Attachment A

# 7206 MEADOW LANE (120100270)



Map compiled on September 13, 2010 at 11:50 AM | Site located on base sheet no - 209NW04

#### NOTICE

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MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue - Silver Spring, Maryland 20910-3760



<u> 7 E  </u>	NERAL NO	TES				
) WAT	TER CATEGORY - 1	SEWER CATE	GORY - 1			a province of the
) BOU DAT	NDARY INFORMATION I ED MARCH 2010.	BASED ON A S	SURVET PERFO	RMED BT CAS ENGINEERING,		-
) TWC DAT	-FOOT CONTOUR DAT. ED MARCH 2010.	A BASED ON A	A SURVEY PER	FORMED BY CAS ENGINEERING,		
I) PRC	PERTY SHOWN ON TAX	X MAP HN 342	, CHEVY CHAS	E, SECTION 4		
) PRC	PPERTY SHOWN ON WS	SC 200' SHEET	F 209 NW 04.	UDVEY MAR No. 27		1
s) pro Soli	PERTY SHOWN ON MO L TYPE(S): 2UC.	NIGOMERT CC	UNIT SULS SU	URVET HAF NO. 27.		1
) FLO	OD ZONE "N/A" PER F	.E.M.A. FIRM I	MAPS, TOWN O	F CHEVY CHASE.		
3) 5111 3) LOC	AL UTILITIES INCLUDE		CREEN MATER			I
WA1 ELE	TER & SEWER - WASHI CTRIC - PEPCO	NGTON SUBUR	BAN SANITARY	COMMISSION		L
GAS	5 - WASHINGTON GAS					
0) ALL ARF	EXISTING OFFSITE FE	EATURES ILLUS STRATIVE PUR	STRATED ON T POSES ONLY.	HIS PLAN ARE APPROXIMATE AND		
I) ALL	OFFSITE TREE SIZES	AND LOCATIC	MS ARE APPRO	OXIMATE.		
2) THE THE	ERE ARE NO COUNTY ( ERE TREES WHICH MEA	OR STATE CHA ASURE 75% OR	MORE OF THE	SIZE OF A STATE CHAMPION		
3) THI	s site is not locat	ED WITHIN A	SPECIAL PROTE	ECTION AREA (SPA) NOR WITHIN A		
PRI	ORITY MANAGEMENT A	AREA (PMA).				1
RE		GNIFICANT AN	D SPECIMEN TR	EES)		l
NO.	SPECIES	D.B.H. (INCHES)	CONDITION	COMMENTS		L 
2	RED OAK	23	GOOD	OFF-SITE (ADJOINER)		l
3/25 4	MHITE OAK AMERICAN BEECH	24 27	GOOD	OFF-SITE (ADJOINER)		
5 6	TULIP POPLAR TULIP POPLAR	41 50	GOOD POOR	HOLLOW, DECAY		
7 <b>8</b>	AMERICAN BEECH	27 31	G00D <b>G00D</b>	NEAR PREVIOUS DISTURBANCE		
<b>9</b> 10	AMERICAN BEECH	<b>34.5</b> 26	GOOD GOOD	NEAR PREVIOUS DISTURBANCE	ш	
<b>II</b> 12	AMERICAN BEECH	<b>3</b> 1 26.5	GOOD GOOD			
I3 14	AMERICAN BEECH	30 30		OFF-SITE (ADJOINER) OFF-SITE (ADJOINER)		1
15 16	AMERICAN BEECH	30 30		OFF-SITE (ADJOINER) OFF-SITE (ADJOINER)	O O	
17	TULIP POPLAR	32 30		OFF-SITE (R/W) OFF-SITE	$\mathbf{Q}$	
19	TULIP POPLAR	30		OFF-SITE	<b>D</b>	
SPECIM	EN TREES IN BOLD				े प	1
EGE	END					
EXIST	ING FEATURES				4 <b>2</b>	
	D D EX. 5	TORM DRAIN WI	TH MANHOLE			1
(9	s s EX. Si <sup>n.4)</sup> s s	EWER LINE WITH EWER MANHOLE	AND INVERT			ļ
W G	EX. W EX. G	ATER LINE WITH AS LINE WITH V	I VALVE ALVE			
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		WO- AND TEN-	FOOT CONTOURS			
428-	EX. S	HAIN LINK OR W	IRE FENCE			
		100D FENCE				
428- 	EX. W	PECIMEN TREE				•
428· 	EX. 5 (>30"	PECIMEN TREE OR 75% OF CHA	MPION SIZE)			I
428· 	EX. h	PECIMEN TREE OR 75% OF CHA REE 4"DBH)	MPION SIZE)			
	EX. F $EX. F$ $CO$ $EX. T$ $CO$ $EX. T$	PECIMEN TREE OR 75% OF CHA REE 4 <sup>#</sup> DBH) REE < 24 <sup>#</sup> DBH	MPION SIZE)			
	EX. h $EX. h$ $EX. h$ $EX. h$ $EX. T$ $C = 2$ $C = 2$ $C = 2$ $EX. T$ $C = 2$ $EX. T$	PECIMEN TREE OR 75% OF CHA REE 4 <sup>#</sup> DBH) REE < 24 <sup>#</sup> DBH REES TO BE RE	MPION SIZE) Moved			
	EX. Free Constraints of the formula interval of the	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM.	MPION SIZE) MOVED 13,980 SF (0.32 / ATION W/ MNCPP			
	EX. Free constants of the constant of the co	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM ST HAS HIGH F	MPION SIZE) MOVED 13,980 SF (0.32 / ATION W/ MNCPPO RIORITY FOR RE	AC) C) TENTION)		
	EX. FOR EX. FOR EX. M EX. S $(30^{\circ})$ EX. T $(20^{\circ})$ EX. T EX. T EX. T $(20^{\circ})$ EX. FO $(20^{\circ})$ EX. T $(20^{\circ})$ EX. T (2	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM, EST HAS HIGH F ATED WETLANDS O SF (0.02 AC) 25' BUFFER	MPION SIZE) MOVED 13,980 SF (0.32 A ATION W/ MNCPPA RIORITY FOR RE APPROXIMATE	AC) C) TENTION)		
	EX. For example, and the example is the example i	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM EST HAS HIGH P ATED WETLANDS O SF (0.02 AC) 25' BUFFER	MPION SIZE) MOVED 13,980 SF (0.32 A ATION W/ MNCPPA RIORITY FOR RE APPROXIMATE	AC) C) TENTION)		
	EX. FR $EX. FR$ $FR$ $FR$ $FR$ $FR$ $FR$ $FR$ $FR$	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM, EST HAS HIGH F ATED WETLANDS 0 SF (0.02 AC) 25' BUFFER	MPION SIZE) MOVED 13,980 SF (0.32 , ATION W/ MNCPPA RIORITY FOR RE APPROXIMATE	AC) C) TENTION)		
	EX. 5 EX. $h$ EX. $h$ EX. $5$ ( $30^{1}$ EX. $7$ ( $2$ EX. $2$ EX. $2$ EX. $2$ EX. $2$ EX. $2$ EX. $2$ ( $2$ EX. $2$ EX. $2$ ( $2$ ( $2$ EX. $2$ ( $2$ ( $3$ (	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM ST HAS HIGH F ATED WETLANDS O SF (0.02 AC) 25' BUFFER	MPION SIZE) MOVED 13,980 SF (0.32 A ATION W/ MNCPPO RIORITY FOR RE APPROXIMATE	AC) C) TENTION)		
	EX. F EX. F EX. F EX. F EX. F EX. T EX. S EX. S E	PECIMEN TREE OR 75% OF CHA REE 4"DBH) REE < 24" DBH REES TO BE RE OREST AREA = FIELD CONFIRM STED WETLANDS O SF (0.02 AC) 25' BUFFER SLOPES >=25%	MPION SIZE) MOVED 13,980 SF (0.32 A ATION W/ MNCPPA RIORITY FOR RE APPROXIMATE	AC) C) TENTION)		

# ZONING DATA

1) ZONING: R-60 (MC) MIN. LOT AREA = 6,000 SQ FT

------62------

(A

05.0

FRONT B.R.L. = 25 FT (OR ESTABLISHED) MIN. LOT WIDTH AT R/W = 25 FT REAR B.R.L. = 20 FT MIN. LOT WIDTH AT B.R.L. = 60 FT SIDE B.R.L. = 8 FT MIN. EACH SIDE, 18 FT MIN. TOTAL

# SITE / ZONING TABLE

(MC) - DENOTES MONTGOMERY COUNTY

------ PROP. EHC ------ PROP. ELECTRIC-HOUSE CONNECTION

PROP. CONTOUR WITH ELEVATION

PROP. SPOT ELEVATION

PROP. PVC PIPE

PROP. SWM DEVICE

PROP. YARD INLET

· · · · · · · · · · · PROP. LIMITS OF DISTURBANCE

PROP. ROOT MATTING

ROSS SITE AREA: ROPOSED DEDICATION: IET TRACT AREA:	57,726 SQ. FT. (PER PLAT) 0.00 SQ. FT. 57,726 SQ. FT.			
ZONING: R-60	REQUIRED	PROV	(IDED	
		PROP. LOT 37	PROP. LOT 38	
	6,000 S.F.	30,714 S.F.	24,210 S.F.	
MINIMUM LOT WIDTH AT B.R.L.	60'	100'	100.0'	
MAXIMUM LOT COVERAGE (20%) ALL LOTS GREATER THAN 16,000 S.F.	20%	16.5%	16.5%	
SETBACK FROM STREET R/W (PER EST. BLDG. LINE SURVEY)	25' (MC)	25'* / 54.2'**	25'* / 51.1'**	
SETBACK FROM	SIDES: 8' & 10' (MC)	14.2' & 15.8' **	12' & 18' **	
OTHER LOT LINES	REAR: 25' (MC)	122.85'**	105.61'**	



\* FRONT BUILDING RESTRICTION LINE IS 25' OR IN ACCORDANCE WITH SECTION 59-A-5.33 OF MONTGOMERY COUNTY ZONING ORDINANCE.

\*\* ESTABLISHED BUILDING RESTRICTION LINES IN ACCORDANCE WITH TOWN OF CHEVY CHASE ORDINANCE. \*\* SIDE AND REAR BUILDING RESTRICTION LINES IN ACCORDANCE WITH TOWN OF CHEVY CHASE ORDINANCE.

Attachment B CLUB VICINITY MAP ADC MAP 5407, GRID G-3 SCALE: 1" = 2000' JAR JAR JAR Ш Ζ ഹ A A A \_\_\_\_  $\bigcirc$ 0 +  $\triangleleft$ ⊢⊣ш ΣU <7 ----ν Ω Ω  $\overline{}$ \_\_\_\_\_ 7 -AR V C V V V V V V Ø ပ္က 🔘 R  $\mathcal{O}$ Ω  $\sim$ PLANN S, INC. GINEERING L• SURVEYING • LAND F VISION OF CAS ENTERPRISES, ······+ Airy, Maryland 2177 APPLICANT CC GREEN VISION, LLC 6912 WOODSIDE PLACE CHEVY CHASE, MD 20815 ATTN: THOMAS A. BRAULT 301-990-0014 (PHONE)  $\frac{\text{GRAPHIC SCALE}}{1 \text{ INCH} = 20 \text{ FEET}}$ 

OF

		Repair of the
GENERAL NOTES		
1) WATER CATEGORY - 1 SEWER CATEGORY - 1		
2) BOUNDARY INFORMATION BASED ON A SURVEY PERFORMED BY CAS 2010.	ORMED BY CAS ENGINEERING	
4) ON-SITE FEATURES (I.E. FENCES, TREES, WALLS, ETC.) FROM SUF	d on MNCPPC DIGITAL FILES. RVEY BY CAS ENGINEERING.	(AI
5) PROPERTY SHOWN ON TAX MAP HN 342, CHEVY CHASE, SECTION 4	4	
<ul> <li>6) PROPERTY SHOWN ON MOST 200° SHEET 204 NA 04.</li> <li>7) PROPERTY SHOWN ON MONTGOMERY COUNTY SOILS SURVEY MAP N SOIL TYPE(S): 2UC.</li> </ul>	No. 27.	
8) FLOOD ZONE "N/A" PER F.E.M.A. FIRM MAPS, TOWN OF CHEVY CHA	ASE.	
<ul> <li>9) SITE IS LOCATED IN THE LOWER ROCK CREEK WATERSHED. (USE I</li> <li>10) LOCAL UTILITIES INCLUDE: WATER &amp; SEWER - WASHINGTON SUBURBAN SANITARY COMMISSION</li> </ul>		
ELECTRIC - PEPCO TELEPHONE - VERIZON GAS - WASHINGTON GAS		
11) ALL EXISTING OFFSITE FEATURES ILLUSTRATED ON THIS PLAN ARI APPROXIMATE AND ARE INTENDED FOR ILLUSTRATIVE PURPOSES O	ie Only.	
<ul><li>12) ALL OFFSITE TREE SIZES AND LOCATIONS ARE APPROXIMATE.</li><li>13) NO RTE SPECIES WERE LOCATED OR OBSERVED DURING THE SITE</li></ul>	ANALYSIS. REFERENCE MD DNR	
14) THERE ARE NO CULTURAL OR HISTORICAL FEATURES LOCATED ON	I THIS SITE.	
15) THERE ARE NO COUNTY OR STATE CHAMPION TREES LOCATED ON TREES WHICH MEASURE 75% OR MORE OF THE SIZE OF A STATE C	THIS SITE NOR ARE THERE CHAMPION TREE.	
<ul> <li>If the NRI FIELD ANALTSIS FOR THIS SITE WAS CONDUCTED IN JULI AND JEFFREY A. ROBERTSON.</li> <li>A FORESTRY DIAMETER TAPE WAS USED TO MEASURE TREE DIAM</li> </ul>	1ETERS.	
18) THIS SITE IS NOT LOCATED WITHIN A SPECIAL PROTECTION AREA MANAGEMENT AREA (PMA).	(SPA) NOR WITHIN A PRIORITY	
ZONING DATA		
1) ZONING: R-60 MIN LOT APEA = 6.000 SQ FT FRONT B.R.L. = 25 FT (OF	R ESTABLISHED)	
MIN. LOT WIDTH AT R/W = 25 FT REAR B.R.L. = 20 FT MIN. LOT WIDTH AT B.R.L. = 60 FT SIDE B.R.L. = 8 FT MIN. I	EACH SIDE,	(
TREE DATA (SIGNIFICANT AND SPECIMEN TREES)		
	——————————————————————————————————————	
I REE NO.SPECIESD.B.H. (INCHES)CONDITIONCOMMENT1, 22AMERICAN BEECH23GOOD		
2, 23RED OAK32OFF-SITE3, 25WHITE OAK32OFF-SITE	(ADJOINER)	
4AMERICAN BEECH27GOOD5TULIP POPLAR41GOOD6TULIP POPLAR50POOR6TULIP POPLAR50POOR	DECAY, REMOVE	
7     AMERICAN BEECH     27     GOOD       8     AMERICAN BEECH     31     GOOD     NEAR PREV		
9AMERICAN BEECH34.5HAZARDREMOVE10AMERICAN BEECH26GOOD11AMERICAN BEECH31GOOD		
IIAMERICAN BEECH26.5GOODI3AMERICAN BEECH30OFF-SITE	(ADJOINER)	
14AMERICAN BEECH30OFF-SITE15AMERICAN BEECH30OFF-SITE16AMERICAN BEECH30OFF-SITE	(ADJOINER) (ADJOINER)	
16ATTERICAN BEECH30OTTOSTTE17TULIP POPLAR32POOROFF-SITE18RED OAK37OFF-SITE	(R/W)	
19TULIP POPLAR30OFF-SITE21BLACK WALNUT28OFF-SITE21CONTRACT28OFF-SITE		
53AMERICAN BEECH32GOODOFF-SITE54TULIP POPLAR24OFF-SITE55WHITE OAK30GOODOFF-SITE	(EAST OF MEADOW LANE)	
56 WHITE OAK 33 OFF-SITE SPECIMEN TREES IN BOLD	(EAST OF MEADOW LANE)	
LEGEND		
EXISTING FEATURES		
EX. STORM DRAIN WITH MANHOLE	FENCE NOTE	*******
	INSTALL A PERMANENT FENCE OR RELOCATE THE EXISTING FENCE TO THE PROPERTY LINES.	~
G		<u> </u>
	DRIVEWAY ON LOT 38 TO BE MODIFIED IN	
28x0 EX. SPOT ELEVATION EX. CHAIN LINK OR WIRE FENCE	THE EVENT THAT TREE ROOTS ARE ENCOUNTERED DURING HAND EXCAVATION AND/OR GRADING. WORK TO BE	
EX. WOOD FENCE EX. SPECIMEN TREE W/ C.R.Z.	COORDINATED WITH TOWN AND PROJECT ARBORIST.	
(>=30" OR 75% OF CHAMPION SIZE) EX. SIGNIFICANT TREE W/ C.R.Z.	RET. WALL NOTE	 `
()= 24" DBH and ( 30" DBH) ()= 24" DBH and ( 30" DBH) ()= 24" DBH and ( 30" DBH)	LOCATIONS OF PROPOSED RETAINING WALLS TO BE COORDINATED WITH TOWN ARBORIST AND TO BE IN ACCORDANCE	
EX. TREES TO BE REMOVED		
EX. FOREST AREA = 13,980 SF (0.32 AC) (PER FIELD CONFIRMATION W/ MNCPPC) (FOREST HAS HIGH PRIORITY FOR RETENTION)	CRZ NOTE CRITICAL ROOT ZONES (C.R.Z.) HAVE BEEN DETERMINED BASED	
PROPOSED EEATURES	(DBH). FOR EXAMPLE, A 30" TULIP POPLAR (DBH IS 30 INCHES) X 1.5 COMPUTES TO A 45-FT RADIUS CRITICAL ROOT ZONE.	
	UTILITY NOTE	
PROP. SHC	HOUSE CONNECTION UTILITIES SHOWN HEREON ARE PROPOSED TO BE INSTALLED VIA DIRECTIONAL BORING IN AN EFFORT TO	
	THE SUBJECT PROPERTY.	
PROP. RETAINING WALL	CHANGE AND APPROVAL FROM THOSE INDIVIDUAL UTILITY COMPANIES PROVIDING SERVICE. ALTERNATE SERVICE LOCATIONS INCLUDING BUT NOT LIMITED TO THE NORTH SIDE	
	OF THE LOT 37 AND/OR ACCESS THROUGH THE 20' PUBLIC RIGHT-OF-WAY MAY ALSO BE FEASIBLE.	
	MISC TREE NOTES	
PROPOSED STEEP SLOPE BRL PER MNCPPC		
PROPOSED STEEP SLOPE BRL PER MNCPPC	I. COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.	
	<ol> <li>COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.</li> <li>TREE 6 HAS BEEN APPROVED FOR REMOVAL BY THE TOWN OF CHEVY CHASE BECAUSE OF POOR HEALTH. APPLICANT TO MONITOR TREE AND IF IT WORSENS WILL REMOVE WITH</li> </ol>	
PROPOSED STEEP SLOPE BRL         PER MNCPPC         PROPOSED LIMITS OF DISTURBANCE         TP         TP         TP         TP         PROP. TREE PROTECTION FENCE         PROP. ROOT PRUNING/TREE PROTECTION FENCE	<ol> <li>COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.</li> <li>TREE 6 HAS BEEN APPROVED FOR REMOVAL BY THE TOWN OF CHEVY CHASE BECAUSE OF POOR HEALTH. APPLICANT TO MONITOR TREE AND IF IT WORSENS WILL REMOVE WITH PROPER NOTICE TO COUNTY (MNCPPC).</li> <li>TREE 24 ROOTS TO BE BRIDGED IF FOUND DURING FOOTING CONSTRUCTION OF NEW HOME AS MONITORED BY APPOPER</li> </ol>	
PROPOSED STEEP SLOPE BRL         PER MNCPPC         PROPOSED LIMITS OF DISTURBANCE         TP         TP         TP-RP         PROP. TREE PROTECTION FENCE         PROP. ROOT PRUNING/TREE PROTECTION FENCE         EX. ROOT MATTING	<ol> <li>COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.</li> <li>TREE 6 HAS BEEN APPROVED FOR REMOVAL BY THE TOWN OF CHEVY CHASE BECAUSE OF POOR HEALTH. APPLICANT TO MONITOR TREE AND IF IT WORSENS WILL REMOVE WITH PROPER NOTICE TO COUNTY (MNCPPC).</li> <li>TREE 24 ROOTS TO BE BRIDGED IF FOUND DURING FOOTING CONSTRUCTION OF NEW HOME AS MONITORED BY ARBORIST.</li> <li>ARBORIST TO MONITOR HAND WORK IN THE AREA OF TREES 22 AND 23. EXISTING ROOT MATTING IS TO REMAIN UNLESS</li> </ol>	
PROPOSED STEEP SLOPE BRL         PROPOSED LIMITS OF DISTURBANCE         TP       TP         PROP. TREE PROTECTION FENCE         PROP. ROOT PRUNING/TREE PROTECTION FENCE         EX. ROOT MATTING         PROP. ROOT MATTING	<ol> <li>COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.</li> <li>TREE 6 HAS BEEN APPROVED FOR REMOVAL BY THE TOWN OF CHEVY CHASE BECAUSE OF POOR HEALTH. APPLICANT TO MONITOR TREE AND IF IT WORSENS WILL REMOVE WITH PROPER NOTICE TO COUNTY (MNCPPC).</li> <li>TREE 24 ROOTS TO BE BRIDGED IF FOUND DURING FOOTING CONSTRUCTION OF NEW HOME AS MONITORED BY ARBORIST.</li> <li>ARBORIST TO MONITOR HAND WORK IN THE AREA OF TREES 22 AND 23. EXISTING ROOT MATTING IS TO REMAIN UNLESS ARBORIST RECOMMENDS REMOVAL AND REPLACEMENT WITH NEW MATTING.</li> </ol>	
PROPOSED STEEP SLOPE BRL         PROPOSED LIMITS OF DISTURBANCE         TP       TP         PROP. TREE PROTECTION FENCE         TP-RP       PROP. ROOT PRUNING/TREE PROTECTION FENCE         EX. ROOT MATTING         PROP. ROOT MATTING	<ol> <li>COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.</li> <li>TREE 6 HAS BEEN APPROVED FOR REMOVAL BY THE TOWN OF CHEVY CHASE BECAUSE OF POOR HEALTH. APPLICANT TO MONITOR TREE AND IF IT WORSENS WILL REMOVE WITH PROPER NOTICE TO COUNTY (MNCPPC).</li> <li>TREE 24 ROOTS TO BE BRIDGED IF FOUND DURING FOOTING CONSTRUCTION OF NEW HOME AS MONITORED BY ARBORIST.</li> <li>ARBORIST TO MONITOR HAND WORK IN THE AREA OF TREES 22 AND 23. EXISTING ROOT MATTING IS TO REMAIN UNLESS ARBORIST RECOMMENDS REMOVAL AND REPLACEMENT WITH NEW MATTING.</li> <li>APPLICANT MAY INSTALL A NEW SIDE YARD FENCE ON THE NORTHERN AND SOUTHERN PROPERTY BOUNDARIES OR IN CLOSE TO THE THE PROPERTY BOUNDARIES WITH ARBORIST DIRECTION SO AS TO SELECTIVELY DETERMINE POST</li> </ol>	
PROPOSED STEEP SLOPE BRL     PROPOSED LIMITS OF DISTURBANCE     PROPOSED LIMITS OF DISTURBANCE     TP-TP PROP. TREE PROTECTION FENCE     PROP. ROOT PRUNING/TREE PROTECTION FENCE     EX. ROOT MATTING     PROP. ROOT MATTING     PROP. ROOT MATTING	<ol> <li>COUNTY TREE INSPECTOR TO VERIFY TREES 37 AND 34 ARE APPROVED FOR REMOVAL BY TOWN PRIOR TO REMOVAL.</li> <li>TREE 6 HAS BEEN APPROVED FOR REMOVAL BY THE TOWN OF CHEVY CHASE BECAUSE OF POOR HEALTH. APPLICANT TO MONITOR TREE AND IF IT WORSENS WILL REMOVE WITH PROPER NOTICE TO COUNTY (MNCPPC).</li> <li>TREE 24 ROOTS TO BE BRIDGED IF FOUND DURING FOOTING CONSTRUCTION OF NEW HOME AS MONITORED BY ARBORIST.</li> <li>ARBORIST TO MONITOR HAND WORK IN THE AREA OF TREES 22 AND 23. EXISTING ROOT MATTING IS TO REMAIN UNLESS ARBORIST RECOMMENDS REMOVAL AND REPLACEMENT WITH NEW MATTING.</li> <li>APPLICANT MAY INSTALL A NEW SIDE YARD FENCE ON THE NORTHERN AND SOUTHERN PROPERTY BOUNDARIES OR IN CLOSE TO THE THE PROPERTY BOUNDARIES WITH ARBORIST DIRECTION SO AS TO SELECTIVELY DETERMINE POST LOCATIONS IN ORDER TO PROTECT ROOT ZONES.</li> <li>APPLICANT MAY REMOVE RHODODENDRON WITHIN STEEP</li> </ol>	



