

**Bureau of Environmental Health**  
 8930 Stanford Boulevard, Columbia, MD 21045  
 Main: 410-313-2640 | Fax: 410-313-2648  
 TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 5/5/17 **ONSITE SEWAGE DISPOSAL SYSTEM** P 560629-E

APPROVAL DATE: 8/2/17 **PERMIT: CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 5513 Green Bridge Road

SUBDIVISION: Tall Trees LOT: 2 TAX ID: 05-414865

CONTRACTOR: South Carroll Backhoe EMAIL: scbackhoe@comcast.net

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618

PROPERTY OWNER: Frederick and Laura Frey EMAIL: \_\_\_\_\_

OWNER ADDRESS: 7927 Red Jacket Way PHONE: \_\_\_\_\_

SEPTIC TANK SIZE (GALLONS): 1250 TANK MANUFACTURER: \_\_\_\_\_

PUMP MODEL: WE03L PUMP SIZE: 1/3 HP PUMP TANK CAPACITY: 1500

DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 4 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>106</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>

LOCATION: **PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.**

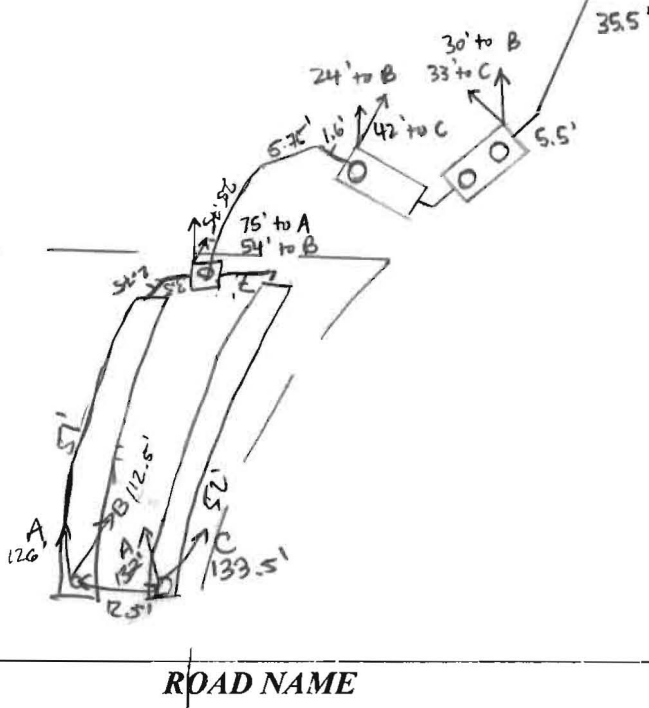
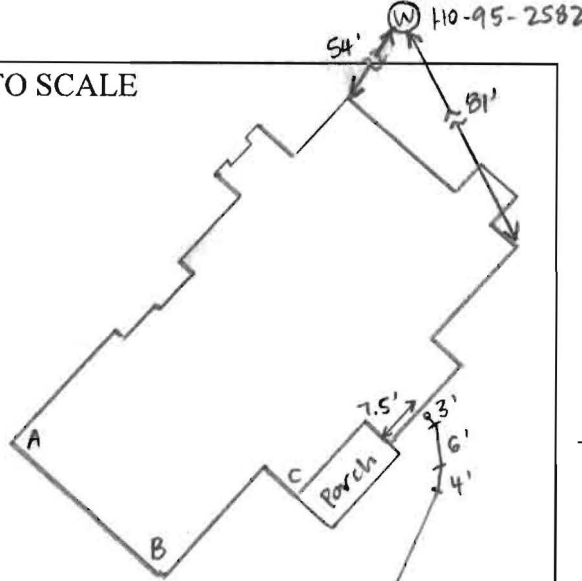
NOTES: Use 2 x 53' trenches

ISSUED BY: Hank Oswald ISSUE DATE: 5/5/17 EXPIRATION DATE: 5/5/18

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM  
 ELECTRICAL PERMIT ISSUED E \_\_\_\_\_
- NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.  
 PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.  
 CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE



**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3	4	7'
NUMBER OF TRENCHES		2
TOTAL LENGTH		103
ABSORPTION AREA		309 sq ft + side wall
DISTRIBUTION BOX LEVEL		YES
DISTRIBUTION BOX BAFFLE		ELBOW
DISTRIBUTION BOX PORT		yes

**SEPTIC TANK DATA**

SEPTIC TANK I LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	1.5-3'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NONE
SLOTTED	YES
DATE ON LID	5-22-17
PUMP/SEPTIC TANK LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	2-3'
BAFFLES	NO
BAFFLE FILTER	NO
MANHOLE LOC	REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NONE
SLOTTED	NO
DATE ON LID	5-15-17

**PRE-CONSTRUCTION:**

6/23/17 Met S. Carroll on site for layout. SDA corners staked, tank locations not staked. Shot contour + laid out 2x53' trenches. Set tanks with 3' cover to ensure line from house has adequate cover through swale in backyard. Set tanks in locations shown on plan. Homeowner on site - considering changing plumbing so that pipe out of house is closer to garage. Should be fine for fall to tanks at proposed location. (SC)

**INSTALLATION:** 6/26/17 Tanks set. Pump tank angled closer to house to keep depth to 3' or less. Tanks set as deep as possible so that line from house to tank has cover. (less than 1' near porch corner) S. Carroll installing sewer line while on site. Need house connection. (SC) 6/29/2017 Trenches complete. (P) Box installed. (P) 8/21/17 On site for pump + alarm. Alarm sounds, pump pumps effluent to D-box. (SC)

FINAL INSPECTOR

Sarah Collins

DATE OF APPROVAL

8/21/17

## Oswald, Hank

---

**From:** Linda D. Alexander <lalexander@clsimail.com>  
**Sent:** Friday, June 24, 2016 7:55 AM  
**To:** Oswald, Hank  
**Subject:** RE: BAT Plan\_Tall Trees Lot 2  
**Attachments:** BAT LOT 2.pdf

**Importance:** High

Good Morning Hank,

I apologize Hank also since my designer actually sent you the old plan. Not the one that had been revised.

I have attached PDF's of plan addressing your comments below.

Please see my responses in red.

*Linda D. Alexander*

Associate / Senior Project Manager

**CLSI**

439 East Main Street, Westminster, MD. 21157

[lalexander@clsimail.com](mailto:lalexander@clsimail.com)

direct: 410-871-4475

cell: 443-375-9903

**From:** Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]

**Sent:** Wednesday, June 22, 2016 11:51 AM

**To:** Linda D. Alexander <lalexander@clsimail.com>

**Subject:** BAT Plan\_Tall Trees Lot 2

Hi Linda:

The revised plan received on 6/21/16 appears to be identical to the initial BAT plan. I've included some attachments to help me clarify some needed changes to the BAT Plan.

1. According to the Sand Mound Manual, Static Head is defined as the relative elevation of the highest component of the distribution system – the relative elevation of the pump off float switch. (See attachment that shows definition taken from Sand Mound System Manual) I apologize. I even went back and look at my old manuals and you are right. I have revised the calculations.
2. Static Head Calculation was not shown per my comment on the 2<sup>nd</sup> page of the revised plan (See attachment). The calculations have been revised.
3. The revised plan still shows the force main as a 2 inch line on 1<sup>st</sup> page of plan (See attachment) The pipe size has been revised.
4. The dimensions of the top tank profile still does not match the dimensions of the side profile on 2<sup>nd</sup> page. (See attachment) With that said, if the true dimensions are Tank L=149in, Tank W=74in, H (Above High Water Alarm) = 12.57in, then it shows enough emergency storage. Choose one manufacturer on plan.  
I have listed only one manufacturer

5. Where does the 30 gpm come from in the calculation and on the pump curve because the pump curve intersects at about 85 gpm with 6.01 TDH. (see attachment).  
The plan has been revised
6. Trench 2 exceeds 7 feet in depth which does not align with the septic specs.  
The trench 2 information has been revised. I was thinking about the replacement system

If you wish to send me a e-copy for review prior to submitting the original or if you wish to meet on this, please let me know.

Thanks,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
410.313.2648 (Fax)

439 East Main Street  
Westminster, MD 21157-5539



(410) 848-1790 • (301) 662-1799  
FAX (410) 848-1791

**Transmit To:**

Development Coordination, Well & Septic  
Program  
Howard County Bureau of Environmental Health  
8930 Stanford Boulevard  
Columbia, MD 21045

**Project Info:**

TALL TREES LOT 2 *9 Lot 1*  
Howard County, MD

**Project No: 2016079a**

**Date: Jun 14, 2016**

**We are Transmitting:**

- |   |  |   |  |   |                          |
|---|--|---|--|---|--------------------------|
| <input checked="" type="checkbox"/> Here with | <input type="checkbox"/> Originals         | <input type="checkbox"/> Computer Media     | <input type="checkbox"/> Shop Drawings | <input checked="" type="checkbox"/> Via Overnight | <input type="checkbox"/> |
| <input type="checkbox"/> Our                  | <input checked="" type="checkbox"/> Prints | <input type="checkbox"/> Project Manuals    | <input type="checkbox"/> Payment Cert. | <input type="checkbox"/> Express Mail             | <input type="checkbox"/> |
| <input type="checkbox"/> Your                 | <input type="checkbox"/> Copies            | <input type="checkbox"/> Product Literature | <input type="checkbox"/> Change Order  | <input type="checkbox"/> 1st Class Mail           | <input type="checkbox"/> |

Sets	Type	Dwg No	Dated	Description
2	D Size Bond Copies	2016079	June 2016	Lot 2 Site Plan for BAT Installation
2	D Size Bond Copies	2016079	May 2016	Lot 1 Site Plan for BAT installation

- |  |  |                                      |                                       |                          |
|--|--|--------------------------------------|---------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> As Requested | <input type="checkbox"/> For Your Use    | <input type="checkbox"/> For Filing  | <input type="checkbox"/> For Approval | <input type="checkbox"/> |
| <input type="checkbox"/> As Required             | <input type="checkbox"/> For Your Review | <input type="checkbox"/> For Bidding | <input type="checkbox"/> As Discussed | <input type="checkbox"/> |

**Remarks:**

Empty box for remarks.

Ray & Carolyn Bateman  
617 Peck Road  
Downington, PA 19335

If enclosures are not as noted,  
please notify us immediately.

*Linda D. Alexander*  
Linda D. Alexander

Copy To \_\_\_\_\_

439 East Main Street  
Westminster, MD 21157-5539



(410) 848-1790 • (301) 662-1799  
Fax (410) 848-1791

June 20, 2016

Howard County Health Department  
8930 Stanford Blvd  
Columbia, MD 21045

Attn: Mr. Hank Oswald

RE: Tall Trees Lot 2 Bat Plan  
CLSI Job No.: 2016079

Dear Mr. Oswald,

Per your email sent June 16, 2016 we offer the following responses:

1. We have shown the static head calculations per your comment. However, according to MDE's method of calculating the static head shown in their sand mound manual the static head is shown calculated from the bottom of the tank. The force main has been revised to a 3" PVC.
2. The dimensions of the top of the tank have been revised to match the calculations.
3. The pump is controlled by floats in the pump chamber.

Should you have any questions or concerns, please feel free to contact our office.

Sincerely,

A handwritten signature in cursive script that reads "Linda Alexander".

Linda Alexander  
Associate/ Project Manager

Cc: File

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Thursday, June 16, 2016 3:12 PM  
**To:** lalexander@clsimail.com  
**Subject:** BAT Plan\_Tall Trees Lot 2

Hi Linda:

I'm writing to confirm information on the BAT plan design for Tall Trees, Lot 2.

- 1.) I believe the static head on the system is  $448.50 - 443.17$  (elevation of pump off float switch per plan) = 5.33 (not 7.14). Based on a 3 inch force main (FM), the TDH is  $5.33 + 0.68 = 6.01$ . However, the first page indicates a 2 inch FM as shown in the "septic line profile". Please clarify.

If the TDH is 6.01, the plotted point intersects one of the pump curves at approximately 70 gpm but it's not clear to me which one it is.

- 2.) What are the true dimensions of the pump tank? If we take the dimensions from the top of the tank profile which differs from the side profile dimensions then the volume is W64 in x L118 in x H2.10. The volume of liquid pumped out is **68.70 gallons in** between floats on and off cycle. This should be fine.

Calculations:  $W64 \text{ in} \times L118 \text{ in} \times H2.10 \text{ in} = 15859.2 \text{ cu in}$  (1 cu in = 0.000578704 cubic foot)  
 $9.1777 \text{ cu ft}$  (1 cu ft = 7.48052 liquid gallons) = **68.70 gallons**

- 3.) Is the pump controlled by a timer or controlled by the floats only?

Thanks in advance for your time.

Respectfully,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
410.313.2648 (Fax)

## Linda D. Alexander

---

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Thursday, June 16, 2016 3:12 PM  
**To:** Linda D. Alexander  
**Subject:** BAT Plan\_Tall Trees Lot 2

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I'm writing to confirm information on the BAT plan design for Tall Trees, Lot 2.

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Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
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439 East Main Street  
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**Transmit To:**  
Mr Hank Oswald  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045

**Project Info:**  
TALL TREES LOT 2  
  
Howard County, MD  
  
**Project No: 2016079A**      **Date: Jun 20, 2016**

**We are Transmitting:**

<input checked="" type="checkbox"/> Here with	<input type="checkbox"/> Originals	<input type="checkbox"/> Computer Media	<input type="checkbox"/> Shop Drawings	<input checked="" type="checkbox"/> Via Overnight	<input type="checkbox"/>
<input type="checkbox"/> Our	<input checked="" type="checkbox"/> Prints	<input type="checkbox"/> Project Manuals	<input type="checkbox"/> Payment Cert.	<input type="checkbox"/> Express Mail	<input type="checkbox"/>
<input type="checkbox"/> Your	<input type="checkbox"/> Copies	<input type="checkbox"/> Product Literature	<input type="checkbox"/> Change Order	<input type="checkbox"/> 1st Class Mail	<input type="checkbox"/>

Sets	Type	Dwg No	Dated	Description
2	D Size Bond Copies		6/13/16	Site Plan for Bat Installation
1	Letter		6/20/16	Response Letter
1	Document		6/16/16	Original Email with Comments

<input type="checkbox"/> As Requested	<input type="checkbox"/> For Your Use	<input type="checkbox"/> For Filing	<input checked="" type="checkbox"/> For Approval	<input type="checkbox"/>
<input type="checkbox"/> As Required	<input checked="" type="checkbox"/> For Your Review	<input type="checkbox"/> For Bidding	<input type="checkbox"/> As Discussed	<input type="checkbox"/>

**Remarks:**  
Revised per your email to Linda Alexander

Copy To \_\_\_\_\_

If enclosures are not as noted,  
please notify us immediately.

