



Building Permit Application

Howard County Maryland
 Department of Inspections, Licenses and Permits
 3430 Court House Drive
 Permits: 410-313-2455
 www.howardcountymd.gov

Date Received: _____

Permit No.: 517003942

Building Address: 14534 Old Frederick Rd
 City: Crofton State: MD Zip Code: 21113
 Suite/Apt. # _____ SDP/WP/BA #: _____
 Census Tract: _____ Subdivision: _____
 Section: _____ Area: _____ Lot: _____
 Tax Map: B Parcel: _____ Grid: _____
 Zoning: _____ Map Coordinates: _____ Lot Size: 1415A

Property Owner's Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Applicant's Name & Mailing Address, (If other than stated herein)
 Applicant's Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Existing Use: _____
 Proposed Use: _____
 Estimated Construction Cost: \$ 7-10,000
 Description of Work: 1st floor finish, kitchen, bathroom, etc.

Contractor Company: Thompson Co Inc
 Contact Person: Paul Robert
 Address: 1709 Old Millington Rd
 City: Greenbelt State: MD Zip Code: 21040
 License No.: 1210112
 Phone: _____ Fax: _____
 Email: _____

Occupant/Tenant Name: _____
 Was tenant space previously occupied? Yes No
 Contact Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Engineer/Architect Company: _____
 Responsible Design Prof.: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Commercial Building Characteristics	Residential Building Characteristics
Height:	<input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories:	Depth Width
Gross area, sq. ft./floor:	1 st floor:
	2 nd floor:
Area of construction (sq. ft.):	Basement:
	<input type="checkbox"/> Finished Basement
Use group:	<input type="checkbox"/> Unfinished Basement
	<input type="checkbox"/> Crawl Space
Construction type:	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms:
<input type="checkbox"/> Structural Steel	Multi-family Dwelling
<input type="checkbox"/> Masonry	No. of efficiency units:
<input type="checkbox"/> Wood Frame	No. of 1 BR units:
<input type="checkbox"/> State Certified Modular	No. of 2 BR units:
	No. of 3 BR units:
	Other Structure:
	Dimensions:
<input checked="" type="checkbox"/> Roadside Tree Project Permit	Footings:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Roof:
Roadside Tree Project Permit #	<input type="checkbox"/> State Certified Modular
	<input type="checkbox"/> Manufactured Home

Utilities	
Electric:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Gas:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Water Supply	
<input type="checkbox"/> Public	
<input type="checkbox"/> Private	
Sewage Disposal	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Heating System	
<input type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
Sprinkler System:	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
Grading Permit Number:	
Building Shell Permit Number:	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: _____ Print Name: Paul Robert
 Email Address: _____ Date: 12/1/17
 Title/Company: _____

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

PLEASE WRITE NEATLY & LEGIBLY

-FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	<u>12/1/17</u>	<u>[Signature]</u>

Is Sediment Control approval required for issuance? Yes No
 CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$
Permit Fee	\$ <u>10</u>
Tech Fee	\$ <u>10</u>
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$ <u>110.00</u>
Sub- Total Paid	\$
Balance Due	\$
Check	#

Distribution of Copies: White: Building Officials Green: PSZA,Zoning Yellow: PSZA,Engineering Pink: Health Gold: SHA



Building Permit Application

Howard County Maryland
 Department of Inspections, Licenses and Permits
 3430 Court House Drive
 Permits: 410-313-2455
 www.howardcountymd.gov

Date Received: _____

Permit No.: B17002436

Building Address: 14334 Old Fire Rock Rd.
 City: Cookville State: MD Zip Code: 21273
 Suite/Apt. # _____ SDP/WP/BA #: _____
 Census Tract: _____ Subdivision: Summit Hill
 Section: 11A Area: _____ Lot: 4
 Tax Map: 0005 Parcel: 0407 Grid: 0011
 Zoning: _____ Map Coordinates: _____ Lot Size: 1.478

Property Owner's Name: Carroll Home LLC
 Address: 1115 Shiloh Court
 City: _____ State: MD Zip Code: 2104
 Phone: 410-442-3311 Fax: 410-442-3315
 Email: carrollhome@comcast.net

Applicant's Name & Mailing Address, (if other than stated herein)
 Applicant's Name: Carroll Home LLC
 Address: 1115 Shiloh Court
 City: _____ State: MD Zip Code: 2104
 Phone: 410-442-3311 Fax: 410-442-3315
 Email: carrollhome@comcast.net

Existing Use: vacant
 Proposed Use: SFD
 Estimated Construction Cost: \$ 350,000
 Description of Work: "Levin-kn" Model w/ wrap porch, 4 bedroom, 4 1/2 bath w/ finished basement & 3 car detached garage
 Occupant/Tenant Name: NA
 Was tenant space previously occupied? Yes No
 Contact Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Contractor Company: Carroll Home LLC
 Contact Person: Frank E. Pollock III
 Address: 1115 Shiloh Court
 City: _____ State: MD Zip Code: 2104
 License No.: 131414-01/PA/CK # 910
 Phone: 410-442-3311 Fax: 410-442-3315
 Email: carrollhome@comcast.net

Engineer/Architect Company: Plymouth Associates
 Responsible Design Prof.: Lisa Wenzel
 Address: 1440 Plymouth Road
 City: _____ State: MD Zip Code: 21029
 Phone: 410-728-2291 Fax: _____
 Email: wenzel@plymouthassoc.com

Commercial Building Characteristics	Residential Building Characteristics
Height:	<input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories:	Depth Width
Gross area, sq. ft./floor:	1 st floor:
Area of construction (sq. ft.):	2 nd floor:
Use group:	Basement:
	<input type="checkbox"/> Finished Basement
	<input type="checkbox"/> Unfinished Basement
	<input type="checkbox"/> Crawl Space
	<input type="checkbox"/> Slab on Grade
Construction type:	No. of Bedrooms: <u>4</u>
<input type="checkbox"/> Reinforced Concrete	Multi-family Dwelling
<input type="checkbox"/> Structural Steel	No. of efficiency units:
<input type="checkbox"/> Masonry	No. of 1 BR units:
<input type="checkbox"/> Wood Frame	No. of 2 BR units:
<input type="checkbox"/> State Certified Modular	No. of 3 BR units:
	Other Structure:
	Dimensions:
<input checked="" type="checkbox"/> Roadside Tree Project Permit	Footings:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Roof:
Roadside Tree Project Permit # _____	<input type="checkbox"/> State Certified Modular
	<input type="checkbox"/> Manufactured Home

Utilities	
Electric:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Gas:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Water Supply	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Sewage Disposal	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Heating System	
<input type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input checked="" type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
Sprinkler System:	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Grading Permit Number: _____	
Building Shell Permit Number: _____	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: Frank E. Pollock III Print Name: Frank E. Pollock III
 Email Address: carrollhome@comcast.net Date: 1/31/17
 Title/Company: Howard County, Carroll Home LLC

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
 PLEASE WRITE NEATLY & LEGIBLY
 -FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL	DPZ SETBACK INFORMATION	Filing Fee	\$
State Highways			Front:	Permit Fee	\$
Building Officials			Rear:	Tech Fee	\$
PSZA (Zoning)			Side:	Excise Tax	\$
PSZA (Engineering)			Side St.:	PSFS	\$
Health			All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No	Guaranty Fund	\$
Is Sediment Control approval required for issuance? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l per Fee	\$
<input type="checkbox"/> CONTINGENCY CONSTRUCTION START			Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No	Total Fees	\$
			Lot Coverage for New Town Zone:	Sub- Total Paid	\$
			SDP/Red-line approval date:	Balance Due	\$
				Check	# <u>2423</u>

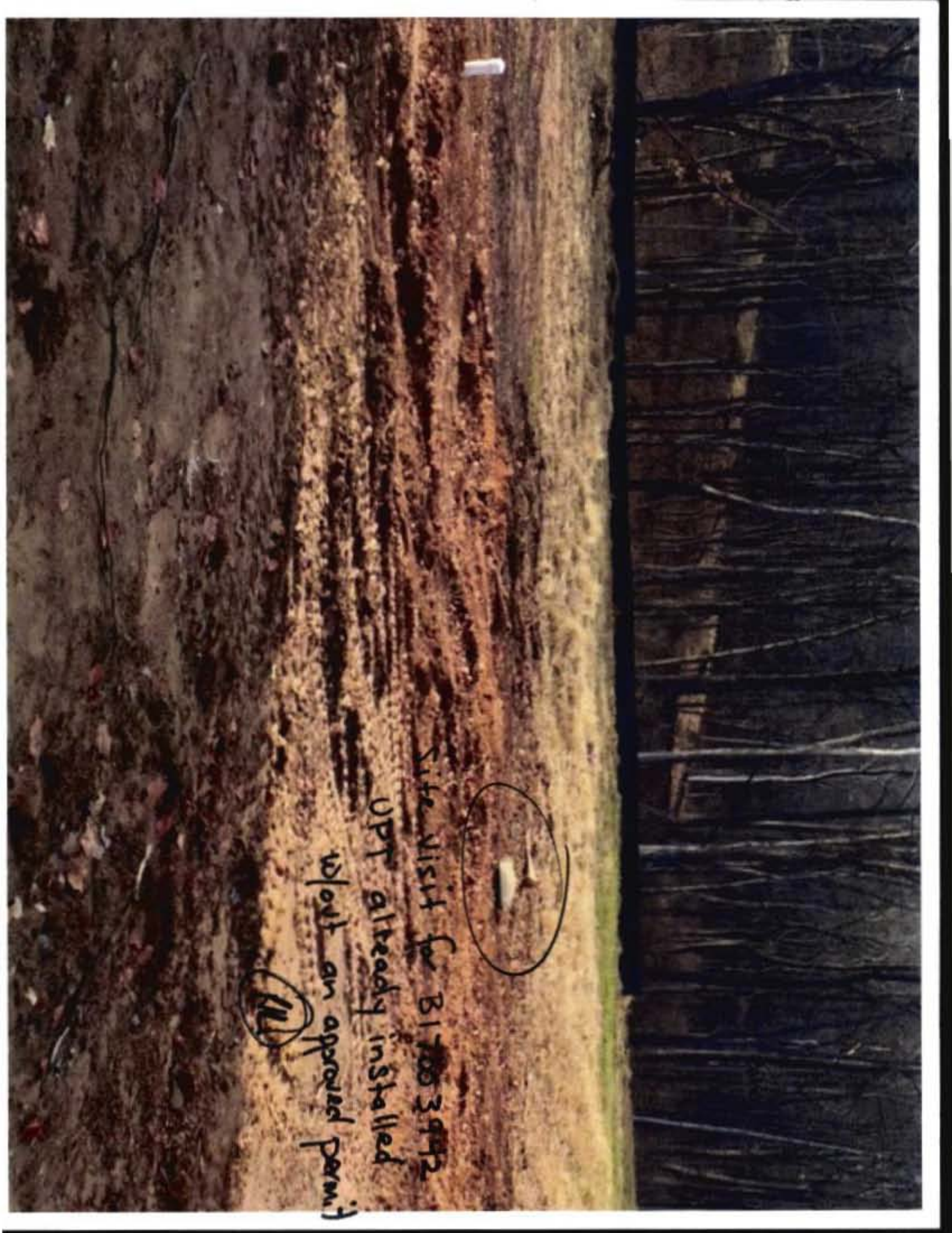
Distribution of Copies: White: Building Officials Green: PSZA,Zoning Yellow: PSZA,Engineering Pink: Health Gold: SHA

Site visit for B17003942

UPT already installed

w/out an approved permit

(M)



Site visit 11/21/17
for B+7003942
SDA corners Staked
but 4 corners of
UPT not Staked

AK



Bricker, Robert

From: Bricker, Robert
Sent: Tuesday, August 01, 2017 11:23 AM
To: 'Pam Walter'; Hill, Amanda; Powell, Markus P.; Hurman, Laura
Cc: Ron Thompson - Vanmar Associates, Inc. (ron@vanmar.com); Debbie VanSant (dkv@vanmar.com); Rob Scranton; Frank Potepan; Chip Bean
Subject: RE: Quartz Hill Lot 4 - REVISED Plot Plan - B17002436

The revision looks 'OK'. Revisions of Plot Plans (like floor plan revisions) must be submitted with a formal Transmittal Sheet at Department of Inspections, Licenses, and Permits. In addition to 'Health', also submit copies for other reviewing agencies such as Building Review and Development Engineering, etc.

