

GENERAL NOTES

- THE SUBJECT PROPERTY ZONED R-20, PER THE COMPREHENSIVE ZONING PLAN, MAPS AND AMENDED REGULATIONS, EFFECTIVE OCTOBER 6, 2013.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY BENCHMARK ENGINEERING, INC., DATED NOVEMBER, 2013.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS, PREPARED BY BENCHMARK ENGINEERING, INC., DATED DECEMBER, 2013 & SUPPLEMENTED WITH H.O.C.O. GIS TOPOGRAPHICAL INFORMATION.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. #37R2 AND #37B4 WERE USED FOR THIS PROJECT.
- EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM APPROVED CONTRACT DRAWINGS AND FIELD SURVEYED LOCATIONS. IF NECESSARY, THE CONTRACTOR SHALL ADJUST ANY OR ALL STRUCTURE TOP ELEVATIONS TO MATCH PROPOSED GRADES.
- THERE ARE NO 100 YEAR-FLOODPLAIN, STREAMS, STEEP SLOPES OR FORESTED AREAS LOCATED ON-SITE; THERE IS A 75' STREAM BUFFER LOCATED ON-SITE TO THE SUBJECT PROPERTY.
- NO GRADING, REMOVAL OR VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS EXCEPT AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING. THE CONNECTION TO THE SEWER MAIN FOR LOT 1 IS WITHIN THE STREAMBANK SETBACK. THIS DISTURBANCE IS PERMITTED AS A NECESSARY DISTURBANCE AND WAS APPROVED UNDER F-14-091.
- THERE IS AN EXISTING STRUCTURE LOCATED ON LOT 2 OF THIS SITE TO REMAIN.
- BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
- A NOISE STUDY IS NOT REQUIRED FOR THIS DEVELOPMENT.
- A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, INC., DATED DECEMBER, 2013 AND APPROVED UNDER F-14-091.
- THIS SITE IS WITHIN THE METROPOLITAN DISTRICT; WATER & SEWER IS PUBLIC, CONNECTING INTO EXISTING CONTRACTS. THE DRAINAGE AREA IS THE LOWER NORTH BRANCH PATAPSCO RIVER WATERSHED.
- APPROPRIATE SIGHT DISTANCE IS AVAILABLE AT THE ENTRANCE BASED ON A SIGHT DISTANCE ANALYSIS APPROVED UNDER F-14-091.
- A GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY GEOTECHNICAL LABORATORIES, INC., DATED JANUARY, 2014.
- THERE ARE NO WETLANDS LOCATED ON-SITE AS OUTLINED IN THE WETLANDS CERTIFICATION LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JANUARY 3, 2014 AND SUBMITTED UNDER F-14-091.
- THIS PLAN WILL BE PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- PREVIOUS DPZ PLAN NUMBERS: EOP-14-052, F-14-091, F-90-119, WP-14-128.
- THE REQUIREMENTS OF SECTION 16.120 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION ARE PREVIOUSLY FULFILLED UNDER F-14-091 BY PROVIDING 0.6 ACRES OF OFF-SITE RETENTION ON THE VALLEY MEDE, SECTION 2, LOT 72 (F-09-051), PLAT NUMBER 20710. THERE IS NO SURETY FOR THIS RETENTION.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (14' SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.).
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- ON JUNE 2ND, 2014, WAIVER PETITION (WP-14-128) WAS APPROVED BY THE DIRECTOR OF PLANNING AND ZONING TO WAIVE SECTIONS 16.132(a)(1), 16.134(a)(1) AND 16.135(c) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE WAIVER REQUEST TO SECTION 16.132(a)(1) PERTAINED TO ANY ROAD CONSTRUCTION REQUIRED ALONG OLD MONTGOMERY ROAD. THE WAIVER TO SECTION 16.132(c) PERTAINED TO THE REQUIREMENT OF ANY SIDEWALK ALONG OLD MONTGOMERY ROAD. THE WAIVER TO SECTION 135(c) PERTAINED TO THE REQUIREMENT OF PROVIDING STREET LIGHTS ALONG OLD MONTGOMERY ROAD. CONDITIONS OF THIS APPROVAL ARE:
 - COMPLIANCE WITH THE ATTACHED COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION, DATED MAY 14, 2014, PRIOR TO THE SUBMISSION OF THIS PLAN TO THIS OFFICE FOR SIGNATURE APPROVAL AND RECDORATION.
 - IN ACCORDANCE WITH THOSE COMMENTS, THE DEVELOPER MUST PAY A FEE-IN-LIEU OF PROVIDING SIDEWALKS AND ROAD IMPROVEMENTS AS A CONDITION OF THIS WAIVER APPROVAL.
 - APPROVAL OF THE FINAL SUBDIVISION PLAT, F-14-091.
 - INCLUDE THIS WAIVER AS A GENERAL NOTE ON THE FINAL PLAT AND SUBSEQUENT SITE DEVELOPMENT PLAN. THIS NOTE SHALL INCLUDE THE WAIVER FILE NUMBER, SECTIONS WAIVED, DECISION DATE AND CONDITIONS OF APPROVAL.
- THE FEE-IN-LIEU OF PROVIDING SIDEWALK IN THE AMOUNT OF \$4,600.00 HAS BEEN PAID ON SEPTEMBER 18, 2014.
- WRITTEN APPROVAL FROM BO&E FOR THE PROPOSED LANDSCAPING ALONG OLD MONTGOMERY ROAD WAS OBTAINED BY CORRESPONDENCE DATED JANUARY 28, 2014. LANDSCAPING AROUND THE DOMESTIC SERVICE LINE WAS APPROVED BY CORRESPONDENCE DATED FEBRUARY 11, 2014 AND APPROVED UNDER THESE PLANS.
- THE PRE-SUBMISSION MEETING WAS HELD FOR THIS PROJECT ON JANUARY 7, 2014.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 12 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- FINANCIAL SURETY IN THE AMOUNT OF \$80,000 (\$2,100 FOR 7 SHADE TREES, \$3,300 FOR 22 EVERGREENS AND \$210 FOR 7 SHRUBS IN PERIMETER 1 AND FOR \$2,400 FOR THE 8 STREET TREES) FOR THE REQUIRED PERIMETER LANDSCAPING AND STREET TREE LANDSCAPING SHALL BE POSTED AS PART OF THE BUILDERS GRADING PERMIT IN ASSOCIATION WITH THE SITE DEVELOPMENT PLAN STAGE OF THIS PROJECT.
- FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- FEE-IN-LIEU OF OPEN SPACE FOR THIS SUBDIVISION HAS BEEN PAID ON OCTOBER 15, 2014 IN THE AMOUNT OF \$4,500.00 (3 NEW LOTS @ \$1,500 PER LOT).
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- EXISTING UTILITIES SHOWN ARE BASED ON A FIELD SURVEY AND HOWARD COUNTY GIS.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- SITE ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.06.
- STORMWATER MANAGEMENT FOR LOT 1 WILL BE PROVIDED BY 4 DRYWELLS AND 1 MICRO-BIORETENTION FACILITY. STORMWATER MANAGEMENT FOR LOTS 3 AND 4 WILL BE PROVIDED BY 4 DRYWELLS AND LOT 4 WILL UTILIZE 1 MICRO-BIORETENTION FACILITY. THE STORMWATER MANAGEMENT METHODS HAVE BEEN APPROVED UNDER F-14-091.
- WRITTEN APPROVAL FROM BO&E FOR THE PROPOSED LANDSCAPING ALONG OLD MONTGOMERY ROAD WAS OBTAINED BY CORRESPONDENCE DATED JANUARY 28, 2014. LANDSCAPING AROUND THE DOMESTIC SERVICE LINE WAS OBTAINED BY CORRESPONDENCE DATED FEBRUARY 11, 2014 AND APPROVED UNDER THESE PLANS.