Transmittal No: 3843

  
Linda D. Alexander

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Wednesday, June 22, 2016 11:51 AM  
**To:** lalexander@clsimail.com  
**Subject:** BAT Plan\_Tall Trees Lot 2  
**Attachments:** Static Head Defined\_Sand Mound System Manual.pdf; First Page.pdf; Page 2.pdf

Hi Linda:

The revised plan received on 6/21/16 appears to be identical to the initial BAT plan. I've included some attachments to help me clarify some needed changes to the BAT Plan.

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6. Trench 2 exceeds 7 feet in depth which does not align with the septic specs.

If you wish to send me a e-copy for review prior to submitting the original or if you wish to meet on this, please let me know.

Thanks,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
410.313.2648 (Fax)

HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Division of Land Development

DATE: August 10, 2016

DPZ File No. WP-17-013

Department of Planning and Zoning

- 1 Transportation Planning
- 1 Resource Conservation (Historic/Ag Pres)
- Public Service and Zoning Administration
- 1 Research
- Address Coordinator

- 1 Comprehensive & Community Planning
- 2 Development Engineering Division
- Other
- 1 File

Agencies

- 1 Soil Conservation District
- 1 Department of Inspections, Licenses & Permits
- 1 Department of Fire and Rescue Services
- 1 State Highway Administration
- 1 Health Department
- 1 Public School System
- 1 Recreation and Parks
- WSSC (Non-Residential Only)
- MD Aviation Administration

- Tax Assessment
- Verizon
- BGE
- Cable TV
- Police
- MTA
- Finance
- 1 DPW, Real Estate Services
- DPW, Construction and Inspection
- DPW, Bureau of Utilities

RE: Tall Trees- Lot 2

ENCLOSED FOR YOUR  Signature Approval  Review & Comments  Files

THE ENCLOSED  Original  Pre-Packaged Plan Set

Plans	# of Plans	Supplemental Documents
<input type="checkbox"/> Sketch Plan	<input type="checkbox"/>	<input type="checkbox"/> Wetlands Report
<input type="checkbox"/> Prel Equiv Sketch Plan	<input type="checkbox"/>	<input type="checkbox"/> Soils/Topo Map/Drain Area Map
<input type="checkbox"/> Preliminary Plan	<input type="checkbox"/>	<input type="checkbox"/> FSD/FCP/Worksheet and Application
<input type="checkbox"/> Final Plat/Plat of Easement/RE Plat	<input type="checkbox"/>	<input type="checkbox"/> Declaration of Intent (Forest Cons)
<input type="checkbox"/> Final Constr Plans (RDS)	<input type="checkbox"/>	<input type="checkbox"/> Drainage and/or Computation/Pond Safety Comps
<input type="checkbox"/> Final Development Plan	<input type="checkbox"/>	<input type="checkbox"/> Preliminary Road Profiles
<input type="checkbox"/> Site Development Plan	<input type="checkbox"/>	<input type="checkbox"/> APFO Roads Test/Mitigation Plan/Traffic Study
<input type="checkbox"/> Landscape Plan/Supplemental Plan	<input type="checkbox"/>	<input type="checkbox"/> Noise Study
<input type="checkbox"/> Grading Plan	<input type="checkbox"/>	<input type="checkbox"/> Sight Distance Analysis/Speed Flow Study
<input type="checkbox"/> House Type Revision/Walk-Thru Red-Line	<input type="checkbox"/>	<input type="checkbox"/> Floodplain Study
<input type="checkbox"/> Water and Sewer Plan	<input type="checkbox"/>	<input type="checkbox"/> Stormwater Management Comps/Geo-Tech Report
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Industrial Waste Survey (DPW)
<input checked="" type="checkbox"/> Alternative Compliance Application	<input type="checkbox"/>	<input type="checkbox"/> Road Poster Form Letter
<input type="checkbox"/> Planning Board Application	<input type="checkbox"/>	<input checked="" type="checkbox"/> Justification Letter
<input type="checkbox"/> ASDP/CSDP Application	<input type="checkbox"/>	<input type="checkbox"/> Perc Plat
<input type="checkbox"/> DED Application/Checklist	<input type="checkbox"/>	<input type="checkbox"/> Scenic Road Exhibits
<input type="checkbox"/> DED Fee Receipt/Deeds/Cost Estimate	<input type="checkbox"/>	<input type="checkbox"/> Deeds
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Photographs
<input type="checkbox"/> Overall Scaled Composite	<input type="checkbox"/>	<input type="checkbox"/> Retaining Wall Comps/Details
<input type="checkbox"/> Water & Sewer Plans	<input type="checkbox"/>	<input type="checkbox"/> Poster/Community or HDC Meeting Information
<input type="checkbox"/> List of Street Names	<input type="checkbox"/>	<input type="checkbox"/> Route 1 Details/Summary

WAS:  Received  Tentatively Approved  Recorded

Received and Revised  Approved On August 10, 2016

COMMENTS: \_\_\_\_\_ Due- 17 Working Days: 09/02/16

Check, initial and return to the Department of Planning and Zoning if plan is approved with no comments.

DPZ STAFF INITIALS: EB

Howard County Department of Planning and Zoning  
Division of Land Development

# ALTERNATIVE COMPLIANCE APPLICATION

[Alternative Compliance from Subdivision and Land Development Regulations]

Date Submitted/Accepted 8/10/16 DPZ File Number WP-17-013

## I. Site Description

Subdivision Name/Property Identification: Tall Trees Lot 2  
Location of property: 5513 Green Bridge Road  
(Street Address and/or Road Name)

Residential (Existing Use)      Residential (Proposed Use)

27 (Tax Map No.)      24 (Grid/Block No.)      26 (Parcel No.)      5TH (Election District)

RC-DEO (Zoning District)      3.35 AC (Total Site Area)

Provide a brief site history including reference to all previously submitted or currently active plans on file with the County (subdivision plans, Board of Appeals petitions, alternative compliance petitions, etc.)

- Simplified Environmental Concept Plan
- Forest Stand Delineation Plan
- Forest Conservation Plan

## II. Alternative Compliance Request

In accordance with Section 16.104 of the Howard County Subdivision and Land Development Regulations, the Department of Planning and Zoning, in conjunction with the Subdivision Review Committee **may grant alternative compliances or modifications to the minimum requirements stipulated within the Regulations if it is determined that extraordinary hardships or practical difficulties may result from strict compliance with the regulations, or if it is determined that the regulations may be served to a greater extent by an alternative proposal.**

In the area below, the petitioner shall enumerate the specific numerical section(s) from the Subdivision and Land Development Regulations for which an alternative compliance is being requested and provide a brief summary of the regulation. Attach a separate sheet if additional information is appropriate.

Section Reference No.	Summary of Regulation
1. <u>16.1205(a)(1) &amp; (10)</u>	<u>Specimen trees</u>
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

### III. *Justification*

**All alternative compliance requests must be fully justified by the petitioner. Incomplete or inadequate justification may result in rejection of the application at the time of submission.** Justification must be specific to the subject property. The justification provided by the petitioner should include all factors which rationalize or substantiate the request in accordance with the following criteria:

- a. Summarize any extraordinary hardships or practical difficulties which may result from strict compliance with the Regulations.
- b. Verify that the intent of the Regulations will be served to a greater extent through the implementation of the alternative proposal.
- c. Substantiate that approval of the alternative compliance will not be detrimental to the public interests.
- d. Confirm that approval of the alternative compliance will not nullify the intent of the Regulations.

**PLEASE ATTACH A SEPARATE LETTER OF JUSTIFICATION TO SUPPORT THE ALTERNATIVE COMPLIANCE REQUESTS.**

### IV. *Pre-Submission Meeting Requirements*

- a. **Community Meeting Requirement** - If no previous subdivision plans and/or zoning or conditional use petitions were processed, a pre-submission community meeting is required for the initial plan submittal of all new residential development and for new non-residential development located within 200 feet of a residential zoning district or an existing non-residential development which is located within 200 feet of a residential zoning district and proposed for a floor area expansion of more than 25% in accordance with Sections 16.156(a) and 16.128 of the Subdivision and Land Development Regulations for alternative compliance of the site development plan requirement. [See DPZ policy memo dated 3/22/04 for existing lots/parcels]. The property owner/developer must provide 3 weeks advance notice regarding the community meeting's date, time and location to all adjoining property owners identified in the records of the State Department of Assessments and Taxation and any community association that represents the geographic area of the subject property by first class mail; and sent electronically to any community association registered with the County for projects in a certain geographic area; the Howard County Council; and DPZ, which will place the meeting notice on the DPZ's website. The developer shall send a copy of the minutes and written responses to the meeting attendees and DPZ, either electronically or by first class mail. **A certification that meeting notices were mailed, contact information for the attendees and a copy of the minutes and a written response with a dated return mail receipt or dated email attached to all of the major comments recorded at the meeting must be submitted to DPZ along with the initial plan application. The meeting minutes, including a written response to all questions, shall be sent to all meeting attendees within 60 days of the meeting either electronically or by first class mail [Council Bill 6-2011].**
- b. **HPC Meeting Requirement** - A pre-submission advisory meeting with the Historic Preservation Commission is required for new development located within a Historic District or if the site contains a historic structure (50 years or older) in accordance with Section 16.603A of the Howard County Code. Verify this requirement by checking the Historic Sites Inventory list and maps available at the DPZ public service desk or checking with the Resource Conservation Division. The property owner/developer must contact the DPZ, Resource Conservation Division for the HPC scheduling process and procedures. **The property owner/developer must submit a copy of the minutes from the HPC Advisory Meeting to DPZ along with the initial subdivision or site development plan application.**
- c. **MAA Meeting Requirement** - For all proposed subdivisions or developments located within the BWI Airport Noise Zone or the Airport Zoning District (4 mile radius from the center of the airport), the review and approval by the Maryland Aviation Administration is required prior to signature approval of final plan road and SWM construction drawings, and/or site development plans, or alternative compliance approval of SDP. Please contact the MAA at P.O. Box 8766, BWI Airport, Maryland, 21240-0766, or (410) 859-7100. A copy of the MAA approval letter must accompany the submission of the final road/SWM construction plan original drawings, and/or site development plan original, or alternative compliance application.

→→→d. **Design Advisory Panel (DAP)** – A pre-submission advisory meeting with the Design Advisory Panel is required for sketch and preliminary equivalent sketch plans that are submitted on or after November 3, 2008 for new development or redevelopment projects on parcels located in the U.S. Route 1 corridor that are zoned 'CE', 'CAC' or 'TOD' or that adjoin the Route 1 right-of-way and that are subject to the Route 1 Design Manual; on parcels located within the U.S. Route 40 corridor that are zoned 'TNC' or that are subject to the Route 40 Design Manual; on parcels which age-restricted adult housing is to be constructed pursuant to a conditional use; on redevelopment parcels located in the New Town Village Centers with boundaries proposed by a property owner or established by the Zoning Board or County Council; and for revitalization and redevelopment of Downtown Columbia in accordance with Sections 16.1501 and 16.1504 of the Howard County Code. The property owner/developer must contact the DPZ, Division of Comprehensive and Community Planning to verify this requirement and for information concerning the DAP meeting scheduling process and procedures. **The property owner/developer must submit a copy of the DAP project design recommendations to DPZ along with the initial subdivision plan application.**

V. **Plan Exhibit**

A. **Number of Copies Required**

The alternative compliance application must be accompanied by copies of a detailed plot plan, subdivision plat or site development plan (**15 sets of the completed alternative compliance application and plan exhibit if the subject property adjoins a County road; 19 sets for properties adjoining a State road**).

In instances where the alternative compliance request concerns an approval extension or if an associated plan is in active processing, only 2 sets of plans are required along with 15 or 19 copies of the application form. **Plans must be folded to a size no larger than 7-1/2" x 12". The pre-packaging of plans and supplemental reports by SRC agency will be permitted by DPZ provided that each package contains a cover letter which itemizes all plans, reports and documents included in the package.**

**Please be advised that all plan application submissions are ACCEPTED BY APPOINTMENT ONLY. All plan submission appointments must be scheduled with the Division of Land Development at (410) 313-2350.**

Plan applications are available on the DPZ website at <https://howardcountymd.gov/Departments/Planning-and-Zoning/Land-Development>.

B. **Plan Requirement Checklist**

The detailed alternative compliance exhibit, plot plan, subdivision plan or site development plan must indicate the following required information relevant to the alternative compliance request to ensure acceptance of the alternative compliance application for processing.

Legend:	<input checked="" type="checkbox"/> Information Provided	<input checked="" type="checkbox"/> Information Not Provided, Justification Attached
	<input type="checkbox"/> NA Not Applicable	

- 1. Vicinity map scale 1" = 2,000' indicating and identifying the total boundary of the property, exact site location, vicinity roads and north arrow.
- 2. Bearings and distances of property boundary lines for the entire tract and size of tract area.
- 3. North arrow and scale of plan.
- 4. Location, extent, boundary lines and area of any proposed lots.
- 5. Any existing or proposed building(s), structures, points of access, driveways, topography, natural features and other objects and/or uses on the subject and adjacent properties which may be relevant to the petition; i.e. historic structures, cemeteries or environmentally sensitive areas.
- 6. Delineation of building setback lines.
- 7. Delineation of all existing public road and/or proposed street systems.
- 8. Identification and location of all easements.
- 9. Approximate delineation of floodplain, streams, wetland and forested areas, if applicable, and/or

- provide a professional certification that environmental features do not exist on the property.
- N/A 10. Road profile to evaluate sight distance, if the application includes a request for direct access to a major collector or more restrictive roadway classification.
  - \_\_\_ 11. Any additional information to allow proper evaluation (e.g. for alternative compliance to wetland buffers an alternative analysis and mitigation proposal are needed; for alternative compliance to SDP requirements where there is no subdivision of land, an APFO Roads Test evaluation may be needed, for alternative compliance of final plat or SDP, a copy of property deeds to confirm legal creation or status of property is needed).
  - N/A 12. Photographs, perspective sketches or cross-sections as necessary to adequately portray the alternative compliance request.
  - ✓ 13. The exhibit plans should be highlighted to accurately illustrate the requested alternative compliance(s) to allow proper evaluation (i.e. proposed grading, tree clearing or other disturbances within environmentally sensitive areas or buffers).
  - N/A 14. Submit 2 sets of photographs for all existing on-site structures.
  - ✓ 15. Identify the location of any existing wells and/or private septic systems.

