIONS

SPRING LAKE SECTION 3

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE	DESIGN	NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE
2013	KMA	1	REVISE ELEVATIONS			
2013	KMA	2	UPDATE TITLE & SHEET NUMBER REMOVE FIRE MARSHAL DETAIL			

REVISION APPROVED BY:

ENGINEER

I HEREBY CERTIFY THAT OTHER THAN THE REVISIONS SHOWN HEREON, NO OTHER CHANGES HAVE BEEN MADE.

COMMONWEALTH OF VIRGINIA
MATTHEW T. MARSHALL
LAND SURVEYOR
10/4/13
4/4/13
8/13/13

SCALE: N/A

SHEET 6 OF 7

DATE: MARCH, 2013

DRAFT: KMA CHECK: MTM

FILE NUMBER: 12265-1-0 3.08

P:\PY 2007\12265-1-0 Baslev Road and Tetterton Avenue Properties\ENG\GDP\12265CV.dwg

STORMWATER MANAGEMENT NARRATIVE

THE STORMWATER MANAGEMENT REQUIREMENTS FOR THE SUBJECT PROPERTY SHALL BE SATISFIED VIA THE CONSTRUCTION OF TWO INFILTRATION TRENCHES AND A BIO-FILTER AS WELL AS UNDISTURBED CONSERVATION AREAS. THESE FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH THE PUBLIC FACILITIES MANUAL (PFM).

THE INFILTRATION TRENCHES AND BIO-FILTER HAVE BEEN DESIGNED FOR THE 10 YEAR 2 HOUR STORM IN ORDER TO PROVIDE DETENTION FOR THE 1, 2 & 10 YEAR STORM EVENTS AND TO MEET BMP REQUIREMENTS. UNDISTURBED CONSERVATION AREA IS PROPOSED TO HELP MEET THE BMP REQUIREMENTS FOR THE SITE. 40% PHOSPHORUS REMOVAL SHALL BE PROVIDED. DETAILED DETENTION AND BMP CALCULATIONS SHALL BE PROVIDED AT THE TIME OF THE SUBDIVISION PLAN. THE SITE CURRENTLY HAS SEVERAL EXISTING BUILDINGS, PAVED SURFACES, AND SOME TREES. CURRENTLY, APPROXIMATELY 13.82 CFS OF RUNOFF IS LEAVING THE SUBJECT PROPERTY UNCONTROLLED AND UNTREATED DURING A 10-YEAR STORM EVENT. WITH THE PROPOSED ATTENUATION, THE POST DEVELOPMENT RUNOFF WILL BE REDUCED SUBSTANTIALLY. THEREFORE, THERE WILL BE A REDUCTION IN RUNOFF LEAVING THE PROPERTY AS A RESULT OF THE PROPOSAL. THE INFILTRATION TRENCHES AND BIO-FILTER HAVE BEEN SIZED TO PROVIDE WATER QUALITY AND QUANTITY CONTROL FOR THE SUBJECT PROPERTY.

IN DECEMBER, 2012, FEBRUARY, 2013, AND AUGUST, 2013 TERRA ENGINEERING SERVICES, INC. COMPLETED GEOTECHNICAL INVESTIGATIONS AND INFILTRATION TESTING IN THE VINCITY OF THE INFILTRATION TRENCHES AND BIO-FILTER. FOR THE INFILTRATION TRENCH AREAS THIS FIELD INVESTIGATION FOUND NO ROCK OR GROUNDWATER THROUGH A DEPTH OF 10 FEET, WHICH IS APPROX. 4.0 FEET BELOW THE PROPOSED BOTTOM OF THE INFILTRATION TRENCHES. AN AVERAGE INFILTRATION RATE GREATER THAN THE MINIMUM REQUIRED (2.5 INCHES/HOUR OBSERVED) WAS OBSERVED, THEREFORE LDC BELIEVES THE RESULTS OF THIS SUBSURFACE EXPLORATION ILLUSTRATES ADEQUACY OF THE PROPOSED INFILTRATION TRENCHES. FOR THE BIO-FILTER AREA THIS FIELD INVESTIGATION FOUND THAT INFILTRATION WAS NOT FEASIBLE DUE TO INFILTRATION BIO-FILTER IS PROPOSED WITH AN INVERT SET 2.0 FEET ABOVE THE GROUNDWATER LEVEL AND UNDERDRAINS TO DAYLIGHT IN THE ADJACENT NATURAL SWALE.