RESIDENTIAL SITE DEVELOPMENT PLAN

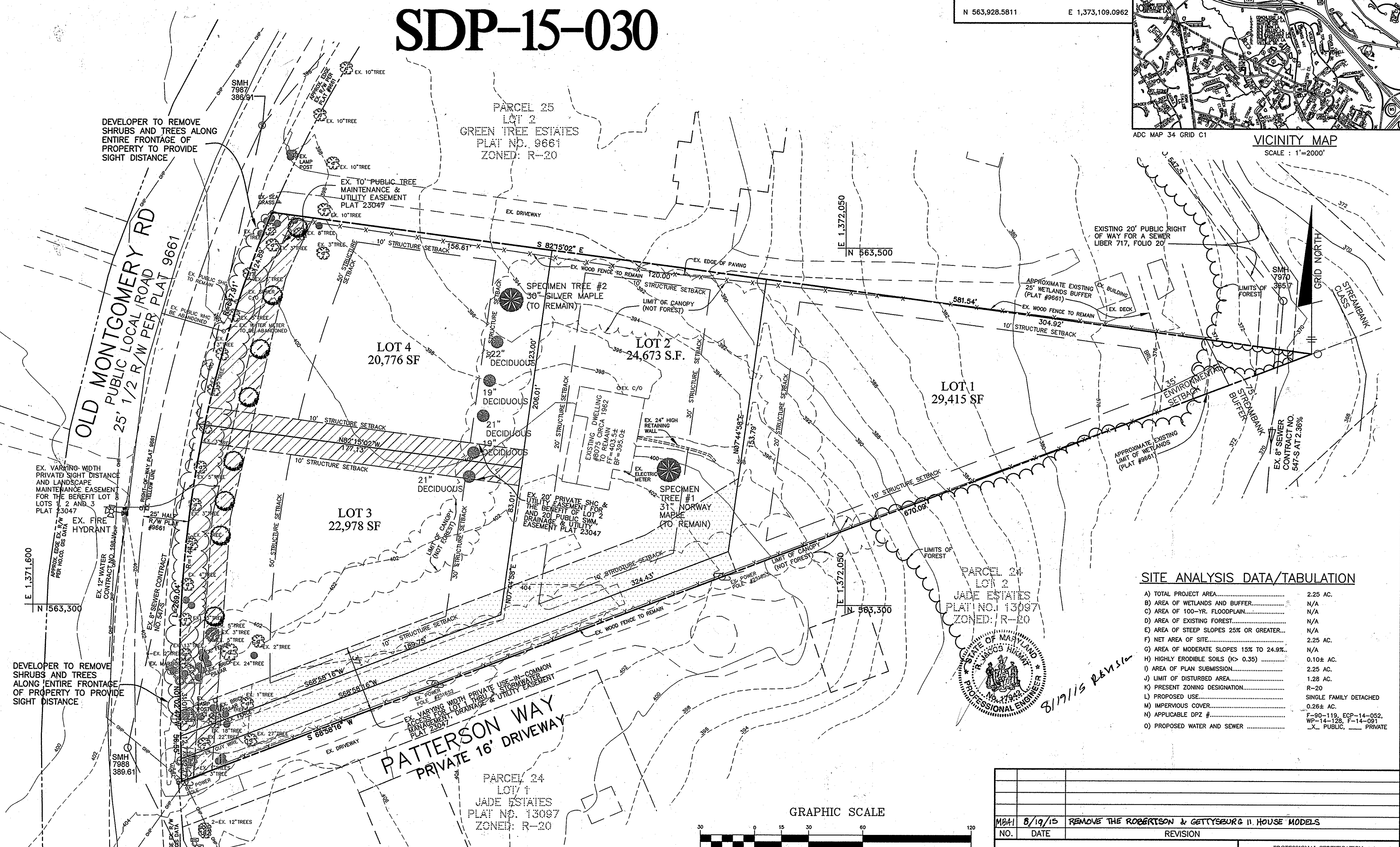
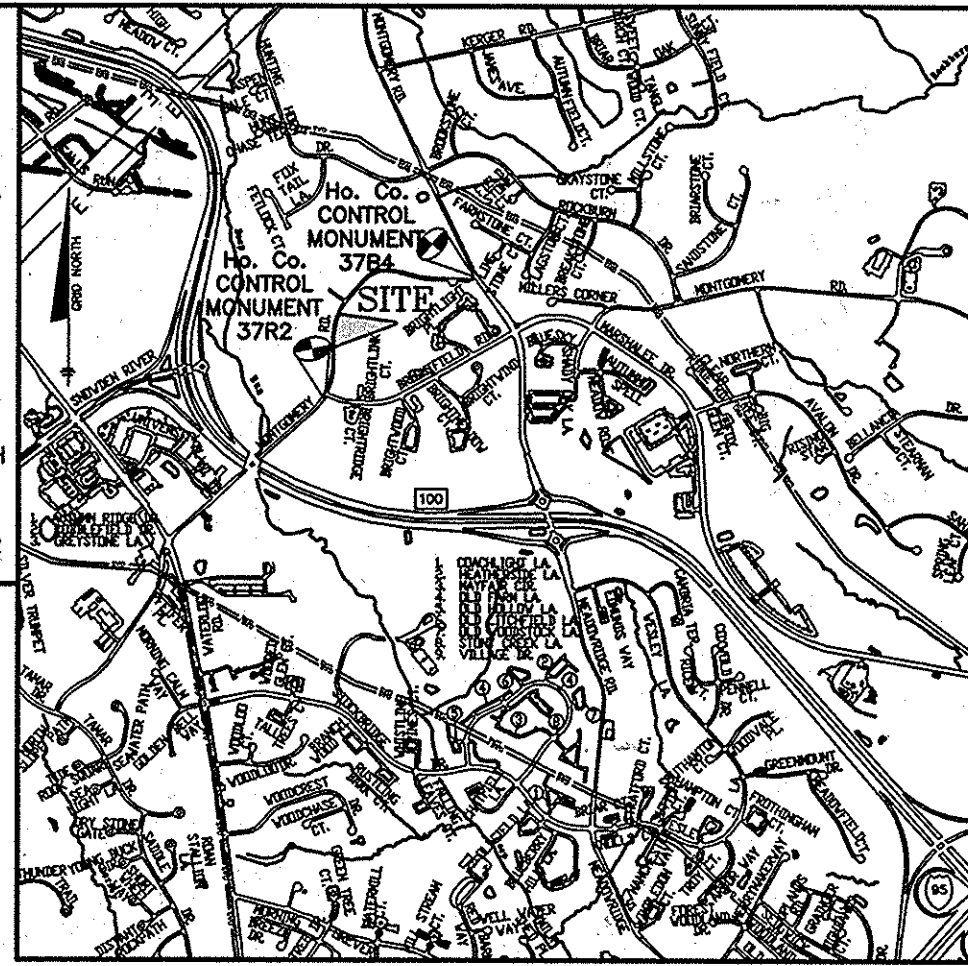
SCARBOROUGH ESTATES

LOTS 1 - 4

SDP-15-030

BENCH MARKS

HO. CO. #37R2 (NAD '83)	ELEV. 399.65'
STAMPED DISC ON CONCRETE MONUMENT BEING 45.9' SOUTHWEST OF A TRAFFIC LIGHT POLE AT OLD MONTGOMERY ROAD AND BRIGHTFIELD ROAD. 3.1' NORTHWEST OF A CONCRETE SIDEWALK AND 59.6' WEST OF A COMMUNICATION PEDESTAL.	
N 562,611.4397	E 1,371,554.4726
HO. CO. #37B4 (NAD '83)	ELEV. 401.32'
STAMPED DISC ON CONCRETE MONUMENT BEING 41.1' WEST OF A SANITARY MANHOLE, 98.5' EAST OF BG&E POLE #125676 AND 29.7' SOUTH OF THE EDGE OF PAVING OF MD ROUTE 103	
N 563,928.5811	E 1,373,109.0962



LEGEND

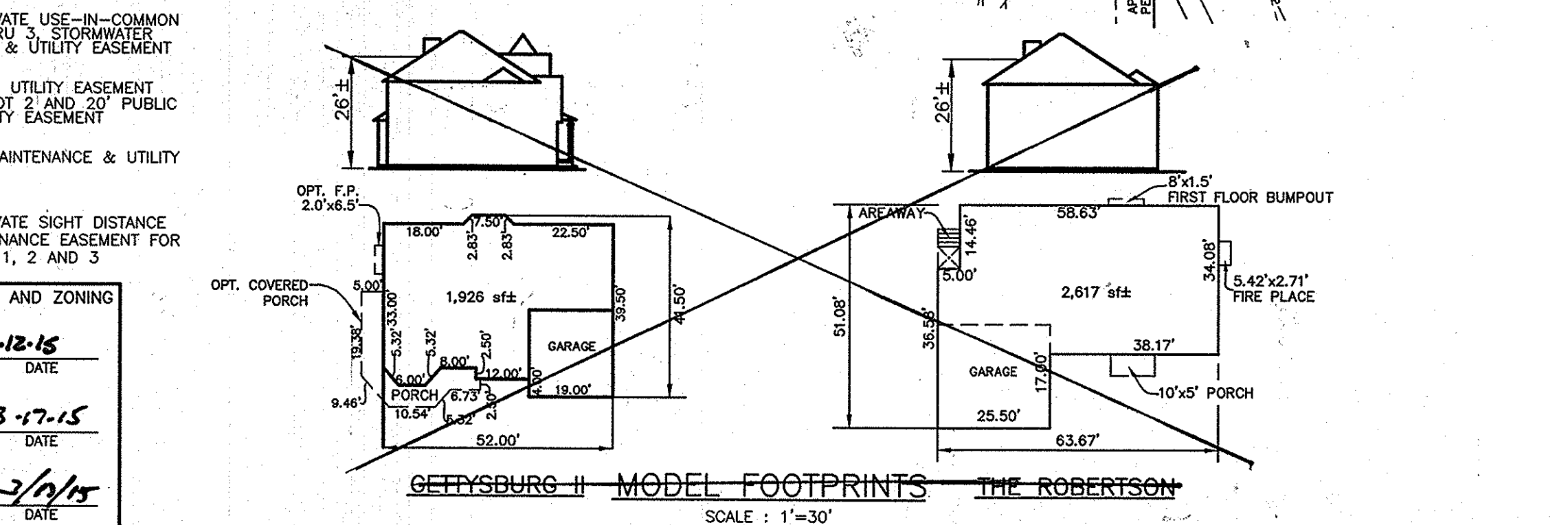
- EXISTING LANDSCAPING
- EXISTING CANOPY LINES
- EXISTING FOREST LIMITS
- EXISTING WATER MAIN
- EXISTING SEWER MAIN
- EXISTING CONTOURS
- PROPOSED CONTOURS
- SOILS DELINEATION
- SOILS TYPE
- PROPOSED DWELLING
- EXISTING DWELLING
- PROPOSED STREET TREE F-14-091
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB
- PROPOSED SHADE TREES
- EX. VARYING WIDTH PRIVATE USE-IN-COMMON ACCESS FOR LOT 1 THRU STORMWATER MANAGEMENT, DRAINAGE & UTILITY EASEMENT PLAT 23047
- EX. 20' PRIVATE SHC & UTILITY EASEMENT FOR THE BENEFIT OF LOT 2 AND 20' PUBLIC DRAINAGE & UTILITY EASEMENT PLAT 23047
- EX. 10' PUBLIC TREE MAINTENANCE & UTILITY EASEMENT PLAT 23047
- EX. VARYING WIDTH PRIVATE SIGHT DISTANCE AND LANDSCAPE MAINTENANCE EASEMENT FOR THE BENEFIT LOT LOTS 1, 2 AND 3 PLAT 23047