. INSTALL TREE FENCING FOR TREE 17 IN TWO PHASES. PHASE ONE TREE FENCE SHOULD BE LOCATED EAST OF THE TREE NEAR THE CURB LINE. PRIOR TO COMMENCING CONSTRUCTION OF THE SIDEWALK, THE FENCE SHOULD BE MOVED TO THE WEST SIDE OF THE PROPOSED CURB. TREE FENCE AND CURB INSTALLATION TO BE PERFORMED UNDER ARBORIST AND INSPECTOR SUPERVISION.





	1.57 ACRES (INC	LUDES OFF-SITE	LOD)		
JSE	0.00 ACRES				
NOT	0.00 ACRES				
	0.32 ACRES				
	0.00 ACRES				
	HIGH DENSITY RESIDENTIAL 0.24 ACRES; AFFORES. THRESHOLD 0.31 ACRES; CONSERV. THRESHOLD				
FFER	0 FEET LONG ± 0 FEET WIDE				
	AREA RETAINED	AREA CLEARED	AREA PLANTED		
NTED	0.00 ACRES	0.00 ACRES	0.00 ACRES		
ANTED	0.00 ACRES	0.00 ACRES	0.00 ACRES		
ANTED	0.00 ACRES	0.00 ACRES	0.00 ACRES		
ANTED	0.00 ACRES	0.21 ACRES	0.00 ACRES		
FFER	0 FEET	0 FEET	O FEET		

# FOREST CONSERVATION WORKSHEET

(INCLUDES OFF-SITE LOD)

FOREST CONSERVATION WORKSHEET PROPOSED LOTS 37-29. BLOCK 5

NET TRACT AR	EA:						5-Aug-02
<ul> <li>A. Total tract area</li> <li>B. Land dedication acres (parks, county facility, etc.)</li> <li>C. Land dedication for roads or utilities (not being constructed by this plan)</li> <li>D. Area to remain in commercial agricultural production/use</li> <li>E. Other deductions (specify)</li> <li>F. Net Tract Area</li></ul>					1.57 0.00 0.00 0.00 0.00 1.57		
LAND USE CAT	EGORY: (fro input the nur imit to only c	onTrees Tec mber "1" un one entry.	<i>hnical Ma</i> der the ap	nua) propriate la	and use,		
	ARA O	MDR 0	IDA O	HDR 1	MPD 0	CIA 0	
G. Afforestation H. Conservatior	Threshold . Threshold .	••			15% 20%	x F = x F =	0.24 0.31
EXISTING FOR	EST COVER	t:					
I. Existing forest J. Area of forest K. Area of fores	t cover t above affor t above cons	estation threeservation the	eshold reshold	= = =			0.32 0.08 0.01
BREAK EVEN P	POINT:						
L. Forest retenti M. Clearing per	on above the mitted withou	reshold with ut mitigation	n no mitiga	tion= =			0.28 0.04
PROPOSED FO	REST CLEA	ARING:					
N. Total area of forest to be cleared= O. Total area of forest to be retained=					0.32 0.00		
PLANTING REC	UIREMENT	S:			•		
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\*\* ON-SITE FOREST AREA WILL NOT BE PLACED WITHIN A CATEGORY II EASEMENT, THEREFOR IT IS CONSIDERED TO BE REMOVED. IT WILL BE PROTECTED DURING CONSTRUCTION BY THE LIMITS OF DISTURBANCE SHOWN HERON.

0.63 ACRES OF REFORESTATION WILL BE PROVIDED EITHER THROUGH FEE-IN-LIEU OR THROUGH AN OFF-SITE FOREST CONSERVATION EASEMENT, TO BE DETERMINED DURING THE APPROVAL OF THE FINAL FOREST CONSERVATION PLAN.

# CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS, AND M-NCP&PC GUIDELINES.

JEFFRET A. ROBERTSON MDNR / COMAR 08.19.06.01

1151 DATE 11-22-11

QUALIFIED PROFESSIONAL Very Diern/ JERRY DIERUF, ARBORIST 15A23618

MARYLAND DEPARTMENT OF THE ENVIRONMENT

August 8, 2010

County: Montgomery

The Nontidal Wetlands Division has completed the review of the Joint Federal State Application for the

referenced above. Based on the information received and the site visit conducted on May 24, 2010, [ have

(hydrology, hydric sails, and hydrophytes) to be considered a nontidal wetland by it's legal delimition and,

therefore, will not be regulated as such. No authorization is needed from the Nontidal Wetland Division.

If you have any questions regarding the above comments, please contact me via phone at 410-537-3788 or

Paula Carlson

www.mde.state.md.us

concluded that the area delineated on the plans as nontidal wetlands did not contain all three parameters

Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland for the project

1800 Washington Boulevard • Suite 430 • Baltimore MD 21230

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Water Management Administration Nontidal Wetlands Division

(Phone) 410-537-3745 • (Fax) 410-537-3751

# MDE WETLAND LETTERS

M

Martin O'Malicy

Anthony G. Brown

Lieutenant Governor

Mr. Thompson,

Recycled Pap

Mr. Michael Thompson

2081 Clipper Park Road

Baltimore, Maryland 21211

by e-mail pcarlson@mde.state.md.us.

CC: Mr. Tom Brault, CC Greenvision LLC

Covernor

MARYLAND DEPARTMENT OF THE ENVIRONMENT 1800 Washington Boulevard • Baltimore MD 21230 410-537-3000 • 1-800-633-6101

Robert M. Summers, Ph.D. Acting Secretary

January 27, 2011

Mr. Tom Brault CC Greenvision LLC c/o Woodside Ventures 6912 Woodside Place

County: Montgomery

Chevy Chase, MD 20815

**MDE** 

Governor

Martin O'Malley

Anthony G. Brown

Lieutenant Governor

Nontidal Wetland Application #10-NT-0215/201060887 Project: CC Greenvision, LLC/Meadow Lane/Lot Fill & Outfall

Dear Mr. Brault,

The Maryland Department of the Environment, Nontidal Wetlands Division has determined that the parcel located at 7206 Meadow Lane, Chevy Chase, Maryland does not contain any jurisdictional wetlands as defined in the Corps of Engineers Wetland Delineation Manual and corresponding Regional Supplement. For an area to be considered a jurisdictional wetland, you must individually verify the presence of all three criteria (hydrology, hydric soil, and hydrophytes). These criteria were not met.

On May 24, 2010, the Department conducted a pre-application meeting with the consultant, Mr. Mike Thompson (Biohabitats), Mr. Hira Shrestha (MDE's Waterway Division), and myself. During this meeting, the Department determined there was no need for Mr. Brault to submit a Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland for the proposed project.

In August of 2010, the Department did in fact receive a Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland for the proposed project. This reviewer contacted Mr. Thompson on why an application had been submitted to the Department. Mr. Thompson stated that the wetland indicated on the plans were designated by Maryland-National Capital Parks and Planning Commission (M-NCPPC). Verbally and in a letter dated August 18, 2010, this reviewer stated that the site does meet the criteria to be considered a jurisdictional wetland.

After being contacted this January by the consultant, Mr. Thompson, an additional site visit was conducted. On January 19, 2011, the additional site visit took place Mr. Thompson (Biohabitats), Ms. Sara Roberts (Biohabitats), Ms. Pavla Cervova (MDE's Nontidal Wetland

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TTY Users 1-800-735-2258 Via Maryland Relay Service

TTY Users 1-800-735-2258

Via Maryland Relay Servic

Name Page Two

CC: Mike Thompson, Biohabitats

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Division), and myself. During this site visit, the Department reaffirmed that the site does not contain jurisdictional wetlands. The Department advised Mr. Thompson to submit data sheets using the US Army Corps of Engineers regional supplement known as the Eastern Mountains and Piedmont Supplement.

The Department became in receipt of these data sheets on January 26, 2011. These data sheets are representative of what was at the site and further demonstrates that no jurisdictional wetlands are located at 7206 Meadow Lane, Chevy Chase, Maryland.

In conclusion, the Department would like to see any representation of a nontidal wetland removed the existing plans since the site does not contain any.

If you have any questions regarding the above comments, please contact me via phone at 410-537-3788 or by e-mail pcarlson@mde.state.md.us.

www.mde.state.md.us



APPLICANT CC GREEN VISION, LLC 6912 WOODSIDE PLACE CHEVY CHASE, MD 20815 ATTN: THOMAS A. BRAULT 301-656-4472 (PHONE)

FILE No. 120100270 7206 MEADOW LANE PROPOSED LOTS 37-38 & OUTLOT A BLOCK 5, CHEVY CHASE, SECTION 4 TOWN OF CHEVY CHASE PRELIMINARY FOREST CONSERVATION PLAN AND TREE SAVE PLAN

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Shari T. Wilson

Deputy Secretary

Robert M. Summers, Ph.D.

TTY Users 1-800-735-2258 Via Maryland Relay Service

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Project: CC Greenvision, LLC/Meadow Lane/Lot Fill & Outfall

RII: Nontidal Wetland Applicaton # 10-NT-0215/201060887

aula Carlson

Natural Resources Planner

Nontidel Wetlands Division

Secretary



# **MARYLAND DEPARTMENT OF THE ENVIRONMENT**

1800 Washington Boulevard • Baltimore MD 21230 410-537-3000 • 1-800-633-6101

Martin O'Malley Governor

Anthony G. Brown Lieutenant Governor Robert M. Summers, Ph.D. Acting Secretary

January 27, 2011

Mr. Tom Brault CC Greenvision LLC c/o Woodside Ventures 6912 Woodside Place Chevy Chase, MD 20815

> Nontidal Wetland Application #10-NT-0215/201060887 Project: CC Greenvision, LLC/Meadow Lane/Lot Fill & Outfall County: Montgomery

Dear Mr. Brault,

The Maryland Department of the Environment, Nontidal Wetlands Division has determined that the parcel located at 7206 Meadow Lane, Chevy Chase, Maryland does not contain any jurisdictional wetlands as defined in the Corps of Engineers Wetland Delineation Manual and corresponding Regional Supplement. For an area to be considered a jurisdictional wetland, you must individually verify the presence of all three criteria (hydrology, hydric soil, and hydrophytes). These criteria were not met.

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Name Page Two

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The Department became in receipt of these data sheets on January 26, 2011. These data sheets are representative of what was at the site and further demonstrates that no jurisdictional wetlands are located at 7206 Meadow Lane, Chevy Chase, Maryland.

In conclusion, the Department would like to see any representation of a nontidal wetland removed the existing plans since the site does not contain any.

If you have any questions regarding the above comments, please contact me via phone at 410-537-3788 or by e-mail <u>pcarlson@mde.state.md.us</u>.

Sincerely,

aula Carlson

Paula Carlson Natural Resources Planner Nontidal Wetlands and Waterways Division

CC: Mike Thompson, Biohabitats

Nontgomery County

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Arborist Site Evaluation

Arborist Site Evaluation 7206 Meadow Lane, Chevy Chase, Maryland 20815 May 19 and 26, 2010 Revision September 20, 2010 Revision December 3, 2010 Revision November 11, 2011

> **Prepared for Applicant:** CC GREEN VISION, LLC

Prepared By: Terra Green Independent Consulting Arborists Jerry Dieruf, Arborist 5402 Fremont Street Springfield, VA 22151

# **TABLE OF CONTENTS**

SUMMARY		page 1
ASSIGNME Back Limit Purpo	NT ground of Scope ose of Report	page 4
OBSERVAT	ION	page 5
The S	ite:	
	Beech Tree #1 or 22:	page 6
	Red Oak Tree #2 or 23:	page 7
	White Oak Tree #3 or 25:	
	Beech Tree #4:	
	Tulip Tree #5:	page 8
	Beech Tree #6:	page 9
	Beach Tree #7	page 10
	Beech Tree #8:	
	Beech Tree #9:	
	Beech Tree #10	page 12
	Beech Tree #11	
	Beech Tree #12	
	Tulip Tree #17:	
	Red Oak Tree #18:	page 13
	Tulip Tree #19:	
	Tulip Tree #20:	page 14
	Walnut Tree #21:	

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	Beech Tree #24:	
	Hickory Tree #26:	page 15
	Magnolia Tree #27:	
	Holly Tree #28:	page 16
	Holly Tree #29:	
	Holly Tree #30:	
	Holly Tree #31:	
	Holly Tree #32:	
	Beech Tree #33:	page 17
	Beech Tree #34:	page 18
	Beech Tree #35:	
	Japanese Maple Tree #36:	page 19
	Beech Tree #37:	
	Black Gum Tree #38:	
	Beech Tree #39:	page 20
	Beech Tree #40:	
	Beech Tree #41:	page 21
	Beech Tree #42:	
	Holly Tree #43:	page 22
	White Oak Tree #56	
ANALYSIS		page 23
	Beech Tree #1 or 22:	
	Red Oak Tree #2 or 23:	page 24

White Oak Tree #3 or 25:	
Tulip Tree #5:	page 25
Beech Tree #6:	
Beach Tree #7	page 27
Beech Tree #8:	
Beech Tree #9:	page 28
Beech Tree #10:	page 30
Beech Tree #11:	
Beech Tree #12:	page 31
Beech Tree #24:	
Beech Tree #33:	page 32
Beech Tree #34:	
Beech Tree #35:	page 33
Beech Tree #40:	
White Oak Tree #55	
White Oak Tree #56	page 34
DISCUSSION	page 35
The Site:	
Beech Tree #1 or 22:	
Red Oak Tree #2 or 23:	page 36
White Oak Tree #3 or 25:	page 37
Beech Tree #4:	page 38

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Tulip Tree #5: Beech Tree #6: Beach Tree #7 page 39 Beech Tree #8: Beech Tree #9: Beech Tree #10 Beech Tree #11 page 40 Beech Tree #12 Tulip Tree #17: Red Oak Tree #18: page 41 Tulip Tree #19: Tulip Tree #20: Walnut Tree #21: Beech Tree #24: page 42 Hickory Tree #26: page 43 Magnolia Tree #27: Holly Tree #28: Holly Tree #29: page 44 Holly Tree #30: Holly Tree #31: Holly Tree #32: Beech Tree #33: page 45 Beech Tree #34:

Beech Tree #35:

Japanese Maple Tree #36:

Beech Tree #37:

Black Gum Tree #38:

Beech Tree #39:

Beech Tree #40:

Beech Tree #41:

Beech Tree #42:

Holly Tree #43:

White Oak Tree #56

## CONCLUSION

Beech Tree #1 or 22: Red Oak Tree #2 or 23;

White Oak Tree #3 or 25:

Beech Tree #4:

Tulip Tree #5:

Beech Tree #6:

Beach Tree #7

Beech Tree #8:

Beech Tree #9:

Beech Tree #10

Beech Tree #11

Beech Tree #12

page 46

page 47

page 48

page 49

page 50

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Tulip Tree #17:

Tulip Tree #19:

Tulip Tree #20:

Walnut Tree #21:

Beech Tree #24:

Hickory Tree #26:

Magnolia Tree #27:

Holly Tree #28:

Holly Tree #29:

Holly Tree #30:

Holly Tree #31:

Holly Tree #32:

Beech Tree #33:

Beech Tree #34:

Beech Tree #35:

Japanese Maple Tree #36:

Beech Tree #37:

Black Gum Tree #38:

Beech Tree #39:

Beech Tree #40:

Beech Tree #41:

Beech Tree #42:

Holly Tree #43:

page 52

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page 51

# White Oak Tree #56

BIBLIOGRA	PHY	page 53
GLOSSARY		page 54
SUPPORTIN	IG INFORMATION	page 55
Photo #1	21.2-inch beech trunk angle	page 56
Photo #2	17-inch beech trunk angle	page 57
Photo #3	Roots of 21.5-inch beech	page 58
Photo #4	17-inch beech root flare	page 59
Photo #5	Decay on West Side	page 60
Photo #6	22-inch Beech Trunk Angle	page 61
Photo #7	22-inch Beech Root Flare	page 62
Photo #8	17-inch Beech Trunk Angle	page 63
Photo #9	17-inch Beech Root Flare	page 64
Photo #10	Tulip Tree #6	page 65

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# **SUMMARY OF REPORT**

Terra Green has reviewed the site on May 19 and 26, 2010. The plan was revised on September 20 and December 3, 2010 and again on November 11, and December 10, 2011. The proposed Forest Conservation Plan was also reviewed. A summary follows, with the supporting detail in the body of this report.

