

SOILS DESCRIPTION

UcB - (C) - URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 0-5% SLOPES (C)

FOREST CONSERVATION WORKSHEET
VERSION 1.0

NET TRACT AREA:
A. Total tract area.....=1.14
B. Area within 100 year floodplain.....=0.00
C. Area to remain in agricultural production.....=0.00
D. Net tract area.....=1.14

LAND USE CATEGORY:
(from table 3.2.1, page 40, Manual) Input the number "1" under the appropriate land use zoning, and limit to only one entry.

E. Afforestation Threshold..... 15% x D = 0.17
F. Conservation Threshold..... 20% x D = 0.23

EXISTING FOREST COVER:
G. Existing forest cover (excluding floodplain).....=0.00
H. Area of forest above afforestation threshold.....=0.00
I. Area of forest above conservation threshold.....=0.00

BREAK EVEN POINT:
J. Forest retention above threshold with no mitigation.....=0.00
K. Clearing permitted without mitigation.....=0.00

PROPOSED FOREST CLEARING:
L. Total area of forest to be cleared.....=0.00
M. Total area of forest to be retained.....=0.00

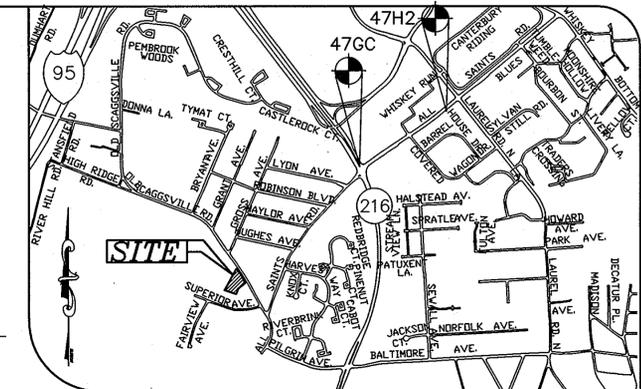
PLANTING REQUIREMENTS:
N. Reforestation for clearing above conservation threshold.....=0.00
P. Reforestation for clearing below conservation threshold.....=0.00
Q. Credit for retention above conservation threshold.....=0.00
R. Total reforestation required.....=0.00
S. Total afforestation required.....=0.17
T. Total reforestation and afforestation required.....=0.17

LEGEND

- DENOTES PROPOSED DRIVEWAY
- NON-ROOFTOP DISCONNECTION
- AREA DEDICATED TO HOWARD COUNTY
- SLOPES 15%-24.5%
- SANITARY MH
- LANDSCAPE PERIMETER EDGE
- MICRO-BIORETENTION FACILITY
- LIMIT OF DISTURBANCE
- SUPER SALT FENCE
- EX. OVERHEAD POWER LINE
- EX. BGE POLE
- EX. FENCE

STORMWATER MANAGEMENT PRACTICES

LOT #	GREEN ROOF (Y/N)	PERMEABLE PAVEMENTS (Y/N)	REINFORCED TURF (Y/N)	DISCONNECTION OF ROOFTOP RUNOFF (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF (Y/N)	SHEETFLOW TO CONSERVATION AREAS (Y/N)	RAINWATER HARVESTING (NUMBER)	SUBMERGED GRAVEL WETLANDS (NUMBER)	LANDSCAPE INFILTRATION (NUMBER)	INFILTRATION BEDS (NUMBER)	DRY WELLS (NUMBER)	MICRO-BIORETENTION (NUMBER)	RAIN GARDENS (NUMBER)	SWALES (NUMBER)	ENHANCED FILTERS (NUMBER)
1															
2															
3															
4															



VICINITY MAP
SCALE: 1"=2000'