THE FINAL DESIGN OF THE INFILTRATION TRENCHES AND BIO-FILTER IS SUBJECT TO FURTHER REVIEW BY A GEOTECHNICAL ENGINEER AND FINAL ENGINEERING. ADDITIONAL INFILTRATION TESTING WILL OCCUR AT THE TIME OF SUBDIVISION PLAN SUBMISSION PER THE REQUIREMENTS OF THE PFM. ALL MAINTENANCE SHALL BE CONDUCTED IN ACCORDANCE WITH CHAPTER 3, STANDARD 3.10 OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK.

THE FACILITIES SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND THE MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS.

A DRAINAGE STUDY HAS BEEN SUBMITTED (6447-DS-001-1) FOR THE SWALE DRAINING THROUGH THE SUBJECT PROPERTY.

STORMWATER MANAGEMENT CHECKLIST

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

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

This information is required under the following Zoning Ordinance paragraphs:

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

☒ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

☒ 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 2.

☒ 3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
INFILTRATION TRENCH #1	±0.45 AC.	0.00 AC.	±0.45 AC.	±1,112 SF	±2,224 CF	N/A
BIO FILTER #1	±0.48 AC	0.00 AC	±0.48 AC	±1,638 SF	±4,200 CF	N/A
INFILTRATION TRENCH #2	±0.50 AC	0.00 AC	±0.50 AC	±2,004 SF	±2,006 CF	N/A
CONSERVATION AREA	±0.89 AC	0.00 AC	±0.89 AC	±0.89 AC	N/A	N/A
Totals						

☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 2 & 7. Pond inlet and outlet pipe systems are shown on Sheet N/A.

☒ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 2. Type of maintenance access road surface noted on the plat is GRASS (asphalt, geoblock, gravel, etc.).

☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 2.

☒ 7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 7.

☒ 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 7.

☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 7.

☒ 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 1-2.

☐ 11. A submission waiver is requested for ______

☐ 12. Stormwater management is not required because ______

OUTFALL NARRATIVE

THE SUBJECT PROPERTY IS LOCATED WITHIN THE DIFFICULT RUN WATERSHED AND MAINTAINS TWO STORM DRAINAGE OUTFALLS (ONE OF WHICH HAS BEEN DESIGNATED OUTFALLS #1 & #2 TO SIGNIFY BOTH SIDES OF THE DRAINAGE SWALE THAT CUTS THROUGH THE PROPERTY AND ONE OF WHICH HAS BEEN DESIGNATED OUTFALL #3 TO SIGNIFY THE DRAINAGE THAT DISCHARGES NEAR THE INTERSECTION OF BESLEY ROAD AND TETTERTON AVENUE, SEE PLAN VIEW, SHEET 2, AND DRAINAGE AREA MAP, THIS SHEET). THERE ARE NO EXISTING FLOODPLAIN OR RPA AREAS ON THE SUBJECT PROPERTY. AS A RESULT OF THE DEVELOPMENT OF THE SUBJECT PROPERTY AN INCREASE IN RUNOFF WILL BE EXPERIENCED. TWO INFILTRATION TRENCHES AND A BIO-FILTER ARE PROPOSED TO MEET DETENTION REQUIREMENTS FOR THE SUBJECT PROPERTY. THE LAYOUT OF THE SITE HAS BEEN DESIGNED TO MINIMIZE THE IMPACTS TO DOWNSTREAM PROPERTIES. THE INTENT SHALL BE TO MAINTAIN THE EXISTING DRAINAGE PATTERNS AND TO NOT HAVE A NEGATIVE IMPACT ON ADJACENT PROPERTIES. NO DOWNSTREAM WATER IMPOUNDMENTS ARE WITHIN THE INFLUENCE AREA OF THE PROPOSED PROJECT AND NO BATHYMETRIC NOTIFICATIONS OR SURVEYS ARE REQUIRED.