Tree sizes in plan and arborist report may vary slightly due to growth between years.

The following trees should have an arborist supervise the excavation in the *critical root* zone (CRZ). Excavation should be performed with a handheld air-jet/compressed air digging tool. In addition the limits of disturbance in this area was revised to match; the Maryland National Capital Park and Planning Commission (M-NCPPC) memorandum dated October 28, 2011. On November 7, 2011, Terra Green, CAS Engineering, the property owner, and the property developer met on site with M-NCPPC staff and agreed to limit the driveway excavation not exceed six inches in depth, and porous materials used as hardscape. The wood retaining wall shall be removed by hand, and the new wall built by hand with root protection matting (RPM) installed below fill. Activities north of the foundation of the home (Lot 38) should be limited; there shall be no equipment access and no materials stored within the CRZ. Pier locations shall be adjusted to protect structural roots. In addition, tree protection fencing (TPF) should be reinstalled north of the home foundation wall, between installation of the piers, beam, and floor. A irrigation system should be installed and operated after the driveway, piers, small retaining wall, and house foundation wall are built, to support the following trees: the 23-inch beech tree (#1-22), the shared/neighbor's 32-inch red oak (#2-23), the shared/neighbor's 32-inch white oak (#3-25), and the 22-inch beech tree (#24).

The following trees should have an arborist supervise the excavation within the CRZ and no new disturbance within 15-feet of the tree's center: the 28-inch beech tree (#4), the 42-inch tulip poplar tree (#5), the 27-inch beech tree (#7) on the slope, the 31-inch beech tree (#8) on the slope, the 23-inch beech tree (#40), the 23-inch beech tree (#42) on the slope, and the 33-inch beech tree across Meadow Lane (#56).

The following trees should have an arborist supervise the excavation within the CRZ during construction and no new disturbance within 7-feet of the tree's center: the 22-inch beech tree (#39), and the 21-inch beech tree (#41) on the slope.

The following trees should have an arborist supervise the excavation within the CRZ during construction and limited hand work within 18-feet of the tree's center. In addition, trenching on the southern property line shall be performed with equipment no larger than a walk-behind trencher and under the supervision of the Terra Green arborist: the 26-inch beech tree (#10), the 31-inch beech tree (#11), and the 26-inch beech tree (#12).

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The following trees have been permitted for removal by the Town Arborist: assorted small spruce trees (5- to 12-inch dbh) on the Town right-of-way, the 50-inch tulip poplar (#6) on the hillside, the 34.5-inch beech tree (#9) at the top of the slope, and the 23.5-inch black gum (#38) by the pond.

Two small beech trees 23-inch and 20.5-inches next to tree 6 were not reviewed.

The following trees will have roots pruned on the southern property boundary: the 30inch beech tree (#13), the 30-inch beech tree (#14), the 30-inch beech tree (#15), and the 30-inch beech tree (#16) at 7200 Meadow Lane.

(owned by the Town or possibly the private property owner) The Town should remediate the following trees because of a potential hazard: the 32-inch tulip poplar (#17) on Meadow Lane and the 30-inch tulip poplar (#19) in the alley.

Tree protection provided by adjacent tree protection requirements: the 18-inch beech tree (#18) at 7300 Oak Lane.

Tree protection provided by asphalt road or alley for the following trees (owned by the Town and/or private property owner): the 30-inch tulip poplar (#19), the 24-inch tulip poplar (#20), the 28-inch black walnut (#21), the 32-inch beech (#53), the 24-inch tulip poplar tree (#54), and the 30-inch white oak tree (#55).

The following trees will not withstand the grading and construction process of building two homes, so should be removed before construction begins: the 20-inch hickory tree (#26) next to the alley, the six hollies (#28, 29, 30, 31, 32, and 43), and a magnolia (#27).

The following trees are potential hazards. Based on the proposed storm water management and grading plan, the 21.5-inch (#33) beech have been permitted for removal by the Town Arborist: and the 17-inch (#34) beech trees by the power line is subject to appeal.

The Town's 23-inch beech tree (#35) should have a gravel base with RPM over on the west side of fill. Utility trenching shall be restricted to the southern edge of the CRZ.

The following trees may be transplanted if necessary: the previously transplanted Japanese maple (#36), 7-inch oak, 2-inch oak, and 2-inch beech (all located in the Meadow Lane Right-of-Way).

The following tree is subject to appeal for removal by the Town Arborist in order to comply with the storm water management plan: The 23.5-inch beech tree (#37) near the pond.

The following trees are not on the plan and were not considered: #44-52.

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## Arborist Site Review

The following trees will have two-thirds of the CRZ protected and no disturbance within 20-feet of the center of the tree: the 33-inch beech tree (#56) across Meadow Lane.

Terra Green should also provide an annual evaluation and report on all trees for the first five years after construction is completed.

# ASSIGNMENT

## **Background:**

7206 Meadow Lane in Chevy Chase, Maryland has been a demolition and construction site for many years.

I was hired to evaluate the two trees by the power line in the southeast corner of the property and a large beech tree at the top southwest corner of the slope.

In addition, I was asked to casually review the mature trees on the entrance borders of the property because of concerns about stability and poor condition.

Eventually I was asked to review all of the larger trees on the development site.

## Limit of Scope:

All tree reviews were performed from the ground. Invasive forms of investigation were conducted on one tree only, the 49-inch tulip poplar on the slope.

Most of the reviews were performed from the 7206 Meadow Lane property. Most of the trees on neighboring properties were viewed from a distance. No suggestions will be made about the neighboring trees' health or stability. An exception to this is tree #19 that was accessible from the alley.

Trees are living organisms, subject to the unpredictable forces of nature. Because of these variables, no guarantees or absolutes are to be implied or given in this report.

## **Purpose of Report:**

CC Green Vision, LLC, in care of Woodside Ventures and Realty Service, hired me to evaluate the three beech trees and review other mature trees at 7206 Meadows Lane.

The original assignment was to evaluate the stability of the trees on the site and recommend preservation procedures. The expanded assignment was to recommend tree preservation methods during the construction of two homes.

12/13/2011

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# **OBSERVATION**

The following was observed on May 19 and May 26, 2010, and November 11, 2011.

## The Site:

#### Location:

The property at 7206 Meadow Lane, in Chevy Chase, Maryland, is slightly larger than 1.5-acres. It is a residential lot in a mature neighborhood. The original home was demolished, and a new home was built on the western half of the site. The new home was demolished in 2008, before completion, and removed from the site. Today, no structure is present on the site.

The site consists of three elevations: a lower elevation along Meadow Lane, the street entrance, the sloped elevation or central section, and the upper elevation or alley entrance. See the plan: Preliminary Forest Conservation Plan and Tree Save Plan, Plat 5723, Circa 1959, 7206 Meadow Lane, Bethesda (7th) Election District Montgomery County, Maryland.

Hardscape:

The lower/street elevation is located on the eastern facing of the site. This is disturbed land with mature trees scattered throughout. A temporary construction road is located on the north side. The center of the lower section has a small manmade concrete pond. The lower/street elevation has a concrete sidewalk bordering the north half along Meadow Lane.

The sloped elevation or hillside is an ornamental landscape under a mature hardwood wooded. The original owner appears to have focused a considerable amount of effort into gardening in this treed hillside. The understory of the wooded has been removed and replaced with a naturalistic landscape of ornamental shrubs and ground covers. This naturalistic landscape includes small constructed stone walls in the central area. The north side has the same temporary construction road. The southern side is terraced with a brick-on-block terrace wall, bordered by a set of concrete steps on the hillside.

The upper elevation or alley entrance is the site of the previous construction. The center of this site is cleared. The western side is bordered by an asphalt alley with neighboring properties on the other side. A brick-on-block wall and retaining wall are located in the center of the western side. A masonry mockup wall is located on the northeastern corner of the property line.

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## Utilities:

Private utility poles with electrical wires are located on the southern property line. This utility supports 7206 Meadow Lane.

Irrigation has been installed in the southeast corner of the property, near the street. This appears to have been a plant holding area from the demolition and construction periods.

Public utility poles run along Meadow Lane. The poles carry electricity, telephone, and cable wires through the neighborhood.

## Beech Tree #1 OR 22:

#### Location:

This tree is in the northwestern corner of the site. It is at the existing alley entrance, in the northwestern corner of lot 38.

#### Tree:

The American beech trees (*Fagus grandifolia*) had a diameter at breast height *dbh* of 23 inches on May 26, 2010. This tree also has an old Care of Trees company tag on the trunk.

#### Trunk:

The tree is approximately 50 feet tall. The tree has been protected during the previous demolition and construction.

#### Canopy:

The crown of the tree has a diameter of around 30 feet. The general distribution of canopy appears to be reasonably developed, considering it has been closely associated with demolition and construction for so many years.

#### Roots:

The critical root zone (*CRZ*) of the tree was compromised during the previous demolition and construction. The old landscape mat is still present on the south side. However, the tree shows no signs of root damage at this time.

The CRZ environment of this tree consists of a protected landscaped area on onethird of the area, one-third is an asphalt alley, and one-third is a shared space with the red oak (#2 - 23).

## Hardscape:

Two existing timber retaining walls are located. One is between tree (#1-22) and (#2-23), and the other is east of trees (#1-22) and (#2 - 23).

# Red Oak Tree #2 OR 23:

#### Location:

This tree is located in the backyard of the neighboring property at 7300 Oak Lane.

Tree:

It is a red oak tree (Quercus rubrum). This tree was not reviewed.

Trunk:

The red oak growing on the 7300 Oak Lane property is sharing root and canopy space with the beech tree (#22) above. This tree is shown on the plan as a shared tree, but it appears to be the neighbor's property.

#### White Oak Tree #3 OR 25:

Location:

According to the plan, this tree appears to be located on the property line between 7300 Oak Lane and lot 38. If this is correct, this is a shared tree between both property owners.

#### Tree:

This white oak tree (Quercus alba) was not reviewed.

#### Trunk:

The trunk of the neighbor's 32-inch white oak (#25) seems reasonable. This tree should be protected.

#### Canopy:

The crown is growing well into the 7206 Meadow Lane site.

#### Roots:

A small portion of the CRZ of the neighbor's white oak was compromised by the construction road during the previous demolition and construction.

## **Beech Tree #4:**

#### Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15 feet south of the construction road.

Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 28 inches on November 23, 2010. The tree has an old Care of Trees tag on it, but the bark has grown over the tag.

## Trunk:

This tree seems sound. It has two small old wounds that started at the ground and go up to four feet high. The old wounds have what appears to be a fungal fruiting body growing on them, but no indication of decay.

#### Limbs:

One 8-inch in diameter *scaffolding limb* is 20 feet up on the south side and is competing to become a double lead.

#### Canopy:

The crown of the 21.5-inch beech tree has some dead tips on the east side.

Roots:

The east and west *root flare* has a small opening of around four inches wide. The southern root flare has a fungus growing over it. Terra Green cannot determine how deep the fungus has penetrated into the flare, but it appears to be surface only. The CRZ of this tree expands north into the construction road.

## **Tulip Tree #5:**

#### Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15 feet south of the construction road.

Tree:

The tulip poplar tree (*Liriodendron tulipifera*) had a dbh of 42 inches on November 23, 2010. This tree has an old Care of Trees tag with the number 20.

#### Trunk:

The base of the trunk has old shallow borer damage on all sides of the base. The north side around three feet up has a swollen *callus tissue* over an old wound. Another old wound on the south side starts at the ground and goes up five feet on the trunk. There is no indication of internal decay from either of those. However, a third wound on the southeast side (starting at ground level and rising up) indicated some internal decay.

#### Limbs:

The trunk has an old wound on the south side, around 30 feet up. The first limb is around 20 feet up, and the trunk divides into scaffolding limbs around 30 feet up.

#### Canopy:

The northern crown of this tree grows over the old construction road.

Roots:

Most of the CRZ is in the existing wooded, but the northern section is under the old construction road. The root flare has old shallow borer damage on all sides. The root flare is missing from the west side, and smaller sections on the north,

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8

northeast, and northwest sides. The west side has decayed into the trunk. The north, east, and southeast sides have old wounds going into the trunk, with no indication of internal decay.

## **Tulip Tree #6:**

#### Location:

This tree is in the lower central slope and part of the existing wooded protection area. The tree is in front of lot 38.

Tree:

The tulip poplar tree (*Liriodendron tulipifera*) had a dbh of 49 inches on November 23, 2010, and November 9, 2011.

#### Trunk:

This may be the tallest tree in the existing wooded section. The primary trunk is around 90 to 100 feet tall. The trunk divides into two trunks at around seven feet up on the north side. The area between the trunks has become decayed. The decay extends well into the interior of the tree. Active fungal fruiting bodies inside the trunk indicate continual damage. The smaller trunk grows to the northeast away from the primary trunk at the height of 40 to 50 feet, at approximately a 30-degree angle. Older callus growth has developed between the two trunks. The primary trunk has some shallow borer damage.

#### Limbs:

The trunk separates into *scaffolding limbs* at around 30 feet up. Two scaffolding limbs are dead near the top. Approximately 60 feet up the south side of the primary trunk is a dead limb 10 inches in diameter. Approximately 70 feet up the west side of the primary trunk is another 10-inch diameter dead limb.

#### Canopy:

The crown coverage of this tree appears to be within the existing wooded area. The crown is restricted by the other trees in the wooded area.

#### Roots:

The root flare is undeveloped on the south and west sides. The northern flare and root has developed a massive structure around the smaller second trunk. The eastern root flare has two open wounds: one four inches wide and five feet high, while the second is two inches wide and seven feet high. The CRZ of this tree appears to be within the existing wooded area. Because of the slope of the land, the western root flare is two feet higher than the eastern root flare. The root flare has a few shallow borer wounds.

# **Beech Tree #7:**

Location:

This tree is located on the extreme northern side of lot 37, at the center of the slope.

Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

Roots:

The CRZ appears to have been protected during the previous demolition and construction.

## **Beech Tree #8:**

#### Location:

This tree is near the central slope within the existing wooded area on lot 37.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 32 inches on May 26, 2010.

#### Trunk:

This tree is around 70 feet tall and appears sound.

### Canopy:

The crown of this tree is merged with the surrounding wooded.

Roots:

The tree has a healthy root flare, and the CRZ is around 30 feet and has merged with the wooded. The roots of this tree appear to have been protected during the previous demolition and construction. The root flare appears to be in good condition.

## **Beech Tree #9:**

#### Location:

This tree is located at the top of the slope in front of lot 37.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 35 inches on May 19, 2010.

Trunk:

The tree has a diameter at breast height (dbh) of 35 inches. The trunk has a good taper from base to top and maintains an *excurrent* or undivided main stem form

for approximately 30 feet. The tree is approximately 70 feet tall. (See image 1: beech tree #9.)

A major scaffolding limb has been lost on the west side of the trunk, 30 feet high. The damage has protruded into the trunk at that point. The damaged trunk has developed callus tissue on the outer edges, but the wound has not closed. (See image 2: lost limb.) This callus growth is similar to a person's scab tissue on an old injury.

The base of the trunk has a lot of old damage. A stone wall was built inside the trunk years ago. This wall is exposed on the east side of the base of the trunk. (See image 3: stone wall.)

The stone wall is approximately 12 inches deep into the trunk of the tree. When this stone wall is tapped, it sounds hollow behind the wall.

The old wound has healed over the stone wall well at this date. The old wound is still open at the base, but the upper section has closed itself. The original wound extended up the east side of the trunk around four feet high. (See image 4: wound scar.) The dark elliptical area to the right of the tap measurer is the closed upper section of the old wound.

The closed upper section of the old wound has black lumps around the edges. These black lumps look like the fruiting bodies of a fungus.

Limbs:

Limbs are normal in size for a tree of this size. They are developed well vertically, but a few scaffolding limbs are present horizontally. The west side has fewer scaffolding limbs present.

A scaffolding limb has been lost from the west side of the trunk. A smaller, 4-inch dead limb hangs on the west side.

Canopy:

The crown of this tree has a diameter of around 30 feet. The general distribution of canopy appears to be suppressed. The canopy is in wooded on the north and east sides.

The *drip line* environment of this tree consists of a natural landscaping on three sides and grass on the west side.

Roots:

The *root flare* has some older damage. The root flare on the east side was damaged when the old wound damaged the east side of the trunk. (See image 5: decay on west side.) The space between the two root flares on the west side has some minor damage and decay.

## **Beech Tree #10:**

#### Location:

This tree is located on the southern side of lot 37, at the center of the slope.

#### Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Roots:

The CRZ appears to have been protected during the previous demolition and construction.

## **Beech Tree #11:**

#### Location:

This tree is located on the southern side of lot 37, at the center of the slope.

#### Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Roots:

The CRZ appears to have been protected during the previous demolition and construction.

## **Beech Tree #12:**

#### Location:

This tree is located on the southern side of lot 37, at the center of the slope.

#### Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Roots:

The CRZ appears to have been protected during the previous demolition and construction.

## Tulip Tree #17:

## Location:

This tree is at the Meadow Lane entrance on the lot 38. This tree appears to be on the Town of Chevy Chase's (Town) property.

#### Tree:

The tulip poplar tree (*Liriodendron tulipifera*) had a dbh of 32 inches on May 26, 2010.

#### Trunk:

The top of this tree has been lost to damage. The base of the trunk on the north and northwest sides is damaged. This damaged area has become infested with borer insects, resulting in decay.

## Limbs:

The tree has 3- and 4-inch diameter dead limbs on the street side. The street side has a sidewalk below the dead limbs and power, phone, and cable lines overhead. It appears that scaffolding limbs have been cut from this side in the past.