N/A 16. **Route 1 Manual**  
 Compliance with the Route 1 Manual is required for new development and some alterations or enlargements located in the CE, TOD and CAC zoning districts and for other zoning districts located within the Route 1 corridor. All plan submissions, beginning with the initial subdivision or site development plan, shall show all applicable streetscape, site and building designs responding to the Route 1 Manual's requirements and recommendations. All plan submissions shall provide a written summary of how the proposed design achieves the objectives of the Route 1 Manual. Also, building design and schematic architectural elevation details must be included with the initial subdivision or site development plan submission.

N/A 17. **Route 40 Design Manual**  
 Compliance with the Route 40 Design Manual is required for new development and redevelopment projects located in the Traditional Neighborhood Center (TNC) zoning districts and on parcels located within the Route 40 Corridor as defined in the Route 40 Design Manual. All plan submissions within the Route 40 corridor, beginning with the initial subdivision or site development plan, shall show all applicable streetscape, site and building designs responding to the Route 40 Design Manual's requirements and recommendations. All plan submissions within the Route 40 corridor shall provide a written summary of how the proposed design achieves the objectives of the Route 40 Design Manual. Also, building design and schematic architectural elevation details must be included with the initial subdivision or site development plan submission.

\_\_\_ 18. **Property Deeds** – Information to confirm the legal creation or status of the property to be improved. (Copy of deeds from Howard County Land Records Office or record plat name and recording reference number). **A complete chronological deed history is required for all deeded residential properties. Provide 2 copies of the recorded deeds for the subject property tracing its history back to 1960.**

\_\_\_ 19. Please complete the following:

A pre-submission meeting was held with DPZ on \_\_\_\_\_ with  
 [date] \_\_\_\_\_, if applicable.  
 [DPZ, Director, DLD Division Chief or other SRC representatives]

VI. **Fees**

The Alternative Compliance application fee shall be in accordance with the adopted fee schedule. All checks shall be made payable to the *Director of Finance*. **The petition will not be accepted for processing until the fee has been paid. Incomplete, incorrect or missing information may result in the rejection of the application** and could cause additional time to be required to revise the application for resubmittal and re-review. For more information or questions, contact DPZ at (410) 313-2350.

VII. **Owner's/Petitioner's Certification**

I/WE the undersigned fee simple owner(s) hereby make application to the Howard County Department of Planning and Zoning to provide an alternative compliance request of the minimum requirements of the Howard County Subdivision and Land Development Regulations. The undersigned hereby certifies the information supplied herewith is correct and complete, confirms that the regulations and policies as referred to in the attached are understood, and authorizes periodic on-site inspections by the Howard County Subdivision Review Committee agencies. **\*If the applicant is the owner's agent, written documentation from owner granting that authority is required at the time of the submission.**

Owner's authorization attached \*

\_\_\_\_\_  
(Signature of Property Owner)  
(Fee Simple Owner Only)

\_\_\_\_\_  
(Date)

Linda D Alexander  
(Signature of Petition Preparer) \*

8-10-2016  
(Date)

\_\_\_\_\_  
(Name of Property Owner)

LINDA D ALEXANDER  
(Name of Petition Preparer, Surveyor/Engineering/Architect  
or Agent/Developer)

\_\_\_\_\_  
(Address)

439 E. MAIN ST  
Address)

\_\_\_\_\_  
(City, State, Zip Code)

Westminster, MD . 21157  
(City, State, Zip Code)

E-Mail \_\_\_\_\_ E-Mail lalexander@clsimail.com

\_\_\_\_\_  
(Telephone)

410-848-1790  
(Telephone)

\_\_\_\_\_  
(Fax)

410-848-1791  
(Fax)

Contact Person: \_\_\_\_\_ Contact Person: LINDA D. ALEXANDER

439 East Main Street  
Westminster, MD 21157-5539



(410) 848-1790 • (301) 662-1799  
Fax (410) 848-1791

August 5, 2016

Howard County Department of Planning and Zoning  
Division of Land Development

## Waiver Petition Application

### Site Description:

*Brief history ... reference all previously submitted or currently active plans on file with County*

Tall Trees, Lot 2  
5513 Green Bridge Road, Dayton MD 21036

### Waiver Request:

Section Reference: §16.1205.(a)(7)

Summary of Regulation: §16.1205: Forest Retention Priorities  
(a) On-Site Forest Retention  
(7) Trees 30 Inches in Diameter or Larger

Specific Request: To allow removal of the following trees:

<u>Tree</u>	<u>Name</u>	<u>Condition</u>
Specimen Tree #4	Black Oak	poor
Specimen Tree #5	Northern Red Oak	poor
Specimen Tree #6	Tulip Poplar	good
Specimen Tree #17	Northern Red Oak	fair
Specimen Tree #19	Tulip Poplar	fair

Specific Request: To allow impact to the following specimen trees:

Specimen Tree #7	Scarlet Oak	fair
Specimen Tree #20	Northern Red Oak	good

### Justification:

- a. Summarize any extraordinary hardships or practical difficulties which may result from strict compliance with the regulations.

This lot is entirely wooded and has a large number of specimen trees, however most of the specimen trees are in fair to poor condition. This lot was originally developed and recorded in 1991, prior to the current forestry ordinance. The well has been drilled and



the septic system easement was determined years ago. The proposed house is located between the existing well and septic area in order to minimize the overall forestry impact.

Specimen trees #6, 17 and 19 will need to be removed in order to connect the water and sewer supply to the proposed house location and to avoid damage to the future operation of the water and sewage components.

Specimen trees #4 & 5, which are in poor condition, will present a public hazard to the proposed house and need to be removed.

Specimen tree #7 & 20, which are shown outside the proposed limit of disturbance, will be impacted by grading for the construction of the proposed house. Specimen tree #20 has already been impacted by the construction of the common driveway.

Limits of disturbance have been kept to a minimum while still meeting stormwater management and grading ordinances.

Retaining Specimen trees #4, 5, 6, 7, 17, 19 & 20 will present difficulties and cause the owner extreme hardship.

**b. Verify that the intent of the regulations will be served to a greater extent through the implementation of the alternative proposal.**

We believe the intent of the Regulation is to retain specimen trees, regardless of their condition, if public safety is not an issue, but also to retain as much forest as possible. The proposed house placement, with the close proximity to the existing well and the recorded septic easement, minimizes the impact to the overall forest. Specimen trees #17 & 19, which are within the septic easement, are in fair condition and if not removed, will cause hardships with the functioning of the septic system. Specimen trees #4 & 5 are in poor condition and will present a hazard to the proposed house. Specimen tree #6, which is in good condition, will need to be removed due to the grading close proximity to the proposed house and connection to the existing well. Specimen tree #7 is outside the limit of disturbance for the proposed construction, however will be impacted and could become a public hazard therefore would need to be removed. While specimen trees will be removed for construction of the proposed house, a Forest Conservation Easement of 1.33 acres will be placed on existing woods and specimen trees.

**c. Substantiate that approval of the waiver request will not be detrimental to the public interests.**

If granted, the waiver will benefit public interest by removing a trees in “poor and fair” condition, and minimizing the overall impact to this forested lot. The variance will allow for the removal of potentially hazardous trees while maintaining forested areas and additional specimen trees.



**d. Confirm the approval of the waiver will not nullify the intent of the Regulations.**

We believe the Regulations were promulgated to preserve to the maximum extent practicable, all trees greater than 30 inches in diameter or larger. We further believe the specimen tree requirements were intended to preserve trees in "good" or "excellent" condition in areas as long as these trees do not present a hazard of falling on dwellings or to the general public. By granting this request, the Department will remove potential hazards from Lot 2.

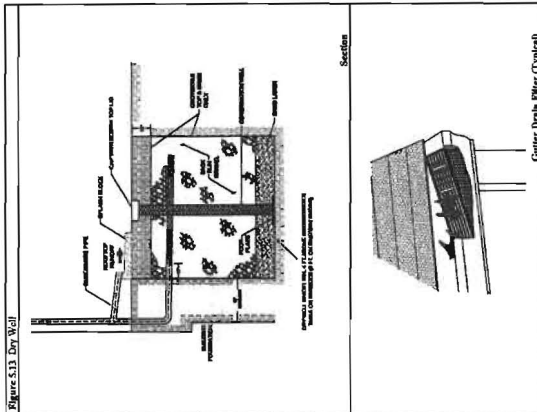
Respectfully submitted,

A handwritten signature in cursive script that reads "Martin Rickell".

Martin Rickell  
Qualified Professional







- Schedule:**
- Dry wells shall be located down gradient of building structures and shall be setback from structures a minimum of 10 feet, 25 feet from utility lines, 100 feet from secondary sewer supply wells, and 25 feet from sump systems.
  - Dry wells shall be setback a minimum of 100 feet from fill slopes of 1:3% and 200 feet from fill slopes of 2:3%.
  - Observation Wells: An observation well consisting of an anchored, 4 to 6-inch diameter perforated pipe shall be required. The top of the observation well shall be at least six inches above grade.
  - Underground Distribution Pipes: This pipe (4 to 6 inch diameter) will be perforated to fill the trench along its entire length.
  - Landscaping: A minimum one-foot of soil cover shall be provided from the top of the trench to the ground surface elevation. The soil should be stabilized with a dense cover of vegetation. In areas where frost heave is a concern, soil cover may need to be as much as four feet. In these cases, a geotechnical engineer should be consulted.
- Construction Criteria:**
- The following items should be addressed during construction of projects with dry wells:
    - Foundation and Settlement Control: Final grading for proposed dry wells should not take place until the surrounding site is completely stabilized. If this cannot be accomplished, runoff from disturbed areas shall be directed.
    - Soil Compaction: Excavation should be conducted in dry conditions with equipment located outside of the project to minimize heave and lateral compaction. Construction of a dry well should be completed in a single lift to avoid multiple lifts and disturbance of the structure and composition. Excavated materials shall be placed in a contained area.
    - Underground Chamber: A subsurface prefabricated chamber may be used.
    - Dry Well Bottom: The bottom shall be as level as possible to minimize pooled water. It shall meet their way reduce overall infiltration and longevity.
    - Filter Cloth: Filter cloth shall not be installed on the bottom of the well. Non-spacer filter cloth should be used to line the top and sides of the dry well to prevent the pore space between the stones from being blocked by the surrounding saline material.
    - Gravel Media: The aggregate shall be composed of one 18 to 24 inch layer of clean washed, open graded material with 60% porosity (e.g., ASTM D448 #5, or 6 screen or equal).

- Maintenance Criteria:**
- The following items should be addressed to ensure proper maintenance and long-term performance of dry wells:
    - Regular inspections shall be made during the following stages of construction:
      - During excavation to verify depth.
      - During placement of backfill and perforated filter pipe and observation well.
      - During placement of geotextile and all filter media.
      - Upon completion of final grading and establishment of permanent stabilization.

- Maintenance Criteria:**
- The following items should be addressed to ensure proper maintenance and long-term performance of dry wells:
    - Privately owned practices shall have a maintenance site and shall be protected by enclosure, siltation, and erosion control measures preventing its neglect, abuse, alteration, and removal.
    - Dry wells shall be inspected and cleaned annually. This includes pipes, gutters, downspouts, and all filters.
    - Flowing, standing water, or slight growth on the top of a dry well may indicate filter media due to accumulation in the well. If this occurs, the filter media should be removed. If the filter media or more than six inches of sediment has accumulated, the gravel media should be excavated and replaced.

**INSPECTION CHECK FOR DRYWELL INSTALLATION**

ITEM	BUSINESS APPROVAL	
	DATE	DATE
1. CHECK THE CONSTRUCTION OF THE DRYWELL AND PERFORATED FILTER PIPE.		
2. INSPECTION OF BACKFILL.		
3. INSPECTION OF FILTER MEDIA.		
4. INSPECTION OF FILTER PIPE.		
5. INSPECTION OF OBSERVATION WELL.		
6. INSPECTION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.		

FOR THE USE OF THE INSPECTOR: **NAME** \_\_\_\_\_ **DATE** \_\_\_\_\_

FOR THE USE OF THE DEVELOPER: **NAME** \_\_\_\_\_ **DATE** \_\_\_\_\_

After examination of the site fingerprinting the CSWMP and final design intends to incorporate the ESD practices to the maximum extent possible. The ESD practices to be incorporated are ESD 1 for this project design:

- The use of Non-Rooftop Disconnect (Driveway)
- Rooftop disconnect by use of drywell. (Half the House)
- Rooftop disconnect (Half of House and Garage)

These ESD's satisfy the intent of the SWM criteria to the MFP by:

- minimizing the amount of impervious area, the natural flow paths,
- reducing impervious areas, and
- utilizing low-impact ESD's.

**Natural Resource Protection**

Natural resource protection and enhancement is being achieved by minimizing the disturbance of the lot. Disturbance is minimized to retain the natural and traditional character of the watershed.

**Natural Flow Patterns**

Natural flow patterns are being maintained by use of non-rooftop disconnect for the proposed driveway and non-rooftop disconnect for the other half of the house. All garage drainage patterns remain.

**Integration of Erosion and Sediment Control into SWM Strategy**

Sediment control is being provided by use of a stabilized construction entrance at the proposed driveway and by use of silt fence.

**ESD Planning Techniques and Practices**

The following are proposed design techniques being used to achieve implementation of ESD planning techniques and practices for Lot 2:

- N-1: Rooftop disconnect for garage and half of the house.
- N-2: Non-rooftop disconnect to be used to treat the driveway.
- M-2: Drywells for rooftop disconnect from half of the house.