OUTFALLS #1 & #2

DISCHARGE LEAVES THE SUBJECT PROPERTY VIA AN EXISTING STORM SEWER SYSTEM UNDER BESLEY ROAD. THE EXISTING STORM SEWER SYSTEM HAS ADEQUATE CAPACITY FOR THE DISCHARGE FROM THE SUBJECT PROPERTY AND CONVEYS THE DISCHARGE TO AN EXISTING RIP-RAP CHANNEL AND THEN INTO AN EXISTING STORM DRAINAGE EASEMENT ON THE SPRING LAKE SECTION 2 SUBDIVISION (D.B. 1734, PG. 22) AND THEN INTO THE WOLFTRAP CREEK FLOODPLAIN (D.B. 5040, PG. 368). STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES FOR THE SITE ARE PROVIDED BY THE PROPOSED INFILTRATION TRENCHES, THE BIO-FILTER AND CONSERVATION AREA (SEE "STORMWATER MANAGEMENT INFORMATION" ON THIS SHEET FOR INFILTRATION TRENCH, BIO-FILTER AND CONSERVATION AREA INFORMATION). CROSS-SECTIONS WILL BE PROVIDED FOR THE CONVEYANCE CHANNEL TO WOLFTRAP CREEK TO DEMONSTRATE THAT AN ADEQUATE OUTFALL EXISTS FOR THE SUBJECT PROPERTY PER PFM SECTION 6-0203.

THIS OUTFALL CONVEYS 4.28 ACRES OF DRAINAGE FROM THE SUBJECT PROPERTY IN THE PRE-DEVELOPED CONDITION AND 4.35 ACRES OF DRAINAGE IN THE POST-DEVELOPED CONDITION (SEE DRAINAGE DIVERSION STATEMENT, THIS SHEET). AS A RESULT OF THE PROPOSED INFILTRATION TRENCHES AND THE BIO-FILTER, DETENTION OF THE TWO AND TEN YEAR STORM EVENT WILL BE PROVIDED FOR THE SUBJECT PROPERTY. ADEQUATE OUTFALL REQUIREMENTS FOR THIS OUTFALL WILL BE DEMONSTRATED BY CROSS-SECTIONS FROM THE OUTFALL OF THE SITE TO THE WOLFTRAP CREEK FLOODPLAIN AS REQUIRED PER PFM SECTION 6-0203.3. THE EXTENT OF REVIEW FOR THE SITE IS WHERE THE CONVEYANCE CHANNEL JOINS THE WOLFTRAP CREEK FLOODPLAIN AS DEFINED BY THE TOTAL DRAINAGE AREA BEING 100 TIMES THE SUBJECT PROPERTY AREA AS OUTLINED IN PFM SECTIONS 6-0203.3 & 6-0203.2B. AT THE POINT WHERE THE CONVEYANCE CHANNEL FROM THE STORM SEWER SYSTEM UNDER BESLEY ROAD JOINS WITH WOLFTRAP CREEK, THE TOTAL DRAINAGE AREA IS 1,949 ACRES WHICH IS GREATER THAN 100 TIMES THE DEVELOPMENT SITE AREA OF 5.43 ACRES MAKING THIS THE EXTENT OF THE STUDY AREA FOR THE OUTFALL. THE EXISTING FLOODPLAIN CHANNEL WAS INVESTIGATED AND FOUND TO HAVE A DEFINED BED AND BANKS CHANNEL. THIS OUTFALL IS ADEQUATE IN ACCORDANCE WITH SECTIONS 6-0203.2B & 6-0203.3 OF THE PUBLIC FACILITIES MANUAL.

OUTFALL #3

DISCHARGE LEAVES THE SUBJECT PROPERTY VIA SHEET FLOW OFF OF THE PROPERTY AND INTO THE BESLEY ROAD AND TETTERTON AVENUE RIGHT-OF-WAYS. IT THEN DISCHARGES VIA AN EXISTING STORM SEWER SYSTEM UNDER BESLEY ROAD AT THE INTERSECTION WITH TETTERTON AVENUE. THE EXISTING STORM SEWER SYSTEM HAS ADEQUATE CAPACITY FOR THE DISCHARGE FROM THE SUBJECT PROPERTY AND CONVEYS THE DISCHARGE TO AN EXISTING RIP-RAP CHANNEL AND THEN INTO AN EXISTING STORM DRAINAGE EASEMENT ON THE SPRING LAKE SECTION 2 SUBDIVISION (D.B. 1734, PG. 22) AND THEN INTO THE WOLFTRAP CREEK FLOODPLAIN (D.B. 5040, PG. 368). STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES FOR THE SITE ARE PROVIDED BY THE PROPOSED INFILTRATION TRENCHES, THE BIO-FILTER AND CONSERVATION AREA (SEE "STORMWATER MANAGEMENT INFORMATION" ON THIS SHEET FOR INFILTRATION TRENCH, BIO-FILTER AND CONSERVATION AREA INFORMATION). CROSS-SECTIONS WILL BE PROVIDED FOR THE CONVEYANCE CHANNEL TO WOLFTRAP CREEK TO DEMONSTRATE THAT AN ADEQUATE OUTFALL EXISTS FOR THE SUBJECT PROPERTY PER PFM SECTION 6-0203.

THIS OUTFALL CONVEYS 1.15 ACRES OF DRAINAGE FROM THE SUBJECT PROPERTY IN THE PRE-DEVELOPED CONDITION AND 1.08 ACRES OF DRAINAGE IN THE POST-DEVELOPED CONDITION (SEE DRAINAGE DIVERSION STATEMENT, THIS SHEET). AS A RESULT OF THE PROPOSED INFILTRATION TRENCHES AND BIO-FILTER, DETENTION OF THE TWO AND TEN YEAR STORM EVENT WILL BE PROVIDED FOR THE SUBJECT PROPERTY. ADEQUATE OUTFALL REQUIREMENTS FOR THIS OUTFALL WILL BE DEMONSTRATED BY CROSS-SECTIONS FROM THE OUTFALL OF THE SITE TO THE WOLFTRAP CREEK FLOODPLAIN AS REQUIRED PER PFM SECTION 6-0203.3. THE EXTENT OF REVIEW FOR THE SITE IS WHERE THE CONVEYANCE CHANNEL JOINS THE WOLFTRAP CREEK FLOODPLAIN AS DEFINED BY THE TOTAL DRAINAGE AREA BEING 100 TIMES THE SUBJECT PROPERTY AREA AS OUTLINED IN PFM SECTIONS 6-0203.3 & 6-0203.2B. AT THE POINT WHERE THE CONVEYANCE CHANNEL FROM THE STORM SEWER SYSTEM UNDER BESLEY ROAD AT THE INTERSECTION WITH TETTERTON AVENUE JOINS WITH WOLFTRAP CREEK, THE TOTAL DRAINAGE AREA IS 1,976 ACRES WHICH IS GREATER THAN 100 TIMES THE DEVELOPMENT SITE AREA OF 5.43 ACRES MAKING THIS THE EXTENT OF THE STUDY AREA FOR THE OUTFALL. THE EXISTING FLOODPLAIN CHANNEL WAS INVESTIGATED AND FOUND TO HAVE A DEFINED BED AND BANKS CHANNEL. THIS OUTFALL IS ADEQUATE IN ACCORDANCE WITH SECTIONS 6-0203.2B & 6-0203.3 OF THE PUBLIC FACILITIES MANUAL.