SITE ANALYSIS DATA/TABULATION

A) TOTAL PROJECT AREA.....	2.25 AC.
B) AREA OF WETLANDS AND BUFFER.....	N/A
C) AREA OF 100-YR. FLOODPLAIN.....	N/A
D) AREA OF EXISTING FOREST.....	N/A
E) AREA OF STEEP SLOPES 25% OR GREATER.....	N/A
F) NET AREA OF SITE.....	2.25 AC.
G) AREA OF MODERATE SLOPES 15% TO 24.9%.....	N/A
H) HIGHLY ERODIBLE SOILS (K< 0.35).....	0.10± AC.
I) AREA OF PLAN SUBMISSION.....	2.25 AC.
J) LIMIT OF DISTURBED AREA.....	1.28 AC.
K) PRESENT ZONING DESIGNATION.....	R-20
L) PROPOSED USE.....	SINGLE FAMILY DETACHED
M) IMPERVIOUS COVER.....	0.26±
N) APPLICABLE DPZ #.....	F-90-119, EOP-14-052, WP-14-128, F-14-091
O) PROPOSED WATER AND SEWER.....	X- PUBLIC, - PRIVATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE	3-12-15
DATE	3-17-15
DATE	3/17/15



ADDRESS CHART

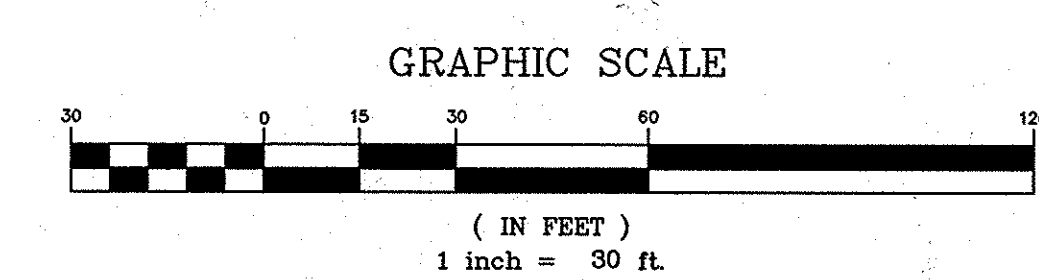
LOT NO.	ADDRESS
1	8111 PATTERSON WAY
2	8107 PATTERSON WAY
3	8103 PATTERSON WAY
4	8069 OLD MONTGOMERY ROAD

MINIMUM LOT SIZE CHART

LOT NO.	GROSS AREA	PIPESTEM AREA	MIN. LOT SIZE
1	29,415 S.F.	3,920 S.F.	25,495 S.F.
2	24,673 S.F.	2,303 S.F.	22,370 S.F.

SHEET INDEX

NO.	DESCRIPTION
1	COVER SHEET AND EXISTING CONDITIONS PLAN
2	SITE DEVELOPMENT PLAN
3	GRADING, SEDIMENT & EROSION CONTROL PLAN
4	STORMWATER MANAGEMENT, SEDIMENT & EROSION CONTROL NOTES AND DETAILS
5	LANDSCAPE PLAN, NOTES, AND DETAILS



THE MODERATE INCOME HOUSING UNIT REQUIREMENTS PER COUNCIL BILL 35-2013 FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT OF FEE-IN-LIEU OF CONSTRUCTION IN THE AMOUNT OF \$2.04 PER SQUARE FOOT OF EACH NEW HOUSE PROPOSED BY THIS SUBDIVISION. PLEASE NOTE THAT ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICATION.

PERMIT INFORMATION CHART

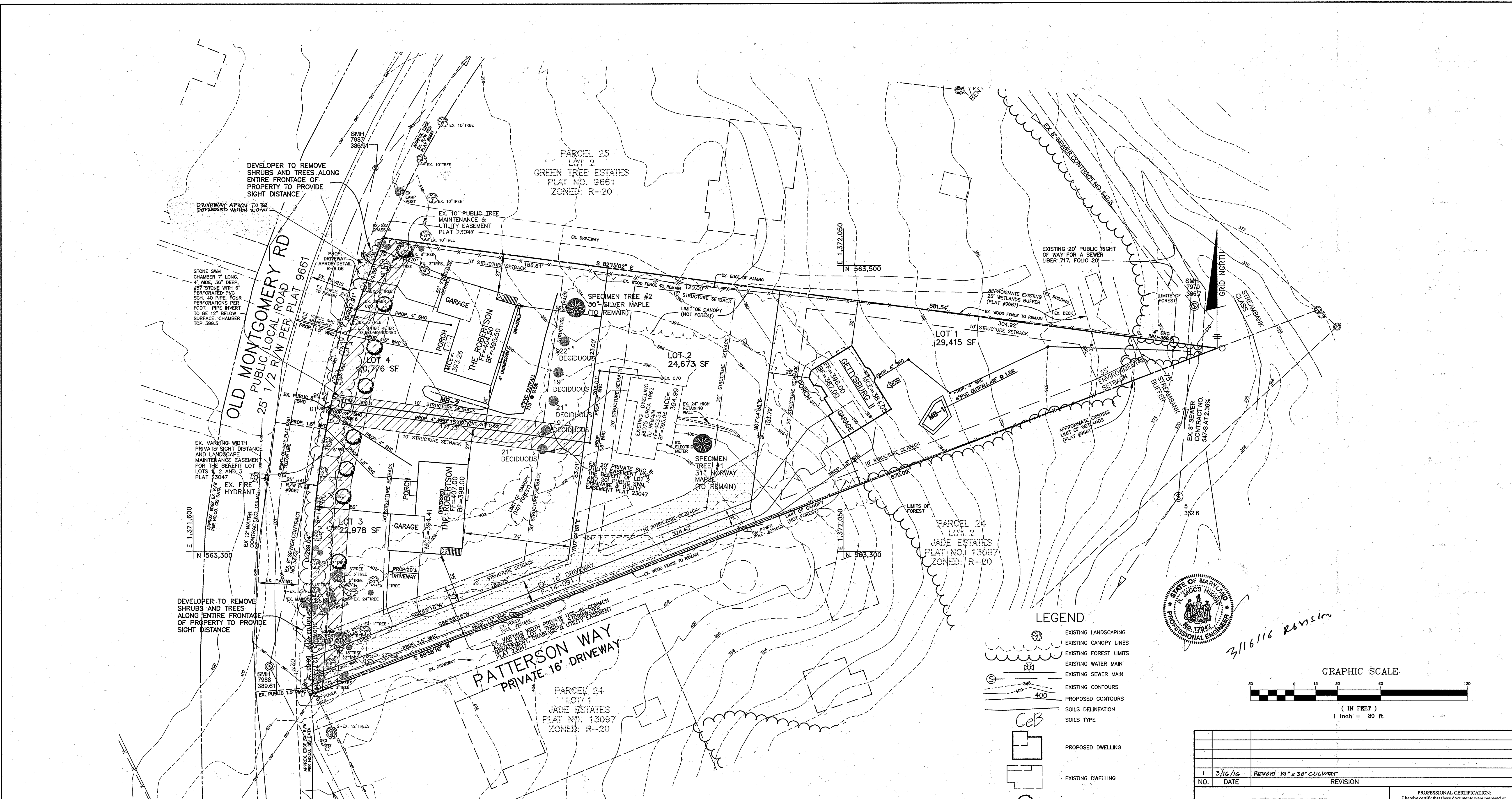
SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL #
SCARBOROUGH ESTATES, LOTS 1-4	NA	25
PLAT No. OR L/F	GRID No.	ZONE
23047	02	R-20
TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
37	1	6011.08

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
8480 BALTIMORE NATIONAL PIKE & SUITE 315
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
WWW.BEI-CO-ENG.COM

SCARBOROUGH ESTATES LOTS 1-4
PLAT # 23047
DPZ FILE #: EOP-14-52, F-14-91, F-90-119, WP-14-128
TAX MAP: 37 GRID: 02 PARCEL: 25
ZONED: R-20
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND
RESIDENTIAL SITE DEVELOPMENT PLAN
COVER SHEET AND EXISTING CONDITIONS PLAN

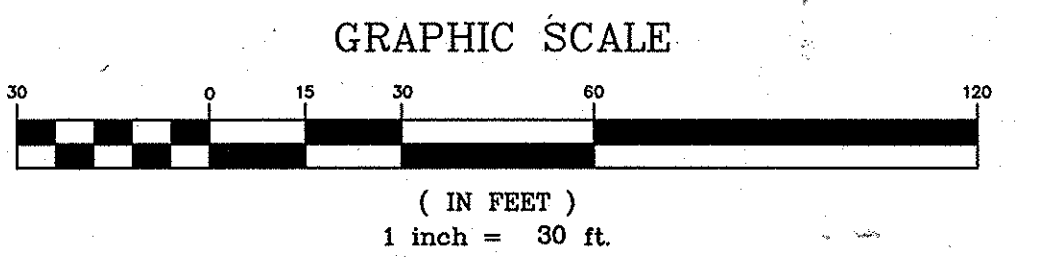
DATE: JANUARY 2015 BEI PROJECT NO. 2604
SCALE: AS SHOWN SHEET 1 OF 5

OWNER/DEVELOPER: RAINMAKER DEVELOPMENT, INC. 6755 BUSINESS PARKWAY SUITE 103 ELKRODGE, MARYLAND 21075 410-379-1525 c/o SCOTT ARTERBURN



LEGEND

- EXISTING LANDSCAPING
- EXISTING CANOPY LINES
- EXISTING FOREST LIMITS
- EXISTING WATER MAIN
- EXISTING SEWER MAIN
- EXISTING CONTOURS
- PROPOSED CONTOURS
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- PROPOSED MICRO-BIORETENTION FACILITY
- PROPOSED DRYWELL



NO.	DATE	REVISION
1	3/16/16	REMOVE 19' x 30' CULVERT

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 315
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644
 WWW.BEI-CIVILENGINEERING.COM

PROFESSIONAL CERTIFICATION:
 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. 17992, effective 06-09-2016.