Table B.4.1 Materials Specifications for Micro-Filter Installation

Item	Specification	Notes
1. Substrate	1/2" thick polyethylene	Minimum 100 mil thickness
2. Filter Media	60% Porosity	ASTM D448 #5 or 6 screen or equal
3. Geotextile	1/2" thick polyethylene	Minimum 100 mil thickness
4. Filter Cloth	1/2" thick polyethylene	Minimum 100 mil thickness
5. Filter Pipe	4" diameter	Minimum 100 mil thickness
6. Filter Chamber	4' x 4' x 4'	Minimum 100 mil thickness
7. Filter Inlet	4" diameter	Minimum 100 mil thickness
8. Filter Outlet	4" diameter	Minimum 100 mil thickness
9. Filter Support	4" diameter	Minimum 100 mil thickness
10. Filter Foundation	4" diameter	Minimum 100 mil thickness
11. Filter Enclosure	4" diameter	Minimum 100 mil thickness
12. Filter Access	4" diameter	Minimum 100 mil thickness
13. Filter Drainage	4" diameter	Minimum 100 mil thickness
14. Filter Ventilation	4" diameter	Minimum 100 mil thickness
15. Filter Sealing	4" diameter	Minimum 100 mil thickness
16. Filter Installation	4" diameter	Minimum 100 mil thickness
17. Filter Maintenance	4" diameter	Minimum 100 mil thickness
18. Filter Removal	4" diameter	Minimum 100 mil thickness
19. Filter Replacement	4" diameter	Minimum 100 mil thickness
20. Filter Disposal	4" diameter	Minimum 100 mil thickness

**OWNER/DEVELOPER**  
 6770 PEGASUS BLVD  
 DOWNSBORO, OH 43026

**NOTES & DETAILS**  
**TALL TREES**  
**LOT 2**

1775 ELECTRA DRIVE, HAVASD COUNTY, CALIFORNIA  
 WASHINGTON STATE, 20055 174 174 27, SEC 24, RANGE 28

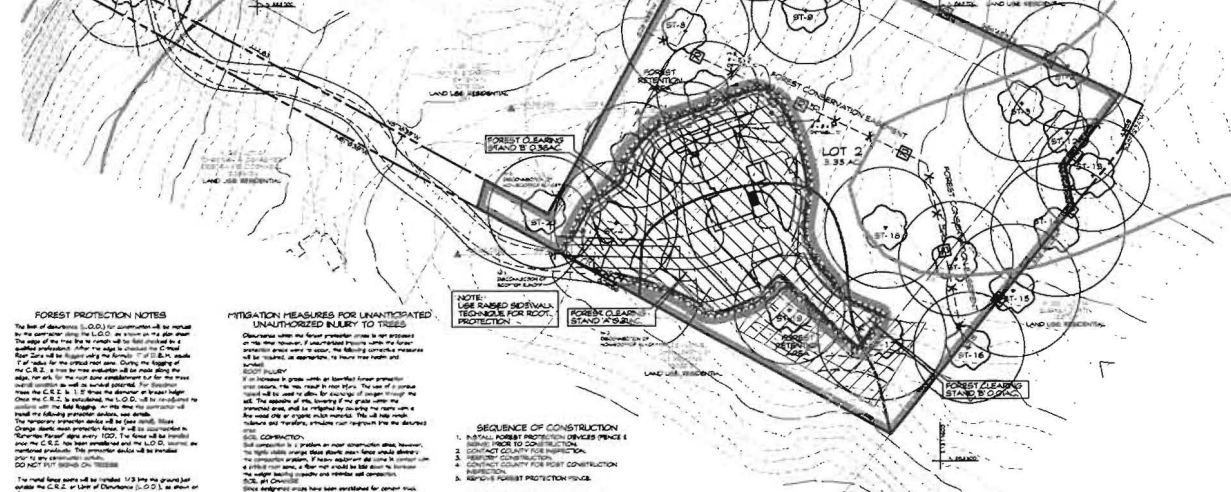
**CLSI**  
 CONSULTING LANDSCAPE ARCHITECTS

427 East 7th Street, Vancouver, WA 98660  
 503.251.1111  
 427 East 7th Street, Portland, OR 97214  
 503.251.1111

Drawn By: [ ]  
 Checked By: [ ]  
 Date: 04-18-2005  
 Scale: 1/8" = 1'-0"  
 Job No: 2004-008



GREEN BRIDGE RD



FOREST PROTECTION NOTES

The best of available L.O.C. for protection will be...

MITIGATION MEASURES FOR UNANTICIPATED UNAUTHORIZED INJURY TO TREES

Occasions when the forest protection areas are not...

SEQUENCE OF FOREST PROTECTION CONSTRUCTION

- 1. INITIAL FOREST PROTECTION DEVICES FENCE & SIGNAGE...

PLAN SCALE: 1" = 50'

SOILS CHART

Table with columns: SOL BY-NO., SOL SERIES, SOL PHS, POROSITY (FACTOR - %), HYDRC.

SPECIMEN TREE CHART

Table with columns: NO, COMMON NAME / SCIENTIFIC NAME, D.B.H., LOCATION, CRZ, RETENTION.

FOREST STAND CHART

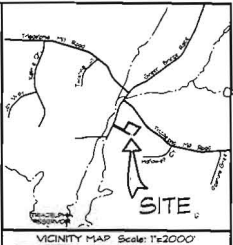
Table with columns: STAND, PRIORITY, AREA, CROWNED, CROWNED.



FOREST PROTECTION FENCE & SIGNS

Table with columns: FOREST CONSERVATION PROTECTION FENCE, SIGNAGE, TOTAL SIGNS.

NOTE: The contractor is responsible for...



VICINITY MAP Scale: 1"=2000'

Table with columns: FOREST CONSERVATION, SIGNAGE, TOTAL SIGNS.

GENERAL NOTES

- 1. CURRENT TITLE REFERENCES...

ENVIRONMENTAL SITE NOTES

- 1. SOILS SHOW ARE HIGH-NITROGEN SOILS...

FOREST CONSERVATION NARRATIVE

Tall Trees Lot 2 Property contains (1) 3.35 acre...

LEGEND

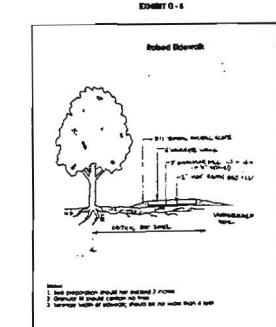
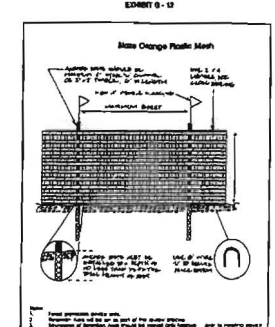
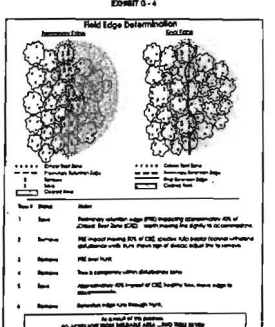
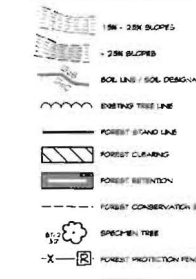


Table with columns: NET FRACT AREA, LAND USE CAPACITY, EXISTING FOREST COVER, PROPOSED FOREST CLOSING, PLANTING REQUIREMENTS.

OWNER/DEVELOPER RAY & CAROLYN BATEMAN, 617 PECK ROAD, DOWNTOWN, PA 19335. Includes logos for Wright and CLSI.

FOREST CONSERVATION PLAN LOT 2 5515 GREEN BRIDGE RD TALL TREES LOT 2

WRIGHT CONSULTANTS, INC. and CLSI logos and contact information.

Table with columns: Date, Signature, Title, Date.



5/5/16  
well checked  
Approved  
-KJM

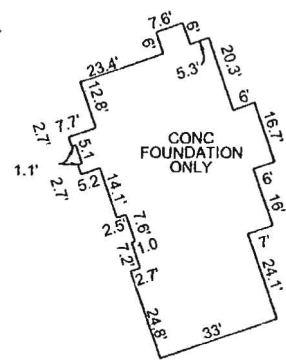
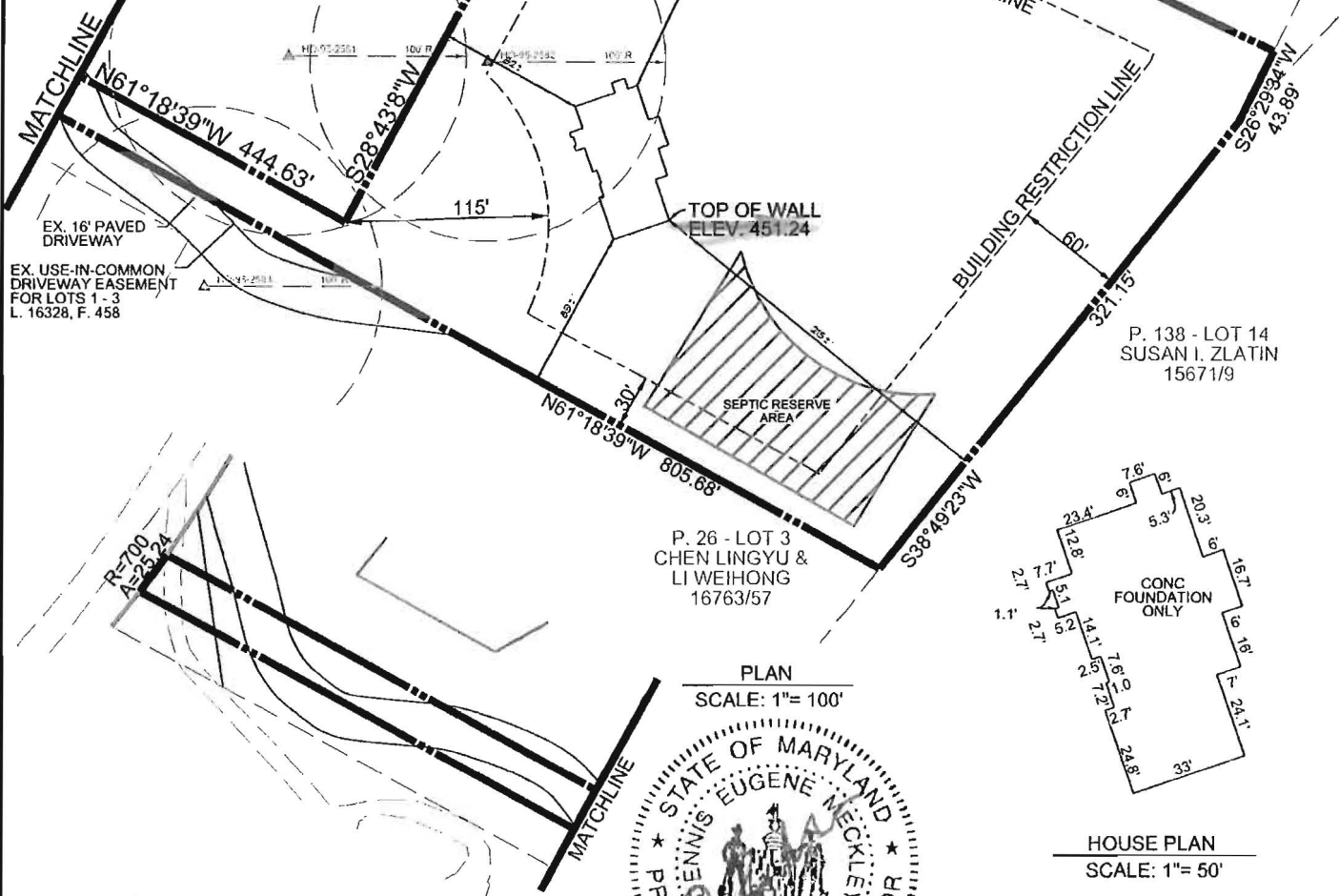
P. 26 - LOT 3  
GARY M. COATES  
A. COATES  
893/383

P. 76 - LOT 4  
ABHAY MOGHEKAR &  
YOGEETA NARKAR  
14575/259

P. 26 - LOT 1  
DAVID BRADSHAW &  
JULIA MCDANIEL BRADSHAW  
168863/72  
WAR PLAT 23533

P. 138 - LOT 14  
SUSAN I. ZLATIN  
15671/9

P. 26 - LOT 3  
CHEN LINGYU &  
LI WEIHONG  
16763/57



PLAN  
SCALE: 1" = 100'

HOUSE PLAN  
SCALE: 1" = 50'



I hereby certify that I have surveyed the property shown hereon for the sole purpose of locating the improvements. This plan is a benefit to the customer only in so far as it is required by a lender or a title insurance company or its agent in connection with Contemplated transfer, financing or refinancing. It is not to be relied upon for the establishment of boundary, easement or right-of-way lines for any reason, such as the location of fences, garages, buildings, or other existing or future improvements. Offsets of buildings to property lines are to the nearest foot (1') unless otherwise noted.

By: Eugene Meckley Date: 12/30/16  
Dennis E. Meckley Property Line Surveyor No. 10844  
License expires March 29, 2018

A licensed Maryland Surveyor either personally prepared this Foundation Certification, or was in responsible charge over its preparation and the surveying work reflected in it, in compliance with the Maryland Minimum Standards of Practice for Land Surveyors. (COMAR 09-13-06.06 AND .12)

FOUNDATION CERTIFICATION

**TALL TREES**  
**LOT 2**

5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
RECORDED IN WAR PLAT NO: 23533  
TAX MAP: 27, GRID: 24, PARCEL: 26



439 East Main Street  
Westminster, MD 21157-5539  
(410) 848-1790  
FAX (410) 848-1791

DRAWN BY:	JLW
DESIGN BY:	
REVIEW BY:	DEM
DATE:	12-29-16
SCALE:	1" = 100
JOB NO:	2016079
SHEET:	1 OF 1

439 East  
Westminster,

Rec'd  
6/27



(410) 848-1790 • (301) 662-1799  
FAX (410) 848-1791

**Transmit To:**

Mr Hank Oswald  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045

**Project Info:**

TALL TREES LOT 2  
  
Howard County, MD

**Project No:** 2016079A

**Date:** Jun 24, 2016

**We are Transmitting:**

- |   |  |   |  |   |                          |
|---|--|---|--|---|--------------------------|
| <input checked="" type="checkbox"/> Here with | <input type="checkbox"/> Originals         | <input type="checkbox"/> Computer Media     | <input type="checkbox"/> Shop Drawings | <input checked="" type="checkbox"/> Via Overnight | <input type="checkbox"/> |
| <input type="checkbox"/> Our                  | <input checked="" type="checkbox"/> Prints | <input type="checkbox"/> Project Manuals    | <input type="checkbox"/> Payment Cert. | <input type="checkbox"/> Express Mail             | <input type="checkbox"/> |
| <input type="checkbox"/> Your                 | <input type="checkbox"/> Copies            | <input type="checkbox"/> Product Literature | <input type="checkbox"/> Change Order  | <input type="checkbox"/> 1st Class Mail           | <input type="checkbox"/> |

Sets	Type	Dwg No	Dated	Description
3	D Size Bond Copies	2016079A	06/24/2016	Site Plan for Bat Installation

- |                                       |   |                                      |                                       |                          |
|---------------------------------------|---|--------------------------------------|---------------------------------------|--------------------------|
| <input type="checkbox"/> As Requested | <input type="checkbox"/> For Your Use               | <input type="checkbox"/> For Filing  | <input type="checkbox"/> For Approval | <input type="checkbox"/> |
| <input type="checkbox"/> As Required  | <input checked="" type="checkbox"/> For Your Review | <input type="checkbox"/> For Bidding | <input type="checkbox"/> As Discussed | <input type="checkbox"/> |

**Remarks:**

Empty box for remarks.

If enclosures are not as noted,  
please notify us immediately.

Copy To \_\_\_\_\_

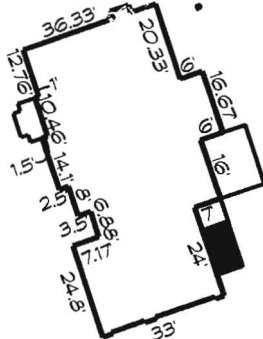
*Megan Cashman fa*

Linda D. Alexander

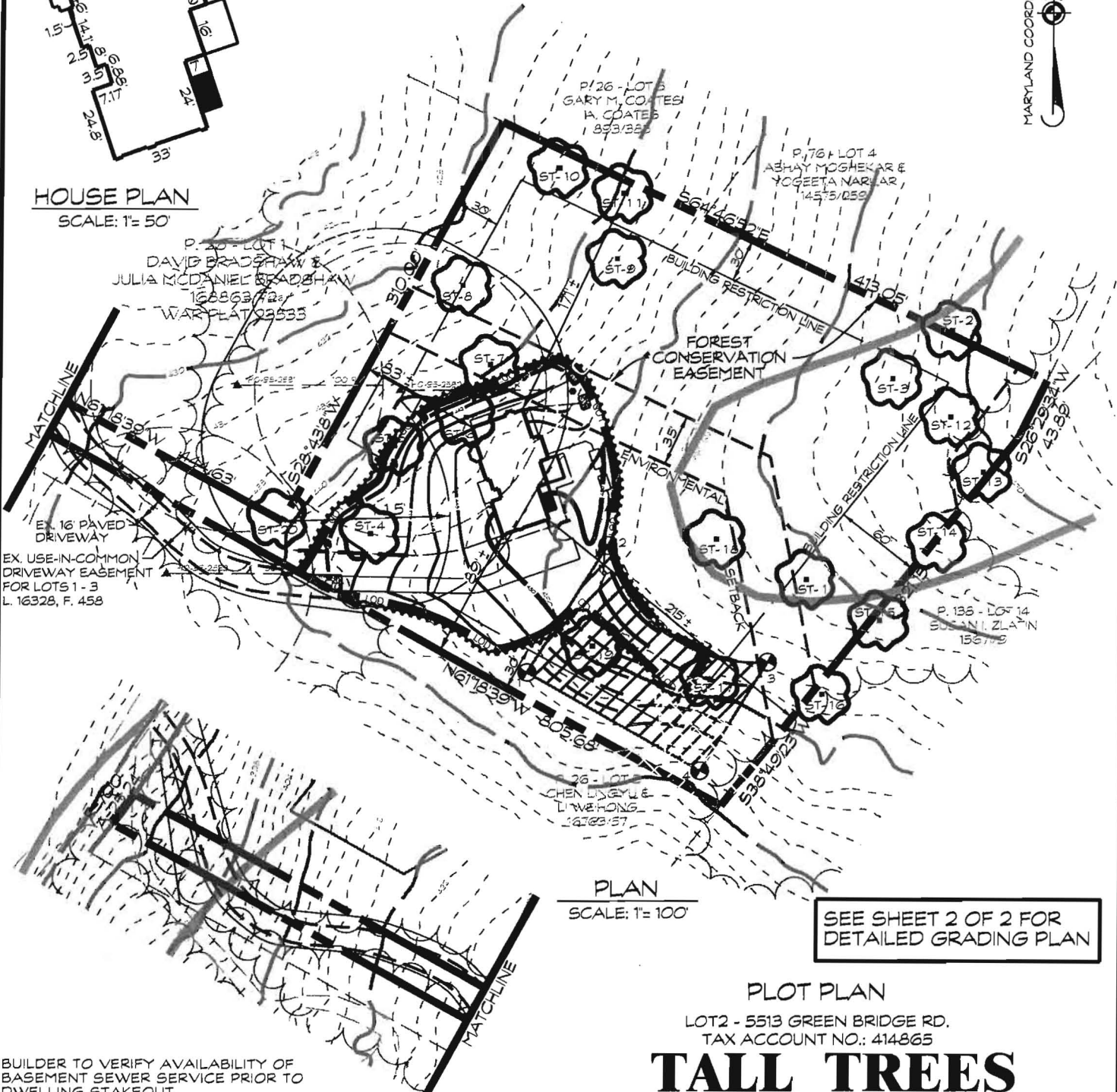
LOD DENOTES LIMIT OF DISTURBANCE  
TOTAL AREA = 29,733 S.F.

SEE SITE PLAN FOR BAT  
INSTALLATION FOR SEPTIC  
DESIGN

MARYLAND COORDINATE SYSTEM  
(NAD 83/91)



HOUSE PLAN  
SCALE: 1"= 50'



PLAN  
SCALE: 1"= 100'

SEE SHEET 2 OF 2 FOR  
DETAILED GRADING PLAN

PLOT PLAN  
LOT2 - 5513 GREEN BRIDGE RD.  
TAX ACCOUNT NO.: 414865  
**TALL TREES**  
**LOT 2**

5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
RECORDED IN WAR PLAT NO: 23533  
TAX MAP: 27, GRID: 24, PARCEL: 26

BUILDER TO VERIFY AVAILABILITY OF  
BASEMENT SEWER SERVICE PRIOR TO  
DWELLING STAKEOUT.

THERE ARE NO WELLS OR SEPTIC SYSTEMS  
WITHIN 100' OF THE PROPERTY BOUNDARY  
UNLESS OTHERWISE SHOWN HERE ON.

*Carroll Land Services, Inc.*

9-9-16  
DATE

CARROLL LAND SERVICES, INC.

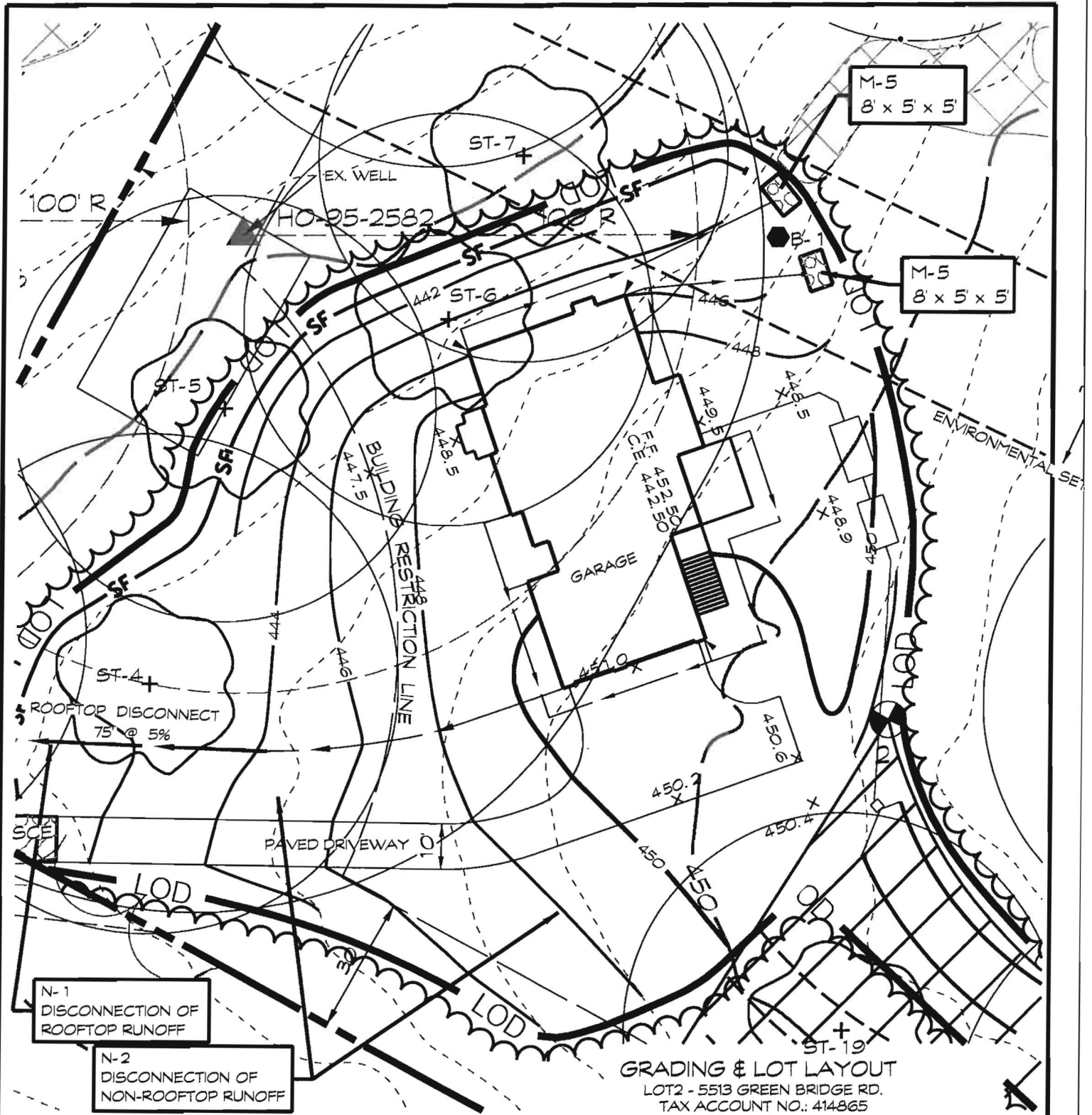
EXISTING GRADES SHOULD BE FIELD  
VERIFIED WHEN HOUSE STAKEOUT IS DONE.

DATE	REVISIONS



439 East Main Street  
Westminster, MD 21157-5539  
(410) 848-1790  
FAX (410) 848-1791

DRAWN BY: BM
DESIGN BY:
REVIEW BY:
DATE: 9/9/16
SCALE: AS SHOWN
JOB NO: 2016079
SHEET: 1 OF 2



GRADING & LOT LAYOUT  
 LOT2 - 5513 GREEN BRIDGE RD.  
 TAX ACCOUNT NO.: 414865

# TALL TREES

## LOT 2

5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 RECORDED IN WAR PLAT NO: 23533  
 TAX MAP: 27, GRID: 24, PARCEL: 26

BUILDER TO VERIFY AVAILABILITY OF BASEMENT SEWER SERVICE PRIOR TO DWELLING STAKEOUT.

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CARROLL LAND SERVICES, INC.

SEP 23 2016  
 DATE

EXISTING GRADES SHOULD BE FIELD VERIFIED WHEN HOUSE STAKEOUT IS DONE.

DATE	REVISIONS



439 East Main Street  
 Westminster, MD 21157-5539  
 (410) 848-1790  
 FAX (410) 848-1791

DRAWN BY:	BM
DESIGN BY:	
REVIEW BY:	
DATE:	9/9/16
SCALE:	1" = 30'
JOB NO:	2016079
SHEET:	2 OF 2

439 East Main Street  
Westminster, MD 21157-5539



(410) 848-1790 • (301) 662-1799  
FAX (410) 848-1791

**Transmit To:**

Mr Hank Oswald  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045

**Project Info:**

TALL TREES LOT 2  
  
Howard County, MD

**Project No: 2016079A**

Date: Feb 17, 2017

**We are Transmitting:**

- |   |                                    |   |  |  |                          |
|---|------------------------------------|---|--|--|--------------------------|
| <input checked="" type="checkbox"/> Here with | <input type="checkbox"/> Originals | <input type="checkbox"/> Computer Media     | <input type="checkbox"/> Shop Drawings | <input type="checkbox"/> Via Messenger           | <input type="checkbox"/> |
| <input type="checkbox"/> Our                  | <input type="checkbox"/> Prints    | <input type="checkbox"/> Project Manuals    | <input type="checkbox"/> Payment Cert. | <input checked="" type="checkbox"/> Express Mail | <input type="checkbox"/> |
| <input type="checkbox"/> Your                 | <input type="checkbox"/> Copies    | <input type="checkbox"/> Product Literature | <input type="checkbox"/> Change Order  | <input type="checkbox"/> 1st Class Mail          | <input type="checkbox"/> |

Sets	Type	Dwg No	Dated	Description
3	D Size Bond Copies			Sewage Disposal Site Plans

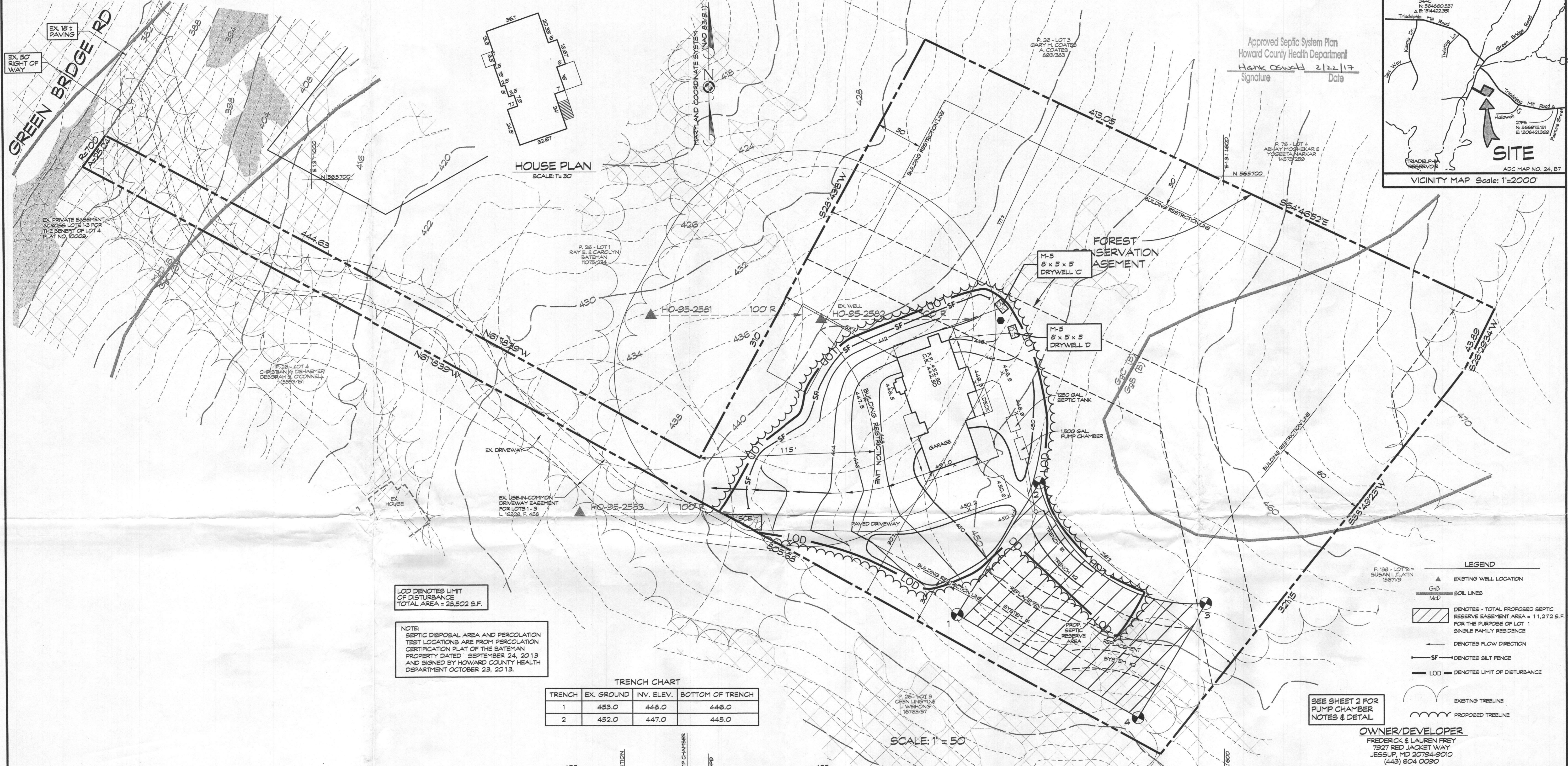
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|---------------------------------------|---|--------------------------------------|--|--------------------------|
| <input type="checkbox"/> As Requested | <input type="checkbox"/> For Your Use               | <input type="checkbox"/> For Filing  | <input checked="" type="checkbox"/> For Approval | <input type="checkbox"/> |
| <input type="checkbox"/> As Required  | <input checked="" type="checkbox"/> For Your Review | <input type="checkbox"/> For Bidding | <input type="checkbox"/> As Discussed            | <input type="checkbox"/> |

**Remarks:**

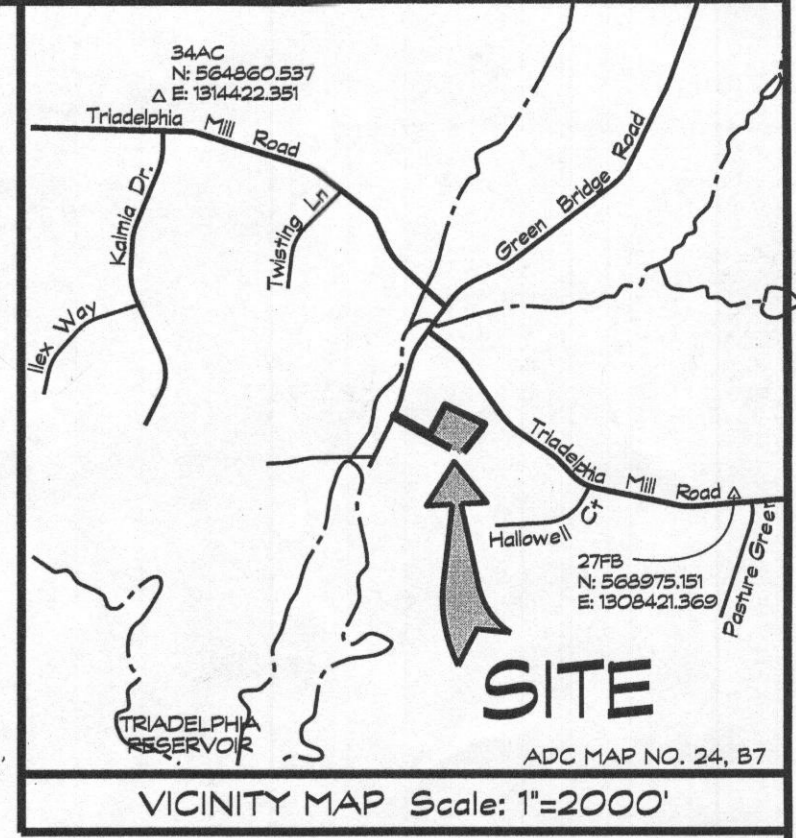
If enclosures are not as noted,  
please notify us immediately.

Copy To \_\_\_\_\_

\_\_\_\_\_ Linda D. Alexander



Approved Septic System Plan  
 Howard County Health Department  
 Hank Oswald 2/22/17  
 Signature Date



EX. 50' RIGHT OF WAY  
 EX. 18' PAVING  
 EX. PRIVATE EASEMENT ACROSS LOTS 1-3 FOR THE BENEFIT OF LOT 4, PLAT NO. 0009.

HOUSE PLAN  
 SCALE: 1"=30'

LOD DENOTES LIMIT OF DISTURBANCE TOTAL AREA = 28,502 S.F.

NOTE: SEPTIC DISPOSAL AREA AND PERCOLATION TEST LOCATIONS ARE FROM PERCOLATION CERTIFICATION PLAN OF THE BATHMAN PROPERTY DATED SEPTEMBER 24, 2013 AND SIGNED BY HOWARD COUNTY HEALTH DEPARTMENT OCTOBER 23, 2013.

TRENCH CHART

TRENCH	EX. GROUND	INV. ELEV.	BOTTOM OF TRENCH
1	453.0	448.0	446.0
2	452.0	447.0	445.0

- LEGEND
- ▲ EXISTING WELL LOCATION
  - GrB SOIL LINES
  - McD
  - ▨ DENOTES - TOTAL PROPOSED SEPTIC RESERVE EASEMENT AREA = 11,272 S.F. FOR THE PURPOSE OF LOT 1 SINGLE FAMILY RESIDENCE
  - DENOTES FLOW DIRECTION
  - SF DENOTES SILT FENCE
  - LOD DENOTES LIMIT OF DISTURBANCE
  - EXISTING TREELINE
  - ~ PROPOSED TREELINE

SEE SHEET 2 FOR PUMP CHAMBER NOTES & DETAIL

OWNER/DEVELOPER  
 FREDERICK & LAUREN FREY  
 7927 RED JACKET WAY  
 JESSUP, MD 20784-9010  
 (443) 804-0090

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN  
 LOT 2 - 5513 GREEN BRIDGE RD.  
 TAX ACCOUNT NO.: 414865  
**TALL TREES**  
 LOT 2  
 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 WAR PLAT NO. 23533, TAX MAP: 27, GRID: 24, PARCEL: 26



Linda D. Alexander  
 Qualified Professional  
 439 East Main Street Westminster, MD 21157-5539  
 (410) 848-1780 FAX (410) 848-1791

*Linda Alexander*  
 2-17-2017

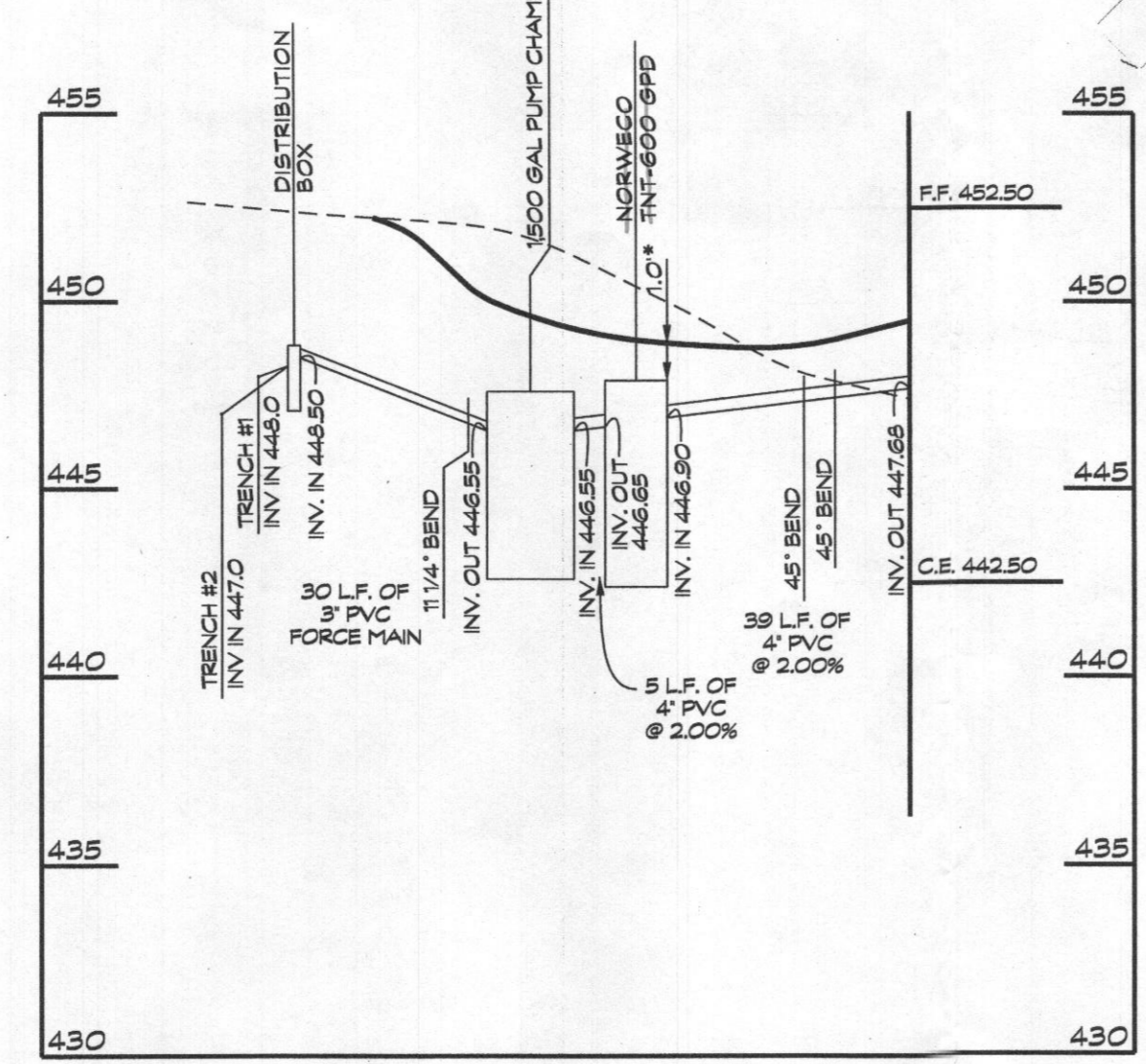
Date	Revisions	Drawn By: BM
6/17/16	REVISED PER HANK OSWALD EMAIL TO LINDA	Designed By:
6/23/16	REVISED PER HEALTH DEPT. EMAIL	Reviewed By:
2/14/17	REV'D BAT TANK TO SEPTIC TANK	Date: 6/13/16
		Scale: 1"=30'
		Job No: 2016079
		Sheet: 1 OF 2

SCALE: 1"=50'

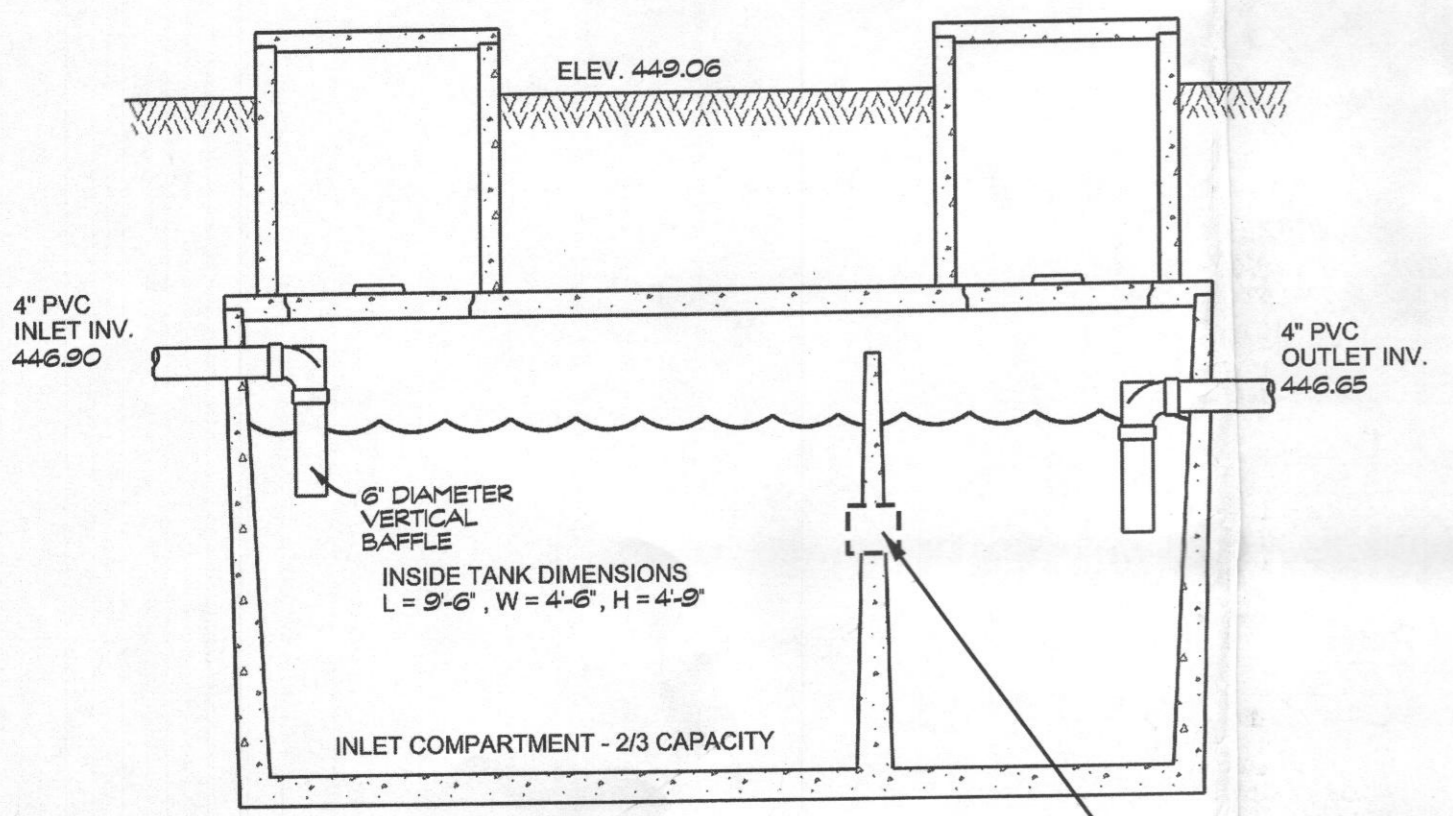
- PLAN NOTES
- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
  - THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
  - THE WELL (TAG # HO-95-2582) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
  - IF A BUILDING PERMIT IS SUBMITTED ANY TIME IN THE FUTURE, A SEPTIC SYSTEM UPGRADE WILL BE REQUIRED TO FINISH THE AREA CURRENTLY IDENTIFIED AS THE BASEMENT. AT THAT TIME A SEPTIC SYSTEM UPGRADE WILL BE REQUIRED AS FINISHING THE BASEMENT COULD POSSIBLY CREATE A FIFTH BEDROOM PER HOWARD COUNTY CODE 3.80(B).
  - TANK MEASUREMENTS AND ELEVATIONS ARE BASED ON SEPTIC TANKS AS MANUFACTURED BY MAYER BROS., ELKROSE, MD 410-796-1434
  - ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND 200 FEET DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.

- GENERAL NOTES
- THE STORM-WATER MANAGEMENT FOR THIS LOT IS PROVIDED BY ACOVERLAND FLOW DISCONNECT.
  - THERE ARE NO STREAMS, PONDS, FLOODPLAINS, OR WETLANDS ON THE LOT.
  - THERE ARE NO 20% OR GREATER SLOPES ON THIS LOT.

SEPTIC SYSTEM TRENCH DESIGN:  
 PROPOSED NUMBER OF BEDROOMS = 4  
 AVERAGE PERCOLATION TEST TIME =  
 APPLICATION RATE = 1.2  
 DESIGN FLOW: 150 GAL/S 4 BEDROOM =  
 600 GAL/DAY  
 INITIAL SYSTEM  
 600 GAL/DAY / 12 GAL/DAY/SQ. FT. =  
 500 SQ. FT.  
 500 SQ. FT. / 3 FT. = 166.6 USE 167 LF. OF TRENCH  
 167 LF. x 0.63 = 106 LF.  
 USE 2 - 53 LF. OF TRENCH FOR INITIAL SYSTEM  
 REPLACEMENT SYSTEM  
 600 GAL/DAY / 0.8 GA./DAY/SQ. FT. =  
 750 SQ. FT.  
 750 SQ. FT. / 3 FT. = 250 LF. OF TRENCH  
 USE 4 - 64 LF. OF TRENCH FOR EACH REPLACEMENT SYSTEM.



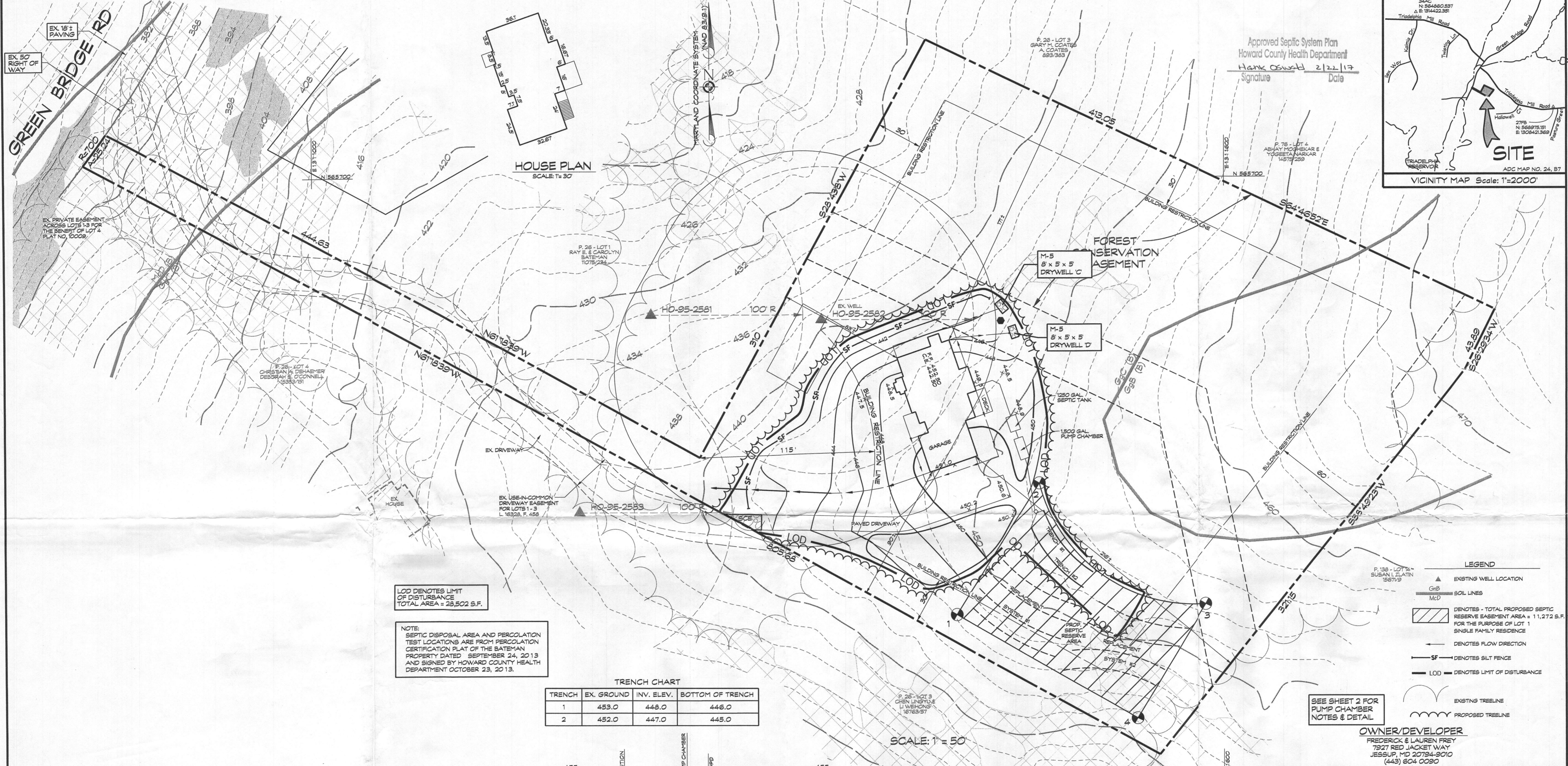
SEPTIC LINE PROFILE  
 SCALE: HORIZ. 1"=30' VERT. 1"=5'



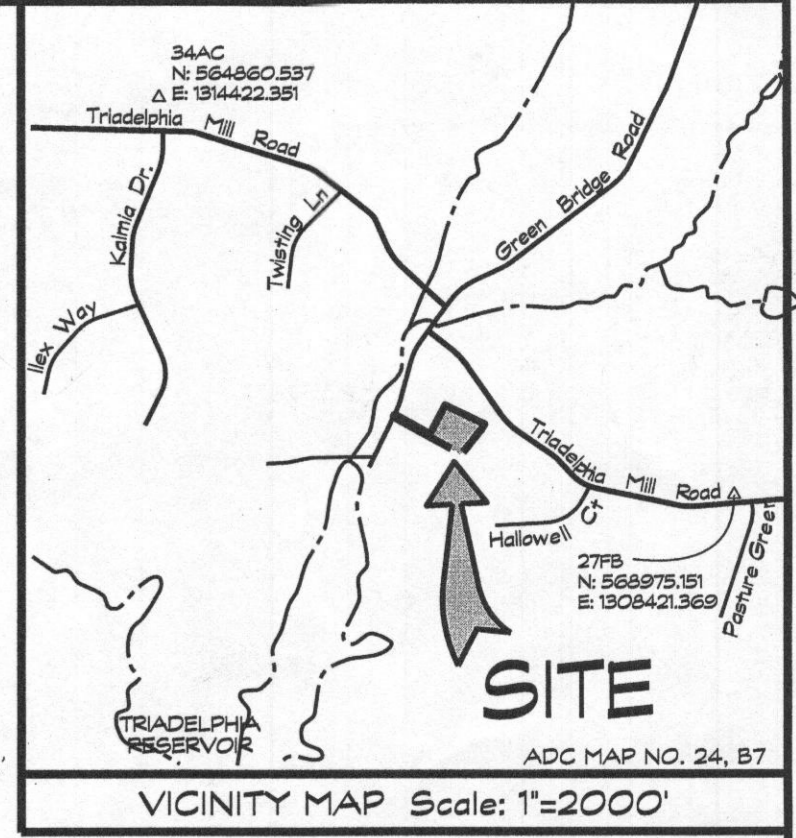
TOP SEAM  
 1250 GAL SEPTIC TANK  
 (NOT TO SCALE)

NOTE: THE SEPTIC TANK RISERS TO TERMINATE AT LEAST 6" ABOVE FINAL GRADE.

NOTE: SLOT IS 2" HIGH BY 4" LONG IN CENTER OF LIQUID DEPTH



Approved Septic System Plan  
 Howard County Health Department  
 Hank Oswald 2/22/17  
 Signature Date

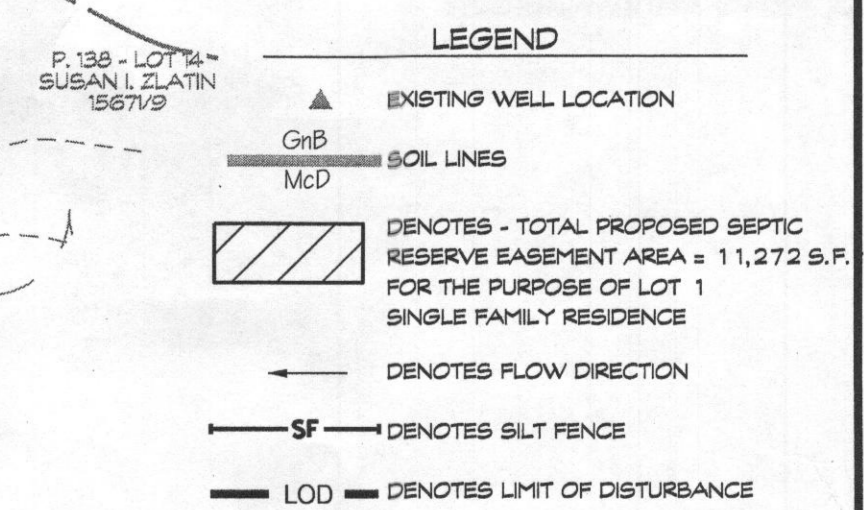


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2	452.0	447.0	445.0



SEE SHEET 2 FOR PUMP CHAMBER NOTES & DETAIL

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ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN  
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**TALL TREES**  
 LOT 2  
 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 WAR PLAT NO. 23533, TAX MAP: 27, GRID: 24, PARCEL: 26



439 East Main Street Westminster, MD 21157-5539  
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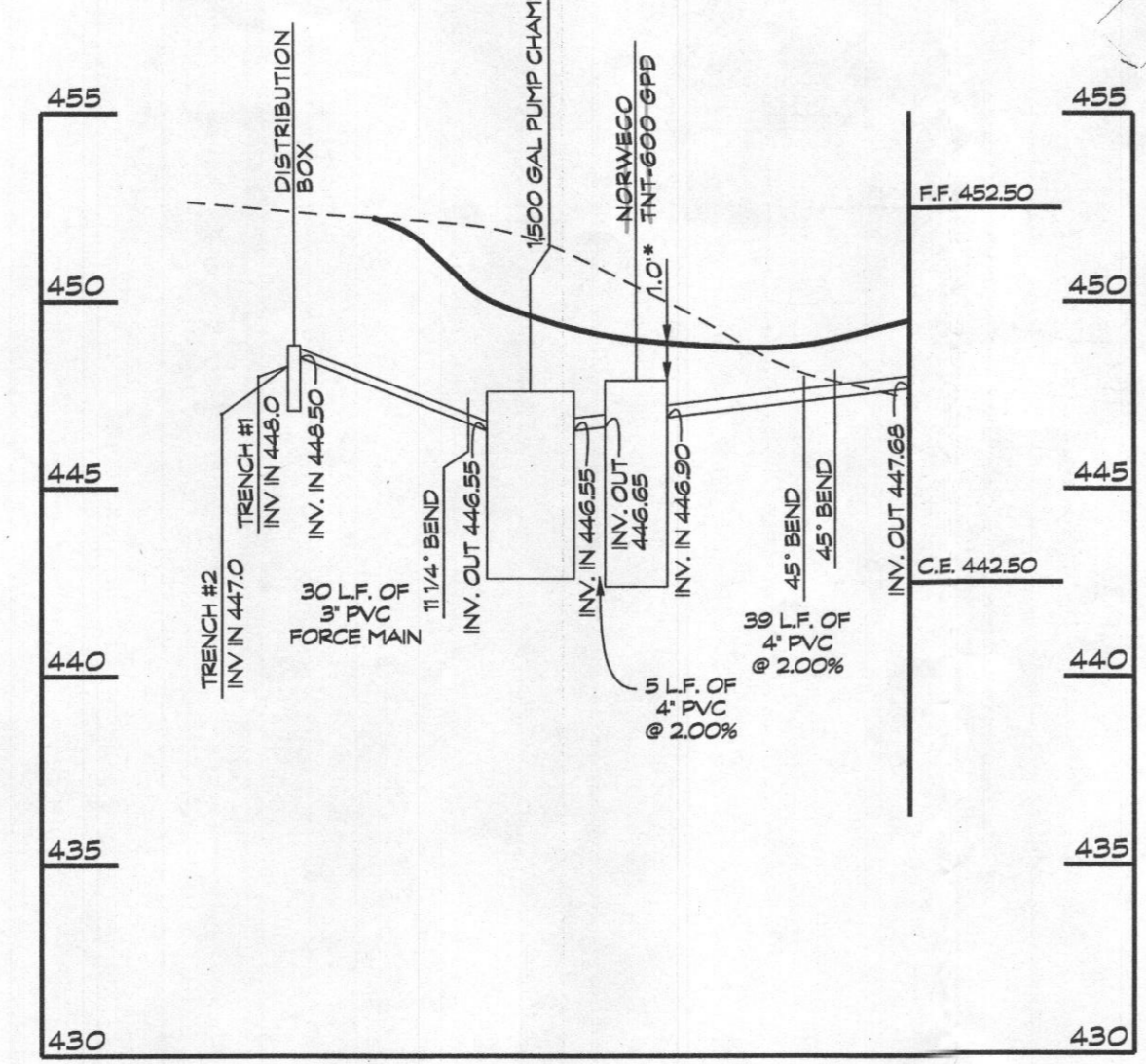
*Linda Alexander*  
 2-17-2017  
 Linda D. Alexander  
 Qualified Professional

SCALE: 1" = 50'

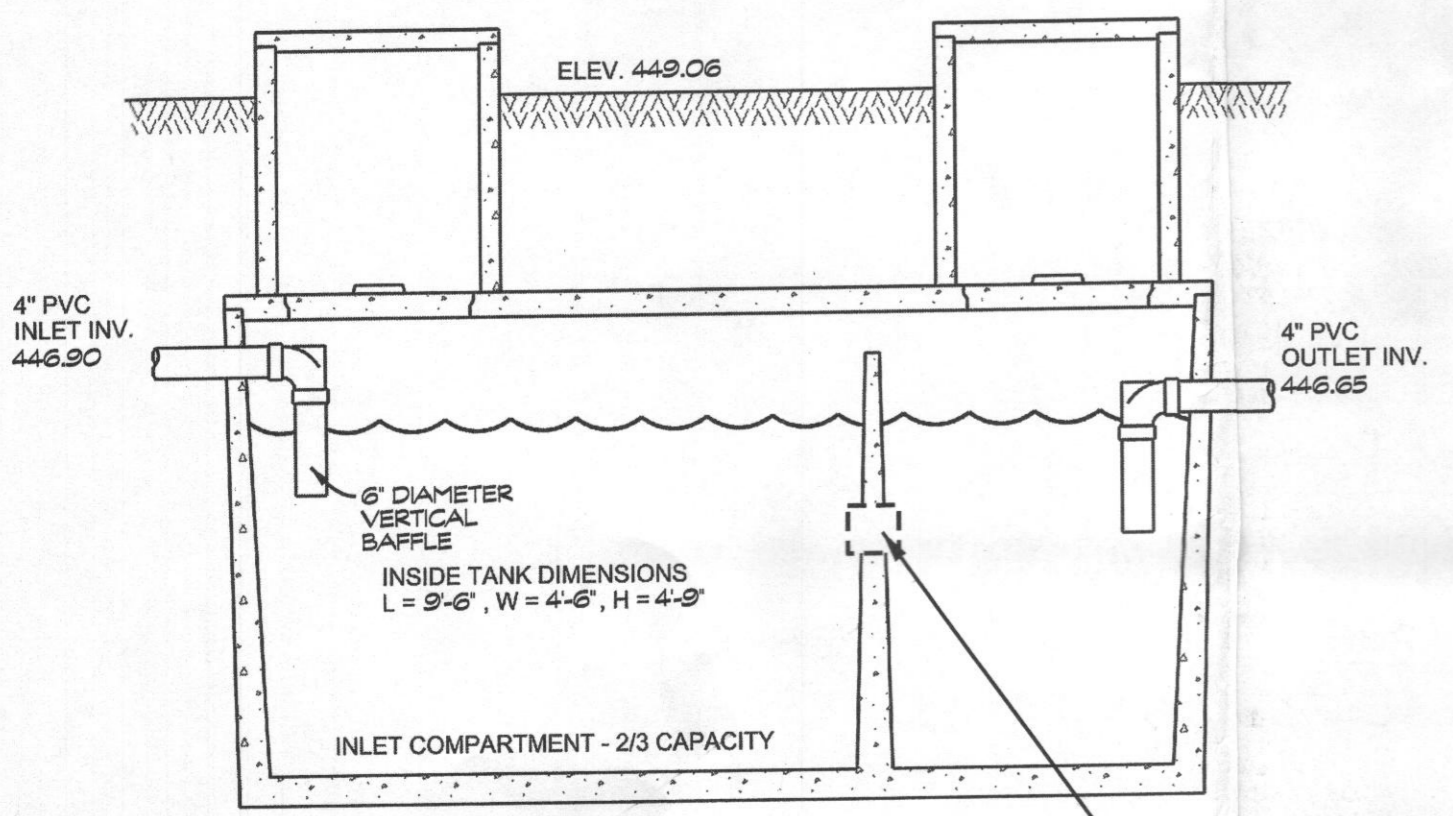
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 APPLICATION RATE = 1.2  
 DESIGN FLOW: 150 GAL/S x 4 BEDROOM = 600 GAL/DAY  
 INITIAL SYSTEM  
 600 GAL/DAY / 12 GAL/DAY/SQ. FT. = 500 SQ. FT.  
 500 SQ. FT. / 3 FT. = 166.6 USE 167 LF. OF TRENCH  
 167 LF. x 0.63 = 106 LF.  
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SEPTIC LINE PROFILE  
 SCALE: HORIZ. 1"=30' VERT. 1"=5'



NOTE:  
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TOP SEAM  
 1250 GAL SEPTIC TANK  
 (NOT TO SCALE)

NOTE:  
 SLOT IS 2" HIGH BY 4" LONG IN CENTER OF LIQUID DEPTH

GOULDS PUMPS



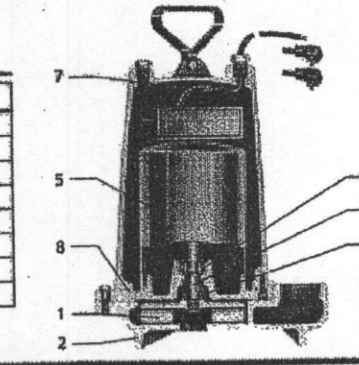
**Submersible Effluent Pump**  
MODEL 3885  
**WE Series**

PROFORMANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.

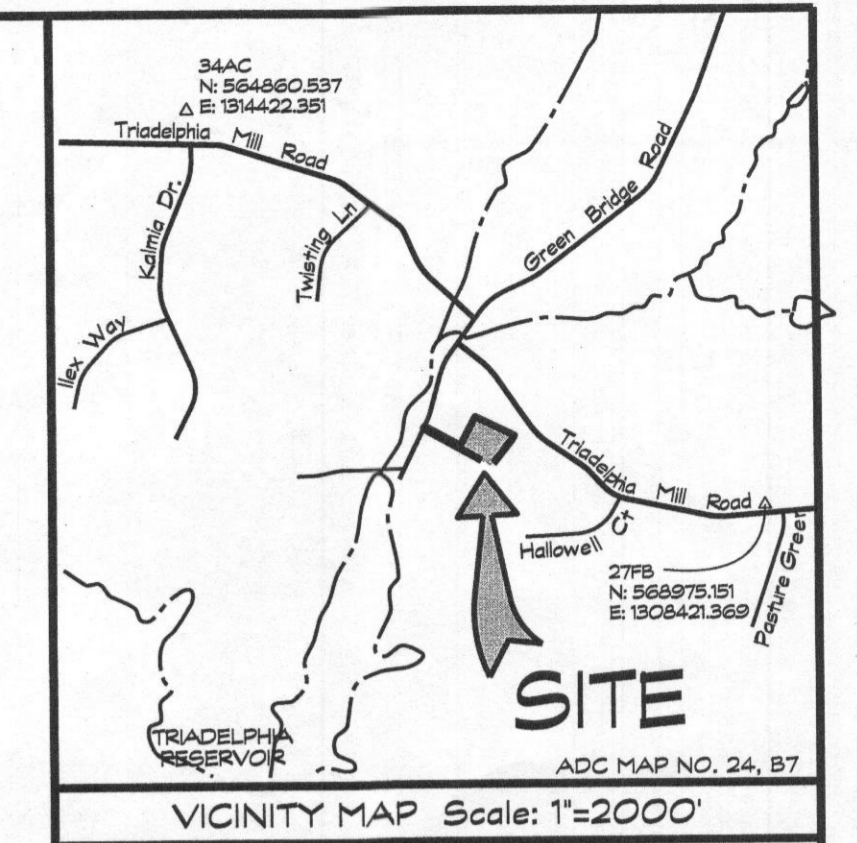
GOULDS PUMPS

COMPONENTS

1	Impeller
2	Casing
3	Mechanical Seal
4	Motor Shaft
5	Motor
6	Ball Bearings
7	Power Cable
8	Casing O-Ring



**Submersible Effluent Pump**  
MODEL 3885  
**WE Series**



**APPLICATIONS**

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

**SPECIFICATIONS**

**Pump**

- Solids handling capabilities: 1/2" maximum.
- Discharge size: 2" NPT.
- Capabilities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

**FEATURES**

- **Impeller:** Cast iron, semi-slip, non-slog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon carbide impeller available as an option.
- **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge.
- **Mechanical Seal:** SILICON CARBIDE VS. SILICON CARBIDE sealing faces. Stainless steel metal parts. BUNA-N elastomers.

- **Shaft:** Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component rotation.
- **Fasteners:** 300 series stainless steel.
- **Capable of running dry** without damage to components.
- **Designed for continuous operation** when fully submerged.

**MOTORS**

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on 1/2 HP models.
- Class F insulation on 2 HP models.

**Single phase (60 Hz):**

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SLOW or STOW severs duty oil and water resistant power cords.
- 1/2 and 1/4 HP models have NEMA three prong grounding plugs.
- 1/2 HP and larger units have bare lead cord ends.

**Three phase (60 Hz):**

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.
- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits.

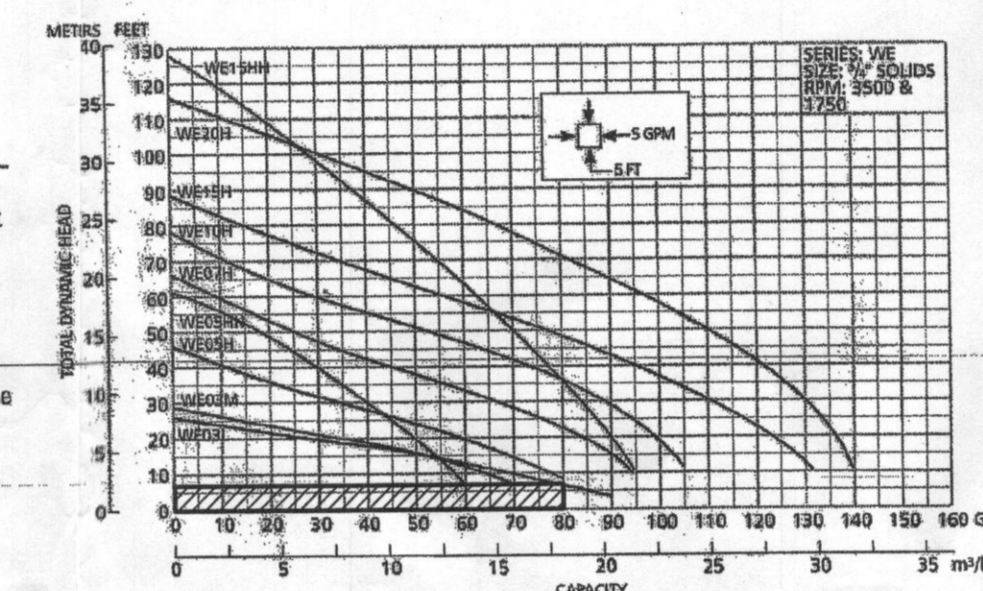
can be operated continuously without damage when fully submerged.

- **Bearings:** Upper and lower heavy duty ball bearing construction.
- **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
- **O-ring:** Assures positive sealing against contaminants and oil leakage.

**AGENCY LISTINGS**

Tested to UL 776 and CSA 22.2 80 standards by Underwriters Laboratories Inc. (UL)

Goolds Pumps is ISO 9001 Registered.



**MODELS**

Order No.	HP	Volts	Phase	Max. Amp.	RPM	Solids	Vol. (cu. ft.)
WE031L	1/2	115	1	6.8	1750	5/8"	56
WE031M	1/2	230	1	13.7	1750	5/8"	56
WE031H	1/2	115	3	6.8	1750	5/8"	56
WE031M	1/2	230	3	13.7	1750	5/8"	56
WE031H	1/2	115	1	14.5	1750	5/8"	56
WE031M	1/2	230	1	29.0	1750	5/8"	56
WE031H	1/2	115	3	7.3	1750	5/8"	56
WE031M	1/2	230	3	14.6	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
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WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	56
WE031M	1/2	230	1	3.4	1750	5/8"	56
WE031H	1/2	115	3	1.7	1750	5/8"	56
WE031M	1/2	230	3	3.4	1750	5/8"	56
WE031H	1/2	115	1	1.7	1750	5/8"	