I may approve a permit application when I see that the revision is posted in Acella, the shared software utilized by reviewing agencies.

Robert Bricker, REHS/RS, L.E.H.S.

From: Pam Walter [<mailto:PWalter@catonsvillehomes.com>]
Sent: Tuesday, August 01, 2017 11:16 AM
To: Hill, Amanda; Powell, Markus P.; Hurman, Laura
Cc: Bricker, Robert; Ron Thompson - Vanmar Associates, Inc. (ron@vanmar.com); Debbie VanSant (dkv@vanmar.com); Rob Scranton; Frank Potepan; Chip Bean
Subject: Quartz Hill Lot 4 - REVISED Plot Plan - B17002436

Hello,

Attached is the revised, approved (by Health Dept) Plot Plan for Quartz Hill Lot 4. Can you upload this to your system for Health to sign off on?

Thanks!

Pam Walter

Catonsville Homes, LLC
11175 Stratfield Court
Marriottsville, MD 21104
410-442-2211 x 202
410-442-2215 Fax
pwalter@catonsvillehomes.com

Bricker, Robert

From: Bricker, Robert
Sent: Wednesday, July 26, 2017 4:59 PM
To: 'Ron Thompson'
Subject: RE: Quartz Hill III Lot 4 OSDS Plan

The plumbing inspectors at the County need to know where the sewer out is supposed to be.

From: Ron Thompson [<mailto:ron@vanmar.com>]
Sent: Wednesday, July 26, 2017 4:58 PM
To: Bricker, Robert
Subject: RE: Quartz Hill III Lot 4 OSDS Plan

Thank you. Regarding the Plot Plan, I do not think we need to resubmit since the lot grading, sediment control and LOD do not change. The only change is location of septic tank which would be cover by the OSDS Plan.

Ronald E. Thompson, PE
VANMAR ASSOCIATES
310 South Main Street
PO Box 328
Mount Airy, Maryland 21771
301-829-2890 (O)
443-421-2164 (C)
301-831-5603 (F)

From: Bricker, Robert [<mailto:RBricker@howardcountymd.gov>]
Sent: Wednesday, July 26, 2017 4:41 PM
To: Ron Thompson <ron@vanmar.com>
Subject: RE: Quartz Hill III Lot 4 OSDS Plan

Ron,
The septic tank location is good and the trench spacing is good. The trench lengths and trench placement for the Initial System and for the 1st Replacement System need to be tweaked.
You correctly calculate 104 feet for total length of trench for each of these two systems, but the total trench length you are illustrating is 114 feet for each. If you adjust the trench lengths and shift them to a little higher elevation in the SDA, the OSDS Plan will be ready for approval.

As for the Plot Plan: Will you be submitting the revision of the Plot Plan to Department of Inspections, Licenses and Permits or will the builder?
Robert Bricker, REHS/RS, L.E.H.S.

From: Ron Thompson [<mailto:ron@vanmar.com>]
Sent: Wednesday, July 26, 2017 2:38 PM
To: Bricker, Robert
Subject: RE: Quartz Hill III Lot 4 OSDS Plan

Bob:

Please the attached plan with the changes you requested. If acceptable, I will submit the paper copies.

Thank you.

Ronald E. Thompson, PE
VANMAR ASSOCIATES
310 South Main Street
PO Box 328
Mount Airy, Maryland 21771
301-829-2890 (O)
443-421-2164 (C)
301-831-5603 (F)

From: Bricker, Robert [<mailto:RBricker@howardcountymd.gov>]
Sent: Friday, July 21, 2017 3:50 PM
To: Ron Thompson <ron@vanmar.com>
Subject: RE: Quartz Hill III Lot 4 OSDS Plan

Ron,
That isn't the issue. The 3-ft wide trench does make for better use of the SDA. Placing the trenches across the width of the SDA (rather than stacked) is a better design for discharge. On this property it also allows placement of the tank a little further from the house, thereby opening more space for the owner's deck, patio, etc.
I forgot this item:
As the septic tank and sewer line have moved the Plot Plan must be revised. Submit a formal revision sheet to DILP with copies of the Plot Plan for the Health Department and for the other agencies to review.
Robert Bricker, REHS/RS, L.E.H.S.

From: Ron Thompson [<mailto:ron@vanmar.com>]
Sent: Friday, July 21, 2017 3:26 PM
To: Bricker, Robert
Subject: RE: Quartz Hill III Lot 4 OSDS Plan

I thought we addressed the comments. The spec sheet allowed us to use a 3' wide trench instead of a 2' wide trench.

Ronald E. Thompson, PE
VANMAR ASSOCIATES
310 South Main Street
PO Box 328
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301-829-2890 (O)
443-421-2164 (C)
301-831-5603 (F)

From: Bricker, Robert [<mailto:RBricker@howardcountymd.gov>]
Sent: Friday, July 21, 2017 3:25 PM
To: Ron Thompson <ron@vanmar.com>
Subject: Quartz Hill III Lot 4 OSDS Plan

Ron,
You did address the issues I identified in my comments. When reviewing I noticed that you labeled the trench lengths incorrectly for the Initial System and for the 1st Replacement System, 57 ft rather than 52 ft.

Bricker, Robert

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To: 'Pam Walter'; Hill, Amanda; Powell, Markus P.; Hurman, Laura
Cc: Ron Thompson - Vanmar Associates, Inc. (ron@vanmar.com); Debbie VanSant (dkv@vanmar.com); Rob Scranton; Frank Potepan; Chip Bean
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Catonsville Homes, LLC
11175 Stratfield Court
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410-442-2211 x 202
410-442-2215 Fax
pwalter@catonsvillehomes.com

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VANMAR ASSOCIATES
310 South Main Street
PO Box 328
Mount Airy, Maryland 21771
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To: Ron Thompson <ron@vanmar.com>
Subject: Quartz Hill III Lot 4 OSDS Plan

Ron,
You did address the issues I identified in my comments. When reviewing I noticed that you labeled the trench lengths incorrectly for the Initial System and for the 1st Replacement System, 57 ft rather than 52 ft.

I also noticed that the trenches for both the Initial System and for the 1st Replacement System can be laid out across the width of the SDA with a Distribution Box in the center. This design utilizes about the same area for the Initial System, and it allows for the tank to be installed at least partly within the SDA.
Please redesign accordingly, edit the Profile, and re-submit the OSDS Plan for approval.

ROBERT BRICKER, REHS/R.S., L.E.H.S.
ENVIRONMENTAL SANITARIAN II
BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM
8930 STANFORD BLVD., COLUMBIA, MD 21045

Phone: Desk, 410-313-2691; Program, 410-313-1771; Bureau, 410-313-1774
Fax: 410-313-2648

E-mail: rbricker@howardcountymd.gov

**COMPLETE THIS FORM WHEN DROPPING OFF ANY
CORRESPONDENCE AND/OR PLANS TO THE HOWARD COUNTY
DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS COUNTER:**

Date: 8/3/17

To: ROBERT BRICKER - HEALTH DEPT.
(Person's Name and Division)

From: PAM WALTER, CATONSVILLE HOMES (410) 442-2211 x202
(Your Name, Company Name and Telephone Number)

Subject: Project name QUARTZ HILL III
Project site address 14534 OLD FREDERICK ROAD 21723
Permit # B17002436 SDP # _____
Other information pertinent to this project _____

- Please check the attachments below that you are submitting with this transmittal:
- Letter of response to address plan review comment letter
 - Revised ^{PLOT} plans and/or revised details: When submitting for a complete re-review, duplicate sets shall be submitted.
 - Letter Summarizing Changes
 - Energy conservation calculations
 - Copies of _____ (be specific).
 - Health Department Request DPZ/ DED Request Applicant's Request
 - Two sets of single family dwelling model plans to be placed on permanent file: Model name and/or # _____
 - Other _____

Contact Person Information: (Required)

PAM WALTER Telephone No: 410-442-2211 x202
Please Print Name
E-Mail Address: p.walter@catonsvillehomes.com

PLEASE ASSURE ALL DOCUMENTS AND/OR REVISIONS ARE APPROPRIATELY SIGNED AND SEALED, IF NECESSARY, BY A LICENSED ARCHITECT OR ENGINEER. PLEASE BE ADVISED THAT INSUFFICIENT INFORMATION MAY RESULT IN THE DELAY OF REVIEW BY THE PLANS EXAMINER. THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS WILL CONTACT YOU IF THERE IS A PROBLEM. IN ADDITION, ONCE THE BUILDING PERMIT IS APPROVED BY THE PLAN REVIEW DIVISION AND ALL OTHER REQUIRED SIGNATORY AGENCIES, AND THE BUILDING PERMIT IS READY FOR ISSUANCE, THE PERMIT DIVISION WILL NOTIFY THE APPROPRIATE CONTACT PERSON FOR PERMIT PICK UP. ALL PERMIT STATUS INQUIRIES SHALL BE DIRECTED TO THE PERMIT DIVISION AT 410-313-2455. CODE RELATED QUESTIONS AND PLAN REVIEW INQUIRIES SHALL BE DIRECTED TO THE PLAN REVIEW DIVISION AT 410-313-2436. PLEASE ALLOW A MINIMUM OF FIVE (5) WORKING DAYS FOR ANY PLAN SUBMITTALS TO BE REVIEWED. THANK YOU.