IT IS OUR PROFESSIONAL OPINION THAT ALL OUTFALLS ARE ADEQUATE IN ACCORDANCE WITH THE PFM.

STORMWATER MANAGEMENT INFORMATION

TYPE OF FACILITY = INFILTRATION TRENCH (OUTFALL #1)
FACILITY MAINTENANCE = PRIVATE/HOA

INFILTRATION TRENCH #1
APPROXIMATE REQUIRED 10-YEAR VOLUME = ±2,070 C.F.
APPROXIMATE AVAILABLE VOLUME = ±2,225 C.F.
APPROXIMATE SURFACE AREA = ±1,112 S.F.
APPROXIMATE FINISHED GRADE = ±359.5
APPROXIMATE GRADE TRENCH BOTTOM = ±354.0

TYPE OF FACILITY = BIO-FILTER (OUTFALL #2)
FACILITY MAINTENANCE = PRIVATE/HOA

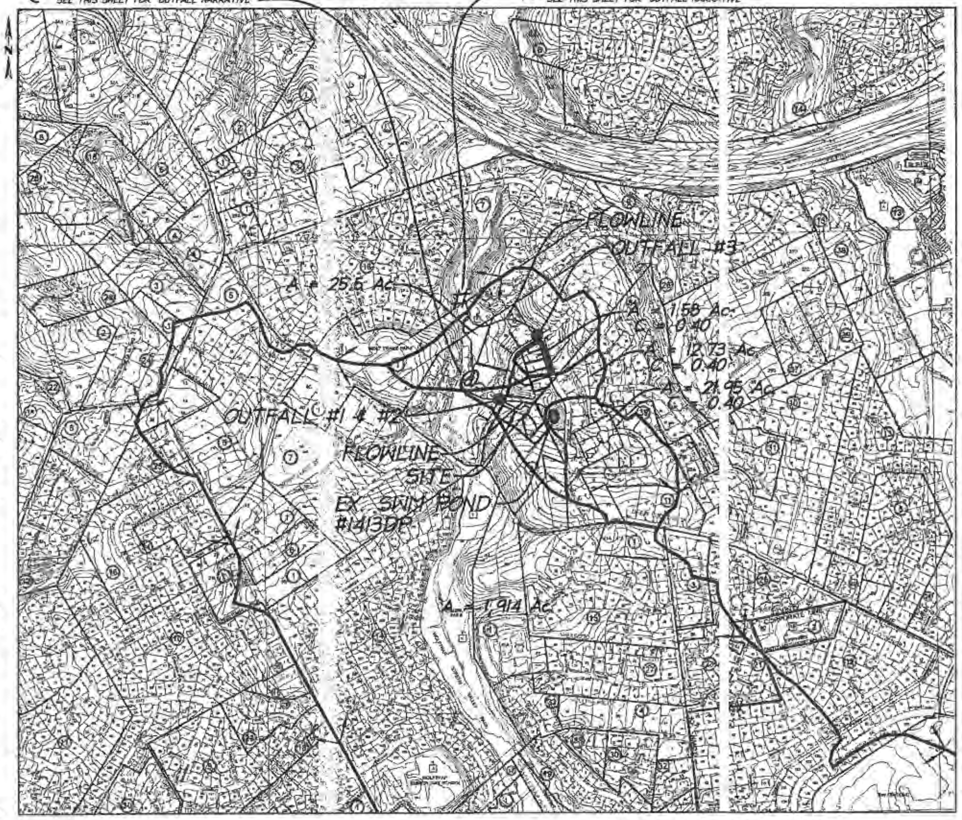
BIO-FILTER #1
APPROXIMATE REQUIRED 10-YEAR VOLUME = ±3,150 C.F.
APPROXIMATE AVAILABLE VOLUME = ±4,200 C.F.
APPROXIMATE SURFACE AREA = ±1,638 S.F.
APPROXIMATE FINISHED GRADE = ±346.5
APPROXIMATE GRADE TRENCH BOTTOM = ±342.0

TYPE OF FACILITY = INFILTRATION TRENCH (OUTFALL #3)
FACILITY MAINTENANCE = PRIVATE/HOA

INFILTRATION TRENCH #2
APPROXIMATE REQUIRED 10-YEAR VOLUME = ±1,500 C.F.
APPROXIMATE AVAILABLE VOLUME = ±2,800 C.F.
APPROXIMATE SURFACE AREA = ±2,000 S.F.
APPROXIMATE FINISHED GRADE = ±363.5
APPROXIMATE GRADE TRENCH BOTTOM = ±359.5

@ - EXTENT OF OUTFALL DESCRIPTION/EXTENT OF REVIEW FOR OUTFALLS #1 & #2 SEE THIS SHEET FOR "OUTFALL NARRATIVE"

- EXTENT OF OUTFALL DESCRIPTION FOR OUTFALL #3 SEE THIS SHEET FOR "OUTFALL NARRATIVE"



DRAINAGE AREA MAP

SCALE : 1" = 500'

PRE-DEVELOPMENT SUBJECT PROPERTY

A=5.43 AC, "C"=0.35, Tc=5 MIN., I_2=5.45 IN/HR, I_{10}=7.27 IN/HR

Q_2 = (0.35)(5.45)(5.43) = 10.36 CFS

Q_{10} = (0.35)(7.27)(5.43) = 13.82 CFS

POST-DEVELOPMENT SUBJECT PROPERTY

A=5.43 AC, "C"=0.40, Tc=5 MIN., I_2=5.45 IN/HR, I_{10}=7.27 IN/HR

Q_2 = (0.40)(5.45)(5.43) = 11.84 CFS (DETENTION PROVIDED BY I.T. #1, B.F. #1 & I.T. #2)

Q_2 = ±7.9 AFTER DETENTION

Q_{10} = (0.40)(7.27)(5.43) = 15.79 CFS (DETENTION PROVIDED BY I.T. #1, B.F. #1 & I.T. #2)

Q_{10} = ±10.55 AFTER DETENTION

● - DENOTES OUTFALLS

LDC
UNLOCKING YOUR LANDS POTENTIAL
4500 DAISY REID AVENUE, SUITE 201
WOODBRIDGE, VIRGINIA 22192
PH: 703-680-4585 FX: 703-680-4775

STORMWATER MANAGEMENT INFORMATION

SPRING LAKE SECTION 3

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE	DESIGN	NO.	DESCRIPTION	REVIEW BY	APPROVED DATE
6/13	KMA	1	UPDATE TITLE & SHEET NUMBER UPDATE NARRATIVE, CHECKLIST, CALCULATIONS		
10/13	KMA	2	REMOVE DRAINAGE DIVERSION NOTE		
ENGINEER			REVISION APPROVED BY:		

I HEREBY CERTIFY THAT OTHER THAN THE REVISIONS SHOWN HEREON, NO OTHER CHANGES HAVE BEEN MADE.

COMMONWEALTH OF VIRGINIA
MATTHEW T. MARSHALL
LAND SURVEYOR
10-11-13
11-21-13
12-23-13

SCALE: AS SHOWN

SHEET 7 OF 7

DATE: MARCH, 2013

DRAFT: KMA CHECK: MTM

FILE NUMBER: 12265-1-0 3.08

P:\PF 2012\12265-1-0 Besley Road and Tetterton Avenue Properties\ENG\CDP\12265SWM.dwg

Application No: **RZ / FDP 2013-HM-012** Staff: **M.Duca**

APPROVED DEVELOPMENT PLAN

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