- GENERAL NOTES:**
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS.
 - PROJECT BACKGROUND:**
LOCATION: TAX MAP: 50 PARCEL: 96 GRID: 2
ELECTION DISTRICT: SIXTH
ZONING: R-SC
PROPOSED USE FOR SITE: RESIDENTIAL
TYPE OF PROPOSED UNIT: SFD
DPZ FILE NOS: ECP-13-047, WP-14-030.
DEED: L4860 F.0161
 - AREA TABULATION**
A. TOTAL TRACT AREA: 1.14 AC.±
B. NUMBER OF PROPOSED BUILDABLE LOTS: 4
C. NUMBER OF OPEN SPACE LOTS: 0
D. AREA OF PUBLIC RIGHT-OF-WAY: 0.02 AC.±
E. AREA OF BUILDABLE LOTS: 1.12 AC.±
 - ON-SITE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY CONDUCTED BY MILDENBERG, BOENDER AND ASSOCIATES ON OR ABOUT JANUARY 2013.
 - HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 470C AND 47H2.
STA. No. 470C N 528,939.7261, E 1,354,223.5536, ELEV. 234.996
STA. No. 47H2 N 529,706.4221, E 1,355,445.3364, ELEV. 225.653
 - THE PROPOSED SUBDIVISION WILL CONSIST OF SINGLE FAMILY DETACHED DWELLINGS.
 - STEEP SLOPES GREATER THAN 25% AND OVER 20,000 SQ. FT. IN AREA DO NOT EXIST ON-SITE.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2").
C) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. OF 45 FOOT TURNING RADIUS.
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD PLAIN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE.
F) STRUCTURE CLEARANCES - MINIMUM 12 INCHES.
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
 - FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT OF A FEE-IN-LIEU OF AFFORESTATION FOR 0.17 ACRES (7405.20 S.F.) IN THE AMOUNT OF \$5,553.90.
 - LANDSCAPING FOR THESE LOTS IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. LANDSCAPING REQUIREMENTS FOR THIS SUBDIVISION WILL BE FURTHER REVIEWED AT THE SITE DEVELOPMENT PLAN STAGE AND SURETY WILL BE POSTED AT THE TIME OF THE BUILDER'S GRADING PERMIT.
 - THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
 - DRIVEWAY ENTRANCE IS PER HOWARD COUNTY STANDARD DETAIL R-6.06.
 - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM LOT AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PRESTEM LOT DRIVEWAY.
 - STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED VIA MICROBIORETENTION FACILITIES AND NON-ROOFTOP DISCONNECTIONS.
 - HORIZONTAL GEOMETRY OF THE MICRO-BIORETENTION MAY BE MODIFIED WHILE MAINTAINING SURFACE AREA.
 - A SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
 - THE OPEN SPACE REQUIREMENT FOR THIS RESUBDIVISION IS MET BY A PAYMENT OF FEE-IN-LIEU IN THE AMOUNT OF \$6,000.00 IN ACCORDANCE WITH THE CONDITIONS OF APPROVAL OF WP-14-030.
 - ALL EXISTING STRUCTURES ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
 - NO WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN, STEEP SLOPES GREATER THAN 25%, SPECIMEN TREES OR FOREST CONSERVATION EASEMENT EXISTS ON SITE AS CERTIFIED BY MILDENBERG, BOENDER, & ASSOCIATES IN WETLAND CERTIFICATION LETTER DATED JANUARY 2013.
 - THIS SUBDIVISION IS IN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC (CONTRACT# W-1 AND 30-S).
 - THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPERS OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSES UNITS TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
 - THE HISTORIC STRUCTURE CIRCA 1884 LOCATED ON THIS SITE IS TO BE DEMOLISHED PRIOR TO RECORDATION OF THIS PLAN. A PRE-SUBMISSION MEETING WAS HELD WITH THE HISTORIC COMMISSION ON MAY 2, 2013 AS CASE HDC-13-20. THIS SITE IS NOT ADJACENT TO THE HISTORIC DISTRICT. THIS PROPERTY IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
 - NO BURIAL GROUNDS OR CEMETERIES EXIST ON SITE.
 - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTION OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
 - THIS SUBDIVISION IS SUBJECT TO WP-14-030, APPROVED ON OCTOBER 28, 2013 WAIVING SECTION 16.121(b)(2)(1) WHICH REQUIRES A MINIMUM OPEN SPACE EQUAL TO 25% OF THE TOTAL TRACT AREA BE PROVIDED FOR A SUBDIVISION WITHIN THE R-SC ZONING DISTRICT. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. PRIOR TO RECORDATION OF THE FINAL SUBDIVISION PLAN, THE DEVELOPER IS REQUIRED TO PAY A FEE-IN-LIEU OF ACTUAL ESTABLISHMENT OF OPEN SPACE IN THE AMOUNT OF \$6,000.00. THIS AMOUNT IS COMPLIANT WITH THE FEE SCHEDULE OF \$1,500.00 PER LOT ADOPTED BY THE COUNTY COUNCIL.
2. COMPLIANCE WITH ALL SRC REVIEW COMMENTS ON THE FINAL PLAN AND PLAN F-14-001, IS REQUIRED PRIOR TO SIGNATURE APPROVAL OF THE FINAL PLAN.

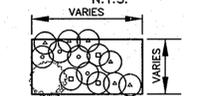
SWM PRACTICES SCHEDULE

LOT #	PROPOSED PRACTICES	REQUIRED ESDV / TARGET ESDV	PROVIDED ESDV
LOT 1	N-2, NON-ROOFTOP DISCONNECTION ONE (1) M-6, MICRO BI-RETENTION FACILITY	615.6 CF	630.00CF
LOT 2	N-2, NON-ROOFTOP DISCONNECTION ONE (1) M-6, MICRO BI-RETENTION FACILITY	519.5 CF	541.0 CF
LOT 3	N-2, NON-ROOFTOP DISCONNECTION ONE (1) M-6, MICRO BI-RETENTION FACILITY	494.3 CF	514.6 CF
LOT 4	N-2, NON-ROOFTOP DISCONNECTION ONE (1) M-6, MICRO BI-RETENTION FACILITY	393.0 CF	405.1 CF

BIO-RETENTION SCHEDULE

NO.	SIZE	TOP EL.	WEIR EL.	INV. IN	INV. OUT.
1	320 S.F.	247.00	248.00	244.58	244.25
2	305 S.F.	249.00	250.00	246.58	246.25
3	285 S.F.	251.50	252.50	248.58	248.25
4	230 S.F.	251.50	252.50	248.08	248.80

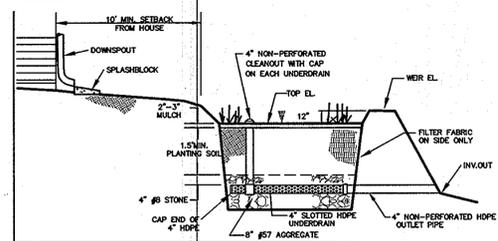
MICRO-BIORETENTION PLANTING DETAIL



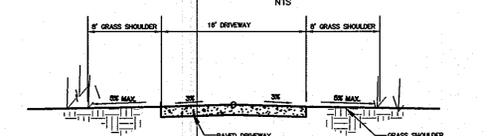
PLANT LIST

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
5	○	ILEX GLABRA	INK BERRY	2' - 3' HT.
16	○	LOBELIA SPHELICA	GREAT BLUE	1 GAL. CONTAINER
11	○	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
8	○	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

TOTAL (BR-1): 35 PERENNIALS, 5 SHRUBS
TOTAL (BR-2): 33 PERENNIALS, 5 SHRUBS
TOTAL (BR-3): 31 PERENNIALS, 4 SHRUBS
TOTAL (BR-4): 29 PERENNIALS, 4 SHRUBS



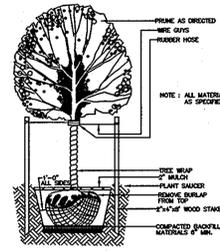
TYPICAL MICRO-BIORETENTION PROFILE



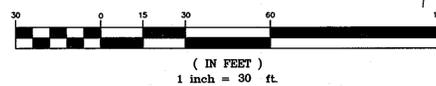
DRIVEWAY CROSS SECTION

TYPICAL DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



GRAPHIC SCALE



LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
11	○	PRUNUS SARGENTI	SARGENT CHERRY	2 1/2" - 3" CAL. OR EQUIVALENT AS OUTLINED IN THE HOWARD COUNTY LANDSCAPE MANUAL
5	○	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	6"-8" HGT. OR EQUIVALENT AS OUTLINED IN THE HOWARD COUNTY LANDSCAPE MANUAL
6	○	ILEX NELLIE R. STEVENS	NELLIE R. STEVENS HOLLY	5"-6" HGT. OR EQUIVALENT AS OUTLINED IN THE HOWARD COUNTY LANDSCAPE MANUAL

TOTAL: 16 SHADE TREES AND 5 EVERGREEN TREES

SCHEDULE A - PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES				TOTAL
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	B (PERIMETER 4)	
LANDSCAPE TYPE					
LINEAR FEET OF PERIMETER (CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET))	334.83 LF	142.51 LF	207.46 LF	235.58 LF	
NUMBER OF PLANTS REQUIRED					
SHADE TREES	6	2	3	5	16
EVERGREEN TREES	0	0	0	0	0
SHRUBS	0	0	0	0	0
NUMBER OF PLANTS PROVIDED					
SHADE TREES	6	2	3	5	16
EVERGREEN TREES	0	0	0	0	0
OTHER TREES (2:1 SUBSTITUTION)	0	0	0	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0	0	0	0

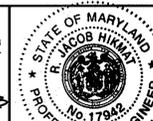
OWNER
RICHARD AND DEBORAH NEWELL
9318 OLD SCAGGSVILLE ROAD
LAUREL, MARYLAND 20723
301-490-8185

DEVELOPER
HARMONY BUILDERS
4228 COLUMBIA ROAD
ELICOTT CITY, MARYLAND 21042
410-461-0833

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Edwards
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 12-13-13

Vestal
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 12-20-13



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17342, EXP DATE 09/10/14

R. JACOB HIKMAT P.E.
DATE: 12/11/13

Project	12-032	date	DEC. 2013
Illustration	MM	description	engineering
scale	MM	scale	MM
revision		revisions	
no.		no.	

NEWELL PROPERTY LOTS 1-4
SINGLE FAMILY DETACHED
SUPPLEMENTAL PLAN
6TH, ELECTION DIST. HOWARD COUNTY, MD. TAX MAP 50, GRID 2, PARCEL 96

MILDENBERG, BOENDER & ASSOC., INC.
Engineers, Planners, Surveyors
6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075
(410) 997-0296 Fax: (410) 997-0298 Fax.