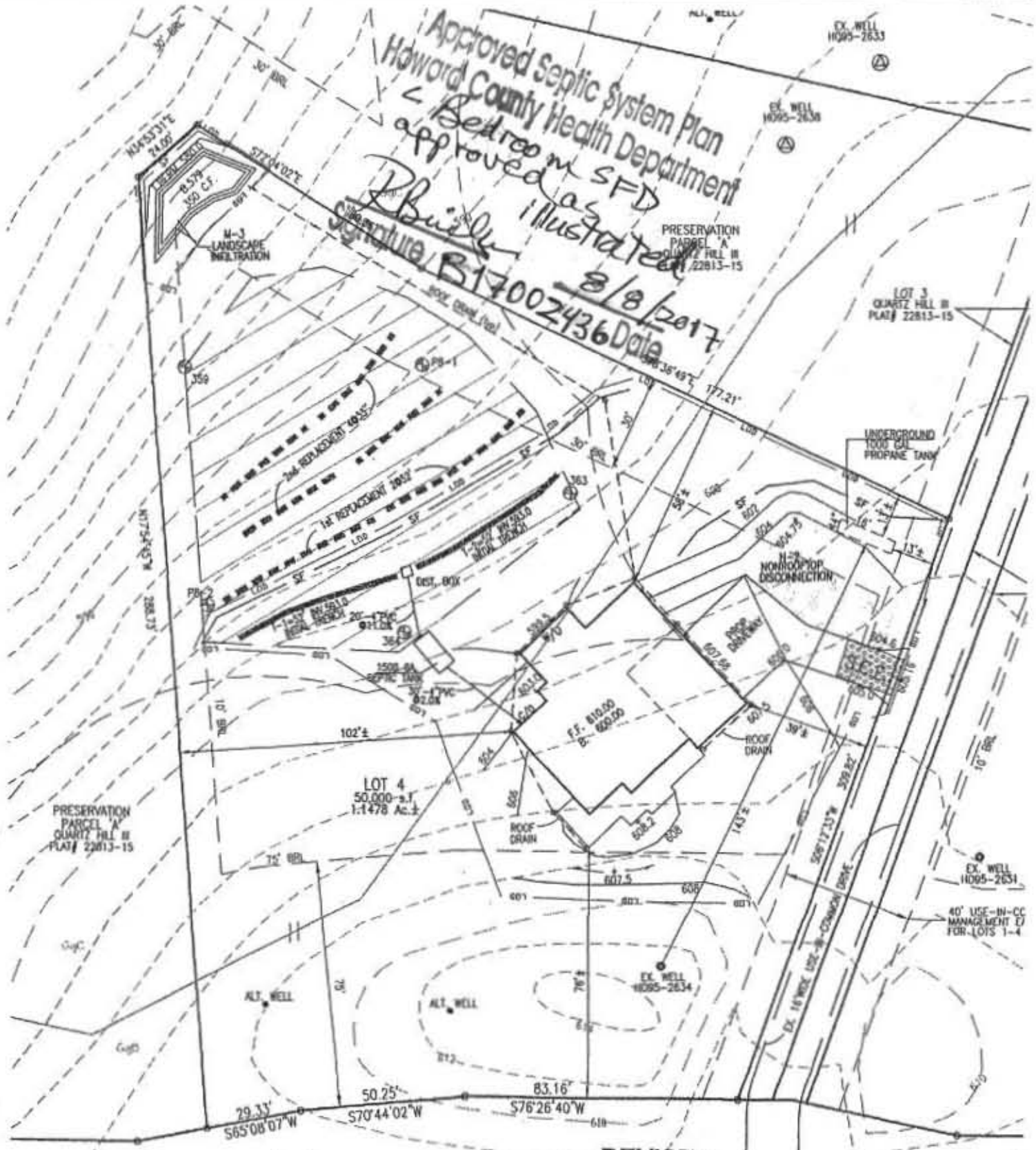
Received by MJF

Revision
For Health

Approved Septic System Plan
 Howard County Health Department
 Bedroom SFD
 approved as SFD
 Builder illustrated

Signature: *B17002436*
 Date: *8/8/2017*

PRESERVATION
 PARCEL 'A'
 QUARTZ HILL III
 PLAT 22813-15



REVISED 8/1/17

REVISED
 Date: *8/3/17*

B17002436

Comments: *B17-2436*

14534 OLD FREDERICK ROAD
 MD SHA PLAT 56161

Revised Per Health Dept.

STANDARDS AND SPECIFICATIONS
 FOR
 PERMANENT STABILIZATION

ent vegetation.
 legumes to establish permanent ground cover on disturbed soils.

Notes:

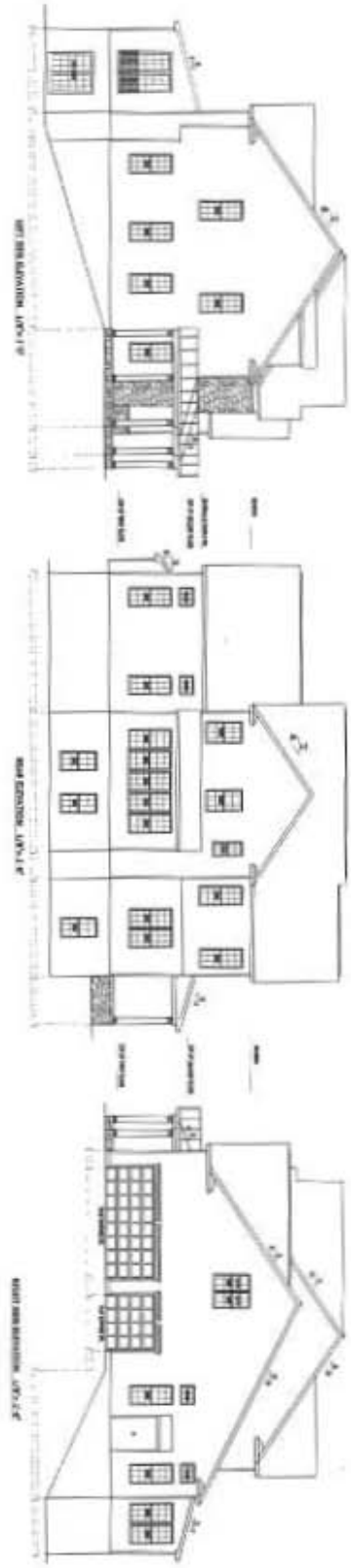
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland". Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.
 Ideal Times of Seeding for Turf Grass Mixtures
 Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)
 Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

SUPER SILT FENCE IS TO
 DIRECTION OF THE SEDIME

Heath



FRONT ELEVATION 1/4" = 1'-0"



S-bed room w SFD
 OK HB 7/2/17
 B170002436
 14534 Old Federal Rd

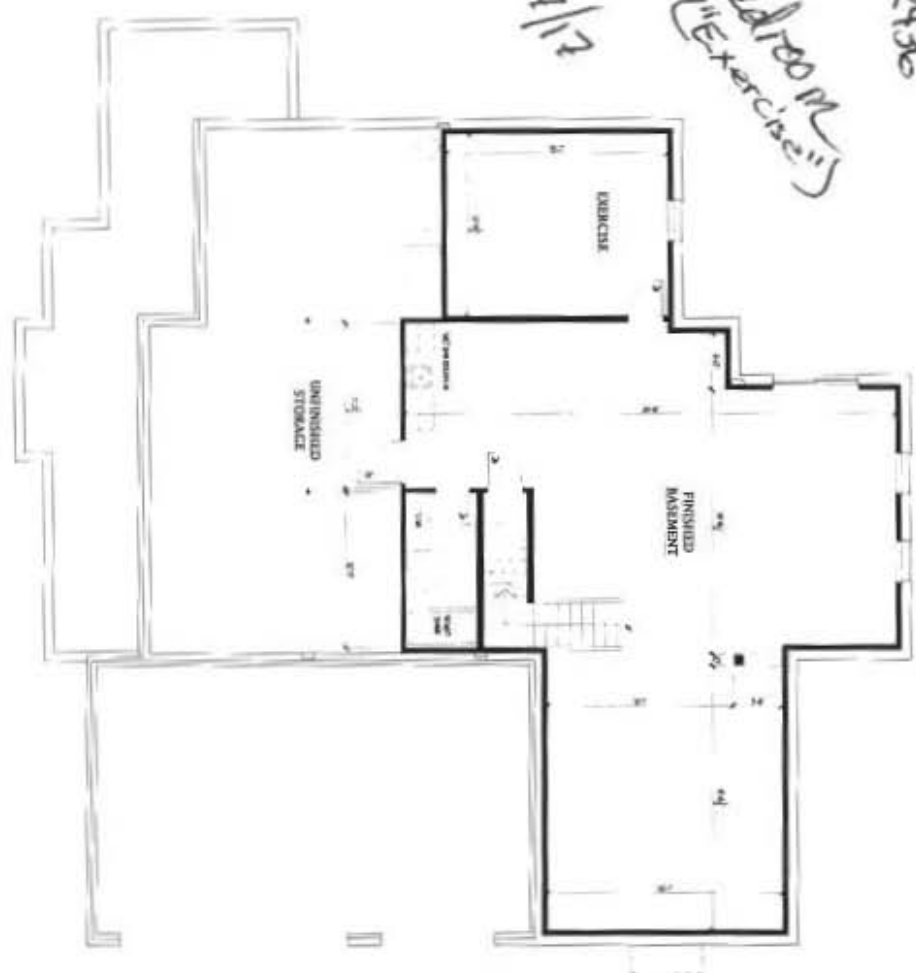
FINAL SET 6/6/17

1	Project No.: C17.06	Drawing: ELEVATIONS	FL1 SQ.FT:	Plymouth Road Architects 640 Plymouth Road, Baltimore, MD 21229. 410-788-0281 PlymouthRoadArchitects.com
	Date: 5/17	Project: CATONSVILLE HOMES LAWINGTON QUARTZ HILL LOT 4	FL2 SQ.FT:	
	Scale: NOTED		Notes:	

B17248 2436

Bedroom
("Exercise")

OK - 8/17/17



FINAL SET 6/6/17

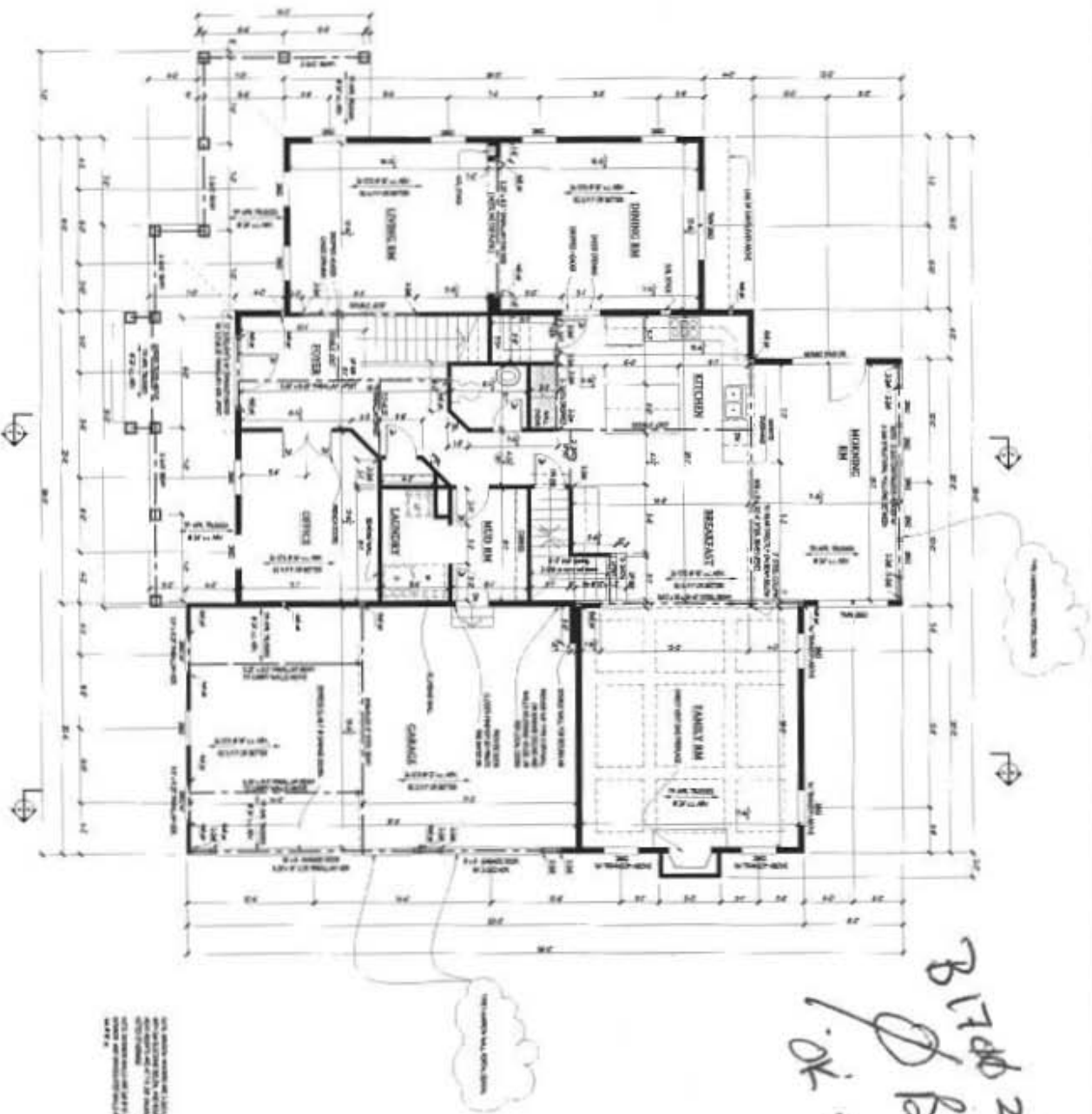


Project No: C16.16
 Date: 8/16
 Scale: 1/4"=1'-0"