#### Canopy:

The canopy has been deformed by limb loss in the past. The drip line area under the canopy of this tree covers the street and sidewalk, which is a high-value *target* area.

#### Roots:

The root flares on the north and northwest side are damaged. The CRZ of this Town tree extends into the road and the northern section of the lower land. Some borer insects have been attacking the root flare of this tree.

## Red Oak #18:

#### Location:

This is a 37-inch red oak tree (*Quercus rubrum*) in the back yard of 7300 Oak Lane. This tree was not reviewed

## **Tulip Tree #19:**

#### Location:

This tree is across the alley from the development site behind 7213 Ridgewood Avenue. This tree appears to be at the back of 7213 Ridgewood Avenue.

#### Tree:

The tulip poplar tree (*Liriodendron tulipifera*) had a dbh of 30-inches on May 26, 2010.

#### Trunk:

This alley tree has been damaged by traffic through the alley.

#### Limbs:

The top of this tree has been lost in the past. Some of the limbs in the top are dead.

#### Roots:

The root flare is damaged on the alley side.

# **Tulip Tree #20:**

## Location:

This tree is across the alley from the development site behind 7213 Ridgewood Avenue. This tree appears to be at the back of 7213 Ridgewood Avenue.

Tree:

The tulip poplar tree (*Liriodendron tulipifera*) had a dbh of 24-inches on May 26, 2010.

#### Limbs:

The scaffolding limbs are on the west side of the trunk. Some of the scaffolding limbs have been cut off of the south side, nearest the power lines.

#### Canopy:

The crown of the 24-inch beech tree has some dead tips on the east side.

#### Roots:

The root flare is damaged on the alley side.

## Walnut Tree #21:

#### Location:

This Town tree is across the alley behind 7207 Ridgeway Avenue.

## Tree:

The black walnut tree (Juglans nigre) was not reviewed.

#### Limbs:

Some of the limbs at the top of the tree are dead. On November 23, 2010, a sign was on the trunk of this tree notifying the public that the tree would be pruned.

Beech Tree #22	See	#1:
Red Oak Tree #23	See	#2:

## **Beech Tree #24:**

Location:

This tree is located on the extreme northern side of lot 38, at the center of the old construction and demolition area.

Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Trunk:

The 22-inch beech tree (#24) seems stable. This tree was given limited protection during the previous demolition and construction.

Roots:

Part of the CRZ was compromised during the previous demolition and construction.

White Oak Tree #25 See #3:

## Hickory Tree #26:

#### Location:

This tree is located at the alley near the property line on lot 38.

#### Tree:

The hickory tree (Carya ovata) had a dbh of 20 inches on May 26, 2010.

#### Trunk:

The hickory tree has old electrical piping and lights installed on the trunk. An existing block wall is just three feet from the west of the trunk.

#### Limbs:

The hickory tree has no scaffolding limbs on either the east side, where the previous demolition and construction site is, or on the west side, the alley.

#### Canopy:

The hickory tree has very little canopy development over the alley. It is just now starting to grow new canopy 30 feet up over the alley. This tree has very weak development on the east or demolition and construction side.

#### Roots:

The CRZ has been sacrificed during previous demolition and construction. The silt fencing is just four feet away from the trunk on three sides.

## Magnolia Tree #27:

#### Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The magnolia tree (*Magnolia x soulangiana*) has multiple stems around 25 feet tall. This tree was not reviewed.

#### Trunk:

This tree is a mature, but small flowering tree.

## Holly Tree #28:

## Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The Nellie Stevens Holly tree (Ilex x 'Nellie R. Stevens') was not reviewed.

#### Trunk:

This tree is around 30 foot tall.

## Holly Tree #29:

#### Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The Nellie Stevens Holly tree (Ilex x 'Nellie R. Stevens') was not reviewed.

## Holly Tree #30:

#### Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The Nellie Stevens Holly tree (*Ilex x 'Nellie R. Stevens'*) was not reviewed.

# Holly Tree #31:

## Location:

This tree is on the southern side of the central slope on lot 37.

## Tree:

The Nellie Stevens Holly tree (Ilex x 'Nellie R. Stevens') was not reviewed.

## Holly Tree #32:

#### Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The Nellie Stevens Holly tree (Ilex x 'Nellie R. Stevens') was not reviewed.

## Beech Tree #33:

Location:

This tree is on the southern edge of the lower flat land on lot 37.

Surface Area:

The two beech trees by the power lines are in an old plant holding area. Irrigation has been installed in this area. Transplanted plants are located in this irrigated area. A balled Japanese maple (*Acer japonica*) and several shrubs sit on top of the ground in this area.

#### Utilities:

Private utility poles with electrical wires are located on the southern property line. This utility system seems to support both 7206 Meadow Lane and the neighboring property.

Irrigation has been installed in the southeast corner of the property, near the street. This appears to have been a plant holding area from the demolition and construction periods.

Public utility poles run along Meadow Lane. The poles carry electricity, telephone, and cable wires through the neighborhood.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 22 inches on May 26, 2010.

#### Trunk:

The trunk of this beech leans to the southwest toward the power lines. (See image 6: 22-inch beech trunk angle.) The trunk has an old scar on the south side running from the ground up to approximately seven feet high. The tree is approximately 50 feet tall.

#### Limbs:

The 22-inch beech tree has no scaffolding limbs of the west side of the trunk. Some of the scaffolding limbs have been cut off of the south side, nearest the power lines.

#### Canopy:

The crown of the 22-inch beech tree has some dead tips on the east side.

#### Roots:

No root flare is present on the south side of the 22-inch tree trunk. The roots on the north side of the trunk appear to be extended above the normal soil surface. (See image 8: roots of 22-inch beech.)

The CRZ of both trees is in the irrigated plant holding area. This area appears to have been flooded. Another beech tree just north of these two beech trees has already failed and is on the ground.

## **Beech Tree #34:**

#### Location:

This tree is on the southern edge of the lower flat land on lot 37.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 17 inches on May 26, 2010.

#### Trunk:

The trunk of the 17-inch beech leans southwest toward the power lines. (See image 8: 17-inch beech trunk angle.) The tree is approximately 50 feet tall.

#### Limbs:

The tree has a 3-inch diameter dead limb on the south side.

#### Roots:

No root flare is visible on the south side of the trunk. The roots are exposed from the ground on the north side.

# Beech Tree #35:

#### Location:

This tree is located near Meadow Lane, and the southeastern corner of lot 37. The tree appears to be on Town property.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 23 inches on May 26, 2010. This tree has a tag with the number 9 on it, placed by the company Care of Trees.

#### Trunk:

The tree is growing at the same distance from the power line as the two beech trees by the power lines described earlier. However, this tree appears to be stable and healthy.

#### Limbs:

The scaffolding limbs of the west side of the trunk. Some of the scaffolding limbs have been cut off of the south side, nearest the power lines.

Arborist Site Review

#### Canopy:

The crown of this tree covers the street and the southeastern section of the lower land.

Roots:

The CRZ and root flare of the Town-owned tree seem stable and healthy.

## Japanese Maple Tree #36:

#### Location:

This tree is on the lower flat land, near Meadow Lane, and in the Town right-ofway.

Tree:

The Japanese maple tree (*Acer japonica*) is four feet tall. This tree was not reviewed.

Roots:

The root ball of the transplanted tree is still above ground.

## **Beech Tree #37:**

#### Location:

This tree is located in the center of the flat land near the pond on lot 38.

## Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Trunk:

This tree seems to be sound.

#### Canopy:

The crown of the tree covers much of the center of the lower land.

## **Black Gum Tree #38:**

#### Location:

This tree is located in the center of the flat land near the pond on lot 38.

#### Tree:

The black gum tree (Nyssa syvatica) was not reviewed.

#### Trunk:

The trunk of the tree has some decay.

#### Limbs:

The top of the tree was lost. Most of the scaffolding limbs appear to have been lost.

## **Beech Tree #39:**

#### Location:

This tree is on the northern side of the central slope in front of lot 38. It is located five feet north of the construction road and underground cleanout pipe and four feet from the neighbor's fence. This section has an old irrigation outlet 60 feet east of the trunk.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 23 inches on November 23, 2010.

## Trunk:

The northeast side of the trunk and the root flare have minor damage. The trunk was sounded and indicated no appreciable internal decay.

#### Limbs:

The tree has good scaffolding limbs developed on each side. The weakest development is over the east or construction road side.

#### Canopy:

The crown of this beech tree grows over the old construction road and the neighbor's property.

#### Roots:

The southeast side has one root flare damaged or undeveloped and one damaged. The west side has no root flare developed. The northeast side has two girdling roots. Most of the CRZ was protected during the last construction phase.

# **Beech Tree #40:**

#### Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15 feet south of the construction road. This tree is next to the tulip tree numbered 5.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 24 inches on November 23, 2010.

## Trunk:

This tree trunk has two small old wounds on the north and northwest sides, about four feet up. The old wounds have what appear to be fungal fruiting bodies growing on them. Sounding indicated no appreciable internal decay.

#### Limbs:

The tree has few scaffolding limbs developed on the trunk. No limbs are present on the west side because of the tulip tree growing four feet away.

#### Canopy:

The crown of this beech tree grows over the old construction road.

#### Roots:

The root flare is well developed on all sides. No signs or sounding indicate any decay.

# **Beech Tree #41:**

#### Location:

This tree is within the existing wooded area at the top of the central slope of lot 38.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 21 inches on May 26, 2010. This tree has a Care of Trees tag number 22 on the trunk.

#### Trunk:

This tree is at the top of the slope near the old demolition and construction site.

#### Roots:

The beech tree at the top of the slope has some decay between the east side root flare. The southeast side of the root flare has callus tissue growth. The north side root flare has a small opening.

## **Beech Tree #42:**

#### Location:

This tree is within the existing wooded area at the top of the central slope of lot 38.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 23 inches on May 26, 2010. This tree has a Care of Trees tag number 23 on the trunk.

#### Trunk:

Around 20 feet up on the southwest side of the trunk, an 8-inch limb was removed from the beech tree (#42) at the top of the slope. The pruning scar now has black around the outer edges and a scar three feet long below.

#### Roots:

The beech tree (#42) at the top of the slope has a three-to-five-feet-tall old wound at the top of the south side root flare. A tar fungus appears to have started in this area. The tree has no root flare on the north side. This area has developed *callus* growth.

## Holly Tree #43:

Location:

This tree is on the southern side of the central slope on lot 37.

Tree:

The Nellie Stevens Holly tree (*Ilex x 'Nellie R. Stevens'*) was not reviewed.

## Beech Tree #56:

Location:

This tree is on the eastern side of Meadow Lane, in the Town right-of-way.

#### Tree:

The American beech tree (Fagus grandifolia) was not reviewed.
## ANALYSIS

## Beech Tree #1 OR 22:

Location:

This tree is in the northwestern corner of the site. It is at the existing alley entrance in the northwestern corner of lot 38.

Tree:

The 23-inch beech tree (#1- 22) appears to be in good health. The M-NCPPC's Arborist has recommended hand installing a driveway within the CZR to the proposed northern garage on lot 38.

Roots:

There were impacts to this CRZ during the previous demolition and construction. One-third of the CRZ is an asphalt alley, and one-third is a shared space with the red oak (#23). However, less than one-third of the CRZ is being impacted.

Most of the present root system should be intact except the far south side of the tree.

The excavation for the driveway shall not exceed six inches in any area. Soil shall be removed by a handheld air-jet digging tool and compressed air under the supervision of the Terra Green arborist. All materials used for the driveway shall be porous, so oxygen and moisture can penetrate to the roots of this tree.

Hardscape:

The two existing timber retaining walls should be removed by hand, under the supervision of the Terra Green arborist. In order to comply with the M-NCPPC 10-28-11 memo and 11-7-11 site review, a new retaining wall must be built in the same area as the existing "eastern" wooden wall. This new wall should be excavated with a handheld air-jet digging tool and built by hand under the supervision of the Terra Green arborist. Any fill shall have a gravel base with root protection matting above the gravel.

The excavation for the foundation wall of the house will be within the CRZ, but should be outside the existing tree protection fencing and previous limits of disturbance.

## Red Oak Tree #2 OR 23:

### Location:

This tree is located on the property line between the backyard of the neighboring property at 7300 Oak Lane and on the northwestern property line for lot 38 of 7206 Meadow Lane. This appears to be a shared ownership tree.

Tree:

The red oak tree (*Quercus rubrum*) appears to be on the 7300 Oak Lane property, so was not reviewed.

Roots:

The red oak shares root and canopy space with the beech tree (#22) above. This tree is shown on the plan as a shared tree, but it appears to be on the neighbor's property. Most of the present root system should be intact except the far south side of the tree.

The excavation for the driveway shall not exceed six inches in any area. Soil shall be removed by a handheld air-jet digging tool and compressed air under the supervision of the Terra Green arborist. All materials used for the driveway shall be porous, so oxygen and moisture can penetrate to the roots of this tree.

Hardscape:

The two existing timber retaining walls should be removed by hand, under the supervision of the Terra Green arborist. In order to comply with the M-NCPPC 10-28-11 memo and 11-7-11 site review, a new retaining wall must be built in the same area as the existing "eastern" wooden wall. This new wall should be excavated with a handheld air-jet digging tool and built by hand under the supervision of the Terra Green arborist. Any fill shall have a gravel base with root protection matting above the gravel.

The excavation for the foundation wall of the house will be within the CRZ, but should be outside the tree protection fencing and limits of disturbance, so no consideration is provided for the tree.

## Red Oak Tree #3 OR 25:

### Location:

This tree is located on the property line between the side yard of the neighboring property at 7300 Oak Lane and on the northern property line for lot 38 of 7206 Meadow Lane. This tree is a shared tree, but it appears to be on the neighbor's property.

Tree:

The red oak tree (*Quercus rubrum*) appears to be on the 7300 Oak Lane property, so was not reviewed.

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## Roots:

The red oak shares root and canopy space with the beech tree (#24). Most of the present root system should be intact except for the far south side of the tree. The far southern CRZ, beyond the existing tree protection fence, was damaged or destroyed during the previous demolition and construction. That area of the CRZ should be excluded from the present CRZ calculation.

## Hardscape:

The excavation for the proposed post should be adjusted to protect structural roots encountered. The excavation for the eastern retaining wall shall not exceed six inches in any area. Soil shall be removed by a handheld air-jet digging tool and compressed air under the supervision of the Terra Green arborist. The fill shall have a gravel base with root protection matting above the gravel.

The excavation for the piers for the proposed garage and porch should be performed with a handheld air-jet digging tool and built by hand under the supervision of the Terra Green arborist. After the piers are installed, the CRZ should be protected by adding tree protection fencing near the foundation wall for the building.

The excavation for the foundation wall of the house will be within the CRZ, but should be outside the tree protection fencing and limits of disturbance, so no consideration is provided for the tree.

The southeastern excavation for the utilities will be within the CRZ, but should be outside the existing tree protection fencing and previous limits of disturbance.

## **Tulip Tree #5:**

## Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15 feet south of the construction road.

### Roots:

Oxygen is restricted at the bottom of the pond by the water. Tree roots cannot survive without a minimal amount of oxygen. It is not necessary to protect the CRZ under the pond. The surviving roots to the north seem to be limited by the existing tree protection fence. No roots are visible in the open erosion ditch just north of the existing fence.

## **Tulip Tree #6:**

### Location:

This tree is in the lower central slope and part of the existing wooded protection area. The tree is in front of lot 38.

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Tree:

The tulip poplar tree (*Liriodendron tulipifera*) had a dbh of 49 inches on November 23, 2010 and November 9, 2011.

Trunk:

The connection between the trunks has become decayed. The western side of the trunk is below ground on the uphill side obscuring any evaluation. The decay appears to extend into the interior of the tree.

The sounding of the trunk at the base of the east side was like a drum, indicating massive wood loss. The trunk was drilled at two feet and four feet high on the north, south, and west sides. The drilling indicated solid wood for the 10 inches the drill bit extended into the trunk. This implies additional solid wood beyond that point.

The callus growth at the top of the crotch between the two trunks, and the callus growth and decay from the joint down to the ground indicates the east side of the two trunks may have been torn apart years ago.

The borer damage is insignificant for this species.

Most hazard assessment formulas would qualify that the defects of this trunk at four to six feet above the ground as a potential hazard, but not an imminent hazard.

#### Limbs:

Two scaffolding limbs are dead near the top. Approximately 60 feet up the south side of the primary trunk is a 10-inch diameter dead limb. Approximately 70 feet up the west side of the primary trunk is another 10-inch diameter dead limb. It appears that the decay from the dead limbs has penetrated into the trunk. There is no way to determine the depth of penetration from the ground.

The depth of penetration will be managed by the tree's health/stored carbohydrates. Extra carbohydrates can be stored in the wood and used as needed to wall-off decay, protect from other insects and diseases, and produce growth. The healthier this tulip tree is, the better it has protected itself from these injuries.

Roots:

The eastern root flare has two open wounds: one four inches wide and five feet high, while the second is two inches wide and seven feet high (See image 10: Tulip Tree #6). It is very difficult to determine how deep the decay penetrates, because the western side is below the slope of the hillside.

Sounding indicated no appreciable internal decay on the south and west sides. However, the east side has active decay in the trunk. It sounded like a drum. There is no reasonable way to determine how deep this decay penetrates.

The longer and thinner open wound extends from the crotch of the two trunks down to the ground. However, the northern flare and root has developed a massive structure around the smaller second trunk to support it. This damage appears to be old. The tree appears to have developed additional wood on the northern root flare to support this weaker trunk.

The root flare has a few shallow borer wounds. Because they are shallow, they are not causing much damage.

Most hazard assessment formulas would qualify this defect of the root flare as a potential hazard, but not an imminent hazard.

This tree (See image 10: Tulip Tree #6) is located in a protected wood line away from the future development. If it fails, it is not likely to hit a high-value target. However, this tree is heavy enough to topple other trees (in a domino effect) in the wood line if it fails.

## **Beech Tree #7:**

Location:

This tree is located on the extreme northern side of lot 37, at the center of the slope.

#### Tree:

The American beech tree was not reviewed.

#### Roots:

The CRZ appears to have been protected during the previous demolition and construction. However, the saturated soils at the bottom of the slope probably killed existing roots in this area. A beech tree in this bottom area has flailed due to what appears to be soil failure. Filling in this area should have a limited root loss if roots were killed by saturated soil.

No fill should be added closer that 20-feet from the trunk of this tree.

## **Beech Tree #8:**

Location:

This tree is near the top of the central slope within the existing wooded area, on lot 37.

## Tree:

The American beech tree had a dbh of 32 inches on May 26, 2010.

Roots:

The CRZ will be impacted by the proposed retaining wall. This wall and fill will impact some of the western roots that were preserved during the previous demolition and construction. However, it is presumed the CRZ that extends west of the existing tree protection fencing was destroyed during the previous demolition/construction process.

Limit disturbance to no closer that 15-feet from the trunk.

## **Beech Tree #9:**

### Location:

This tree is located at the top of the slope in front of lot 37.

#### Tree:

The American beech tree (*Fagus grandifolia*) had a dbh of 35 inches on May 19, 2010.

### Trunk:

The west side of this mature tree has decay that developed from the loss of the scaffolding limb on the trunk. This decay is in a critical location on the trunk. This location is the transition from the excurrent trunk into multiple scaffolding limbs and the canopy. This area is also the point where stress of the swaying canopy transfers to the trunk. This area will be under extreme pressure during severe wind storms.

The east side of this mature tree has damage at the base of the trunk and also a weak section of the trunk. The amount of decay can only be determined by invasive testing that will damage the tree further. However, the hollow sound behind the stone wall inside the trunk indicates internal decay.