OWNER/DEVELOPER: RAINMAKER DEVELOPMENT, INC. 6755 BUSINESS PARKWAY SUITE 103 ELK RIDGE, MARYLAND 21075 410-379-1525 c/o SCOTT ARTERBURN		SCARBOROUGH ESTATES LOTS 1-4 PLAT # 23047 DPZ FILE #: ECP-14-32, F-14-31, F-90-119, WP-14-128 TAX MAP: 37 GRID: 02 PARCEL: 25 ZONED: R-20 ELECTION DISTRICT NO: 1 HOWARD COUNTY, MARYLAND	
DATE: MARCH, 2015	BEI PROJECT NO. 2604	DATE: MARCH, 2015	BEI PROJECT NO. 2604
SCALE: AS SHOWN	SHEET 2 OF 5	SCALE: AS SHOWN	SHEET 2 OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-12-15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 3-17-15
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3/17/16
 DIRECTOR DATE

SOILS LEGEND			
MAP SYMBOL	SOIL TYPE	MAPPING UNIT	'K' VALUE
Amb	C	ALLOWY SILT LOAM - 2 TO 5 PERCENT SLOPES	0.43
Fa	D	FALLSINGTON SANDY LOAM - 0 TO 2 PERCENT SLOPES	0.20
SaB	B	SASSAFRAS LOAM - 2 TO 5 PERCENT SLOPES	0.37
SD	B	SASSAFRAS AND CROOM LOAMS - 10 TO 15 PERCENT SLOPES	0.37

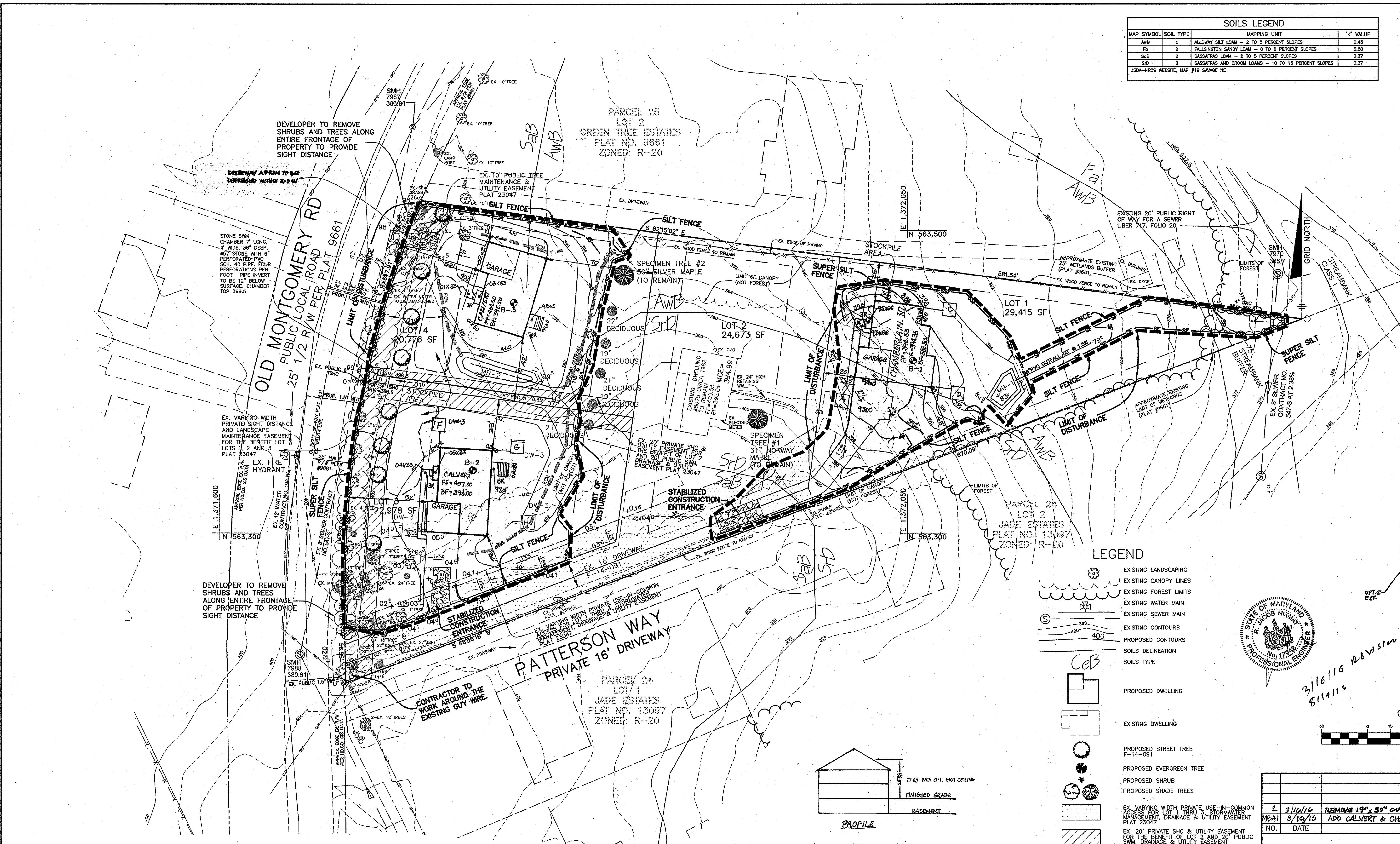
USDA-NRCS WEBSITE, MAP #19 SAVANNAH

NOTE: THE AREAS OF ESD IMPLEMENTATION SHALL HAVE LIMITED ACCESS FROM HEAVY CONSTRUCTION EQUIPMENT TO AVOID UNNECESSARY COMPACTION WHEN PRACTICAL.

NOTE: ALL SUPER SILT FENCES TO BE CHECKED DAILY TO ENSURE COMPLIANCE AND REPAIRED IMMEDIATELY AS REQUIRED

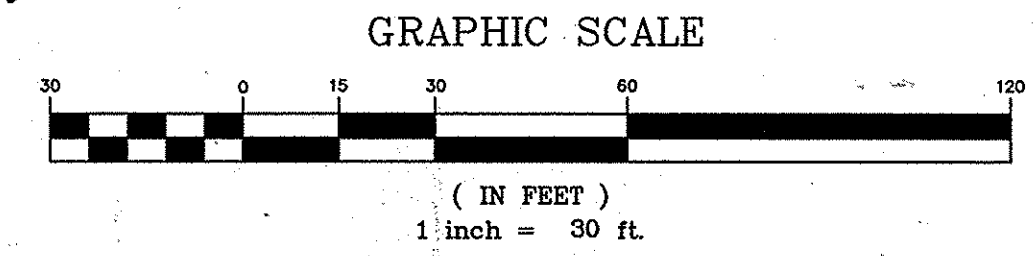
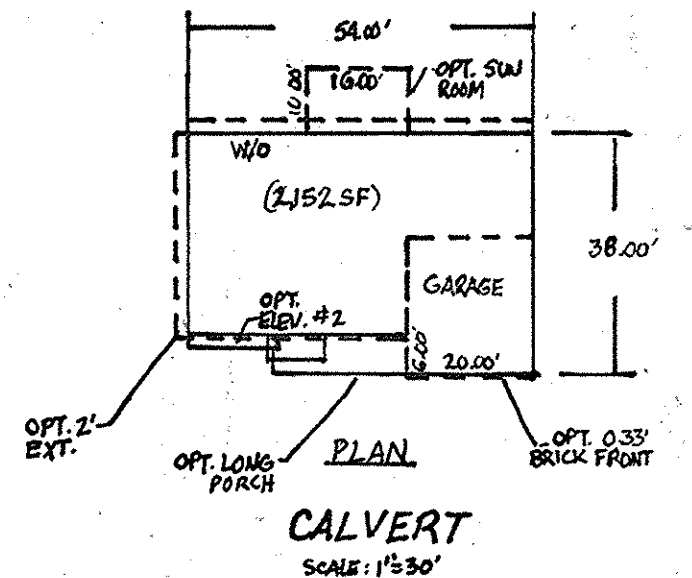
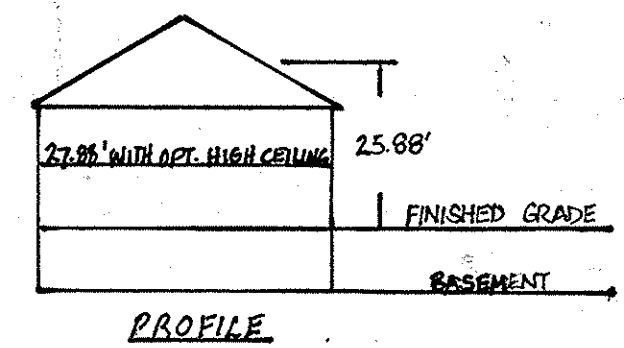
NOTE: NO CHANGES ARE ALLOWED TO THE SEQUENCE OF CONSTRUCTION WITHOUT PRIOR HOWARD SCD APPROVAL

SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVAL REQUIRED BY THE 2011 MD. STOS. & SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.



LEGEND

- EXISTING LANDSCAPING
- EXISTING CANOPY LINES
- EXISTING FOREST LIMITS
- EXISTING WATER MAIN
- EXISTING SEWER MAIN
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- PROPOSED MICRO-BIORETENTION FACILITY
- PROPOSED DRYWELL
- LIMIT OF DISTURBANCE
- SILT FENCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING
- STABILIZED CONSTRUCTION ENTRANCE
- STOCKPILE AREA



NO.	DATE	REVISION
2	3/16/16	REMOVE 19" x 30" CALVERT
1	8/19/15	ADD CALVERT & CHAMBERLAIN MODELS, SITE NOW HSE MODELS ON LOTS

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS
8480 BALTIMORE NATIONAL PIKE & SUITE 315
ELLSWORTH CITY, MARYLAND 21043
PHONE: 410-465-8105 FAX: 410-465-8644
WWW.BEI-CALENGINEERING.COM

PROFESSIONAL CERTIFICATION:
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. 45577, Expiration Date: 6-08-2016

OWNER/DEVELOPER:
RAINMAKER DEVELOPMENT, INC.
6755 BUSINESS PARKWAY SUITE 103
ELK RIDGE, MARYLAND 21075
410-379-1525
c/o SCOTT ARTERBURN

SCARBOROUGH ESTATES LOTS 1-4
PLAT # 23047
DPZ FILE #: ECP-14-52, F-14-91, F-90-119, WP-14-128
TAX MAP: 37 GRID: 02 PARCEL: 25
ZONED: R-20
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

RESIDENTIAL SITE ENVIRONMENTAL CONCEPT PLAN DEVELOPMENT PLAN GRADING, SEDIMENT & EROSION CONTROL PLAN

DATE: MARCH, 2015
SCALE: AS SHOWN

BEI PROJECT NO. 2604
SHEET 3 OF 5

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John L. Robertson 3/16/15
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

W. L. ... 3-12-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Kurt ... 3-17-15
CHIEF, DIVISION OF LAND DEVELOPMENT

Janice ... 3/16/15
DIRECTOR

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Scott ... 3/2/15
DEVELOPER

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Sh. M. ... 3/2/15
ENGINEER

B-4 STANDARDS AND SPECIFICATIONS FOR SOIL STABILIZATION

Using vegetation as a cover to protect exposed soil. This is the most effective method of erosion prevention. Conditions Where Practice Applies: On all disturbed areas not established by other methods. This specification is divided into sections on: 1. Seeding and mulching. 2. Sod installation. 3. Temporary stabilization. 4. Permanent stabilization. 5. Erosion prevention. 6. Maintenance.

Seeding and Mulching
Soil stabilization is to be accomplished by seeding and mulching. Conditions Where Practice Applies: On all disturbed areas not established by other methods. This specification is divided into sections on: 1. Seeding and mulching. 2. Sod installation. 3. Temporary stabilization. 4. Permanent stabilization. 5. Erosion prevention. 6. Maintenance.

B-4 STANDARDS AND SPECIFICATIONS FOR SOIL STABILIZATION

Seeding and Mulching
Soil stabilization is to be accomplished by seeding and mulching. Conditions Where Practice Applies: On all disturbed areas not established by other methods. This specification is divided into sections on: 1. Seeding and mulching. 2. Sod installation. 3. Temporary stabilization. 4. Permanent stabilization. 5. Erosion prevention. 6. Maintenance.

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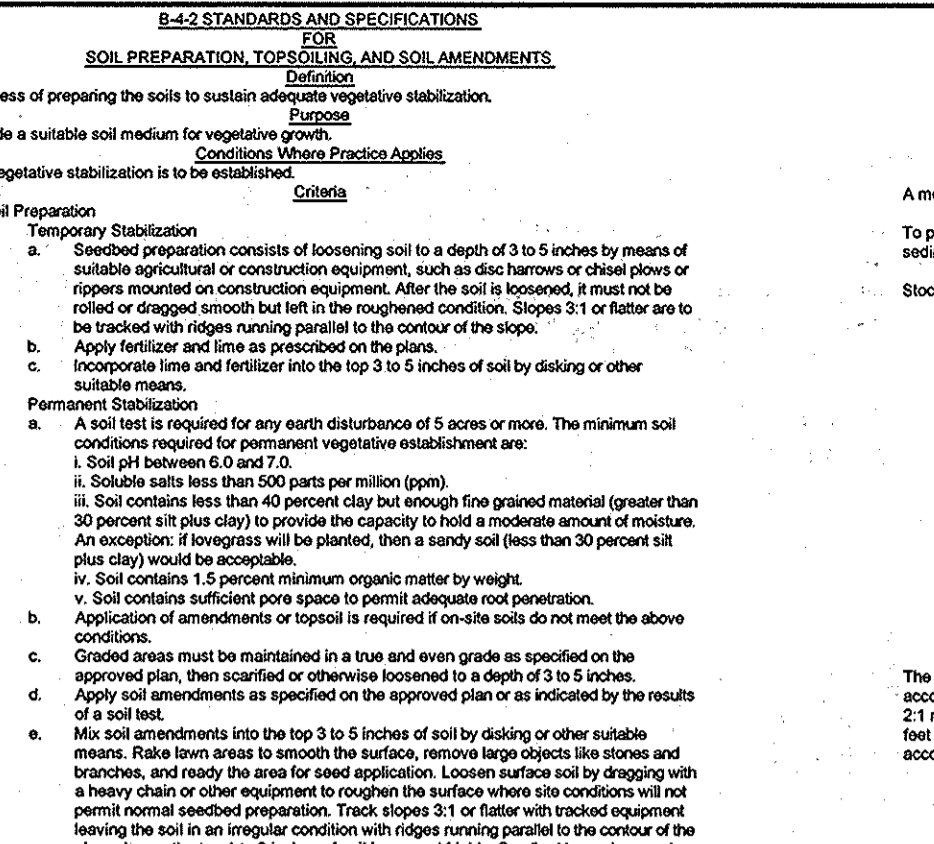
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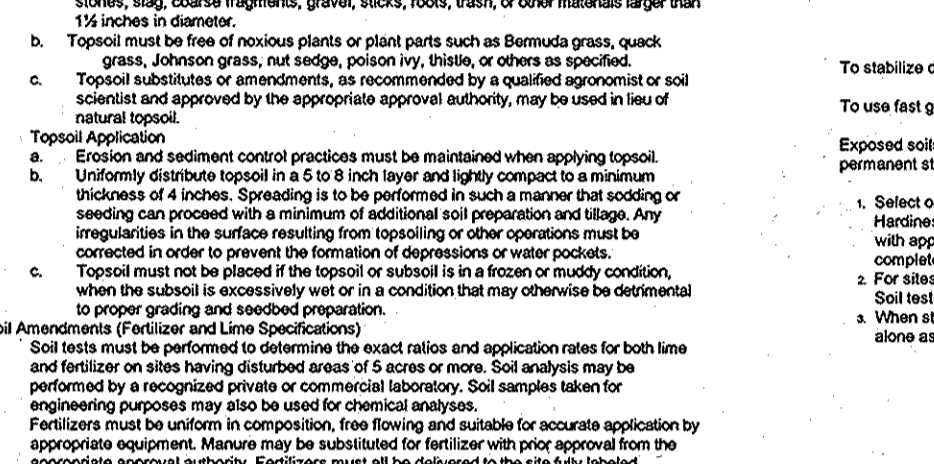
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OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED & MAINTAINED DRY WELLS (M-5)

Activity	Frequency
1. The Owner shall inspect the monitoring wells and structures on a quarterly basis and after every heavy storm event.	Quarterly
2. The Owner shall record the water levels and sediment build up in the monitoring wells on a period of several days to insure trench drainage.	After every heavy storm event
3. The Owner shall maintain a log book to determine the rate at which the facility drains.	Ongoing
4. When the facility becomes clogged so that it does not drain down within a twentyfour (24) hour time period, corrective action shall be taken immediately.	As needed
5. The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.	Ongoing
6. Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.	Annual

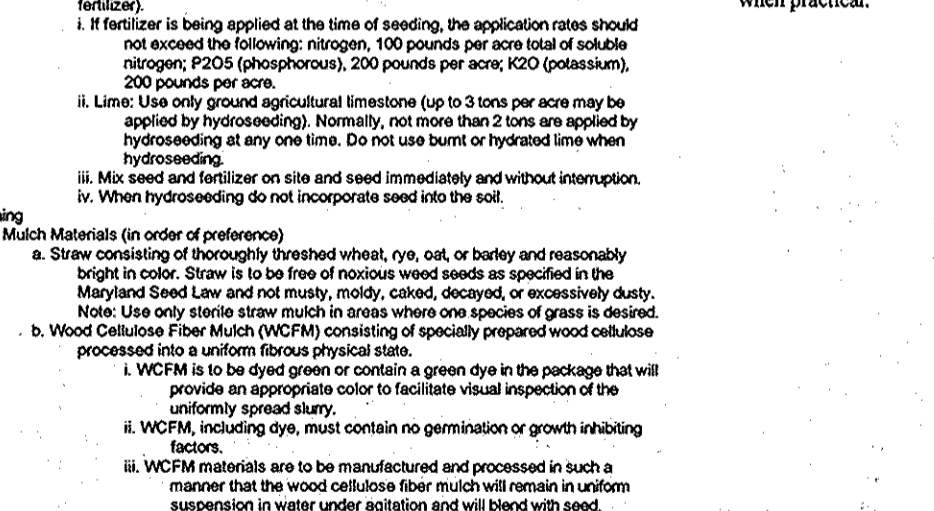


DRYWELL DESIGN TABLE (M-5)