Drawing: BASEMENT/ FOUNDATION PLAN
 Project: CATONSVILLE HOMES
 LEXINGTON
 TERRIPAN CREEK LOT 11

Notes:

Plymouth Road Architects
 640 Plymouth Road, Baltimore, MD 21229, 410-788-0281
 PlymouthRoadArchitects.com

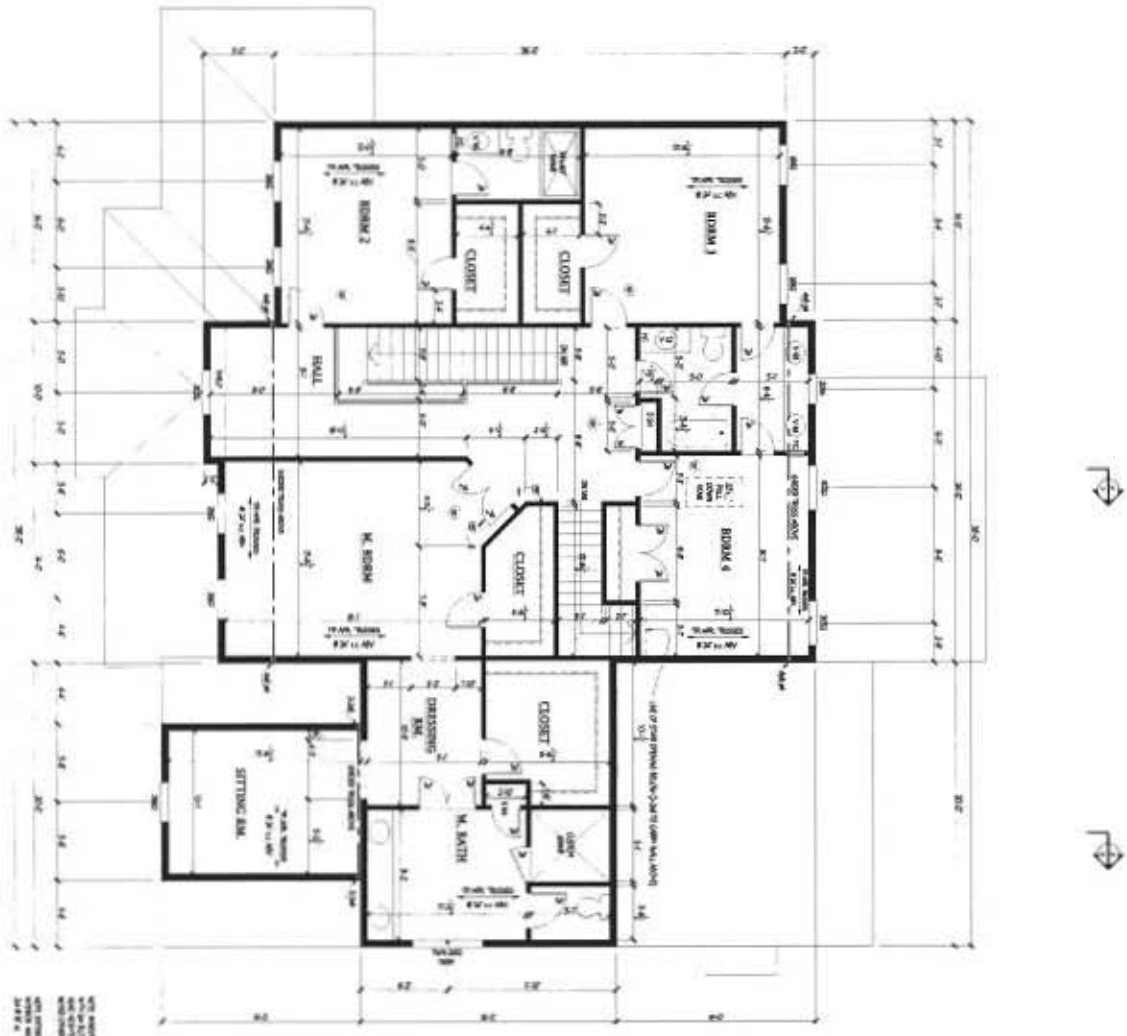


B. J. D. 2/13/17
P. Behrman
1.08 7/12/17

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
 FINISHES TO BE DETERMINED BY THE ARCHITECT.
 SEE SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
 THIS DRAWING IS THE PROPERTY OF PLYMOUTH ROAD ARCHITECTS AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF PLYMOUTH ROAD ARCHITECTS.

FINAL SET 6/6/17

3	Project No.: C17.06	Drawing: FIRST FLOOR PLAN	Notes:
	Date: 5/17	Project: CATONSVILLE HOMES LEXINGTON QUARTZ HILL LOT 4	
	Scale: 1/4"=1'-0"	Plymouth Road Architects 640 Plymouth Road, Baltimore, MD 21229 - 410-788-0281 PlymouthRoadArchitects.com	



Handwritten notes:
 B1744 2436
 4 - Bedrooms
 DE
 RB
 7/7/12

FINAL SET 6/6/17

PROJECT: CATONSVILLE HOMES, LEXINGTON, QUARTZ HILL LOT 4

4	Project No.: C17.06	Drawing: SECOND FLOOR PLAN	Notes:
	Date: 5/17	Project: CATONSVILLE HOMES LEXINGTON QUARTZ HILL LOT 4	
	Scale: 1/4"=1'-0"		

Plymouth Road Architects
 640 Plymouth Road, Baltimore, MD 21229, 410-788-0281
 PlymouthRoadArchitects.com

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition:
The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose:
To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies:
Where vegetative stabilization is to be established.

- Criteria:**
- Soil Preparation**
 - Temporary Stabilization
 - Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or rototillers, or by hand methods on construction equipment. After the soil is loosened, it must be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
 - Permanent Stabilization
 - Soil stabilization is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH between 6.0 and 7.0.
 - Salable salts less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception if lowwater will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
 - Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - Topsoiling**
 - Graded areas must be prepared to a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches, B.13.
 - Apply soil amendments as specified on the approved plan and as indicated by the results of a soil test.
 - Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Roll down areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.

- Topsoil** is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, material toxic to plants, and/or unacceptable soil gradation.
- Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
- Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing supplies of moisture and nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.

- Areas having slopes steeper than 2:1 require special consideration and design.
- Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand.
 - Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 2 percent by volume of cinders, stones, slag, coarse fragments, and gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free from plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate authority, may be used in lieu of natural topsoil.
- Topsoil Application**
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading, B.14 and seeded preparation.

- Soil Amendments (Fertilizer and Lime Specifications)**
 - Fertilizer must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Fertilizer must be substituted for fertilizer with prior approval from the appropriate authority. Fertilizers must be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
 - Lime materials must be ground limestone (hydrated) and must be substituted except when hydroxydizing which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 88 to 100 percent will pass through a #200 mesh sieve.
 - Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
 - Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

TEMPORARY STABILIZATION SPECIFICATIONS TABLE

No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)		Lime Rate
					P205	K2O	
ANNUAL Ryegrass	40	MAR. 1 - MAY 15 AUG. 1 - OCT. 15	0.5 INCHES	436 lb/oc (10 lb/1000 sf)	2 tons/oc (90 lb/1000 sf)		
FOXTAIL MILLET	20	JUNE 1 - JULY 31	0.5 INCHES				

PERMANENT STABILIZATION SPECIFICATIONS TABLE

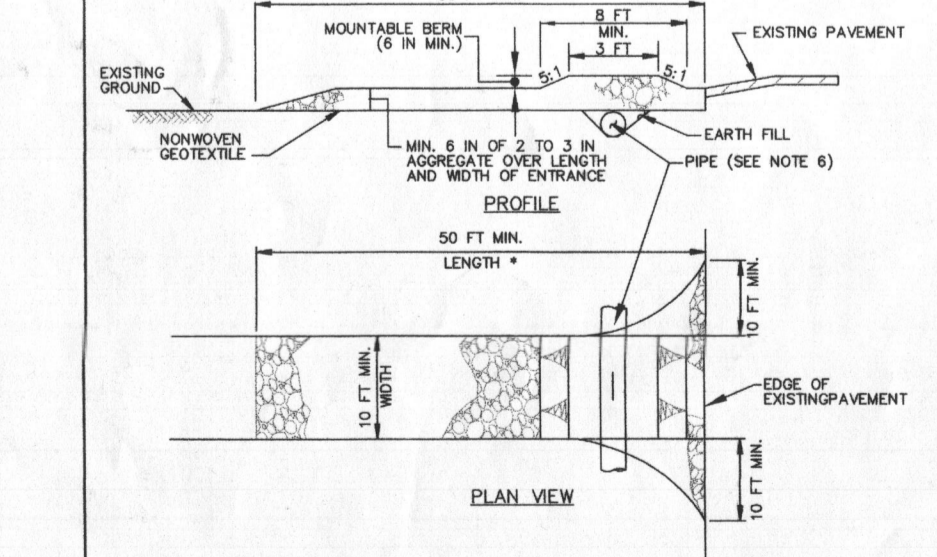
No.	Species	Application Rate (lb/oc)	Seeding Dates	Seeding Depths	N	Fertilizer Rate (10-20-20)		Lime Rate
						P205	K2O	
PERENNIAL Bluegrass	20	MAR. 1 - MAY 15 AUG. 1 - OCT. 15	1/4"-1/2" in	45 pounds per acre (1.0 lb/1000 sf)	90 lb/oc (26/1000 sf)	90 lb/oc (90 lb/1000 sf)	2 tons/oc (90 lb/1000 sf)	
			1/4"-1/2" in					

DUST CONTROL
DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. CALCIUM CHLORIDE SHALL BE APPLIED TO EXPOSED SURFACES AT A RATE THAT WILL KEEP SURFACE MOST UNTIL SOIL IS STABILIZED ACCORDING TO VEGETATIVE SPECS. FOR THIS SITE AND AREAS TO BE PAVED ARE COMPLETED.

STANDARD STABILIZATION NOTE

- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERMETER DIKES, SWALES, DITCHES, PERMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTRANCE AT A SPEED OF 5 MPH OR LESS. USE MINIMUM WIDTH OF 60 FEET FOR THE ENTRANCE. USE MINIMUM WIDTH OF 10 FEET. FLARE SIDE TO 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SOIL UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SOIL WITH A MOUNTABLE BEAM WITH 3:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. THE PIPE IS SPOURED ON APPROVED PLAN. WHEN THE SIZE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BEAM IS REQUIRED WHEN SIDE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE UNKNOWN GEOTEXTILE, AS SPECIFIED IN SECTION 1-4.1 MATERIALS.
- PLACE CURBED AGGREGATE TO 3 INCHES IN SIZE OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SEE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADDED STONE OR MAKE OTHER REPAIRS AS CONDITIONS REQUIRE. CLEAN SURFACE, MOUNTABLE BEAM, AND SPOURED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED INTO ADJACENT ROADWAYS BY HANDING, SCOPING, MACHINERY, OR BY WASHING ROADWAY TO REMOVE MUD. TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Definition:
The application of seed and mulch to establish vegetative cover.