The base of the trunk of a tree is also a critical pressure point during severe wind storms. This is the transfer point from the trunk to the structural roots. The inner decay in the base of this tree can compromise the stability of the tree.

The fungal fruiting bodies are evidence that this mature tree trunk's health and structure continues to be at risk. This fungus may be *Hypoxylon coharens*.

The old wound, still open at the base on the west side, and the decay in the trunk are major concerns regarding the stability of this tree.

#### Limbs:

Limbs are normal in size for this mature tree. They are developed well vertically, but few scaffolding limbs are present horizontally. The west side has fewer scaffolding limbs present. (See image 1: beech tree #9.)

A scaffolding limb has been lost from the west side of the trunk. This is probably a reflection of root loss on the west side of the tree. This root loss is probably a reflection of damage done during the construction of the concrete home and the demolition of the two homes.

A smaller four-inch dead limb is hanging on the west side. The demolition and construction may still be damaging the remaining branches on the west side of beech tree #9.

#### Canopy:

The crown of this tree has a diameter of around 30 feet. According to Dr. Michael Dirr, the spread of the canopy is usually less than or equal to the height of the tree. This mature beech tree is around 70 foot tall, but only has a crown of around 30 feet. The general distribution of canopy appears to be suppressed.

The west side of the canopy is completely open, but the canopy is not developed on the west side. I believe the development of canopy on the west side is stunted by the root loss in the construction and demolition site.

The north and east sides of the canopy are in a wooded area. The other trees in the wooded are suppressing growth on the north and east sides.

The lower portion on the south side of the canopy is suppressed, and the upper portion of the canopy is developed. The utility lines and the neighbor's garage may have interfered with the development in the lower canopy, but not the top.

Most of the canopy is in the top third of the tree. This top third is the section of the tree that has the most resistance, similar to a sail going into the wind. This top growth creates what is called the lollypop effect. The wind pressure is on the top third of the tree, but that pressure is transferred to the base of the trunk (or the base of the lollypop stick). The trunk base in this tree is decayed.

#### Roots:

The CRZ of a tree extends out to the normal drip line or edge of the canopy. Most communities restrict development activity within the CRZ. Almost half of the CRZ on the western side of this tree has been compromised by construction and demolition.

The site west of the beech tree was excavated where the former basement were located. No *surface roots* were observed in the yard. According to Dr. Michael

Dirr, the roots of a beech tree are normally shallow in the soil. The *structural roots* are the major roots that hold the tree upright, among other things.

I suspect that the structural roots within the west side of the CRZ were damaged or destroyed during the construction and demolition. The structural roots are the anchoring part of the tree that maintains the tree in an upright position.

The present-day construction fence is seven feet west of the root flare of beech tree #9. That means all of the root system on the western side of this tree has been damaged or destroyed.

This missing root system may compromise the stability of the tree.

## **Beech Tree #10:**

#### Location:

This tree is located on the southern side of lot 37, at the center of the slope.

#### Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Roots:

The CRZ appears to have been protected during the previous demolition and construction. The existing southern walls and steps should be removed by hand under the supervision of the Terra Green arborist.

The trenching of utilities shall be restricted to the southern property line. Equipment for trenching shall be limited to a walk-behind trenching machine.

## Beech Tree #11:

#### Location:

This tree is located on the southern side of lot 37, at the center of the slope.

#### Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

#### Roots:

The CRZ appears to have been protected during the previous demolition and construction. The existing walls and steps should be removed by hand under the supervision of the Terra Green arborist.

The trenching of utilities shall be restricted to the southern property line. Equipment for trenching shall be limited to a walk-behind trenching machine.

## **Beech Tree #12:**

### Location:

This tree is located on the southern side of lot 37, at the bottom of the slope.

Tree:

The American beech tree (Fagus grandifolia) was not reviewed.

Roots:

The CRZ appears to have been protected during the previous demolition and construction. However, the saturated soils at the bottom of the slope probably killed existing roots in this area. A beech tree in this bottom area has flailed due to what appears to be soil failure. Filling in this area should have a limited root loss if roots were killed by saturated soil.

No fill should be added closer that 18-feet from the trunk of this tree. The existing walls and steps should be removed by hand under the supervision of the Terra Green arborist. The trenching of utilities shall be restricted to the southern property line. Equipment for trenching shall be limited to a walk-behind trenching machine.

## **Beech Tree #24:**

### Location:

This tree is located on the extreme northern side of lot 38.

### Tree:

The American beech tree was not reviewed. A proposed garage and screen porch are to be built within the CRZ of this tree.

#### Hardscape:

The excavation for the proposed eastern post and retaining wall should be within the surviving CRZ, but outside the existing tree protection fencing and the previous limits of disturbance. Adjust location of piers for the presence of structural roots.

The fill behind the eastern retaining wall shall have a gravel base with root protection matting above the gravel. Drainage should be provided below and/or through the retaining wall.

The excavation for the piers for the proposed garage and porch should be north of the foundation of the home. All activities of equipment and material storage should be limited to the foundation wall of the building and south of the foundation.

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## **Beech Tree #33:**

### Location:

This tree is on the southern edge of the lower flat land on lot 37.

Tree:

The American beech tree does not tolerate construction pressure well.

Trunk:

The trunk of this beech leans to the southwest toward the power lines. (See image 6: 22-inch beech trunk angle.) The trunk appears to have moved to the south side. The tree is approximately 50 feet tall. That is tall enough to reach the power lines if it falls.

#### Roots:

No root flare is present on the south side of the 22-inch tree trunk. The roots on the north side of the trunk appear to be extended above the normal soil surface. (See image 8: roots of 22-inch beech.) The northern roots appear to have been pulled from the ground. This is the type of symptom seen when roots are being pulled from the soil.

It appears that the soil has failed in the past and the tree fell to the south.

The CRZ of both trees is in the irrigated plant holding area. This area appears to have been flooded. Another beech tree just north of these two beech trees has already failed and is on the ground.

## Beech Tree #34:

#### Location:

This tree is on the southern edge of the lower flat land on lot 37.

Trunk:

The trunk of the 17-inch beech leans to the southwest toward the power lines. (See image 7: 17-inch beech trunk angle.) The tree is approximately 50 feet tall. That is tall enough to reach the power lines if the tree fails.

#### Roots:

No root flare is present on the south side of the 17-inch tree trunk. The roots on the north side of the trunk appear to be extended above the normal soil surface. The northern roots appear to have been pulled from the ground. This is the type of symptom seen from roots being pulled from the soil.

It appears that the soil has failed in the past and the tree fell to the south.

The CRZ of both trees is in the irrigated plant holding area. This area appears to have been flooded. Another beech tree just north of these two beech trees has already failed and is on the ground.

## Beech Tree #35:

### Location:

This Town-owned tree is located near Meadow Lane and the southeastern corner of lot 37.

Tree:

The 23-inch beech tree is partially within the proposed grading plan. The plan has some utilities being trenched down the southern edge of the property and within the CRZ of this tree. The western CRZ is designed to receive fill up to two feet deep in to the Town property line.

The utilities to the south of this tree are only located on the outer edges of the CRZ.

The roots on the west will require a gravel bed covered with root matting.

## **Beech Tree #40:**

Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15-feet south of the construction road. This tree is next to the tulip tree number 5.

Tree:

The 24-inch American beech tree is in good health and appears to be stable. The eastern tree protection is next to the pond. No roots should be growing under the water of the pond because they have no oxygen. The eastern tree protection can be moved to the edge of the water without damaging many roots. The storm water management plan is designed to fill the area 15-feet east and 20-feet south of the tree.

The roots north of the existing tree protection fencing received no protection that is visible. Root protection 15-feet to the north of this tree should be maintained.

## White Oak Tree #55:

#### Location:

According to the plan, this tree appears to be located in the right-of-way of 7205 Meadow Lane. If this is correct, this may be a shared tree between both property owners.

### Tree:

This 30-inch white oak tree (Quercus alba) was not reviewed.

#### Roots:

A small portion of the CRZ of the white oak extends across Meadow Lane and on the Town property in front of 7206 Meadow Lane. No tree protection is recommended, because little or no roots from this tree exist on the opposite side of the street.

The asphalt road is a sealed system. No oxygen or moisture is present below the asphalt for roots to survive.

## **Beech Tree #56:**

Location:

According to the plan, this tree appears to be located next to 7205 Meadow Lane and across the street from the proposed development site, 7206 Meadow Lane.

Tree:

The 33-inch beech tree was not reviewed.

Roots:

A small portion of the CRZ will be impacted by the utility excavation on the south side of the site. Tree protection fencing should be installed for the utility trenching from the curb of the road into the Town property.

## DISCUSSION

## The Site:

## Location:

The western half of this residential lot has been severely disturbed by the demolition of the original home in 1999 and again in 2008 with the destruction of the concrete home. This disturbance has damaged or destroyed all the tree roots that should be growing in this soil.

The new construction plan focuses most of the storm water disturbances to the lower section near Meadow Lane. Some trees to be removed for the proposed storm water management plan. Parts of the lower section will be filled to provide drainage away from the site. The development will occur to the upper section off of the alley. The only disturbance to the treed center section will be the running of underground utility lines.

#### Hardscape:

The eastern third of the site along Meadow Lane will maintain the street and sidewalk system of hardscape.

The brick-on-block terracing along the southern edge of the central section and under the electric lines will be removed for the installation of underground utilities.

The western third along the alley will be developed into single family housing.

Utilities:

This plan has utilities being trenched on the north and south sides of the property. The northern trenching is prescribed to be done in previously disturbed soils. The north side will go through the existing construction road. The south side will go through the terraced and maintained section under the overhead electric lines.

The existing three-phase electric line and communication lines will continue to run poleto-pole along Meadows Lane, on County property.

## Beech Tree #1 OR 22:

Location:

This tree is in the northwestern corner of the site. It is at the present alley entrance to lot 38.

Tree:

The 23-inch beech tree (#1- 22) appears to be in good health. The M-NCPPC 10-28-11 memo and 11-7-11 site review will impact this tree. Restrict equipment and material staged in this area.

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## Hardscape:

The excavation and building for the driveway and small retaining wall shall be performed. After complete, tree protection fence shall be installed south of the driveway. The driveway shall not be used for construction operations during the development of the home and property.

#### Sequence:

The excavation for the driveway, small retaining wall, piers for the garage, and porch should be among the first operations performed. This will allow the area north of the driveway and foundation wall to continue to be protected. No equipment or material will be staged north of the foundation wall.

### Irrigation:

The CRZ north of the house foundation and south of the northern property line shall be irrigated during the development process.

The irrigation system will need to be charged and functioning before utilities are installed in the building. This can be accomplished by running the existing water line along the northern foundation wall of the building and power from the alley. Another option is to mount a portable water tank and generator on a trailer.

It is recommended that irrigation lines be directionally bored under the CRZ when the foundation of the house is dug. This will provide a permanent irrigation system for the property and enhance the sale of the home.

## Red Oak Tree #2 OR 23:

#### Location:

According to the plan, this is a shared tree between both property owners between 7300 Oak Lane and lot 38.

### Tree:

The 32-inch red oak (#2 - 23) roots should be protected in the same tree protection zone as the beech above (#1 - 22). The M-NCPPC 10-28-11 memo and 11-7-11 site review will impact this tree. Restrict equipment and or material staged in this area.

The excavation for the driveway shall not exceed six inches in any area. Soil shall be removed by a handheld air-jet digging tool and compressed air under the supervision of the Terra Green arborist. All materials for the driveway used shall be porous, so oxygen and moisture can penetrate to the roots of this tree.

Hardscape:

The excavation and building for the driveway and small retaining wall shall be performed. After complete, tree protection fence shall be installed south of the

driveway. The driveway shall not be used for construction operations during the development of the home and property.

Sequence:

The excavation for the driveway, small retaining wall, piers for the garage, and porch should be among the first operations performed. This will allow the area north of the driveway and foundation wall to continue to be protected. No equipment or material will be staged north of the foundation wall.

Irrigation:

The CRZ north of the house foundation and south of the northern property line shall be irrigated during the development process.

The irrigation system will need to be charged and functioning before utilities are installed in the building. This can be accomplished by running the existing water line along the northern foundation wall of the building and power from the alley. Another option is to mount a portable water tank and generator on a trailer.

It is suggested that irrigation lines be directionally bored under the CRZ when the foundation of the house is dug. This will provide a permanent irrigation system for the property and enhance the sale of the home.

## White Oak Tree #3 OR 25:

Location:

According to the plan, this is a shared tree between both property owners between 7300 Oak Lane and lot 38.

### Tree:

The 32-inch white oak (#3 - 25) was not reviewed, but appears to be in poor to fair health. Restrict equipment and or material staged in this area.

Two-thirds of the CRZ should be protected during construction. A small section of the CRZ will be disturbed to install a pier for a retaining wall and beams for a screen porch and garage. Soil shall be removed by a handheld air-jet digging tool and compressed air under the supervision of the Terra Green arborist.

### Sequence:

The excavation for the garage and porch should be among the first operations performed. This will allow the area north of the foundation wall to continue to be protected until the supporting beams for the garage and porch are installed. No equipment or material will be staged north of the foundation during the installation of the beams, garage or porch.

### Irrigation:

The CRZ north of the house foundation and south of the northern property line shall be irrigated during the development process.

The irrigation system will need to be charged and functioning before utilities are installed in the building. This can be accomplished by running the existing water line along the northern foundation wall of the building and power from the alley. Another option is to mount a portable water tank and generator on a trailer.

It is suggested that irrigation lines be directionally bored under the CRZ when the foundation of the house is dug. This will provide a permanent irrigation system for the property and enhance the sale of the home.

## **Beech Tree #4:**

#### Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15 feet south of the construction road.

#### Tree:

If disturbance is limited to the existing tree protection, the CRZ can be protected. The underground utilities should be restricted to the existing construction road.

## **Tulip Tree #5:**

#### Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15 feet south of the construction road.

## Tree:

If disturbance is limited to the existing tree protection, the CRZ can be protected. The underground utilities should be restricted to the existing construction road.

## **Tulip Tree #6:**

#### Location:

This tree is in the central slope and part of the existing wooded protection area. The tree is in front of lot 38.

#### Tree:

This tree is a potential hazard. The Arborist for the Town of Chevy Chase has already issued a permit to remove this tree.

## **Beech Tree #7:**

Location:

This tree is located on the extreme northern side of lot 37, at the center of the slope.

Tree:

The American beech tree was not reviewed. Some grading disturbance is proposed on the eastern side of the CRZ. All grading should be held to no closer than 20 feet from the trunk of this tree.

## **Beech Tree #8:**

### Location:

This American beech tree is near the top of the central slope within the existing wooded area, on lot 37.

Tree:

The tree protection and the wall should be no closer than 15-feet from the tree, and two-thirds of the CRZ shall be protected. Root pruning should be provided when the tree protection fencing is installed.

## **Beech Tree #9:**

Location:

This tree is located at the top of the slope in front of lot 37.

Tree:

This American beech tree is a mature tree. The growth of this mature tree is now limited because of its age. This tree's ability to recover from damage is also limited because of its age.

The amount of damage and decay caused by the stone wall is unknown. Because of this unknown factor, this tree is a potential hazard. The Arborist for the Town of Chevy Chase has already issued a permit to remove this tree.

## **Beech Tree #10:**

Location:

This tree is located on the southern side of lot 37, at the center of the slope.

Tree:

The American beech tree was not reviewed. Existing masonry walls and steps should be removed by hand under the supervision of the arborist.

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The trenching of utilities shall be restricted to the southern property line. No equipment larger than a walk-behind trencher shall be allowed within the CRZ of this tree.

All operations within the CRZ shall be under the supervision of the Terra Green arborist.

## Beech Tree #11:

Location:

This tree is located on the southern side of lot 37, at the center of the slope.

Tree:

The American beech tree was not reviewed. Two-thirds of the CRZ shall be protected. Existing masonry walls and steps should be removed by hand under the supervision of the arborist.

The trenching of utilities shall be restricted to the southern property line. No equipment larger than a walk-behind trencher shall be allowed within the CRZ of this tree.

All operations within the CRZ shall be under the supervision of the Terra Green arborist.

## **Beech Tree #12:**

Location:

This tree is located on the southern side of lot 37, at the center of the slope.

Tree:

The American beech tree was not reviewed. Two-thirds of the CRZ shall be protected, and no development should occur within 18-feet of the tree. Existing masonry walls and steps should be removed by hand.

The trenching of utilities shall be restricted to the southern property line. No equipment larger than a walk-behind trencher shall be allowed within the CRZ of this tree.

All operations within the CRZ shall be under the supervision of the Terra Green arborist.

## **Tulip Tree #17:**

### Location:

This tree is at the Meadow Lane entrance on the Town of Chevy Chase property.

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### Tree:

The Town-owned 32-inch tulip poplar (#17) has some stability and safety concerns because of the damage to the roots and lower trunk. This tree is located in a high-value target area. This tree is a potential hazard for the reasons above. The tree was pruned in 2010.

Tree protection is prescribed by both M-NCPPC and the Town Arborist (see plan).

## Red Oak #18:

#### Location:

This oak tree is in the back yard of 7300 Oak Lane.

Tree:

The CRZ will be protected by the same protection provided for trees 1 and 2.

## Tulip Tree #19:

Location:

This tree is across the alley from the development site behind 7213 Ridgewood Avenue.

Tree:

Because of its compromised root system, this is a potentially hazardous tree. The asphalt alley excludes roots from the construction site, so no protection necessary.

## Tulip Tree #20:

### Location:

This tree is across the alley from the development site behind 7213 Ridgewood Avenue. This tree appears to be at the back of 7213 Ridgewood Avenue.

Tree:

The Town of Chevy Chase should review the larger tree's root system. The asphalt alley excludes roots from the construction site, so no protection necessary.

## Walnut Tree #21:

#### Location:

This Town tree is in the alley behind 7207 Ridgeway Avenue.

Tree:

The Town-owned walnut was pruned in 2010. The asphalt alley excludes roots from the construction site, so no protection necessary.

Beech	<b>Tree #22</b>	See	#1:
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## Red Oak Tree #23 See #2: Beech Tree #24:

Location:

This tree is located on the extreme northern side of lot 38, at the center of the top of the slope. The tree is physically located on the 7300 Oak Lane side of the backyard fence.

Tree:

The 22-inch beech tree (# 24) was not reviewed, but appears to be in fair health. The M-NCPPC 10-28-11 memo and 11-7-11 site review will impact this tree. Restrict equipment and material storage in this area.

The tree should be protected by installing the tree protection next to the edge of the garage and porch without root pruning. Piers should be excavated by handheld air-jet digging tool under the supervision of the Terra Green arborist. Adjust for presents of structural roots encountered.

#### Hardscape:

The fill behind the eastern retaining wall shall have a gravel base with root protection matting above the gravel. Drainage should be provided below and/or through the retaining wall.

The excavation for the piers for the proposed garage and porch should be the only disturbance between the permanent tree protection fence and the foundation wall of the building. All work should be performed by hand under the supervision of the Terra Green arborist. After work between the foundation wall and the permanent tree protection is completed, an additional temporary tree protection fence shall be installed near the foundation wall construction area. The excavation for the proposed post should be adjusted to protect any structural roots encountered.

#### Sequence:

The excavation for the garage and porch piers should be among the first operations performed. This will allow the area north of the foundation wall to continue to be protected until the supporting beams for the garage and porch are installed. No equipment or material will be staged north of the foundation wall during the installation of the beams, garage, or porch.

#### Irrigation:

The CRZ north of the house foundation and south of the northern property line shall be irrigated during the development process.

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The irrigation system will need to be charged and functioning before utilities are installed in the building. This can be accomplished by running the existing water line along the northern foundation wall of the building and power from the alley. Another option is to mount an elevated portable water tank gravity fed and/or generator on a trailer.