Well Type	Lot Letter	Ground Over	Top of Stone	Bottom of Stone	Ground Water	Separation (ft)
DW-1	E	404.0	403.0	397.5	390.0	8.0
DW-3	3	402.5	401.2	396.2	390.0	6.2
DW-3	G	402.2	401.2	396.2	390.0	6.0
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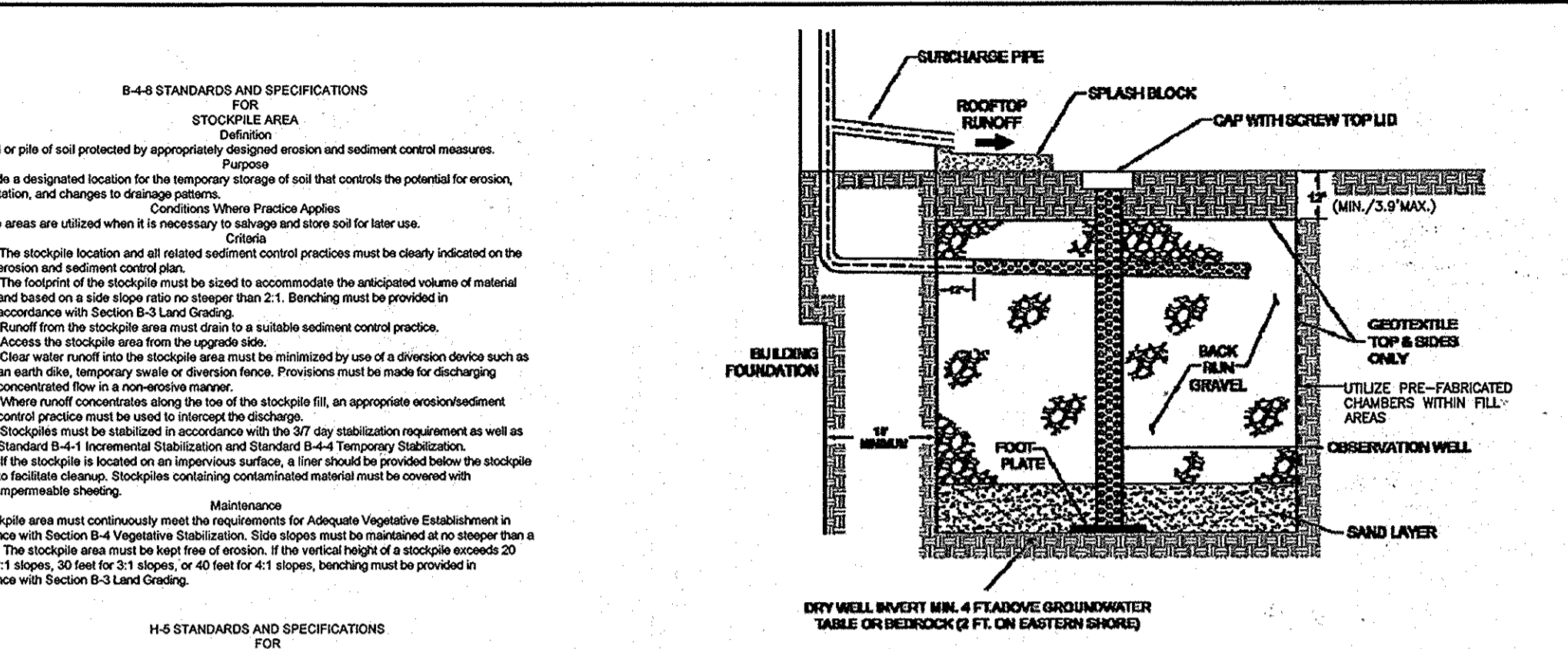
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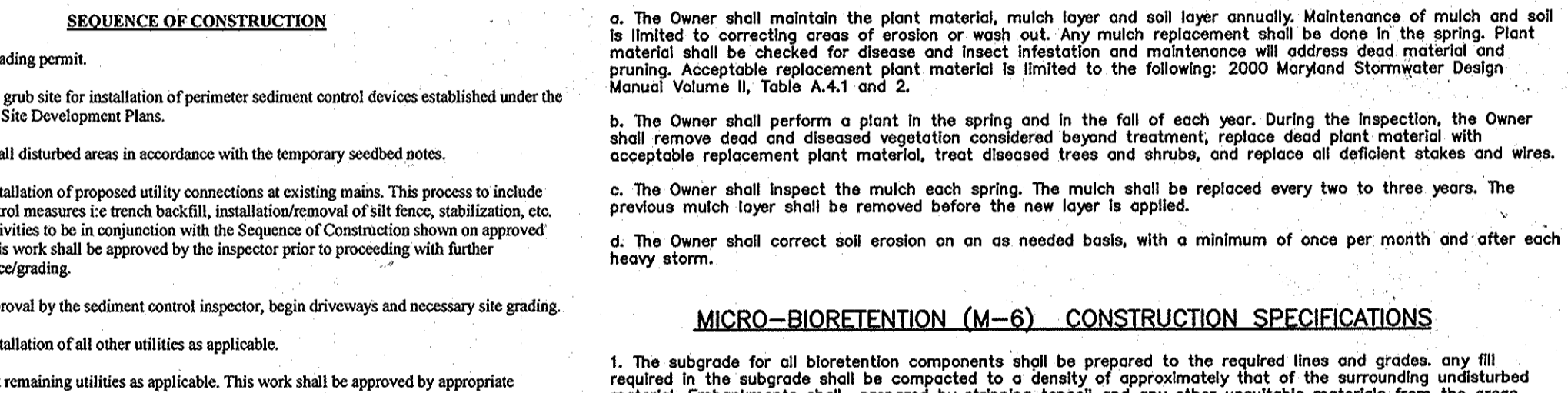


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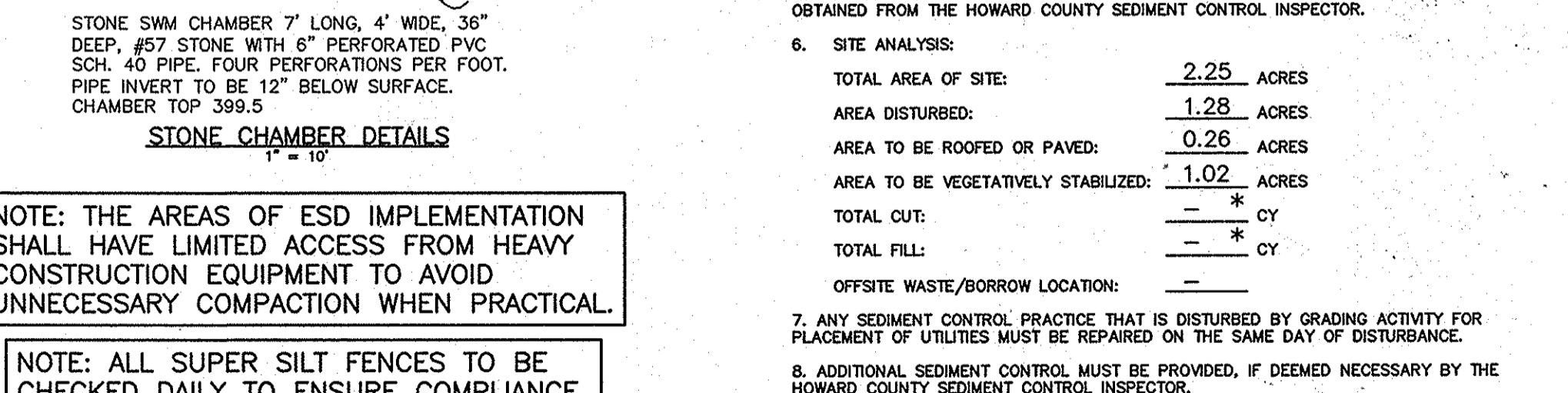


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TABLE B.3.2 MATERIALS AND SPECIFICATIONS FOR SWM FACILITIES

MATERIAL	SPECIFICATION	SIZE	NOTES:
PLANTINGS (IF REQUIRED)	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
2.5' TO 4.0' DEEP	SAND: 30-60% SILT: 30-35% CLAY: 10-25%	N/A	USDA SOIL TYPES: LOAMY SAND, SANDY LOAM OR LOAM
MULCH	SHREDDED HARDWOOD	N/A	3" TO 3" DEPTH AGED 6 MONTHS, MINIMUM APPEARANT OPENING SIZE: 1/8"
GEOTEXTILE (CLASS 'C')	APPEARANT OPENING SIZE: 1/8"	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN PIPING	ASHTO M-43	0.375" TO 0.750"	
ASHTO TYPE P228 OR ASHTO M-278		3/8" PERIF. OR 0.6" V. HOLES PER MINIMUM OF 3" OF GRAVEL OVER PIPING, NOT NECESSARY UNDERDRAIN PIPING	
POURED-IN-PLACE CONCRETE (IF REQUIRED)	MISHA MIX # 28 DAYS, F=3000 PSI (20.7 MPa), COMPRESSIVE (28-DAYS)	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH TEST AND SLUMP TEST; ALL CONCRETE DESIGN CAST IN PLACE AND SHOWN TO BE CONFORMANT WITH ALL APPLICABLE STATE OR LOCAL STANDARDS REQUIRES DESIGNING SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND. DESIGNS TO INCLUDE MEETING ACI CODE 308.3R, VERTICAL LOADING (N=10 TO 100 K) ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURE); AND ANALYSIS OF POTENTIAL CRACKING.
CHECK DAM (TREATED WOOD)	AWPA STANDARD C6	8" X 6" OR 8" X 8"	IS NOT COM WITH CROSSBATS EMBEDDED AT LEAST 3" INTO SIDES

TABLE B.4.1 MATERIALS AND SPECIFICATIONS FOR (M-6) MICRO-BIORETENTION

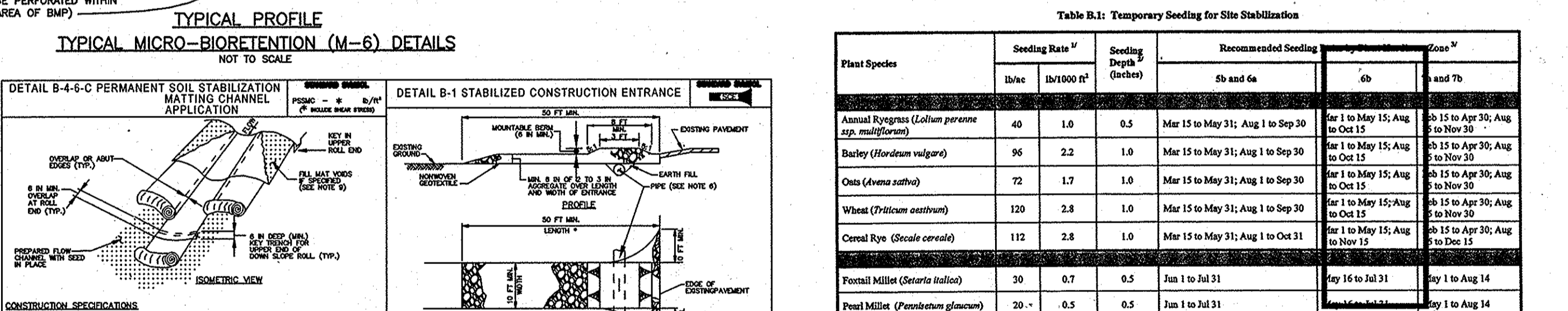
MATERIAL	SPECIFICATION	SIZE	NOTES:
PLANTINGS (IF REQUIRED)	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
2.0' TO 4.0' DEEP	LOAMY SAND (60-80%) & COMPOST (35-40%)	N/A	USDA SOIL TYPES: LOAMY SAND; LOAM; CLAY CONTENT <5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT	N/A	
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM APPEARANT OPENING SIZE: 1/8"
PEA GRAVEL (DAPRRM)	PEA GRAVEL	# 8 OR # 10 (1.8" TO 3.0")	
GEOTEXTILE	ASHTO M-43	# 9 STONE	FE TYPE 1 - NONWOVEN
UNDERDRAIN PIPING	F788, ASHTO P228 OR ASHTO M-278	4" O.D. PIPING OR 3" O.D. PIPING	
POURED-IN-PLACE CONCRETE (IF REQUIRED)	MISHA MIX # 28 DAYS, F=3000 PSI (20.7 MPa), COMPRESSIVE (28-DAYS)	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH TEST AND SLUMP TEST; ALL CONCRETE DESIGN CAST IN PLACE AND SHOWN TO BE CONFORMANT WITH ALL APPLICABLE STATE OR LOCAL STANDARDS REQUIRES DESIGNING SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND. DESIGNS TO INCLUDE MEETING ACI CODE 308.3R, VERTICAL LOADING (BASED ON SOIL PRESSURE); AND ANALYSIS OF POTENTIAL CRACKING.
SAND (1.0' DEEP)	ASHTO M-63	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS BAGASSE AND GYPSUMSTONE (ASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR "GREEN" SANDS ARE ALLOWED. NO "ROCK STRUCK" CAN BE USED FOR SAND

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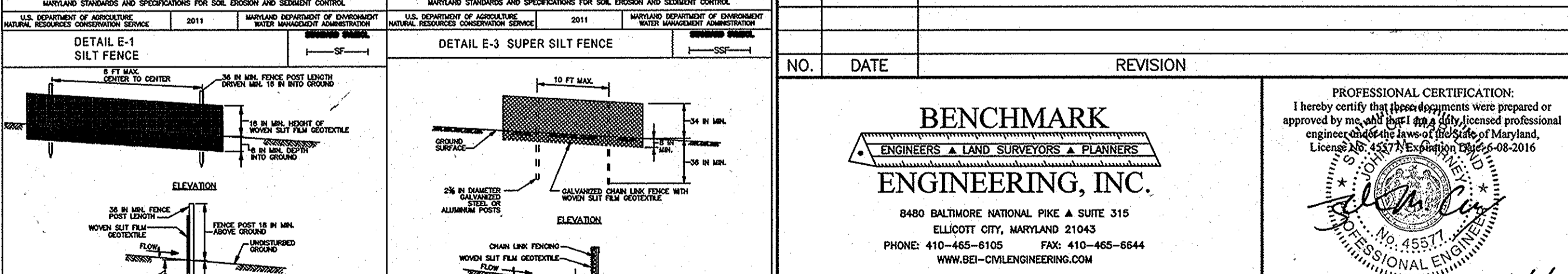
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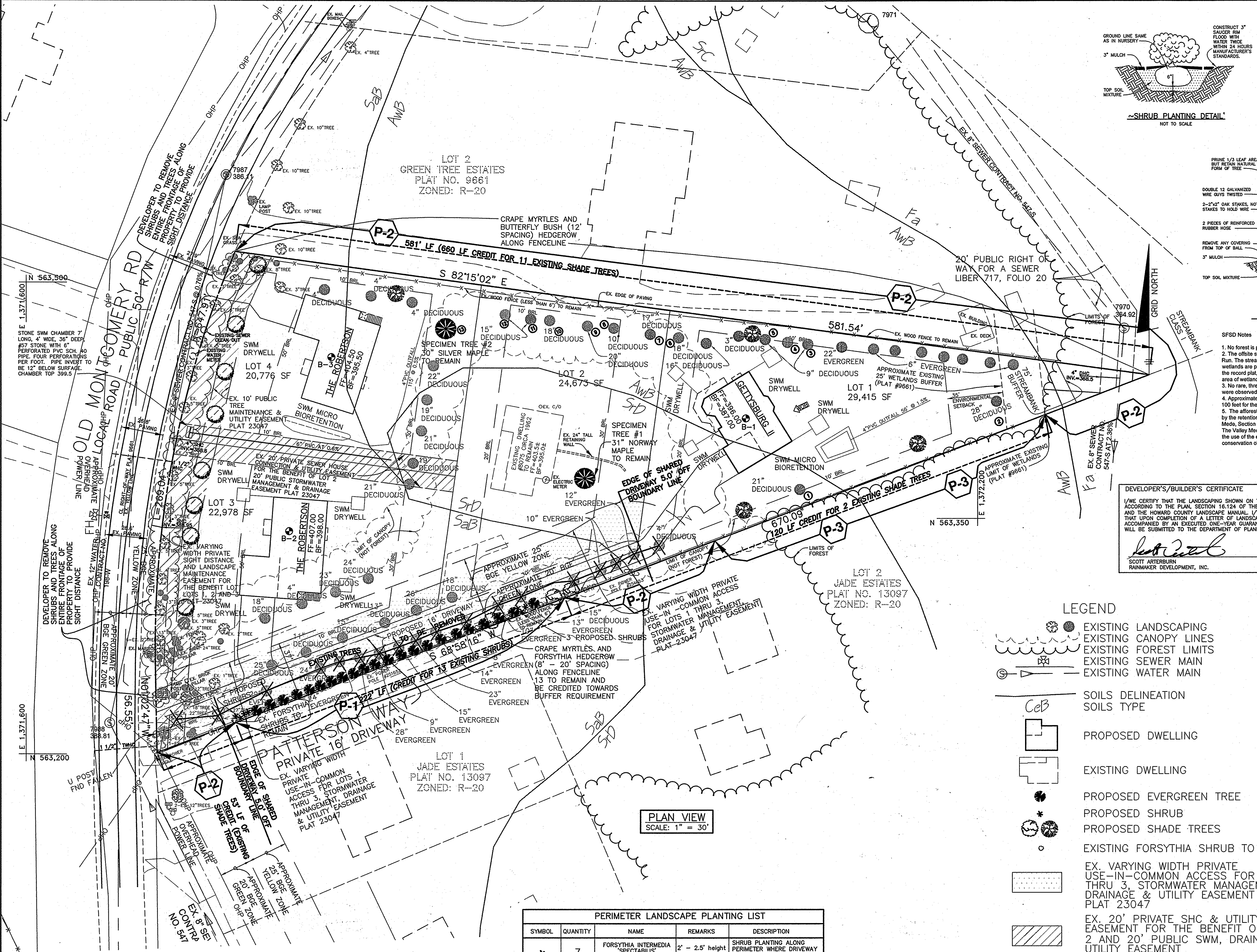
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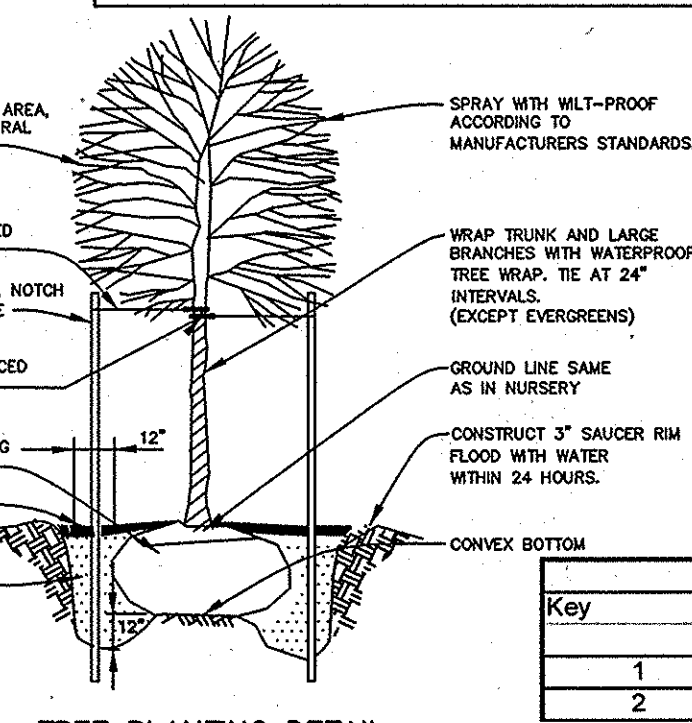
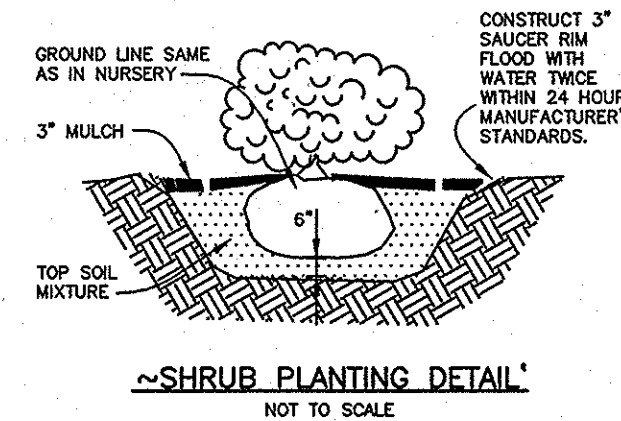
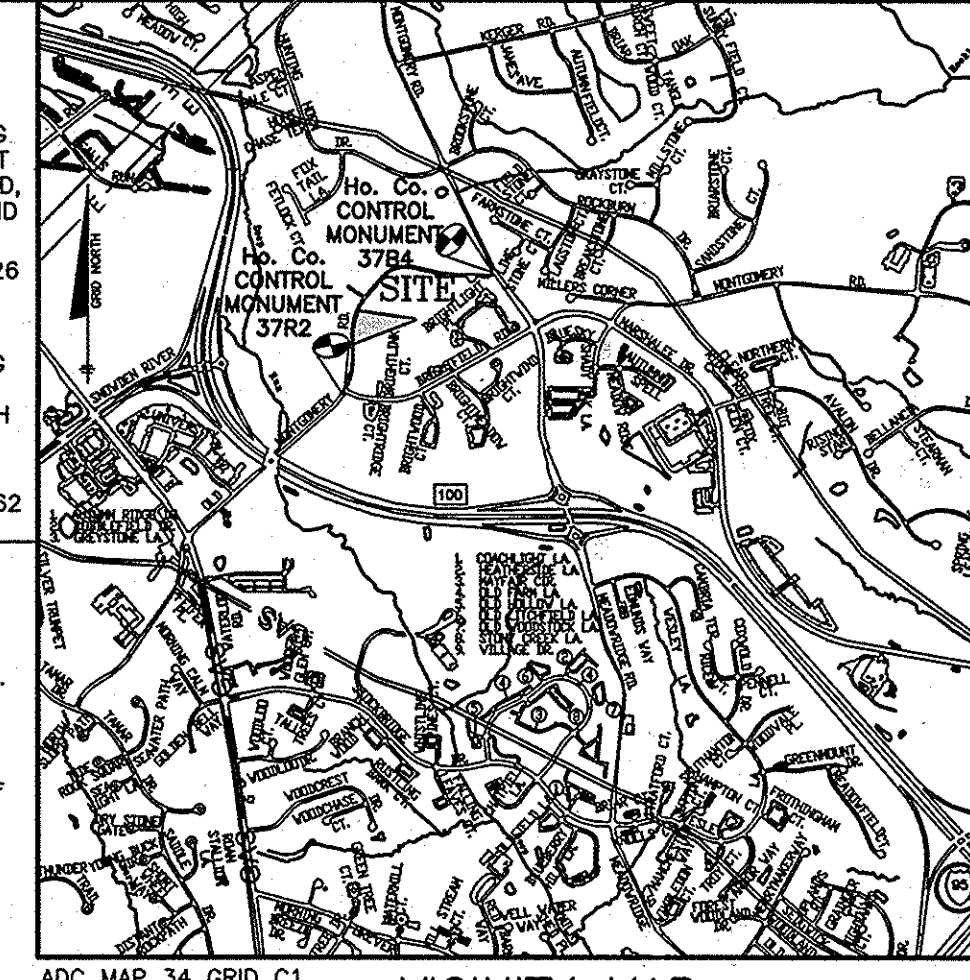
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BENCH MARKS

HO. CO. #37R2 (NAD '83)	ELEV. 399.65'
STAMPED DISC ON CONCRETE MONUMENT BEING 45.9' SOUTHWEST OF A TRAFFIC LIGHT POLE AT OLD MONTGOMERY ROAD AND BRIGHTFIELD ROAD, 3.1' NORTHWEST OF A CONCRETE SIDEWALK AND 59.6' WEST OF A COMMUNICATION PEDESTAL.	
N 562,611.4397	E 1,371,554.4726
HO. CO. #37B4 (NAD '83)	ELEV. 401.32'
STAMPED DISC ON CONCRETE MONUMENT BEING 41.1' WEST OF A SANITARY MANHOLE, 98.5' EAST OF G&E POLE #125676 AND 29.7' SOUTH OF THE EDGE OF PAVING OF MD ROUTE 103	
N 563,928.5811	E 1,373,109.0862



Specimen Tree Chart

Key	Species	Size (in. DBH)	CRZ (feet Radius)	Comments
1	Norway Maple	31		poor, broken main stem
2	Silver Maple	30		good

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTY			TOTAL
	①	②	③	
LANDSCAPE TYPE	D	A	A	
LINEAR FEET OF ROADWAY/DRIVEWAY FRONTAGE/PERIMETER	222 LF	806 LF	224 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES*	YES**	YES**	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	
NUMBER OF PLANTS REQUIRED	222 LF	76 LF	104 LF	
SHADE TREES	4	2	2	8
EVERGREEN TREES	22	0	0	22
OTHER TREES (2:1 SUBSTITUTE)	0	0	0	0
SHRUBS	0	0	0	0
NUMBER OF PLANTS PROVIDED	3	2	2	7
SHADE TREES	3	2	2	7
EVERGREEN TREES	22	0	0	22
OTHER TREES (2:1 SUBSTITUTE)	0	0	0	0
SHRUBS (10:1 SUBSTITUTE)	7	0	0	7

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Scott Arterburn
SCOTT ARTERBURN
RAINMAKER DEVELOPMENT, INC.
3/2/15
DATE

- LEGEND**
- EXISTING LANDSCAPING
 - EXISTING CANOPY LINES
 - EXISTING FOREST LIMITS
 - EXISTING SEWER MAIN
 - EXISTING WATER MAIN
 - SOILS DELINEATION
 - SOILS TYPE
 - PROPOSED DWELLING
 - EXISTING DWELLING
 - PROPOSED EVERGREEN TREE
 - PROPOSED SHRUB
 - PROPOSED SHADE TREES
 - EXISTING FORSYTHIA SHRUB TO REMAIN
 - EX. VARYING WIDTH PRIVATE USE-IN-COMMON ACCESS FOR LOTS 1 THRU 3, STORMWATER MANAGEMENT, DRAINAGE & UTILITY EASEMENT PLAT 23047
 - EX. 20' PRIVATE SHC & UTILITY EASEMENT FOR THE BENEFIT OF LOT 2 AND 20' PUBLIC SWM, DRAINAGE & UTILITY EASEMENT PLAT 23047
 - EX. 10' PUBLIC TREE MAINTENANCE & UTILITY EASEMENT PLAT 23047
 - EX. VARYING WIDTH PRIVATE SIGHT DISTANCE AND LANDSCAPE MAINTENANCE EASEMENT FOR THE BENEFIT OF LOT 1, 2 AND 3 PLAT 23047

LANDSCAPE NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- 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 SUBSTITUTIONS 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 RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.
- THE OWNER, TENANTS 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.
- FINANCIAL SURETY IN THE AMOUNT OF \$5,010.00 (\$2,100 FOR 7 SHADE TREES, \$3,300 FOR 22 EVERGREENS AND \$210 FOR 7 SHRUBS IN PERIMETER 1 AND FOR \$2,400 FOR THE 8 STREET TREES) FOR THE REQUIRED PERIMETER LANDSCAPING AND STREET TREE LANDSCAPING SHALL BE POSTED AS PART OF THE BUILDERS GRADING PERMIT IN ASSOCIATION WITH THE SITE DEVELOPMENT PLAN STAGE OF THIS PROJECT.
- WRITTEN APPROVAL FROM BO&E FOR THE PROPOSED LANDSCAPING ALONG OLD MONTGOMERY ROAD WAS OBTAINED BY CORRESPONDENCE DATED JANUARY 28, 2014, LANDSCAPING AROUND THE DOMESTIC SERVICE LINE WAS OBTAINED BY CORRESPONDENCE DATED FEBRUARY 11, 2014 AND APPROVED UNDER THESE PLANS.

PLAN VIEW
SCALE: 1" = 30'

PERIMETER LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS	DESCRIPTION
*	7	FORSYTHIA INTERMEDIA 'SPECTABILIS' (showy border forsythia)	2' - 2.5' height	SHRUB PLANTING ALONG PERIMETER WHERE DRIVEWAY IS LESS THAN 10' TO BOUNDARY LINE
☉	3	LAGERSTROMIA INDICA (crape myrtle)	6' - 8' height	SHADE TREES PLANTING ALONG PERIMETER WHERE DRIVEWAY IS LESS THAN 10' TO BOUNDARY LINE
☉	22	THUJA OCCIDENTALIS 'SMARAGD' (emerald arborvitae)	2' - 2.5' height	EVERGREEN PLANTING ALONG PERIMETER WHERE DRIVEWAY IS LESS THAN 10' TO BOUNDARY LINE
☉	4	RED MAPLE 'OCTOBER GLORY' (acer rubrum)	2.5" - 3" cal.	SHADE TREES PLANTING ALONG PERIMETER WHERE ADJACENT TO RESIDENTIAL PROPERTY

PUBLIC STREET TREE PLANTING LIST - OLD MONTGOMERY ROAD

SYMBOL	QUANTITY	NAME	REMARKS
☉	8	ACER RUBRUM 'ARMSTRONG' (ARMSTRONG COLUMNAR RED MAPLE)	2 1/2" MIN. CAL. B&B FULL HEAD

STREET TREE SCHEDULE

ROAD NAME	PERIMETER TREES REQ.	TREES PROV.
OLD MONTGOMERY ROAD	328	8
TOTALS	8	8

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Ulrich 3-12-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Vetzel 3-17-15
CHIEF, DIVISION OF LAND DEVELOPMENT

Mack 3/1/15
DIRECTOR

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315
ELICOTT CITY, MARYLAND 21043
PHONE: 410-685-6105 FAX: 410-465-6844
WWW.BE-ENR.ENGINEERING.COM

SCARBOROUGH ESTATES
LOTS 1-4
A RESUBDIVISION OF LOT 1 OF GREEN TREE ESTATES, PLAT NO. 9661 PLAT # 23047
DPZ FILE # EOP-14-52, F-14-91, F-90-119, WP-14-128
TAX MAP: 37 GRID: 02 PARCEL: 25
ZONED: R-20
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

RESIDENTIAL SITE DEVELOPMENT PLAN LANDSCAPE PLAN, NOTES, AND DETAILS

OWNER/DEVELOPER: RAINMAKER DEVELOPMENT, INC. 6755 BUSINESS PARKWAY SUITE 103 ELKRIEDE, MARYLAND 21075 410-379-1525 c/o SCOTT ARTERBURN

DATE: MARCH, 2015
SCALE: AS SHOWN

PROFESSIONAL CERTIFICATION:
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. 4597, Expiration Date: 6/18-2016

Scott Arterburn
SCOTT ARTERBURN
PROFESSIONAL ENGINEER
3/2/15

BEI PROJECT NO. 2604
SHEET 5 OF 5