Purpose:
To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies:
To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

- Criteria:**
- Seeding**
 - Specifications
 - All seed must meet the requirements of the Maryland State Seed Law. All seed must be tested by re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B-4 regarding the quality of seed. Seed lots must be available upon request to the inspector to verify type of seed and seeding rate.
 - Match dates may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
 - Inoculants: The inoculant for treating seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended amount of inoculant when the soil is very infertile. Inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
 - Soil or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min) to permit dissipation of phytotoxic materials.
 - Application
 - Dry Seeding: This includes use of conventional drop or broadcast spreaders.
 - Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1. Permanent Seeding Table B.3, or site-specific seeding summaries.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact. B.16
 - Drill or Cultivator Seeding: Mechanized seeders that apply and cover seed with soil.
 - Cultivator seeders are required to bury the seed in each direction as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
 - Hydroseeding: Apply seed uniformly with hydrosower (slurry includes seed and fertilizer). If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total; soluble nitrogen, P2 O5 (phosphorus), 200 pounds per acre; K2 O (potassium), 200 pounds per acre.
 - Lime: Use only ground agricultural limestone (up to 3 tons per acre) may be applied by hydroseeding. Normally, not more than 2 tons are applied with hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Mix seed and fertilizer on site and seed immediately and without interruption.
 - When hydroseeding do not incorporate seed into the soil.
 - Mulching**
 - Match Materials (in order of preference)
 - Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, coated, decayed, or discolored. Use only sterile straw mulch.
 - Wood Chips: WCMF consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCMF is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformity of spread.
 - WCMF, including dye, must contain no germination or growth inhibiting factors.
 - WCMF materials are to be manufactured and processed in such a manner that the wood cellulose fibers will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must be free from plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - WCMF must be applied to a minimum depth of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - WCMF must not contain elements or compounds at concentrations levels that will be phytotoxic.
 - WCMF must conform to the following physical requirements: fiber length of approximately 10 millimeter, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum. B.17
 - Application
 - Apply mulch to all seeded areas immediately after seeding.
 - Where straw mulch is used, spread it over seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
 - Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Anchoring
 - Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion risk:
 - A mulch anchoring tool is a tractor driven implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - Use a mulch anchorer or other device to anchor the mulch.
 - Use a tractor or other approved equipment may be used. Follow application rates as specified by the manufacturer. Application of liquid binders must be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
 - Wood cellulose fiber may be used for anchoring slurry. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Synthetic tarich 1 - June - June 15.
 - Synthetic tarich 1 - June 15 - June 15.
 - Synthetic tarich 1 - June 15 - June 15.

- When hydroseeding do not incorporate seed into the soil.
- When hydroseeding do not incorporate seed into the soil.
- When hydroseeding do not incorporate seed into the soil.

- When hydroseeding do not incorporate seed into the soil.
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- When hydroseeding do not incorporate seed into the soil.

B-4-4 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

No.	Species	Application Rate (lb/oc)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)		Lime Rate
					P205	K2O	
ANNUAL Ryegrass	40	MAR. 1 - MAY 15 AUG. 1 - OCT. 15	0.5 INCHES	436 lb/oc (10 lb/1000 sf)	2 tons/oc (90 lb/1000 sf)		
FOXTAIL MILLET	20	JUNE 1 - JULY 31	0.5 INCHES				

STOCKPILE AREA

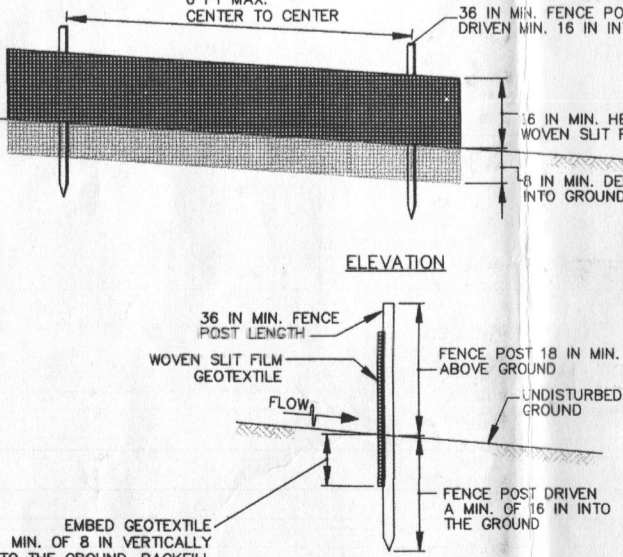
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

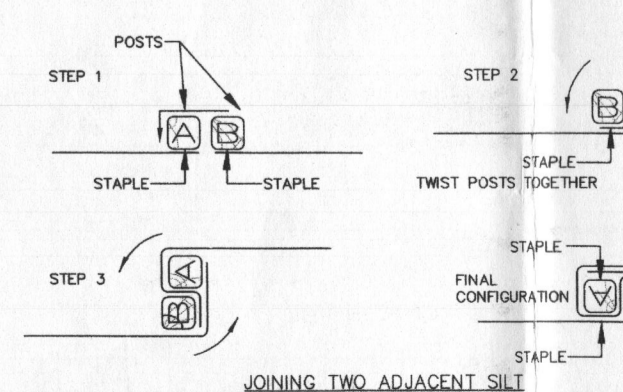
STOCKPILE AREA

- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The footprint of the stockpile must be sized to accommodate the anticipated volume of material and located on a side slope ratio no steeper than 2:1.
- Benching must be provided in accordance with Section B-3 Land Grading.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- Access the stockpile area from the up-slope side.
- Clear water runoff into the stockpile area must be minimized by use of a diversion device, such as an earth dike, temporary swale or diversion fence.
- Provisions must be made for discharging concentrated flow in a non-erodive manner.
- Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

DETAIL E-1 SILT FENCE



CROSS SECTION



HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOO and protected area marked clearly in the field. A minimum of 48 hour notice to CID must be given a the following stages:
 - Prior to the start of earth disturbance.
 - Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
 - Prior to the start of another phase of construction or opening of another grading unit.
 - Prior to the removal or modification of sediment control practices.
 Other grading or grading inspection approvals may not be authorized until this initial approval by inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination to avoid conflicts with this plan.
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR THE SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.
- All disturbed areas shall be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (Sec. B-4-2), permanent seeding (Sec. B-4-3), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization (Sec. B-4-8) in excess of 20 ft. must be bermed with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the CID.
- Site Analysis:**

Total Area of Site	1.15 Acres.
Area Disturbed	0.12 Acres.
Area to be seeded or paved	0.12 Acres.
Area to be vegetatively stabilized	0.39 Acres.
Total Cut	20,000 Yds.
Total Fill	N/A.

 Offsite waste/borrow area location: N/A.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly, and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:
 - Inspection date
 - Inspection time (routine, pre-storm event, during rain event)
 - Name and title of inspector
 - Weather information (current conditions as well as amount and total recorded precipitation)
 - Brief description of project's status (e.g. percent complete) and/or current activities
 - Evidence of sediment disturbances
 - Identification of plan deficiencies
 - Identification of sediment controls that require maintenance
 - Identification of missing or improperly installed sediment controls
 - Compliance status regarding the sequence of construction and stabilization requirements
 - Photographs
 - Monitoring/sampling
 - Maintenance and/or corrective action performed
 - Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDG).
- Trenches for the construction of utilities are limited to three pipe lengths or that can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.
- Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may be allowed by the CID per the list of HSCD-approved field changes.
- Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac) prior to grading unit at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the HSCD. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a given time.
- Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.
- Top soil shall be stockpiled and preserved on-site until ready for use. The stockpile shall be protected from erosion by a silt fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25' minimum interval, with lower ends curved uphill by 2' in elevation.
- Stream channels must not be disturbed during the following restricted time periods (inclusive):
 - Use I and II March 1 - April 30
 - Use III and IIII October 1 - April 30
 - Use IV March 1 - May 31
- A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL, and approved permits shall be on-site and available when the site is active.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Exposed soils where ground cover is needed for 6 months or more.

PERMANENT STABILIZATION

Definition: To stabilize disturbed soils with permanent vegetation.

Purpose: To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies: Exposed soils where ground cover is needed for 6 months or more.

Criteria: A. Seed Mixtures

- General Use
 - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - Additional planting specifications for exceptional sites such as shorelines, stream banks, dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
 - For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil testing agency.
 - For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
- Turfgrass Mixtures
 - Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance and will receive medium to intensive management. Certified Perennial Ryegrass/Cultivar/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Kentucky Bluegrass/Perennial Ryegrass Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Cultivar/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Tall Fescue/Kentucky Bluegrass Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 5 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue Shade Mixture: For use in areas with shade in Bluegrass turf. Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1x to 3 pounds per 1000 square feet.

Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland." Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

Tilt areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/8 inches in diameter. The resulting seedbed must be in such a condition that future mowing of grasses will pose no difficulty.

If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1x to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

i. General Specifications

ii. Sod must be machine cut at a uniform soil thickness of 1/2 inch, plus or minus 1/8 inch, at the time of cutting. Measurements for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends must be discarded. Sod must be stored in a cool, shaded area until ready for use.

iii. Standard site sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

iv. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

v. Sod must be harvested, delivered, and installed within a period of 36 days. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

vi. Sod Installation

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight into each other to prevent voids which would cause air drying of the sod.

c. Where possible, lay sod with the long edges parallel to the contour and with staggering. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.

d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.



Table B.4.1 Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration-

Material	Specification	Size	Notes
Planting soil [2" to 4" deep]	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2" to 4" deep]	loamy sand (60-65%) & compost (35-40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe, 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes, not necessary underdrain pipes. Perforated pipe shall be wrapped with 1/2-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.R.89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Gneissstone (AASHTO #10) are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

Specifications for Micro-Bioretenion, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications

The allowable materials to be used in these practices are detailed in Table B.4.1.

Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretenion practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 5%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall include both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

Compaction

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to restructure the soil profile through the 2 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sod layer. Pump any ponded water before preparing (rototilling) base. When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and and. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with mars tracks.

Plant Installation

Compost is a better organic material source, is less likely to float, and should be placed in the invert at other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (1 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant rootball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