It is recommended that irrigation lines be directionally bored under the CRZ when the foundation wall of the house is dug. This will provide a permanent irrigation system for the property and enhance the sale of the home.

## White Oak Tree #25 See #3:

## **Hickory Tree #26:**

### Location:

This tree is located at the alley near the property line between lot 38 and 39.

### Tree:

The 20-inch hickory tree on the western edge of the property is declining now. This tree will not recover during the construction process, so should be removed.

## Magnolia Tree #27:

#### Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The magnolia on the southern edge of the upper section is an overgrown landscape plant. The flowering tree has been allowed to grow so tall that it no longer functions at eye level. This plant should be removed and replaced after construction with plants that will screen at the human scale.

## Holly Tree #28:

### Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The Nellie Stevens Holly tree on the southern edge of the upper section is an overgrown landscape plant. The shrub has been allowed to grow so tall that it no longer screens at eye level. This shrub should be removed and replaced after construction with plants that will screen at the human scale.

## Holly Tree #29:

#### Location:

This tree is on the southern side of the central slope on lot 37.

### Tree:

The Nellie Stevens Holly tree on the southern edge of the upper section is an overgrown landscape plant. The shrub has been allowed to grow so tall that it no longer screens at eye level. This shrub should be removed and replaced after construction with plants that will screen at the human scale.

## Holly Tree #30:

### Location:

This tree is on the southern side of the central slope on lot 37.

Tree:

The Nellie Stevens Holly tree on the southern edge of the upper section is an overgrown landscape plant. The shrub has been allowed to grow so tall that it no longer screens at eye level. This shrub should be removed and replaced after construction with plants that will screen at the human scale.

## Holly Tree #31:

Location:

This tree is on the southern side of the central slope on lot 37.

### Tree:

The Nellie Stevens Holly tree on the southern edge of the upper section is an overgrown landscape plant. The shrub has been allowed to grow so tall that it no longer screens at eye level. This shrub should be removed and replaced after construction with plants that will screen at the human scale.

## Holly Tree #32:

Location:

This tree is on the southern side of the central slope on lot 37.

#### Tree:

The Nellie Stevens Holly tree on the southern edge of the upper section is an overgrown landscape plant. The shrub has been allowed to grow so tall that it no longer screens at eye level. This shrub should be removed and replaced after construction with plants that will screen at the human scale.

## **Beech Tree #33:**

Location:

This tree is on the southern edge of the lower flat land on lot 37.

Tree:

The soil around this beech tree appears to have failed in the past. If this tree falls to the south, it may damage the power lines.

## **Beech Tree #34:**

Location:

This tree is on the southern edge of the lower flat land on lot 37.

Tree:

The soil around this beech tree appears to have failed in the past. If this tree falls to the south, it may damage the power lines.

## **Beech Tree #35:**

Location:

This Town tree is located in the Meadow Lane right-of-way, near the southeastern corner of lot 37.

Tree:

The County-owned 23-inch beech tree seems healthy and stable, so should be preserved during the construction process. The underground utilities should be restricted to the southern and northern edges of the CRZ.

Pushing utilities underground can help protect the tree, but is not required. Equipment pits outside the CRZ and utilities pushed below the root.

The plan calls for up to two feet of fill on the western edge. A gravel base with root matting should be provided in the fill area. If these protective measures are provided, the CRZ should be protected.

Roots:

With an approximately 23% impact to the CRZ, we recommend: 1) using root protection matting, 2) placing a gravel drainage bed below the matting, and 3) protecting the disturbance area by minimizing impacts and using plywood and woodchips over the ground area or other measures supervised by the Terra Green arborist at the time of final wooded conservation plan. This tree is located above a 42-inch storm drain. However, we understand the applicant does not want to remove this tree, and we will utilize some root protection measures as prescribed above as part of the final forest conservation plan.

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## **Japanese Maple Tree #36:**

Location:

This tree is on the lower flat land, within the Meadow Lane right-of-way, and in the southeastern corner of lot 37.

Tree:

The Japanese maple tree was transplanted and preserved from a previous demolition project. The attempt should be made to transplant it and the other small trees and shrubs into the new landscape.

## **Beech Tree #37:**

Location:

This tree is located in the center of the flat land near the pond on lot 38.

Tree:

The 23.5-inch beech tree (#37) near the existing pond appears to be healthy and stable, but is within the new storm water management area. The beech species is not tolerant of heavy construction that affects a majority of its root system. This tree will need to be removed if grading is to be done within the majority of the drip line of this tree.

## **Black Gum Tree #38:**

Location:

This tree is located in the center of the lower land near the pond on lot 38.

Tree:

The 23-inch black gum (#38) is in poor health and has lost the top portion of the trunk. The preservation of this tree is not justified with this amount of damage before construction begins. The Town Arborist has permitted this tree for removal.

## **Beech Tree #39:**

Location:

This tree is on the northern side of the central slope in front of lot 38. It is located 8-feet north of the construction road and underground sewer pipe.

Tree:

The 22-inch beech tree on the north side of the construction road seem stable. The construction road provided little protection that is visible today. If disturbance for

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the underground utilities is limited to the existing construction road the previously protected roots can be protected.

## **Beech Tree #40:**

Location:

This tree is on the northern side of the central slope in front of lot 38. It is located in the existing wooded section and 15-feet south of the construction road. This tree is next to the tulip tree number 5.

Tree:

The 22-inch beech tree on the south side of the construction road seems stable. The construction road provided little protection that is visible today. If disturbance for the underground utilities is limited to the existing construction road the previously protected roots can be protected.

The storm water management activities should be located 15-foot to the east and 20-foot to the south.

## **Beech Tree #41:**

Location:

This tree is within the existing wooded area at the top of the central slope of lot 38.

Tree:

This tree is in fair health and seems stable. The new retaining wall should be at the existing tree protection fencing most of the distance. A small exception can be provided for a 40-squar foot "bump out". The bump out no closer than 15-feet.

## **Beech Tree #42:**

Location:

This tree is within the existing wooded area at the top central of the slope of lot 38.

Tree:

The 23-inch beech tree (#42) at the top of the slope has a tar fungus that appears to have started in this area. This fungus may be *Hypoxylon coharens*. This tree may be a health concern, but not a potential hazard. This tree should be monitored in the future.

Two-thirds of the existing CRZ should be maintained. The proposed retaining wall will be 15-feet from the tree and the existing tree protected fence 12-feet.

## Holly Tree #43:

Location:

This tree is on the southern side of the central slope on lot 37.

Tree:

The Nellie Stevens Holly tree on the southern edge of the upper section is an overgrown landscape plant. The shrub has been allowed to grow so tall that it no longer screens at eye level. This plant should be removed and replaced after construction with plants that will screen at the human scale.

## **Beech Tree #56:**

Location:

This tree is on the eastern side of Meadow Lane, off site.

Tree:

The American beech tree will need tree protection where the utility trenching crosses the curbs on the eastern side of Meadow Lane.

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## CONCLUSION

The 23-inch beech tree (#1-22) in the northwest corner, near the alley, seems stable and reasonably healthy. If hardscape is to be added within the CRZ, then excavation shall be limited to six inches in depth and performed by a handheld air-jet digging tool. In addition, all hardscape materials shall be porous enough to allow oxygen and moisture to penetrate to the roots. The existing walls and fences should be removed by hand equipment. The fill behind the new retaining wall should have a base of gravel and root protection matting, and irrigation will be provided during the construction process.

The shared 32-inch dbh red oak tree (#2-23) should have the same protection of the CRZ by protecting the beech (#1-22) near it.

The shared/neighbor's 32-inch white oak tree (#3-25). The piers for the retaining wall and screened porch should be excavated by a handheld air-jet digging tool, and the disturbance should be limited beyond the foundation wall. The fill behind the eastern retaining wall should have a base of gravel and root protection matting, and irrigation will be provided during the construction process.

The 28-inch beech tree (#4) on the northern side of the central slope, 15-feet south of the old construction road. No evidence of root protection north of the existing tree protection fence was apparent. Restrict utilities to the construction road.

The retaining wall bump-out should be restricted to 20-feet west of the trunk.

The 42-inch tulip poplar tree (#5) on the northern side of the central slope, 20-feet south of the old construction road. No evidence of root protection north of the existing tree protection fence. Restrict utilities to the construction road. The storm water management should be restricted to 20-feet south of the trunk.

The 49-inch beech tree (#6) in the center of the central slope is a potential hazard. This tree is already permitted for removed as per the Town Arborist's recommendation.

The current tree protection for the 27-inch beech tree (#7) on the slope of the hill should be maintained on the north, west, and south sides of the tree. The tree protection on the east should be no closer than 20 feet from the tree.

The 31-inch beech tree (#8) at the top of the slope seems stable. The current tree protection on the north, east, and south sides of the tree should be maintained, with the western retaining wall no closer than 15-feet from the tree.

The beech tree (#9) is a mature 35-inch dbh American beech tree. This tree is a potential hazard because of the damage on the east side of the roots and trunk and the loss of the root system on the west side. The town arborist has permitted this tree for removal.

40

The 26-inch beech tree (#10) at the top of the southern slope. The new tree protection on the west should be no closer than 18-feet from the tree. Removal of southeastern existing walls and stairs by hand only. No equipment larger than a walk-behind trencher should be used on the southern property line. All operations within the CRZ should be under the supervision of the Terra Green arborist.

The 31-inch beech tree (#11) at the center of the slope seems stable. Removal of southeastern existing walls and stairs by hand only. No equipment larger than a walkbehind trencher should be used on the southern property line. All operations within the CRZ should be under the supervision of the Terra Green arborist.

The 26-inch beech tree (#12) at the bottom of the slope seems stable. The new tree protection on the east should be no closer than 18-feet from the tree. Removal of southeastern existing walls and stairs by hand only. No equipment larger than a walk-behind trencher should be used on the southern property line. All operations within the CRZ should be under the supervision of the Terra Green arborist.

Trees #13 through #16, located in front of 7200 Meadow Lane, appear to have minimal impact. Tree protection fencing established on the southern edge of the property.

The Town-owned 32-inch tulip poplar (#17) is a potential hazard. Tree protection prescribed by the Town arborist and M-NCPPC.

Tree (#18) is located in the back yard of 7300 Oak Lane. The CRZ will be protected by trees 1 and 2's tree protection, so no additional protection is necessary.

The 30-inch offsite tulip poplar tree (#19) may be unstable. The asphalt alley excludes roots from the construction site, so no protection necessary.

The 24-inch offsite tulip poplar tree (#20). The asphalt alley excludes roots from the construction site, so no protection necessary.

The 28-inch black walnut (#21) has dead limbs in the top of the tree. The asphalt alley excludes roots from the construction site, so no protection necessary.

The 22-inch beech tree (#24) seems stable and in reasonable condition. However, it is located within 10-feet away of the new home on lot 38. Extreme care should be provided to protect the CRZ by limiting activity north of the home's foundation wall. The fill behind the new and eastern retaining wall should have a base of gravel and the gravel topped with root protection matting. Irrigation will be provided during the construction process.

The 20-inch hickory tree (#26) is in poor condition and should be removed before construction.

The magnolia (#27) is a landscape plant that is no longer functional. It should be removed before construction begins.

The six hollies (#28, 29, 30, 31, 32 & 43) are landscape plants that are no longer functional. They should be removed before construction begins.

The two beech trees (#33 and #34) by power lines are leaning toward the lines. Both trees appear to have failed sometime in the past. If they continue to fall in the southern direction, they will destroy the power lines. This is a potential hazard and its removal is subject to appeal.

Some effort needs to be taken to mitigate this potential hazard and protect the power lines by removing the trees.

The Town-owned 23-inch beech tree (#35) seems to be a healthy and stable tree. Twothirds of the CRZ of this tree should be protected during construction. Utilities should be on the edges of the CRZ of this tree. If 66% protection does not allow for the accomplishment of the recommended storm water management enhancements, then Terra Green recommends a gravel bed with root matting on the CRZ.

The small Japanese maple (#36) was a transplant from the previous demolition. It should be transplanted into the new landscape. The plants in the holding area should be dug by hand to protect the CRZ of the beech tree (#35).

The 23.5-inch beech tree (#37) seems stable and healthy. However, if grading will be done to support storm-water management requirements, then this tree may not tolerate the root damage.

The black gum tree (#38) has suffered over the years. This tree is in decline and should be removed. It is also located in an area which is proposed for re-grading for the storm water management plan. The Town arborist has permitted this tree for removal.

The 22-inch beech tree (#39) on the north side of the existing construction road, and 7-feet north and 10-feet south of the existing tree protection fences. No evidence of root protection south of the existing tree protection fence. Trenching of the house connection utilities is proposed down the old construction road.

The 23-inch beech tree (#40) on the south side of the existing construction road and tree protection fencing. No evidence of root protection north of the existing tree protection fence. Restrict utilities to the construction road. The storm water manage should be restricted to 15-feet east and 20-foot south of the trunk.

The 21-inch beech tree (#41) at the top of the slope seems stable. No activity should occur within 7-feet of the trunk of this tree. This tree should also be monitored in the future.

The 23-inch beech tree (#42) at the top of the slope seems stable. No activity should occur within 15-feet of the trunk of this tree.

The holly tree (#43) is a landscape plant that is no longer functional. It should be removed before construction begins.

The 32-inch beech tree (#53) behind 7209 Ridgewood Avenue. The asphalt alley excludes roots from the construction site, so no protection necessary.

The 24-inch tulip popular tree (#54) behind 7209 Ridgewood Avenue. The asphalt alley excludes roots from the construction site, so no protection necessary.

The 30-inch white oak tree (#55) in front of 7205 Meadow Lane. The asphalt alley excludes roots from the construction site, so no protection necessary.

The beech tree (#56) will require tree protection in both locations where the utilities cross the curbs.

## BIBLIOGRAPHY

Michael A. Dirr<u>. Manual of Woody Landscape Plants</u> Champaign, Illinois: Stipes Publishing Company. 1977

Jules Janick. <u>Horticultural Science</u> San Francisco: W.H. Freeman And Company. 1972

Carl E. Whitcomb. <u>Know It & Grow It</u> Tulsa, Oklahoma: Oil Capital Printing. 1976

Alan Mitchell. <u>Trees of North America</u> San Diego, California: Thunder Bay P-R-E-S-S. 2002

Gary L. Hightshow. <u>Native Trees, Shrubs, and Vines for Urban and Rural America</u> New York-Chicester-Weinheim-Brisbane-Singapore-Toronto: John Wiley & Sons, Inc. 1988

Richard W. Harris, James R. Clark, and Nelda P. Matheny. <u>Arboriculture</u> Upper Saddle River, New Jersey: Pearson Education, Inc. 2004

Francis W.M.R. Schwarze. <u>Diagnosis and Prognosis of the Development of Wood Decay</u> <u>in Urban Trees</u> Rowville, Australia: ENSPEC Pry Ltd. 2008

Christopher J. Luley. <u>Wood Decay Fungi Common to Urban Living Trees in the</u> Northeast and Central United States Naples, New York: Urban Forestry LLC. 2005

## GLOSSARY

Air spade - Functions on compressed air forced through a small nozzle. The air-jet dislodges parcels of soil, but not objects such as roots that are anchored on both ends.

**Callus tissue** – The callus tissue is a growth that forms in response to a wound to close and protect the wound. It is similar to a scab or scar on a human.

**Carbohydrates** - Is the food storage in the woody parts of the tree in the form of starch or carbohydrates. The tree uses carbohydrates for growth and protection against stresses.

**Co-dominate Trunks** - Two trunks in the same tree that compete for dominants. The crouch between the two trunks often becomes a weak joint.

**Critical Root Zone** (CRZ) – The area within the drip line or canopy of the tree. The majority of the root system of a tree is found within its critical root zone.

**Dbh** - Diameter at breast height; the standard of measurement for trees.

**Drip line** - The circle on the ground made by <u>water</u> dripping off a <u>plant</u>'s outermost leaves. The area within the drip line is the drip zone.

**Excurrent form** - Having a major tree form resulting from strong apical control. Trees with this form have a strong central stem and pyramidal shape. Lateral branches rarely compete for dominance. Most conifers and a few hardwoods, such as sweet gum and tulip tree, have excurrent forms.

Hardscape - Man-made impervious surfaces.

**Root flare** - The transition from trunk to roots; the point where the root submerges below the ground.

**Scaffolding Limbs** – The architectural or structural large limbs that emerge from the trunk and transition into the branches.

**Sounding Wood** - The use of sound waves to evaluate the integrity of wood and the presents of decay.

**Structural Roots** – The largest roots produced by a tree. These roots are primarily used for maintaining stability of the tree and transporting moisture and nutrients between the feeder roots and the leaves.

**Targets** - A target is any person, place, or thing of value that is within sticking distance of a dislodged part of the tree.

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Image		
Image 1	Beech tree #9	
Image 2	Lost limb	
Image 3	Stone wall	
Image 4	Wound scar	
Image 5	Decay on west side	
Image 6	22-inch beech trunk angle	
Image 7	Roots of 22-inch beech	
Image 8	17-inch beech trunk angle	
Image 9	Roots of 17-inch beech	
Image 10	Tulip tree #6	

# **SUPPORTING INFORMATION**

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17" beech trunk angle

DSC\_0001.JPG



5/26/2010 17" beech root flare DSC\_0016.JPG



#### civil engineering • surveying • land planning

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May 18, 2010 Revised November 11, 2010 Revised January 13, 2010 Revised August 12, 2011 Revised September 29, 2011 Revised November 18, 2011 Revised December 13, 2011

M-NCP&PC Environmental Planning 8787 Georgia Avenue Silver Spring, MD 20910

Attn: Mark Pfefferle, Forest Conservation Program Administrator

Re: REVISED Preliminary Forest Conservation Plan and Variance Request (#120100270) Chevy Chase, Section 4 Proposed Lots 37-38 & Outlot A, Block 5 7206 Meadow Lane

Dear Mark:

This letter is intended to serve as the REVISED Forest Conservation Variance Request.

Two copies of the REVISED Preliminary Forest Conservation Plan are attached hereto for your review and comment. Digital copies of this request and Preliminary Forest Conservation Plan are also included on the attached CD. Should you have any questions or require any additional information please feel free to contact me directly.

#### Current Conditions and Brief History:

The property is comprised of 1.325 acres (57,726 square feet) of land and is currently unimproved, and is known as 7206 Meadow Lane (Lot 36-A, Block 5, Chevy Chase, Section 4). The property is zoned R-60 and is located along the west side of Meadow Lane at the intersection of Oak Lane, but is accessed off of an alley on the west side of the property from Ridgewood Avenue.



The property was most recently occupied by a large single-family home, greater than 15,000 square feet, which was under construction. Before that, the property was originally developed with a modest single-family home. In 2000 a demolition permit was issued to raise the existing structure and construct the aforementioned large single-family home. Unfortunately, the then property owner declared bankruptcy and did not pay the general contractor. The contractor had to go through significant proceedings to obtain title in lieu of foreclosure. The project was never completed and in 2008 it too was demolished.

During this extended phase of demolition, construction and demolition again, many on-site trees were impacted via approved forest conservation plan and on-site inspection by MNCPPC. Specifically, those specimen trees numbered 5, 6, 8, 9, 11, 17, 18, and 19 (17, 18, and 19 are off-site trees) and referenced on the attached Preliminary Forest Conservation Plan (PFCP). Each of which is the subject of this variance. Most of these trees had protective measures such as root matting and tree protection fencing put in place per MNCPPC approvals shown on this PFCP.