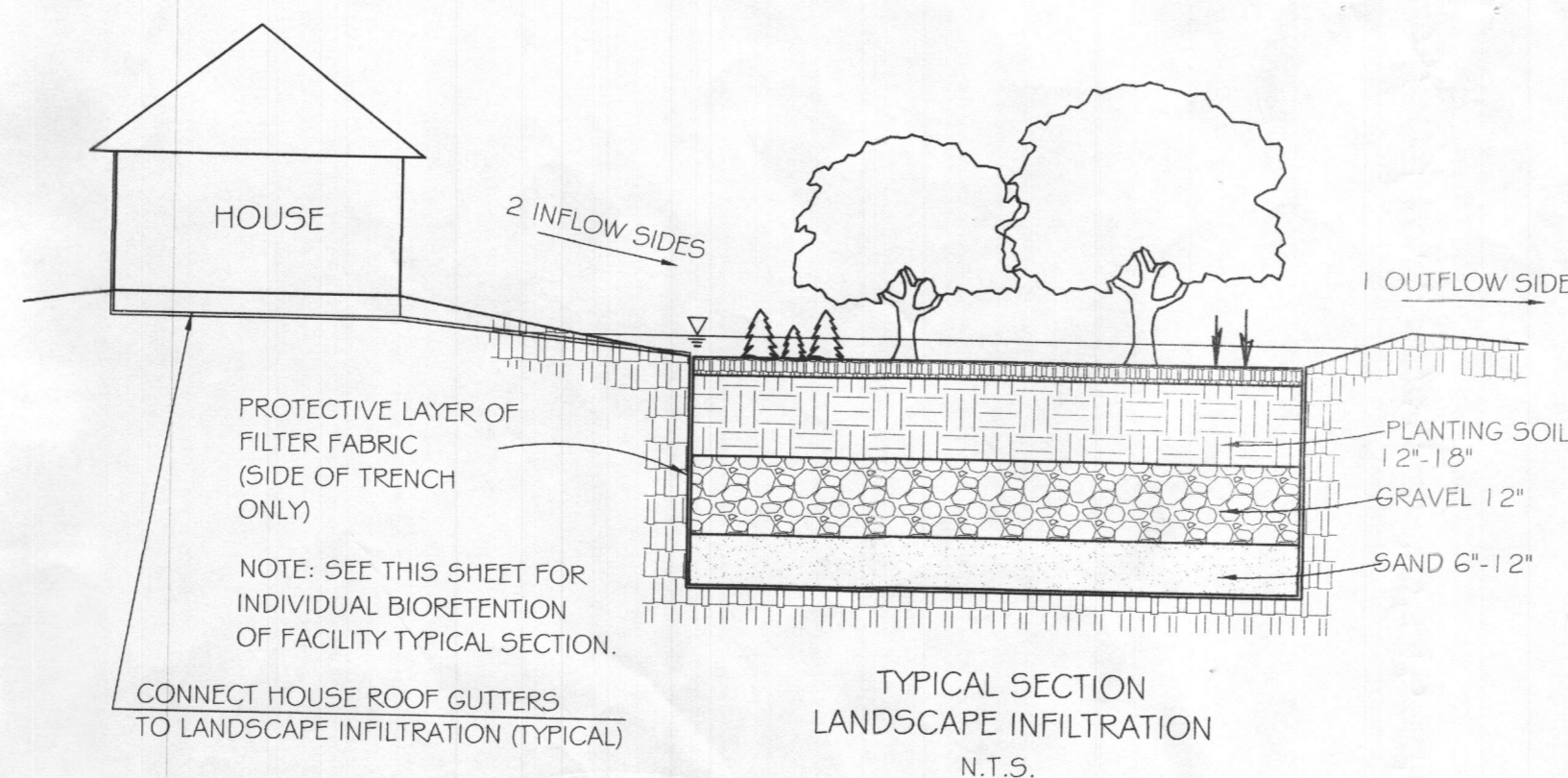
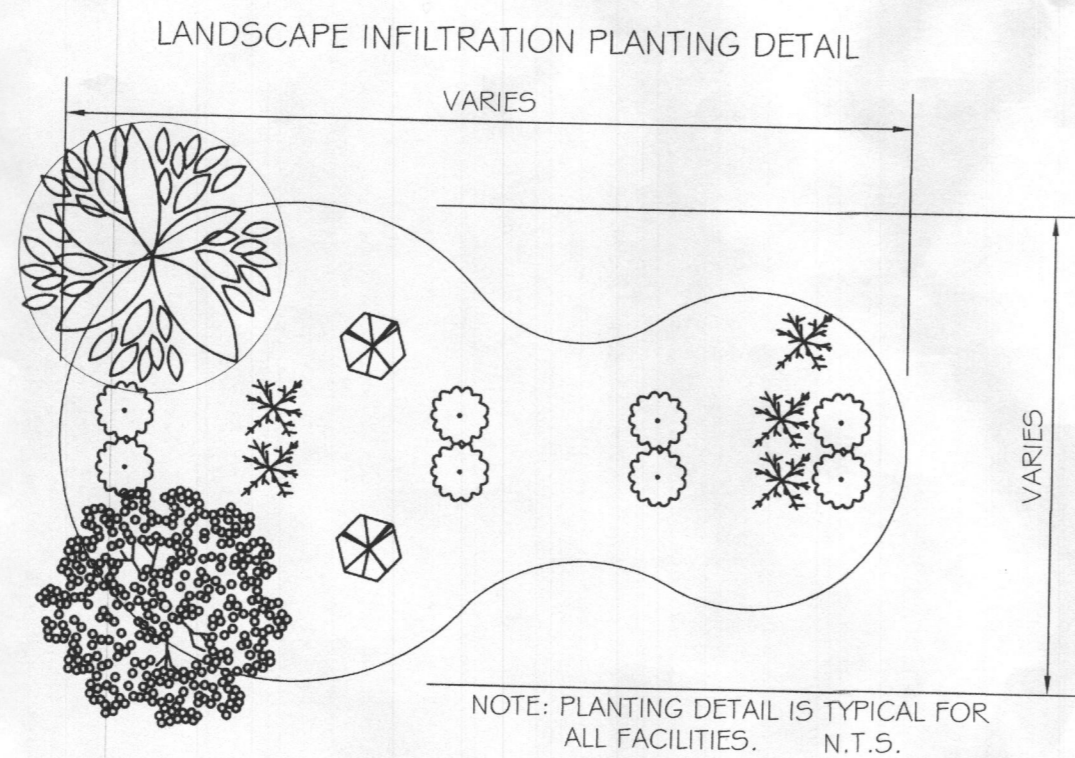
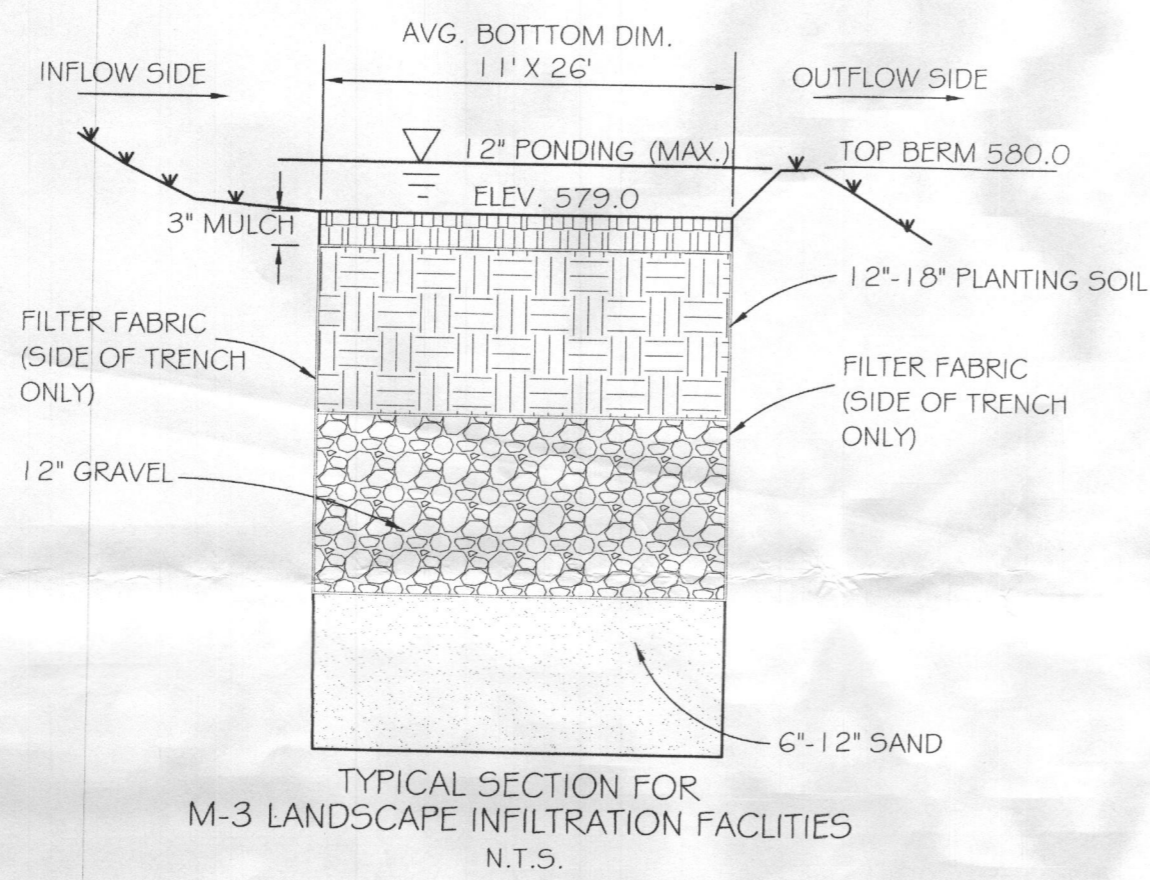
Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers, or any other minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Ratil urea fertilizer at a rate of 2 pounds per 1000 square feet.

MAINTENANCE CRITERIA

- The following items should be addressed to ensure proper maintenance and long-term performance of landscape infiltration:
- Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal measures preventing its neglect, adverse alteration, and removal.
- During the first year of operation, inspection frequency should be after every major storm and poorly established areas revegetated.
- Sediment accumulation on the surface of the facility should be removed and the top two to three inches of surface layer replaced as needed.
- The top few inches of the planting soil should be removed and replaced when water ponds for more than 48 hours or there is algal growth on the surface of the facility.
- If standing water persists after filter media has been maintained, the gravel, soil, and sand may need to be cleaned and/or replaced.
- Occasional pruning and replacement of dead vegetation is necessary. If specific plants are not surviving, more appropriate species should be used. Watering may be required during prolonged dry periods.



PRACTICE	DRAINAGE AREA	IMPERVIOUS AREA TREATED	METHODOLOGY	VOLUME (ESDv) REQUIRED	VOLUME (ESDv) PROVIDED
N-2 NON-ROOFTOP DISCONNECTION	1,025 S.F.	1,025 S.F.	$ESDv = P_e \cdot R_i \cdot A / 2$ where $P_e = 1.0$ & $R_i = 0.95$	61 c.f.	61 c.f.
M-3 LANDSCAPE INFILTRATION	11,729 S.F.	3,250 S.F.	REMAINING ESDv MINIMUM SURFACE AREA	350 c.f.	350 c.f.
			TOTAL ESDv PROVIDED		431 c.f.
			ESDv REQUIRED	431 c.f.	

M-3 LANDSCAPE INFILTRATION PLANT SIZING AND SPACING

PLANT SPACING

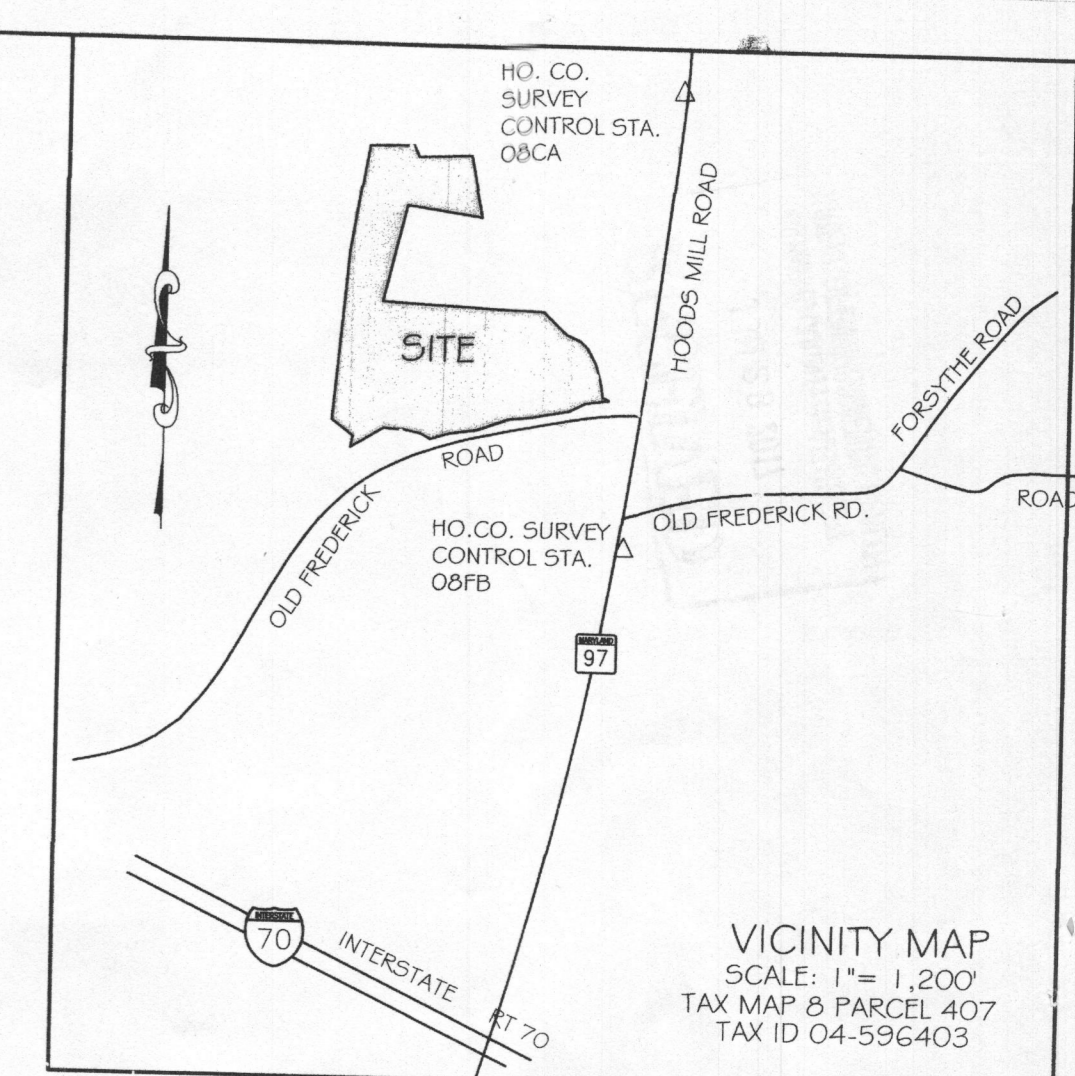
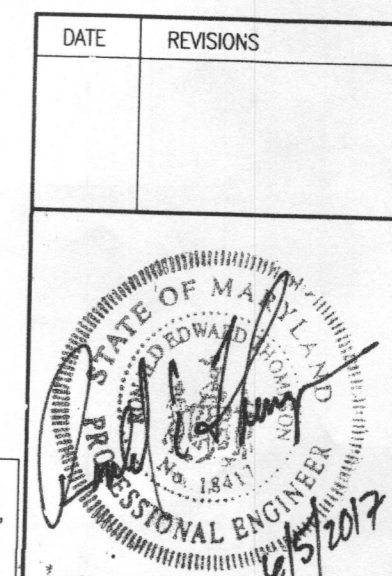
- PERENNIALS - 12" ON CENTER FOR QUART SIZE
- 18" ON CENTER FOR GALLON SIZE
- SHRUBS - 3'-4" ON CENTER FOR QUART / GALLON SIZE

PLANT SPECIES

PLANT SPECIES SHALL BE SELECTED FROM "PLANT SPECIES APPROPRIATE FOR USE IN BIORETENTION AREAS", PRINCE GEORGE COUNTY DEP. MD., (www.lowimpactdevelopment.org)

OWNER / DEVELOPER:
CATONSVILLE HOMES
11175 STRATHFIELD CT.
MARRIOTTSVILLE, MD. 2110
410-442-2211

I hereby certify that these documents were prepared, approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 18417, Expiration Date 12-17-2017.



OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 4.2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER YEAR AND AFTER EACH HEAVY STORM.

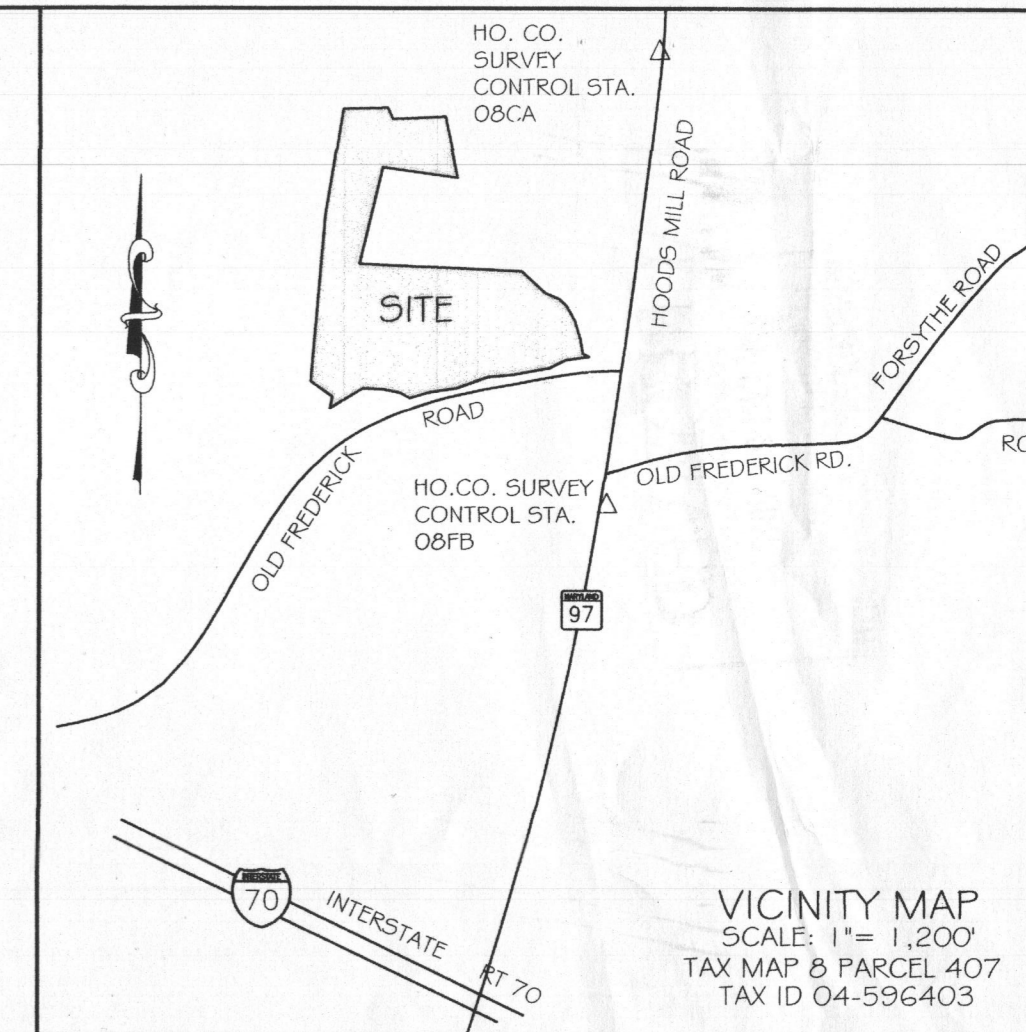
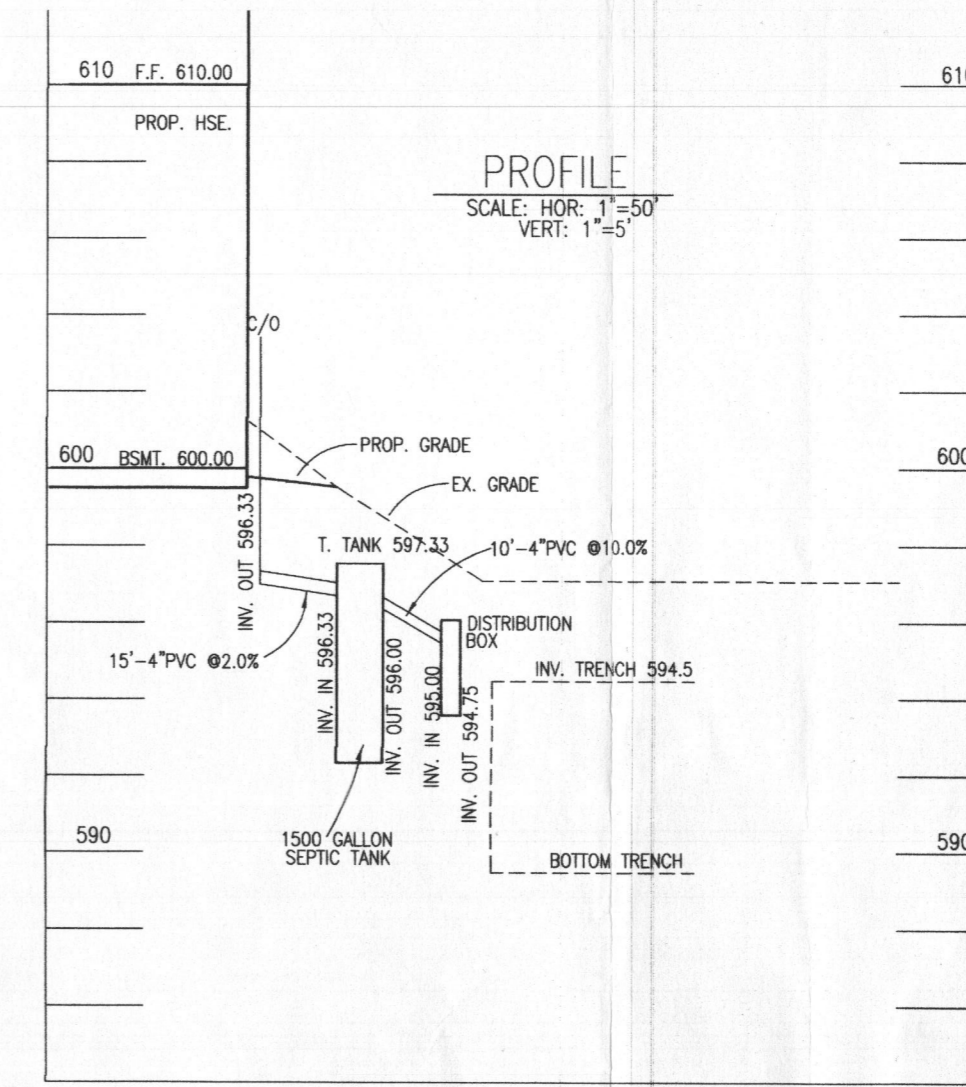
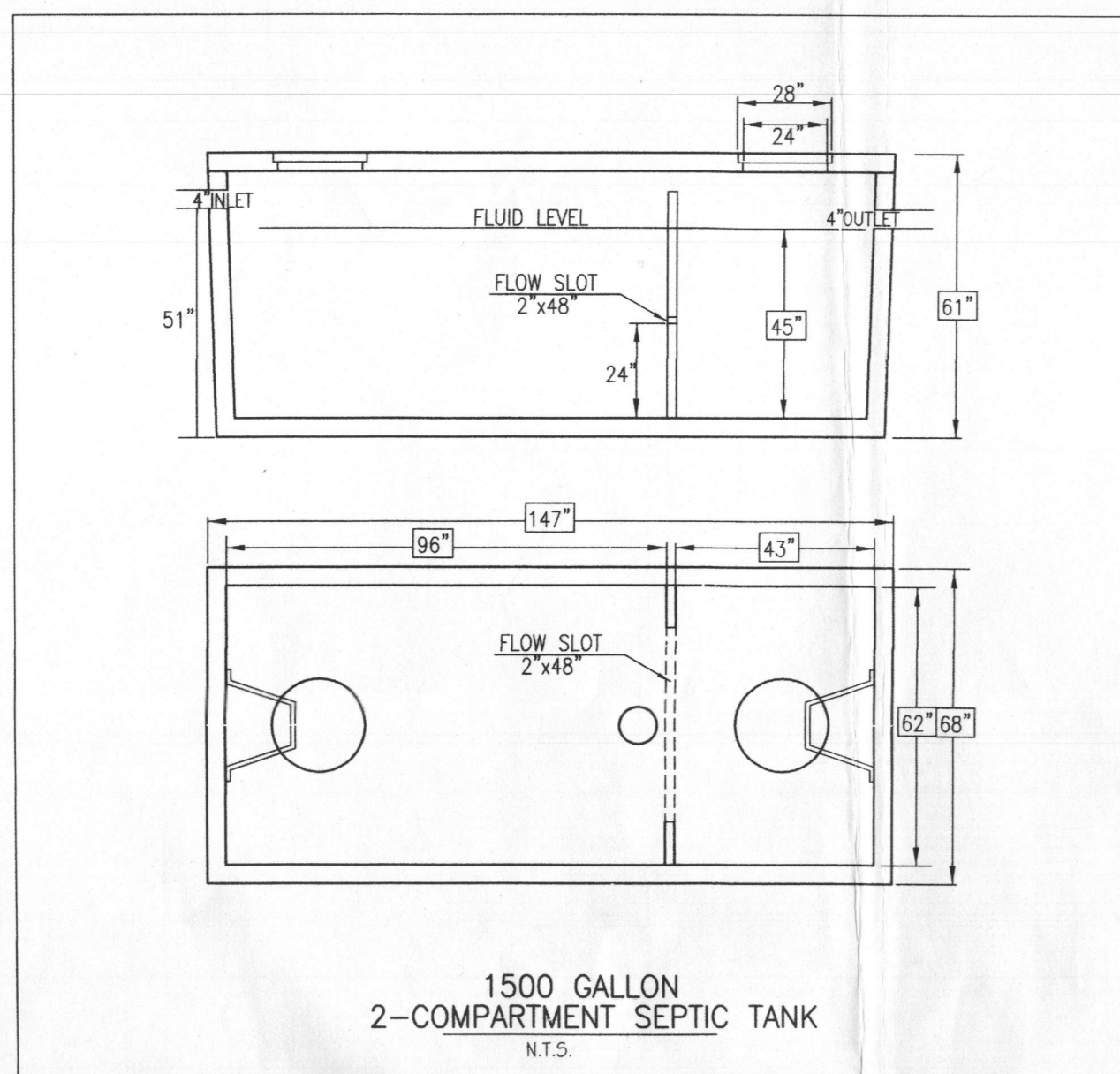
DATE REVISIONS