The topography is such that the western third of the site is relatively flat as it contained the previous single family dwellings. The middle third of the property contains slopes of about 25% or more. The majority of the property's trees are located in the middle third. The eastern third of the site is adjacent to Meadow Lane, yet it is several feet lower in elevation than the adjacent Meadow Lane Right-of-Way, thereby creating a low area, where storm water runoff ponds. The ponding has created a hazard condition that has killed, or been the contributor to the death of three trees and presents numerous public safety hazards. Some of these hazards are listed below:

- a. Untreated / filtered surface storm water
- b. Contaminated and polluted storm water
- c. Disease migration
- d. Drowning hazard for young children
- e. Unstable soils and
- f. Soil erosion
- g. Tripping hazard for injury of young children
- h. Insect infestation

# (On August 8, 2010 and again on January 27, 2011, MDE confirmed that the site does not contain jurisdictional wetlands. MDE further required that any representation of a non tidal wetland be removed from the plans).

The current Preliminary Plan includes a proposed two lot subdivision. Each lot will contain a detached single family dwelling, driveway and individual storm water management systems. The two houses are proposed within the western third of the property to protect the majority of the on-site trees confined to middle third of the site within the sloped area. No specimen trees exist in the lower third of the site and the basic land plan is to fill the lower area to correct the above hazards and promote positive drainage.

The proposed utilities are located on the northern and southern property boundaries and traverse from the upper third where the houses are located to the public systems located within the Meadow Lane Right-of-Way. There was a significant reduction in tree disturbance by removing the central lot's utilities in the old three lot scheme. The proposed driveways for each of the houses will be accessed via the 20' Public Right-of-Way along the western border of the property.

In sum, the land plan has been carefully created to minimize disruption to trees with the purpose to preserve them and provide extensive new plantings and landscaping.

Per Maryland State Law, effective on October 1, 2009, CC Green Vision is requesting a variance for the impact to 17 specimen trees, 5 onsite and 12 offsite.

#### Variance Justification

The applicant, CC Green Vision, LLC, hereby requests a variance for the removal of two specimen trees. The first tree is known as tree # 9 and it has been deemed a hazard by the Terragreen Consulting Arborists and the Town of Chevy Chase. The Town has also issued a permit for its removal. A copy of the permit was provided to MNCPPC staff. The reason both applicant's arborist and the Town's arborist deemed it a potential hazard is twofold, (i) there is visible limb loss and damage on the side of the tree that faces the previous demolition, construction and demolition project, and (ii), there is a concrete block the previous land owner poured into the base of the tree. The combination makes the tree unsafe to fall on nearby neighbors or property or this property or individuals.

The second tree for removal is tree # 6. The Town arborist believes it to be a hazard and has issued a permit for its removal as well (the related Town permit has also been sent to MNCPPC staff). The applicant's arborist, Terragreen considers the tree a potential hazard, has preformed relative testing and also recommends its removal.

The applicant also requests a variance for the minor impact to the specimen trees located on and near the subject property. The on-site trees are numbered 5, 8, and 11 and trees 13, 14, 15, 16, 17, 18, 19, 23(2), 25(3), 53, 55 and 56 are located off-site. The extent of the impact to each of the trees is listed in the charts and discussed below with the variance rationale. Note that trees 23(2) and 25(3) are shared trees as they are on the property line.

# **On-Site Specimen Tree Data**

Tree No.	Common Name	Botanical Name	D.B.H.	C.R.Z. Radius	C.R.Z. Area	% C.R.Z. Area Disturbed	Condition
5	Tulip Poplar	Liriodendron tulipifera	41.0 In.	61.5 feet	11,883 s.f.	53.2	Good / Save
6	Tulip Poplar	Liriodendron tulipifera	51.0 ln.	76.5 feet	18,386 s.f.	REMOVE	Remove – Permit for Removal issued by Town of CC
8	American Beech	Fagus grandifolia	31.0 in.	46.5 feet	6,793 s.f.	27.7	Good / Save
9	American Beech	Fagus grandifolia	34.5 in.	51.75 feet	8,414 s.f.	REMOVE	Hazard / Remove
11	American Beech	Fagus grandifolia	31.0 in.	46.5 feet	6,793 s.f.	23.1	Good / Save

#### **Off-Site Specimen Tree Data**

Tree No.	Common Name	Botanical Name	D.B.H.	C.R.Z. Radius	C.R.Z. Area	% C.R.Z. Area Disturbed	Condition
13	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	4.1 %	Good* / Save
14	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	7.9 %	Good* / Save
15	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	12.4 %	Good* / Save
16	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	16.8 %	Good* / Save
17	Tulip Poplar	Liriodendron tulipifera	32.0 in.	48.0 feet	7,238 s.f.	60%	Poor / Monitor
18	Red Oak	Quercus rubra	37.0 In.	55.5 feet	9,678 s.f.	11.7 % Only hand work in this potential root zone area	Good* / Save
19	Tulip Poplar	Liriodendron tulipifera	30.0 ln.	45.0 feet	6,362 s.f.	2.2 % This tree is across alley in private property.	Good* / Save
23 / 2	Red Oak	Quercus rubra	32.0 in.	48.0 feet	7,238 s.f.	25%	Good* / Save
25 / 3	White Oak	Quercus alba	32.0 in.	48.0 feet	7,238 s.f.	32.5%	Good* / Save
53	American Beech	Fagus grandifolia	32.0 in.	48.0 feet	7,238 s.f.	7.8 %	Good* / Save
55	White Oak	Quercus alba	30.0 in.	45.0 feet	6,362 s.f.	5.6 %	Good */ Save
56	American Beech	Fagus grandifolia	33.0 In.	49.5 feet	7,698 s.f.	4.2 %	Good* / Save

These off-site trees are assumed to be in good condition. They could not be formally evaluated as they are located on private property.

09050\_11\_1208\_FC variance request(TAB final Comments).doc

Tree No.	ree No. Common Botanical Name		D.B.H.	D.B.H. C.R.Z. Radius		% C.R.Z. Area Disturbed January 2011	% C.R.Z. Area Disturbed Aug 2011
5	Tulip Poplar	Liriodendron tulipifera	41.0 In.	61.5 feet	11,883 s.f.	72.0 %	53.2
6	Tulip Poplar	Liriodendron tulipifera	51.0 In.	76.5 feet	18,386 s.f.	55.0 %	REMOVE
8	American Beech	Fagus grandifolia	31.0 in.	46.5 feet	6,793 s.f.	31.0 %	27.7
9	American Beech	Fagus grandifolia	34.5 in.	51.75 feet	8,414 s.f.	REMOVE	REMOVE
11	American Beech	Fagus grandifolia	31.0 in.	46.5 feet	6,793 s.f.	43.0 %	23.1
13	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	5.0 %	4.1 %
14	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	9.0 %	7.9 %
15	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	13.0 %	12.4 %
16	American Beech	Fagus grandifolia	30.0 in.	45.0 feet	6,362 s.f.	17.0 %	16.8 %
17	Tulip Poplar	Liriodendron tulipifera	32.0 in.	48.0 feet	7,238 s.f.	REMOVE	60%
18	Red Oak	Quercus rubra	37.0 In.	55.5 feet	9,678 s.f.	21.0 %	11.7 % Only hand work in this potential root zone area
19	Tulip Poplar	Liriodendron tulipifera	30.0 In.	45.0 feet	6,362 s.f.	4.0 %	2.2 % This tree is across alley in private property.
23	Red Oak	Quercus rubra	32.0 in.	48.0 feet	7,238 s.f.	Not Shown	25%
25	White Oak	Quercus alba	32.0 in.	48.0 feet	7,238 s.f.	Not Shown	32.5%
53	American Beech	Fagus grandifolia	32.0 in.	48.0 feet	7,238 s.f.	Not Shown	7.8 %
55	White Oak	Quercus alba	' 30.0 in	45.0 feet	6,362 s.f	9.5 %	5.6 %
56	American Beech	Fagus grandifolia	33.0 In.	49.5 feet	7,698 s.f.	Not Shown	4.2 %

# Comparison of CRZ Impact (January 2011 vs November 2011) Need update per above.

The owner and applicant hereby requests a variance for the disturbance/impact to the above referenced seventeen (17) specimen trees.

In accordance with Section 22A-21(b) of the Forest Conservation Law, the following is a description of the application requirements:

- 5 -

1. Describe the special conditions peculiar to the property which would cause the unwarranted hardship.

## A. <u>Development is improvement from unfortunately blighted situation and financial distress:</u>

As noted above, the property was originally developed approximately in the 1960's with a modest single-family home. In 2000 a demolition permit was issued to raise the existing structure and construct a new home totaling over 15,000 square feet in size. The project was never completed, the then owner declared bankruptcy and the builder had to obtain title in a deed in lieu of foreclosure proceeding. In 2008 it too was demolished. During this extended 11 year phase of demolition, construction and demolition again, many on-site trees were impacted and the property has become overgrown and ugly and each tree and the entire site declined. The unfortunate length of time has been extended by the time it takes to entitle property. The now 2 lot proposal is a radical improvement from the current decaying blight in every respect. The applicant is simply trying to correct and responsibly fix the previously caused blight.

## B. <u>Regulatory Directive on Retaining Walls at Driveway of Lot 38 and at top of slope from</u> <u>Town of Chevy Chase:</u>

The Town of Chevy Chase approved the retaining walls as currently located on lot 38 at the driveway and the slight jog on lot 38 at top of slope. The retaining walls and garage on lot 37 were approved slightly closer to Meadow Lane. The Town variance opinion is already attached on title and the findings of fact and applicant hardship are note below. There is also a controlling condition noted below that the Town arborist to monitor and approve construction and method of construction to protect trees. See below relevant excerpts from Variance attached on title recorded via labor 42188 folio 293:

- 1. As a result of the steeply sloping topography, retaining walls are necessary to support the proposed terraces and create functional "rear" yards;
- 2. Denying the applicant's request for the retaining walls would present a hardship as the because the applicant would be left with no reasonably flat area adjacent to the east façade of the houses due to the steeply sloping topography;
- 3. A review of the drawings submitted for the record reveals that the proposed houses and their projections, as modified by the applicant and permitted by this Decision, and the

proposed retaining walls, would not materially interfere with any necessary sight lines or the character of the neighborhood;

- 4. Residents of four households have indicated support for the applicant's requests; and
- 5. Although several residents testified in opposition to or raised concerns about certain requests, their concerns can be addressed by appropriate modifications to the original variance requests and by the imposition of strict conditions of approval.

Relevant Condition of Grant of Variance:

The proposed retaining walls shall be located no closer to Meadow Lane than as shown on the plans submitted for record and shall not exceed the heights shown on the plans submitted for the record and shall be located at specific locations as reasonably approved by the Town Arborist in order to prevent harm to existing canopy trees on the Subject Property;

#### C. Applicant is Responsive to Community Requests and Concerns:

In discussions with the community, the applicant not only has reduced lot yield from 12 units to 2 within  $\frac{3}{4}$  of a mile to the metro core on the largest lot in Chevy Chase, it has revised the plan to preserve two trees previously recommended for removal by MNCPPC Environmental staff in the three lot scheme. The first of which, is Tree #17. The applicant's arborist and MNCPPC staff were in agreement on the three lot scheme that this tree would be better removed. However, this tree is within Town of Chevy Chase right of way and the Town requested it be preserved. As a result, the applicant has revised the plan to preserve it, and promotes a different type of sidewalk construction (bridge) in lieu of root zone impacts because both the Town and County have also requested the applicant improve the right of way a sidewalk. The applicant has also proposed to use the existing storm water outfall pipe close to this tree rather than disturb the delicate root zone any further. Appropriate tree protection and LOD boundaries have also been employed.

Frankly, it would have been less expensive and easier to simply remove the decaying tree than employ these measures, but the applicant again is trying to accommodate neighbor requests.

The second retained tree to accommodate a request is Tree #24. On this two lot scheme the setback is much wider and the tree could be kept however, it is too small to be considered a

specimen tree and not part of this variance. This is just a further example of applicant accommodation.

#### D. Tree 6 Already Permitted by Town for Removal:

While there is impact to tree 6, this impact needs to be put into proper context. First, tree # 6 is in poor condition and a hazard so much so, that the Town of Chevy Chase has issued a permit to remove it. Although the tree is proposed for removal, the applicant however, is desirous of trying to save it and monitor is health since the tree has a large and attractive canopy and to accommodate the communities request to try and save it. And further, the impacts to Tree 6 are at the direction of an arborist.

In addition, in the previous three lot scheme, there was significantly more potential disturbance to this tree and other trees in the middle of the site for the central lot utility boring that is not part of this two lot scheme as the utilities are isolated to the sides.

Lastly, the only impacts to this tree are to place root matting to allow for the appropriate correction of the storm water hazards noted above discussed more in item E below.

#### E. <u>Most Impacts from Previously Approved MNCPPC Plans – Not This Plan. Applicant has</u> agreed to Expanding Previously MNCPPC Approved LOD:

With regard to Tree 5, this tree is adjacent to a previously constructed, construction ramp, tree protection fencing and root matting that was installed and approved by MNCPPC staff in early 2000's along with Town arborist input. Therefore, it is not the applicant that is creating the root zone disturbance. It is a pre-existing condition applicant inherited.

Despite these previous plan and site approvals, MNCPPC has now requested a larger LOD around the northern side of this tree. The applicant's arborists and the Town's arborist do not believe the increase in LOD is necessary.

The only reason applicant is making any impact to this tree is to correct the aforementioned public safety hazards, provide adequate grading and drainage, and provide beautification of functional open space rather than the existing drowning, soil erosion, insect infestation, and disease migration posed by the lack of drainage and man-made pond.

#### F. Storm Water Management Improvements to Correct Public Safety Hazards:

On the eastern side of these trees 5 and 6, there is a minor impact to correct the storm water management hazards. The impact is at the direction of an arborist and includes some root matting on the downhill side of tree. Applicant's arborist has presented it with science that roots grow uphill to ensure the trees do not fall. Thus, there is less potential for any root zone impacts on the downhill side and ample space to insert the root matting to preserve long term health of these trees.

With respect to the Stormwater runoff, the topography of the site limits the flow of stormwater runoff from leaving the site. This runoff collects from a 2-3 acre drainage shed and pockets at a low area between a 24-foot onsite slope and the Meadow Lane sidewalk, which is 4 feet higher than trees 37 and 34, and 2-3 feet higher than tree 50. Water simply is trapped and ponds on the subject property. See attached section showing the trapped area. The lack of proper drainage and soil instability has caused or been a large contributor to the death of adjacent trees of the exact same species. See attached pictures described as: Picture 1: This is dead spruce in low area 5-10 feet from tree 37, Picture 2: This is water pocket covering base of spruce tree Picture 3: This is felled beech tree in low area 10-15 feet from tree 37.

With the filling of the low area, stormwater runoff will be able to leave the site and not create unstable soils, ponding of water, insect infestation or disease migration within the existing pond. The water would travel through appropriately sized stormwater management devices approved by both the Town and County. Proposed grading in this area will allow for positive drainage of surface runoff towards adequately sized public storm drain facilities.

The applicant's design team and arborist noted below under proper engineering and licensing guidelines and practices have recommended the filling of this area and the minimal and manageable, downhill side of trees 5 and 6. They contend that the SWM and public health concerns out-weight the concern of minimal entry to the County defined forest boundary and recommend filling the low area to promote positive drainage. Once filled, these experts believe the area presents a moderately sloped area for ornamental plantings that could add a pleasant color palate to the forest back drop.

Jerry Dieruf of TerraGreen Bryan Sadlin, Kevin Heatly, and Mike Thompson of Biohabitats Jeff Robertson of CAS Engineering Dennis Coutour of Dewberry and Davis Paul Davey – Town resident and architect Joe Gordon – DSBoca Landscape design

Drew Shontz, Scott Stannard – ECS Testing Agency

#### G. Improvement from current utility hazard condition:

There is less than a 17% impact to each of offsite trees 13, 14, 15, 16. These impacts are mainly a result of removing existing utilities and installing new utilities. There have been a number of storms leaving felled branches and decaying trees in these power lines as evidenced by the following Town email. There is a concern of fire and transformer explosion. See attached pictures as examples of this concern as well as emails from the affected property owner asking for the hazard to be corrected that caused the issuance of the Town's email. This same neighbor expressed the same concern with the recent Hurricane Irene.

The proposed impacts will remove the future concern of this hazard and is therefore warranted for such a small root zoon impact.

#### Email from Town of Chevy Chase

From: Dave Walton [mailto:dwalton@townofchevychase.org]
Sent: Friday, September 24, 2010 5:09 PM
To: tbrault@woodsideventures.net; ecp@petersonandcollins.com; george@petersonandcollins.com
Cc: thoffman@townofchevychase.org
Subject: Tree Limb - 7206 Meadow Lane

All:

A beech tree at 7206 Meadow has dropped a limb that is now hung up on the electrical wires. A picture is attached. Please address as soon as possible.

Dave

#### H. Owner Support of disturbance to trees 13-16:

The owner of these trees supports the lowering of the line and utilities. This owner has been concerned for a number of years with the hazard displayed by this overhead electrical line. Regulators at both MNCPPC and the Town of Chevy Chase have continually denied applicants requests to correct this hazard. The denial continues to be a concern to this neighbor, applicant, and the future Lot 37 owner.

#### I. Low Quality or Not a Forrest at bottom of Slope:

The applicant proposed only limited impacts to the lower slope area. In fact, the applicant believes this area does not meet the definition of forest. The only trees in this area are dead rodadendrum shrubs. If MNCPPC staff is correct and it does meet the definition of forest, then at best it is low quality that could be better served to have a flat planting area for ornamental and native plantings rather than to have them die on the slope like the current plants / trees.

#### J. Impacts do not take into account the type of impact.

There is limited impact to onsite trees 8, and 11. However, the code does not distinguish between hand work and construction equipment which in applicant's view, overstates the apparent impact. In this area around tree 11, there are 3 old retaining walls that applicant would like to remove for aesthetic reasons – simply to clean up. With the arborist monitoring, and on the downhill side of these trees, the removal by hand will ensure no root impacts, yet we cannot calculate that in a circular radius, which makes it appear the disturbance is greater than it really is. And further with respect to tree 8, the majority of the work around this tree is outside of the 2000 approved and installed tree fencing and previous measures. Impact to tree 8 is less than 33%. The removal of the central lot utilities also helped tree 8.

- 2. Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas.
  - a. Not allowing the removal of tree 9 will put the neighbor's property, their family and children, and the current property owner its family and any future property owners at risk of injury because of the hazard condition.
  - b. If this were not the subject of a re-subdivision or variance, the tree would have already been removed under the Town of Chevy Chase permit. That permit process is commonly followed throughout the Town when a hazard tree exists.
  - c. Not allowing the lowering of the utility lines would be a worse condition than the minimal impacts to the subject tree root zones and further the ongoing hazard. It should be noted that this houses setback is by far the largest in the entire Town of Chevy Chase, so the opportunity to have additional tree fallings and limbs hit the lines is part of the reason for applicant's desire to lower the lines. Trenching, direct boring, or other means of lowering lines is commonly done and is encouraged to be done in the Town and throughout the County.

- Not allowing the minor filling on the downhill side of trees 5 and 6 to ensure corrective stormwater runoff measures will continue the associated public safety hazards noted above. This is a much worse condition then minor filling that provides for an appropriate ornamental planting zone.
- e. Not allowing the impact to these specimen trees (disturbing less than 66% of the critical root zone or placing them into a protective easement) would severely impact the development of this property in accordance with the existing neighborhood character as most properties are improved with large single-family homes on much smaller lots. This property has approximately a 14% lot coverage ratio, while most homes in the town are above 30%. Restrictive easements do not exist on nearby properties nor would those existing properties be subject for forest conservation requirements. Redevelopment (i.e. new home construction) of many, if not all, of the nearby properties would not be subject to enforcement of these rules.
- *3. Verify that State water quality standards will not be avoided or that a measurable degradation in water quality will not occur as a result of the granting of the variance.*

Three separate Stormwater Management (SWM) Concept Plans for this project has been reviewed and approved by the Montgomery County Department of Permitting Services. The approved SWM Concept Plans will ensure that water quality standards will be met in accordance with State and County criteria.

4. Provide any other information appropriate to support the request.

Forest conservation requirements resulting from the redevelopment of this site will be met on or off site through the final forest conservation plan process. The individual on-site trees, including the remaining three (3) on-site specimen trees and twelve (12) off-site specimen trees will be protected not just per the County requirements, but also per the Town of Chevy Chase standards which tend to be much more stringent than those of the County. The Town arborist along with the applicant's arborist, will be intimately involved in the redevelopment process not only from issuing building permit approvals, but also with the day to day implementation of protection measures.

The additional governmental oversight of these trees and expert arborist involvement should be weighed accordingly bythe Planning Board.

In addition, of the seventeen (17) specimen trees impacted, none are rare, threatened, or endangered, per the Maryland Nongame and Endangered Species Conservation Act. The property is not part of an historic site nor does it contain any historic structures and none of the specimen trees in question are 75% (or more) of the diameter of the current State champion for the subject species. In accordance with Section 22A-21(e) of the Forest Conservation Law, the following is description of the minimum criteria necessary for granting a variance.

#### 1. Will confer on the applicant a special privilege that would be denied to other applicants;

Granting the variance will not confer a special privilege as the removal and/or disturbance of the specimen trees noted above are the minimum necessary in order to redevelop the property as illustrated on the Preliminary Plan. For instance, if the Town building permit procedures where to have been followed, the homes would have been forced to be placed in the middle of the slope and not only impact, but remove the subject four on-site trees currently to remain. The applicant went through an exhaustive, multi-year variance process under multiple law changes in the Town during the application process, to obtain multiple rear yard variances simply to locate the proposed houses where the previous house existed.

The minimal impact in root zone disturbance is only necessary to improve the blight and this variance process is a help in resolving the blight. Variances like this are necessary and unavoidable in order to develop property in accordance with County and Town criteria.

#### 2. Is based on conditions or circumstances which are the result of the actions by the applicant;

The requested variance is not based on conditions or circumstances which are the result of actions of the applicant. Rather, they are pre-existing conditions the applicant is simply trying to fix and to fix in a responsible way. This site is less than three-quarters of a mile from the metro core and should be densified under any rational planning criteria. The 12 unit senior building makes enormous sense from a highest and best use and societal need. Rather than continue to pursue this or a 3 lot plan, the applicant has been accommodating and listening to public concerns.

The variance is based upon the R-60 zoning, the site's topography, proposed site development, required BMP's for storm water management, and the need for connections to public utilities. Furthermore, the applicant has worked to reduce disturbance / impact to specimen trees by isolating the middle third of the property and designating it as a tree save area through the use of slope building restriction lines. Grading has been minimized to the extent feasible while still enabling the applicant to meet those necessary requirements for providing stormwater management and ensuring proper surface drainage.

3. Is based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property

The requested variance is a result of the proposed site development, required BMP's for storm water management, and the need for utility connections to each of the proposed lots and not a result of land or building use on a neighboring property.

4. Will violate State water quality standards or cause measurable degradation in water quality.

The requested variance will not violate State water quality standards or cause measurable degradation in water quality. The specimen trees being removed or disturbed are not within a stream buffer or a special protection area. A Stormwater Management Concept Plan has been approved by Montgomery County. Additionally, only two (2) specimen trees will be physically removed from the property.

Should you have any questions or need any additional information, please do not hesitate to contact us.

Sincerely. Jeffrey A. Robertson Senior Project Manager

Sincerely,

Thomas A. Brault Applicant

N. Braunstein R. Brewer J. Dieruf

cc:

- 14 -

09050\_11\_1208\_FC variance request(TAB final Comments).doc



Attachment F

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett County Executive Robert G. Hoyt Director

December 23, 2011

Françoise Carrier, Chair Montgomery County Planning Board Maryland National Capital Park & Planning Commission 8787 Georgia Avenue Silver Spring, Maryland 20910

RE: 7206 Meadow Lane -- Revised, DAIC 120100270, NRI/FSD application accepted on 9/18/2011

Dear Ms. Carrier:

Based on a review by the Maryland National Capital Park & Planning Commission (MNCPPC), the application for the above referenced request is required to comply with Chapter 22A of the Montgomery County Code. As stated in a letter to Royce Hanson from Bob Hoyt, dated October 27, 2009, the County Attorney's Office has advised me that the specific provisions pertaining to significant trees in the State's Forest Conservation Act do not apply to any application that was submitted before October 1, 2009. Since this application was submitted before this date, I will not provide a recommendation pertaining to the approval of this request for a variance.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

- Milh

Laura Miller County Arborist

cc: Robert Hoyt, Director Walter Wilson, Associate County Attorney Mark Pfefferle, Acting Chief

<u>GENERAL NOTES</u>	LEG	LEGEND		
1) ZONING: R-60 MIN. LOT AREA = 6,000 SQ FT MIN. LOT WIDTH AT R/W = 25 FT	FRONT B.R.L. = 25 FT (OR ESTABLISHED) REAR B.R.L. = 20 FT		PARTS OF LOTS AND PAR	
MIN. LOT WIDTH AT B.R.L. = 60 FT	SIDE B.R.L. = 8 FT MIN. EACH SIDE, 18 FT MIN. TOTAL		ASSUMED BUILDING REST	
2) WATER CATEGORY - 1 SEWER CATE	GORY - I			
3) BOUNDARY INFORMATION BASED ON AV	AILABLE RECORD INFORMATION.		NEIGHBORHOOD BOUNDAR	
4) TOTAL LOT AREA: LOT 36-A = 57,726	SQ. FT. (1.325 ACRES)			
PROPOSED LOT 37 = 30,442 SF			SUBDIVISION BOUNDARY	
PROPOSED LOT 38 = 24,210 SF PROPOSED OUTLOT A = 2,447 SF			SUBJECT PROPERTY	
5) PROPERTY SHOWN ON TAX MAP HN 34	2, CHEVY CHASE, SECTION 4			
6) PROPERTY SHOWN ON WSSC 200' SHEE	T 209 NW 04.			

- 7) SITE IS LOCATED IN THE LOWER ROCK CREEK WATERSHED.
- 8) LOCAL UTILITIES INCLUDE: WATER & SEWER WASHINGTON SUBURBAN SANITARY COMMISSION ELECTRIC - PEPCO TELEPHONE - VERIZON GAS - WASHINGTON GAS

# ARCELS (NOT INCLUDED)

TRICTION LINES

PY



Ш ENU **≻** Ő RIDGEMO Attachment G



ADC MAP

COLUMBIA COUNTRY CLUB CLUB COUNTRY CLUB CLUB CLUB CLUB CLUB CLUB CLUB CLUB	PROJECT DATE	09-050 02/2010		ILLUSTRATION	KAM N/A	SCALE APPROVAL	1"=50' JAR
EVY CHASE COUNTRY CLUB 5407, GRID G-3 E: I" = 2000'	DATE BY REVISION	02/22/10 KAM FOR SUBMITTAL TO MNCPPC	03/24/10 JAR FOR PRELIMINARY PLAN SUBMITTAL	07/08/11 JAR REVISED FOR 2-LOT PLAN			
MSSC GRID: 209 NM 04, TAX MAP: HN 342 TOWN OF CHEVY CHASE PROPOSED LOT 37-38 € OUTLOT A, BLOCK 5	PLAT 5723, CIRCA 1959			BETHESDA (7TH) ELECTION DISTRICT	MONTGOMERY COUNTY, MARYLAND		
UTLOT A CTION 4					A DIVISION OF CAS FNTERPRISES. INC.	100 Moot Dideonillo Douloused Suite 101 Mount Aire Mostland 01771	DC Metro (301) 607-8031 FAX (301) 607-8045

#### PROPOSED LOTS 37-38, BLOCK 5 7206 MEADOW LANE (120100270)

Comparable Lot Data Table (Sorted in descending order by Lot Size)

Lot	Block	Subdivision	Frontage	Alignment	Lot Size	Lot Shape	Width	Buildable Area
37	5	Chevy Chase, Section 4	100.0 Feet	perpendicular	30,442 S.F.	trapezoidal	100.0 Feet	11,684 S.F.
39	4	Chevy Chase, Section 4	224.00 Feet	corner	27,913 S.F.	rectangular	120.0 Feet	11,132 S.F.
38	5	Chevy Chase, Section 4	103.6 Feet	perpendicular	24,210 S.F.	rectangular	100.0 Feet	10,679 S.F.
35A	5	Chevy Chase, Section 4	89.00 Feet	perpendicular	18,953 S.F.	trapezoidal	108.4 Feet	10,632 S.F.
34	5	Chevy Chase, Section 4	134.0 Feet	perpendicular	13,016 S.F.	rectangular	93.8 Feet	5,917 S.F.
11	6	Chevy Chase Park	50.8 Feet	perpendicular	11,742 S.F.	trapezoidal	55.0 Feet	6,179 S.F.
19	4	Chevy Chase, Section 4	123.4 Feet	corner	10,478 S.F.	rectangular	120.1 Feet	3,641 S.F.
1	22	Chevy Chase, Section 4	102.2 Feet	corner	9,670 S.F.	rectangular	102.2 Feet	3,513 S.F.
35	3	Chevy Chase, Section 4	105.2 Feet	corner	9,095 S.F.	trapezoidal	66.4 Feet	2,709 S.F.
12	6	Chevy Chase Park	50.0 Feet	perpendicular	8,833 S.F.	trapezoidal	50.0 Feet	3,531 S.F.
16	6	Chevy Chase Park	123.8 Feet	corner	8,299 S.F.	trapezoidal	103.0 Feet	2,453 S.F.
27	5	Chevy Chase Park	64.5 Feet	perpendicular	8,234 S.F.	rectangular	64.5 Feet	3,794 S.F.
28	5	Chevy Chase Park	64.6 Feet	perpendicular	8,124 S.F.	rectangular	61.4 Feet	3,778 S.F.
13	5	Chevy Chase Park	50.0 Feet	perpendicular	7,866 S.F.	trapezoidal	50.0 Feet	3,288 S.F.
31	5	Chevy Chase, Section 4	65.0 Feet	perpendicular	7,800 S.F.	rectangular	65.0 Feet	3,290 S.F.
32	5	Chevy Chase, Section 4	65.0 Feet	perpendicular	7,700 S.F.	trapezoidal	65.0 Feet	3,280 S.F.
33	5	Chevy Chase, Section 4	67.6 Feet	perpendicular	7,432 S.F.	rectangular	67.6 Feet	2,974 S.F.
13	23	Chevy Chase, Section 4	95.0 Feet	corner	7,077 S.F.	rectangular	77.4 Feet	2,041 S.F.
26	5	Chevy Chase Park	64.5 Feet	perpendicular	6,989 S.F.	rectangular	64.5 Feet	2,891 S.F.
18	5	Chevy Chase Park	139.2 Feet	corner	6,590 S.F.	trapezoidal	139.2 Feet	3,628 S.F.
14	5	Chevy Chase Park	50.0 Feet	perpendicular	6,391 S.F.	trapezoidal	50.0 Feet	2,612 S.F.
17	5	Chevy Chase Park	84.0 Feet	perpendicular	5,886 S.F.	trapezoidal	84.0 Feet	1,457 S.F.
13	6	Chevy Chase Park	60.0 Feet	perpendicular	5,796 S.F.	trapezoidal	60.0 Feet	1,083 S.F.
25	5	Chevy Chase Park	64.5 Feet	perpendicular	5,736 S.F.	rectangular	64.5 Feet	1,987 S.F.
12	23	Chevy Chase, Section 4	60.3 Feet	perpendicular	5,688 S.F.	rectangular	60.3 Feet	2,087 S.F.
15	5	Chevy Chase Park	50.0 Feet	perpendicular	5,638 S.F.	trapezoidal	50.0 Feet	2,130 S.F.
14	6	Chevy Chase Park	65.0 Feet	perpendicular	5,419 S.F.	trapezoidal	65.0 Feet	1,682 S.F.
16	5	Chevy Chase Park	55.0 Feet	perpendicular	5,332 S.F.	trapezoidal	55.0 Feet	1,878 S.F.
15	6	Chevy Chase Park	60.0 Feet	perpendicular	5,110 S.F.	trapezoidal	60.0 Feet	1,535 S.F.
19	5	Chevy Chase Park	63.2 Feet	perpendicular	5,007 S.F.	rectangular	63.2 Feet	1,547 S.F.

1. Lot statistics taken from available record plats.

2. Parts of lots and parcels were not included.

3. Longest front property line used for frontage calculation on corner lots

 $4.\,\,25'$  Front BRL (per R-60 Zone) assumed for buildable area calculations.

5. Average lot width measured at midpoint of lot.





OFFICE OF THE CHAIRMAN THE MARYLAND-MATIONAL CAPITAL PARKAND PLANNING COMMISSION

Town Council David Lublin, Mayor Kathy Strom, Vice Mayor Al Lang, Secretary Linna Barnes, Treasurer Patricia Burda, Community Liaison

August 25, 2011

The Maryland-National Capital Park and Planning Commission Montgomery County Planning Board c/o Françoise Carrier, Chair 8787 Georgia Avenue, 2<sup>nd</sup> Floor Silver Spring, Maryland 20910

RE: File No.: 120100270 (Preliminary Plan of Subdivision-7206 Meadow Lane) Proposed Lots 37-38 & Outlot A

Dear Board members:

On August 3, 2011, the Town Council of the Town of Chevy Chase held a public hearing on the referenced two-lot subdivision plan. Although the Council voted not to oppose the plan, it wishes to express its continued concerns regarding tree preservation, storm water management, and pedestrian safety.

With respect to tree preservation, the Town supports protecting trees in the central part of the property, as the Commission's staff had previously recommended. In addition, we note that pursuant to Chapter 29 of the Town Code (the Urban Forest Ordinance), canopy trees may not be removed from private property without a permit. In order to re-grade the eastern portion of the property to create a level yard area, the applicant proposes to remove three protected canopy trees. The applicant's request for an administrative permit to remove these trees was denied. To proceed with the proposed leveling plan, the applicant has submitted an appeal to the Town Tree Ordinance Board, which will consider the case in late September. Additionally, several other protected trees are located in close proximity to the proposed development. Modification of the conceptual site plan may be necessary to protect the subject canopy trees. At a recent variance hearing, the applicant indicated its intention to comply with a tree protection plan to be prepared by the Town Arborist.

With respect to storm water management, Chapter 28 of the Town Code (the Water Drainage Ordinance) requires the installation of a water drainage system to manage water runoff. The Town Council is convinced that storm water management may be challenging due to the proximity of protected canopy trees to proposed improvements as well as the subject property's environmental sensitivities, including its steeply sloping grade and poor drainage characteristics. However, the applicant has stated its intention to comply with the Ordinance.

Montgomery County Planning Board August 25, 2011 Page 2

Thus, although the Town Council does not oppose the proposed two-lot subdivision, the Council will insist that the proposed development comply with Chapters 28 and 29 of the Town Code.

Additionally, the Town Council is concerned about pedestrian safety along the proposed adjoining alley. The proposed development would increase traffic on the narrow and winding alley, which is where the houses will front. The alley is often used by pedestrians and children at-play. The installation of safety measures may be necessary to reduce hazards. The Town Council is pleased that, through its representatives, the applicant has indicated an intention to work with the Town to address safety concerns in the alley.

On behalf of the Town Council, I thank you for the opportunity to participate in this proceeding.

Very truly yours,

David Lublin, Mayor

 cc: Catherine Conlon, Development Review Division Neil Braunstein, Planner Coordinator Robert G. Brewer, Esq.
 David R. Podolsky, Esq.



#### DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett County Executive

September 8, 2011

Carla Reid Director

Mr. Jeffery A. Robertson CAS Engineering 108 W. Ridgeville Boulevard, Suite 101 Mount Airy, MD 21771

Stormwater Management Concept Revision #2 Re: Request for 7206 Meadow Lane/Chevy Chase Section 4 Preliminary Plan #: 120100270 SM File #: 237428 Tract Size/Zone: 1.33 Ac./R-60 Total Concept Area: 1.33 Ac. Lots/Block: 36A/5 (Proposed lots 37 & 38) Watershed: Lower Rock Creek

Dear Mr. Robertson:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above mentioned site is acceptable. The stormwater management concept proposes to meet required stormwater management goals via Environmental Site Design (ESD). The ESD practices to be used are drywells and micro-bioretention.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

- 1. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
- 2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
- 3. An engineered sediment control plan must be submitted for this development.
- 4. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.
- 5. This site is considered to be new development and must be designed to meet the new stormwater standards.
- 6. Each lot must provide the full onsite ESD volume. ESDv is to be calculated using the full lot size and current sizing criteria as stated in MDE Environmental Site Design Process & Computations, dated July 2010.
- 7. Safe conveyance of overflows down the steep slope is required
- 8. Use the MCDPS design criteria in effect at the time of plan submittal for the stormwater structures.

This list may not be all-inclusive and may change based on available information at the time.

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 is not required.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact David Kuykendall at 240-777-6332.

8incere

Richard R. Brush, Manager Water Resources Section Division of Land Development Services

RRB:tla CN237428 7206 Meadow Lane Chevy Chase Sect 4 REVISION 2.DWK

cc: C. Conion SM File # 237428

ESD Acres: 1.33 Structural Acres: 1.33 Waived Acres: 0.0



#### DEPARTMENT OF TRANSPORTATION

Isiah Leggett County Executive

June 18, 2010

Arthur Holmes, Jr. Director

Ms. Catherine Conlon, Subdivision Supervisor Development Review Division The Maryland-National Capital Park & Planning Commission 8787 Georgia Avenue Silver Spring, Maryland 20910-3760

RE:

Preliminary Plan #1-20100270 7206 Meadow Lane

Dear Ms. Conlon:

We have completed our review of the preliminary plan signed March 29, 2010. This plan was reviewed by the Development Review Committee at its meeting on May 24, 2010. We recommend approval of the plan subject to the following comments:

All Planning Board Opinions relating to this plan or any subsequent revision, project plans or site plans should be submitted to DPS in the package for record plats, storm drain, grading or paving plans, or application for access permit. Include this letter and all other correspondence from this department.

- 1. Necessary dedication for Meadow Lane per MNCPPC-TP.
- 2. Access and improvements along Meadow Lane as required by the Town of Chevy Chase.
- 3. We have accepted the applicant's storm drain capacity and impact analysis. No capacity improvements to the County maintained storm drain system will be required of this applicant.

Thank you for the opportunity to review this preliminary plan. If you have any questions or comments regarding this letter, please contact Ms. Dewa Salihi at (240) 777-2197.

Sincerely,

Gregory M. Leck, P.E., Manager Development Review Team

M/subdivision\SALIHD01\Preliminary Plans\1-20100270 7206 Meadow Lane\1-20100270 7206 Meadow Lane.doe

- cc: Jeff Robertson, CAS Engineering Thomas A. Brault, CC Green Vision LLC Neil Braunstein, MNCPPC DRD Shahriar Etemadi; M-NCPPC TP Todd Hoffman, Town of Chevy Chase Alan Beal, Town of Chevy Chase Preliminary Plan Folder Preliminary Plans Note Book
- cc-e: Sarah Navid; DPS RWPPR Henry Emery; DPS RWPPR Dewa Salihi, DOT TEO

**Division of Traffic Engineering and Operations**