STORMWATER MANAGEMENT PLAN
LOT 4
QUARTZ HILL III
PLAT No. 22813-228125

14534 OLD FREDERICK ROAD
FOURTH ELECTION DISTRICT
HONARD COUNTY, MARYLAND
SCALE: 1" = 30' JUNE 2017

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street Mount Airy, Maryland 21771
(301) 829-2890 (301) 831-5015 (410) 549-2751
Fax (301) 831-5603 ©Copyright, Latest Date Shown

SHEET 2 OF 2



GENERAL NOTES:

- TOPOGRAPHY & PLANIMETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
- THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
- ZONING DISTRICT: RC-DEO
- LIMIT OF DISTURBANCE (LOD) = 21,900 SQ.FT.
- THERE ARE NO STREAMS, PONDS, FLOODPLAINS OR WETLANDS ON THIS LOT.
- STORM WATER MANAGEMENT FOR THIS LOT IS PROVIDED BY N-2 NON-ROOFTOP DISCONNECTION AND M-3 LANDSCAPE INFILTRATION.

SEPTIC SYSTEM TRENCH DESIGN

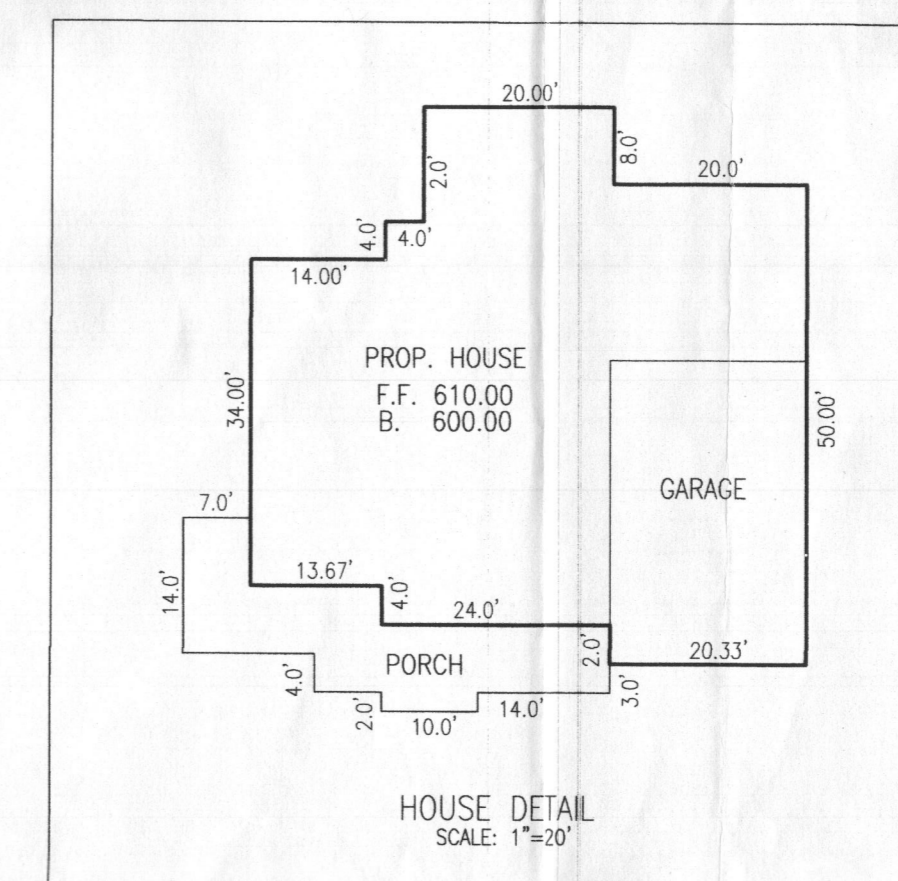
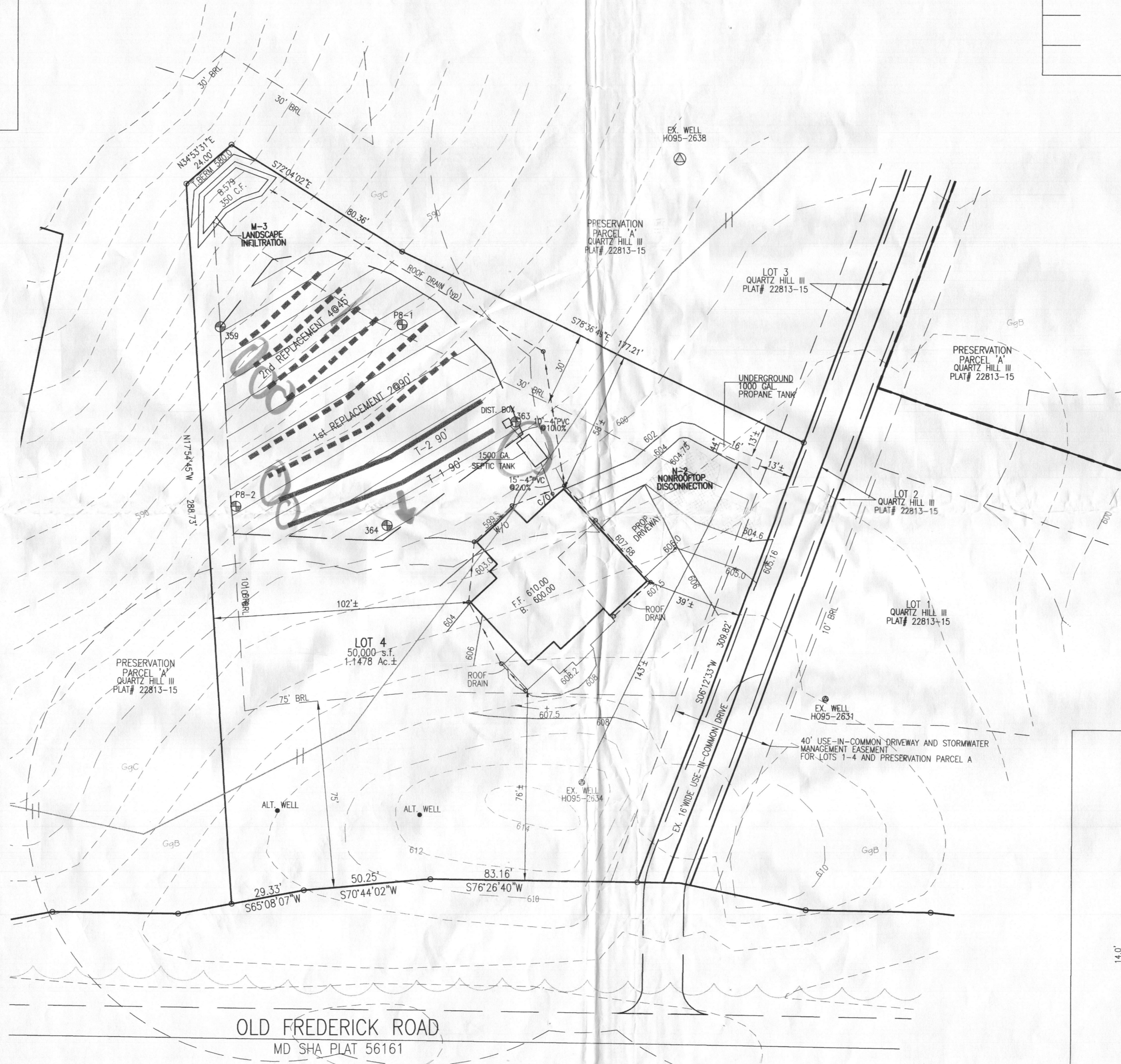
INITIAL NUMBER OF BEDROOMS = 5
 APPLICATION RATE = 1.2 GPD / sq.ft.
 DESIGN FLOW: 150 GPD X 5 BEDROOMS = 750 GPD
 750 GPD / 1.2 GPD/sq.ft. = 625 sq.ft.
 625 sq.ft. / 2 ft. WIDE TRENCH = 313 LF TRENCH
 313 LF TRENCH X 0.57 REDUCTION CREDIT = 180 LF TRENCH
 TRENCH 1 (T1) EX. GRD=597.5 -INV. TRENCH=594.5 -B. TRENCH=589.5
 TRENCH 1 (T1) EX. GRD=596.0 -INV. TRENCH=593.0 -B. TRENCH=588.0

1st REPLACEMENT
 APPLICATION RATE = 1.2 GPD / sq.ft.
 DESIGN FLOW: 150 GPD X 5 BEDROOMS = 750 GPD
 750 GPD / 1.2 GPD/sq.ft. = 625 sq.ft.
 625 sq.ft. / 2 ft. WIDE TRENCH = 313 LF TRENCH
 313 LF TRENCH X 0.57 REDUCTION CREDIT = 180 LF TRENCH

2nd REPLACEMENT
 APPLICATION RATE = 1.2 GPD / sq.ft.
 DESIGN FLOW: 150 GPD X 5 BEDROOMS = 750 GPD
 750 GPD / 1.2 GPD/sq.ft. = 625 sq.ft.
 625 sq.ft. / 2 ft. WIDE TRENCH = 313 LF TRENCH
 313 LF TRENCH X 0.57 REDUCTION CREDIT = 180 LF TRENCH

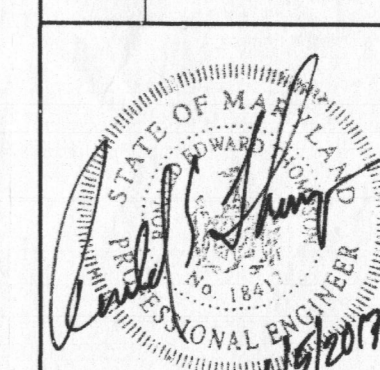
SITE PLAN NOTES:

- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- MAXIMUM COVER OVER THE TANK IS 3 FEET. GREATER DEPTH WILL REQUIRE A HEAVY LOAD BEARING TANK.
- ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- THE WELL (TAG #HO-95-2634) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND OR SEPTIC SYSTEMS HAVE BEEN 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. 18417, Expiration Date: 9-18-17.

DATE	REVISIONS



OWNER / DEVELOPER:
 CATONVILLE HOMES
 11175 STRATFIELD CT
 MARIOTTVILLE, MD 21104
 410-442-2211

ON SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN
 LOT 4
 QUARTZ HILL III
 PLAT No. 22813-228125

14534 OLD FREDERICK ROAD
 FOURTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' JUNE 2017

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 Fax (301) 831-9603 ©Copyright, Latest Date Shown

APPROVED
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE