



Howard County
Health Department

Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

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

RECEIPT DATE: 8/5/14 **ONSITE SEWAGE DISPOSAL SYSTEM** P SS4568

INSTALLATION APPROVAL DATE: 11/5/2014 **PERMIT** A _____
CONSTRUCTION

PROPERTY ADDRESS: 11775 Chapel Estates Drive

SUBDIVISION: Chapel Rise LOT: 9 TAX ID: 05-594208

CONTRACTOR: Hatfield's Equipment EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 20701 PHONE: 301-490-4289

PROPERTY OWNER: Chris and Lisa Chodnicki EMAIL: _____

OWNER ADDRESS: 12021 Floating Clouds Path PHONE: 410-369-3801

BAT UNIT MODEL: Norweco TNTLP BAT UNIT SIZE: 500GPD

PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____

NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. _____ APPLICATION RATE: 0.8

DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 181'</u>	INLET DEPTH: <u>SEE BAT PLAN 3.5'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 3</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 5.5'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>SEE BAT PLAN</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>SEE BAT PLAN 4'</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Set BAT unit per plan. <u>40', 47', 47' + 47'</u>	

ISSUED BY: Jeff Williams ISSUE DATE: 8-5-14 EXPIRATION DATE: 8-5-15

- 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 SEPTIC 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

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

See As-Built Drawing
On Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH 3' INLET 3.5' BOTTOM 5.5'

NUMBER OF TRENCHES 4

TOTAL LENGTH 190'

ABSORPTION AREA 570+ Sidewall

DISTRIBUTION BOX LEVEL N/A

DISTRIBUTION BOX BAFFLE N/A

DISTRIBUTION BOX PORT N/A

SEPTIC TANK DATA

SEPTIC TANK I LEVEL Yes

MANUFACTURER Backflow

CAPACITY 500/105 GAL

SEAM LOC Top

TANK LID DEPTH

BAFFLES No

BAFFLE FILTER Yes

MANHOLE LOC Front, Middle, Rear

6" PORT LOC None

WATERTIGHT TEST No

SLOTTED Yes

DATE ON LID 8-28-14

PUMP/SEPTIC TANK LEVEL Covered

MANUFACTURER

CAPACITY GAL

SEAM LOC

TANK LID DEPTH 3-3.5'

BAFFLES

BAFFLE FILTER

MANHOLE LOC

6" PORT LOC

WATERTIGHT TEST

SLOTTED

DATE ON LID

PRE-CONSTRUCTION:

9/3/2014 Trench locations are similar to plan. BAT unit needs to be moved further from house out of driveway grading area. Told installer that he would probably need a 2 H.P. pump if using a 2" force main. (BB)

INSTALLATION: 9/11/14 BAT unit set. Force main ran up to manifold. Nothing else completed. (KW)

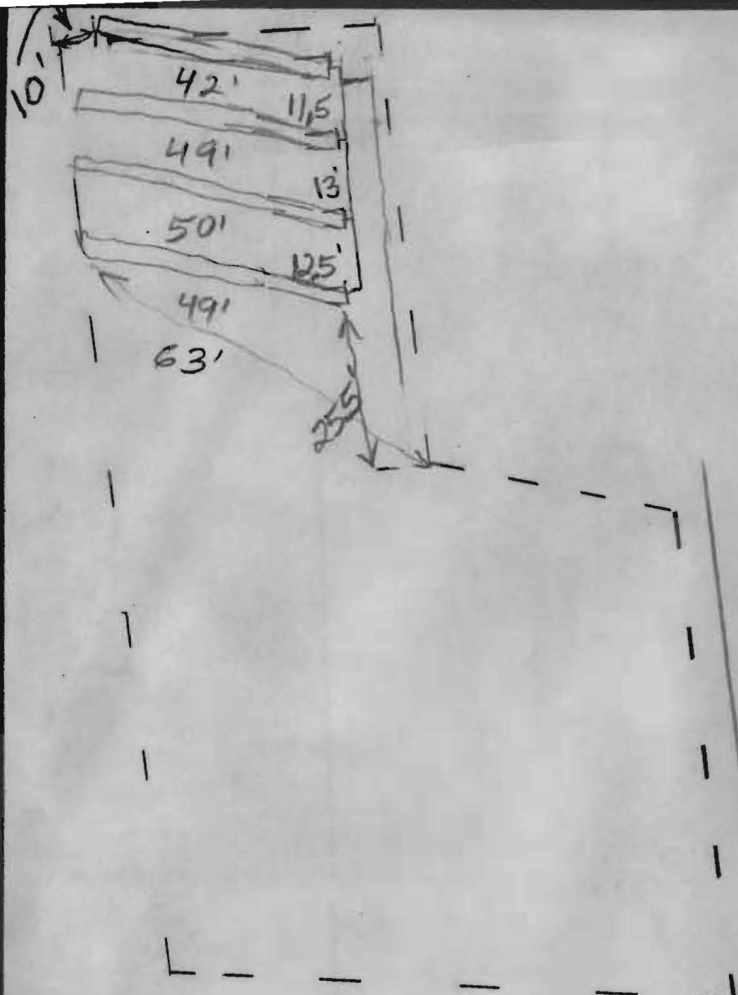
9/12/2014 Tanks covered. Pump line covered. House connection made. Working on trenches. (BB)

9/15/2014 Trenches finished. (BB)

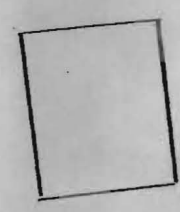
11/5/2014 Pump and alarm working. Three feet plus of head in turn-ups increasing with downhill progression. Valve wide open. (BB)

FINAL INSPECTOR B. Baker

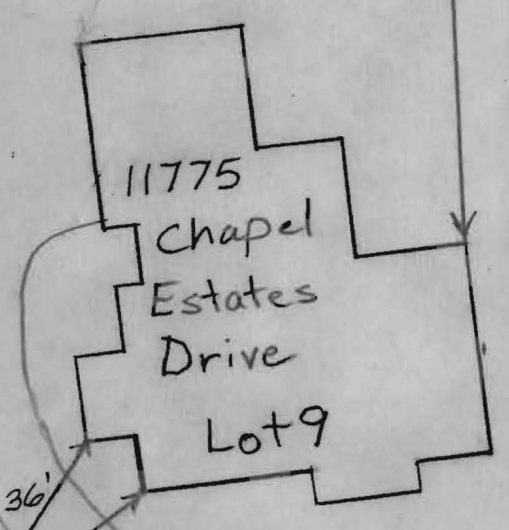
DATE OF APPROVAL 11/5/2014



H0-95-2221

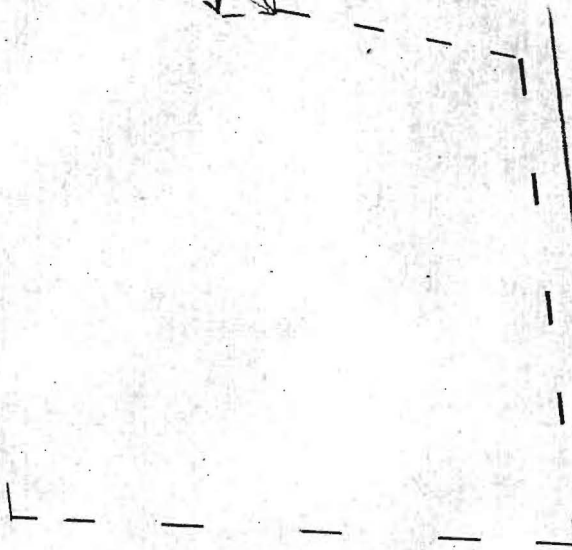
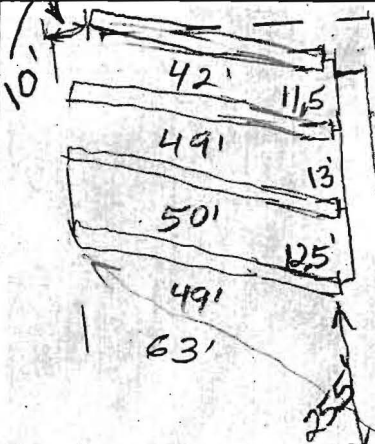


n/38

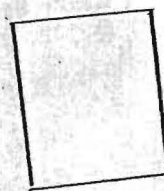


36'

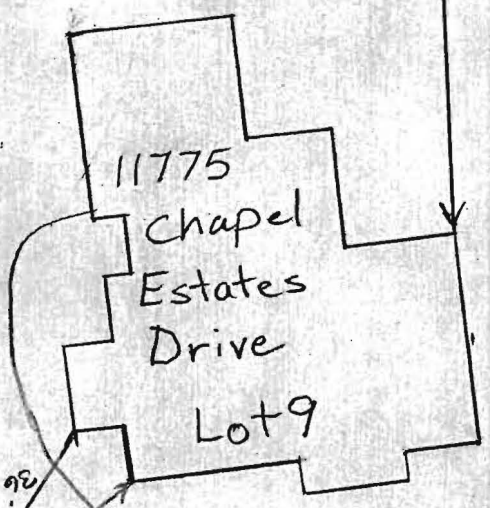
33'



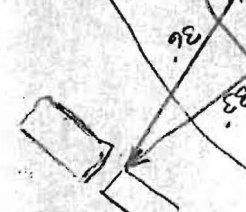
HO-95-2221



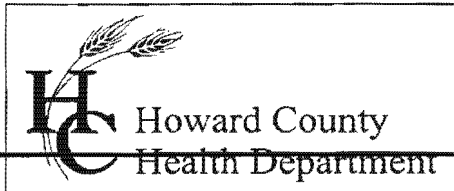
~138'



11775
Chapel
Estates
Drive
Lot 9



26'
33'



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Website: www.hchealth.org

Peter Beilenson, M.D., M.P.H., Health Officer

January 24th, 2011

Paul Sill, P.E.
Sill Adcock & Assoc.
3300 North Ridge Rd
Ellicott City, MD 21043

**RE: Variance request
Chapel Rise – Sosinski Property**

Dear Mr. Sill,

The Health Department has received your variance request dated January 12, 2011 for the above referenced property. Maryland Department of the Environment has accepted our recommendation to approve the following variance requests under the *Code of Maryland Regulations 26.04.02.05 (C)* to allow: the sewage disposal systems serving Lots 1, 2, 3, 4, 7 & 8 to be located upgradient from the private water supplies on neighboring parcels 4, 30, 31, 37, 45 & 47. Due to the landscape position of the sewage areas and wells, the request was approved subject to the following conditions:

1. An advanced pre-treatment system, which utilizes best available technology to perform nitrogen reduction, must be installed on the sewage disposal systems on Lots 1, 2, 3, 4, 7 & 8. In addition, ongoing maintenance is required. An agreement acknowledging the need for maintaining a service contract with an authorized service provider must be recorded in the Howard County Land Records for each of these lots within 30 days after plat recordation. Building permit applications for the respective lots will not be approved until such an agreement is recorded. Before a septic system installation permit is released for the advanced pre-treatment system, a site plan must be submitted with all necessary details for installation of the system.
2. The wells on Lot 1, 3 & 7 must be constructed using a steel well casing, which must be installed to a minimum depth of 50' below ground surface or 10' into the competent bedrock, whichever is deeper.
3. A low pressure dosing system will be required for the sewage disposal systems on Lots 1, 2, 3, 4, 7 & 8.

If you have any questions regarding this matter, please contact me at the above address or by calling (410) 313-6287.

Sincerely,

Heidi Scott, R.S.
Well & Septic Program

Maryland Department of the Environment
Steven Krieg, R.S.

11775 CHAPEL ESTATES

Clerk of the Circuit Court for **DR**
Howard County
Land Records/Licensing

The Thomas Dorsey Building
9250 Bendix Road
Columbia, MD 21045
410-313-5850

=====
LR - Recording Fee (No Taxes)
1x 20.00 20.00

Grantor/Grantee Name: Chodnicki
Reference/Control #: 77

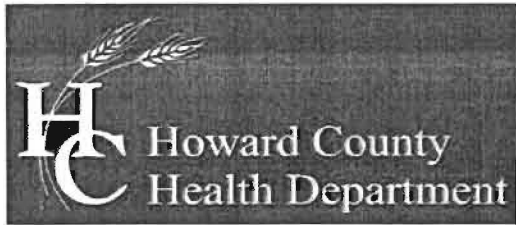
LR - Surcharge
1x 40.00 40.00

=====
SubTotal: 60.00
Total: 60.00

=====
REV-Check-BOA 60.00
Number : 3554

04/02/2014 10:48 CC13-DS
#2621258 /496/109
***** DUPLICATE #001 *****

04/02/2014 10:49 CC13-DS
~ Thank you for visiting us today ~



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Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

**OPERATION AND MAINTENANCE AGREEMENT
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

THIS AGREEMENT is made this 29th day of October, 2013, among Christopher S. Chodnicki & Lisa F. Chodnicki, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

26
26

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 11775 Chapel Estates Drive, Clarksville, Maryland 21029, in the 5th Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber 14614 Folio 201.

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013.

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.
- B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.
- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as

long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. There are no additional terms other than as contained in this agreement. This agreement may not be modified, except in writing signed by each of the parties or by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above.

Chris S. Chodnicki 10/29/2013
Owner Date
Christopher S. Chodnicki

Lisa F. Chodnicki 10-29-13
Owner Date
Lisa F. Chodnicki

Bert Nijzen 4/10/14
Howard County Health Department

REC-100 2013-05
Howard Co
COLUMBIA/CORR 02 04
FOLIO 027 405
10-29-13
SUBTOTAL: 50.00
TOTAL: 50.00
#2021008 1
04/07/2014 10:40
2013-05
LP - purchase 46.00
7%
REFERENCE/CONT VOL # -
chodnicki
Franklin/Randall
Lester
Lester
Lester

11775 CHAPEL ESTATES DR,
Clerk of the Circuit Court for
Howard County
Land Records/Licensing

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Columbia, MD 21045
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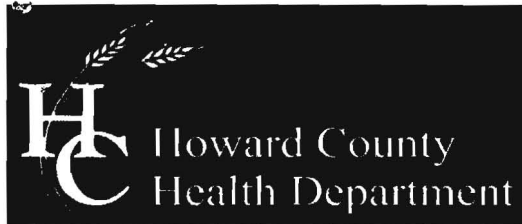
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Owner Date
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Owner Date
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Barry Nijzen 4/09/14
Howard County Health Department

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Grantor/Grantee Name:
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LR - Surcharge 40.00
Subtotal: 60.00
Total: 60.00
#2621258-1
04/02/2014 10:49
CC13-1
#2821258 CC0503 -
Howard Co
Columbia/CC05-03-04
Printed on 04 08

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Owner Date
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Bert Nijzen 4/09/14
Howard County Health Department

LR - Recording Fee (No Taxes)
20.00
Grantor/Guarantee Name:
Chodnicki
Reference/Control #: 77
LR - Surcharge 40.00
SubTotal: 60.00
Total: 60.00
#2821258-1
04/02/2014 10:49
CC13-05
#2821258 CC0503 -
Howard Co
Columbia/CC05.03.04 -
Registered 04 408

Back River Pre-Cast, LLC

PO BOX 329
Glyndon, MD 21071
Phone # 410-833-3394
Fax # 410-833-4116

Letter of Certification

This is to certify that the Norweco Singulair TNT 600 GPD Septic Tank installed at 11775 Chapel Estates Dr., Clarksville, MD 21029 September 11, 2014 was installed according to the manufacture's specifications.

Installer: Jeff Reiter



MATTHEW GECKLE

Vice-President

Williams, Jeffrey

From: Williams, Jeffrey
Sent: Tuesday, August 05, 2014 8:15 AM
To: 'Ron Tash'
Subject: RE: Chapel Rise lot 9

Thanks. With that said, can you email me a copy of the floorplan for our file? Just the layout sketch, not any of the construction details. Sometimes there are rooms that are not intended as bedrooms, but meet our definition of one.
Thanks
Jeff

From: Ron Tash [mailto:rtash@columbiabuildersinc.com]
Sent: Monday, August 04, 2014 5:02 PM
To: Williams, Jeffrey
Subject: RE: Chapel Rise lot 9

Hi Jeffrey

Not sure what I was thinking on the building permit but this house officially has three bedrooms. However they have one room that would very easily convert to a bedroom, so we designed the BAT for four bedrooms.

Hopefully this helps, let me know if you need anything further.

Ron Tash

Columbia Builders, Inc
www.columbiabuildersinc.com
rtash@columbiabuildersinc.com
Cell: 443-324-4725

LEGAL DISCLAIMER

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Please don't print this e-mail unless you really need to...

From: Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]
Sent: Monday, August 04, 2014 3:50 PM
To: Ron Tash
Subject: Chapel Rise lot 9

Hello Ron. The septic contractor is about to get a septic permit for Chapel Rise lot and we just realized that we did not pick up a discrepancy between the building permit and the BAT septic plan. The BP states the number of bedrooms is 5 and the BAT plan is designing the septic system for 4 bedrooms. Can you confirm the number of bedrooms out there for me? If it is 5, I can redline the BAT plan to add another trench and release the septic permit. Thanks

Jeff Williams
Program Supervisor, Well & Septic Program
Bureau of Environmental Health
Howard County Health Dept.
410-313-4261
jewilliams@howardcountymd.gov

Williams, Jeffrey

From: Williams, Jeffrey
Sent: Wednesday, April 02, 2014 3:35 PM
To: 'Stephanie Tuite'
Subject: RE: Chapel Rise Lot 9

I just reviewed it today. I can't remember what we decided previously regarding the valve, but you are showing it on the septic profile and the larger site plan, but not on the distribution detail or accounting for it on the friction loss. We are fine with not using a valve at all, just get rid of it on the profile and the site plan on page 1.

Also, I did not pick up previously that the design dose you are using is 4x laterals plus fm volume. The dose should be 5x lateral volume plus fm and manifold volume or 1/6 design flow, whichever is greater. In this case, the 5 bedroom home is $750/6 = 125g$. But, you have a total lateral length of $170' \times 5 \times 0.106 = 90g + 64g$ fm volume = 154g. Your dose should be 154g.

Also, I cannot read any of the Gould's pump content or the pump tank content. It is really fuzzy.

We need to see your marks on the pump curve intersecting 58' head and 64gpm and clearly indicate which pump model you're choosing based on that. The pump tank needs to be a 1500g tank and we need to see the floats set and volume indicated so that the dose is 154g and that there is at least 750g worth of emergency storage space between the alarm float and the inlet invert of the tank.

Also, revise page 1 to indicate a 1500g pump tank and make sure the pump requirements note is accurate.

Finally, the perforated pvc lateral detail should be expanded to show the entirety of all four laterals with the perforation locations, size, and distances in between.

Thanks
Jeff

From: Stephanie Tuite [mailto:Stephanie@fcc-eng.com]
Sent: Tuesday, April 01, 2014 4:30 PM
To: Williams, Jeffrey
Subject: RE: Chapel Rise Lot 9

Thanks. I just happened to notice that this had not been recorded. Too many things happening at the end of the year.

Any luck getting to the BAT Site Plan?

Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C
Fisher, Collins & Carter, Inc.

From: Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]
Sent: Tuesday, April 01, 2014 4:01 PM
To: Stephanie Tuite
Subject: RE: Chapel Rise Lot 9

We had it in our File. Bert is signing it today. I'll leave it for you guys to pick up tomorrow morning. Sorry.

From: Stephanie Tuite [mailto:Stephanie@fcc-eng.com]
Sent: Monday, March 31, 2014 3:54 PM
To: Williams, Jeffrey
Subject: Chapel Rise Lot 9

Jeff,

I was just noticing that we never received the O&M Agreement back to record. Do you still have it in the file? Or do I need to resubmit it for signature so we can get it recorded. It was initially submitted on November 5, 2013 with BAT Plan copies.

Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C

Fisher, Collins & Carter, Inc.

10272 Baltimore National Pike

Ellicott City, Maryland 21042

Phone (410) 461-2855 x1833

Cell (410) 491-5962

Fax (410) 750-3784

Transmittal

Via: Fax Mail Messenger E-Mail To Be Picked Up
 Fax (original to follow via U.S. Mail)

To: Bureau of Environmental Health 8930 Stansfield Boulevard Columbia, MD 21046	Attn: Jeff Williams Fax: (410) 313-2648 Phone: (410) 313-2640
--	--

From: Stephanie Tuite	CC:
------------------------------	-----

Re: Chapel Rise Lot 9	W.O.# 12060
Date: March 25, 2014	Pages: Page(s) Including this cover

We are forwarding: <input checked="" type="checkbox"/> Prints <input type="checkbox"/> Copy of Letter <input type="checkbox"/> Specifications <input type="checkbox"/> Shop drawings <input type="checkbox"/> Other
<input type="checkbox"/> Urgent <input type="checkbox"/> For your use <input type="checkbox"/> As requested <input type="checkbox"/> For Review & Comment

Remarks:

Jeff,

Enclosed please find Two (2) prints of the revised BAT Site Plan showing the requested detail. Computations for the low pressure dosing system were previously approved as part of the Building Permit review.

If we may be of any further assistance or you need any changes, please do not hesitate to call.

Very truly yours,

Stephanie Tuite, RLA, PE, LEED AP BD&C

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Williams, Jeffrey

From: Stephanie Tuite [Stephanie@fcc-eng.com]
Sent: Wednesday, January 15, 2014 1:50 PM
To: Williams, Jeffrey
Subject: RE: Chapel Rise Lot 9 LPD system
Attachments: CR Lot 9 Low Pressure Dosing rev.pdf

There was. Here you go.
Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C
Fisher, Collins & Carter, Inc.

From: Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]
Sent: Wednesday, January 15, 2014 1:37 PM
To: Stephanie Tuite
Subject: RE: Chapel Rise Lot 9 LPD system

I didn't get an attachment if there was one intended.

From: Stephanie Tuite [mailto:Stephanie@fcc-eng.com]
Sent: Wednesday, January 15, 2014 1:31 PM
To: Williams, Jeffrey
Subject: RE: Chapel Rise Lot 9 LPD system

I think this will do it. We will follow in the next few days or so with the plan revisions requested. Thanks.

Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C
Fisher, Collins & Carter, Inc.

From: Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]
Sent: Wednesday, January 15, 2014 1:23 PM
To: Stephanie Tuite
Subject: RE: Chapel Rise Lot 9 LPD system

Can you please make the correction on the form and email it to me. I will then release the building permit.

What I will need in the immediate future and before a septic permit can be issued is a revised septic design plan showing the things we discussed in our meeting:

- A blowup of the disposal area showing details of the valves, feeder lines, and laterals
- A diagram of the lateral network showing the orifice locations with spacing noted in inches as well as the pipe diameter and orifice diameter
- A diagram of the lateral turnup with last orifice on the crown
- A notation of the exact pump model chosen that fits with the design criteria
- A detail on the pump chamber showing a ¼" weep hole in the line out that drains into the tank after pump shutoff.

Please remember that I am making a special concession by releasing this building permit now. Our standard policy is to have the complete septic design approved before BP release. Thanks.

Jeff

From: Stephanie Tuite [mailto:Stephanie@fcc-eng.com]

Sent: Wednesday, January 15, 2014 11:27 AM

To: Williams, Jeffrey

Subject: RE: Chapel Rise Lot 9 LPD system

Okay, can we release the bldg. permit now and I will get you the revised BAT plans?

Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C

Fisher, Collins & Carter, Inc.

From: Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]

Sent: Wednesday, January 15, 2014 10:33 AM

To: Stephanie Tuite

Subject: RE: Chapel Rise Lot 9 LPD system

The spreadsheet should have lateral length for 2A at 44.65 and perf spacing for 2B at 6.71. Otherwise it should be fine. Thanks.

From: Stephanie Tuite [mailto:Stephanie@fcc-eng.com]

Sent: Wednesday, January 15, 2014 10:24 AM

To: Williams, Jeffrey

Subject: RE: Chapel Rise Lot 9 LPD system

See attached.

Stephanie J. Tuite, RLA, PE, LEED AP BD&C

Fisher, Collins & Carter, Inc.

From: Williams, Jeffrey [mailto:jewilliams@howardcountymd.gov]

Sent: Wednesday, January 15, 2014 10:10 AM

To: Stephanie Tuite

Subject: RE: Chapel Rise Lot 9 LPD system

Ok. Now I see where I was getting confused by your numbers. What we want is for the spacing to be half distance from the manifold to the first perf, then full distance for all the rest including the last spacing on the turnup crown. Then, there should be half spacing between the end of the lateral and the end of the trench. So, on the 40' trench, the lateral will be 38' long at 10 perfs (40/10 minus half spacing) with the first perf being 2' from manifold, the following nine perfs at 4' spacing with the last perf on the crown 4' from the previous and the lateral ending 2' from the end of the trench at 38'.

On the 47' trench with 7 perfs, the spacing should be 6.71' with a lateral length of 43.64'. The first perf would be 3.36' and the lateral would end 3.36' short of the 47' trench at 43.64'. With your 7.2' spacing in a 47' trench, 7.2x7 gives you a 50.4' trench. On the 47' trench with 10 perfs, the spacing would be 4.7' with 2.35' to the first perf and the lateral ending 2.35' short of the trench for a lateral length of 44.65'.

However, when you run the numbers in this way, see what you get with 8 perfs instead of 7 on 1B and 2B. It seems that the lateral flow gets more equalized.

I was first trying to make things easier with more rounded numbers, but that may not be ideal. If you run the numbers with the correct lateral length using the formula above, you might find 8 perfs to be better than 7. Let me know. Thanks.

From: Stephanie Tuite [<mailto:Stephanie@fcc-eng.com>]
Sent: Tuesday, January 14, 2014 4:43 PM
To: Williams, Jeffrey
Subject: RE: Chapel Rise Lot 9 LPD system

These numbers really don't make it work either. The spacing is such that $\frac{1}{2}$ the spacing is at one end (prior to first orifice) and $\frac{1}{2}$ the spacing is at the other end (past the orifice), so when you divide by the spacing, the numbers should divide. So, for example with the 36 foot lateral, I divide by 4 and get an even 9 holes plus one on the turnup (so, 10) as per the design parameters in the dosing documents. Same with each of the other laterals. I don't work out even with the numbers you gave me.

Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C
Fisher, Collins & Carter, Inc.

From: Williams, Jeffrey [<mailto:jewilliams@howardcountymd.gov>]
Sent: Tuesday, January 14, 2014 3:57 PM
To: Stephanie Tuite
Subject: RE: Chapel Rise Lot 9 LPD system

You don't need to calculate the friction loss in the 1.5" lateral lines. That doesn't make much difference, but we can take that off and recalculate the design head.

For the spreadsheet, it looks like the laterals can be longer in the trenches to make the spacing work out. Some of them don't seem to match up between the spacing, number of holes, and lateral length. Can you see what this does to the flow rate, I think it will come out ok:

Trench 1A: 38' length 4' spacing 10 holes
Trench 1B: 45.5' length 7' spacing, 7 holes
Trench 2A: 45.125' length 4.75' spacing, 10 holes
Trench 2B: 45.5' length, 7' spacing, 7 holes

From: Stephanie Tuite [<mailto:Stephanie@fcc-eng.com>]
Sent: Monday, January 13, 2014 1:22 PM
To: Williams, Jeffrey
Subject: Chapel Rise Lot 9 LPD system
Importance: High

Jeff,

Attached please find revised computations for Chapel Rise Lot 9 LPD system. Please advise if these are approved or require any additional revision. Thanks.

Steph

Stephanie J. Tuite, RLA, PE, LEED AP BD&C

Fisher, Collins & Carter, Inc.

10272 Baltimore National Pike

Ellicott City, Maryland 21042

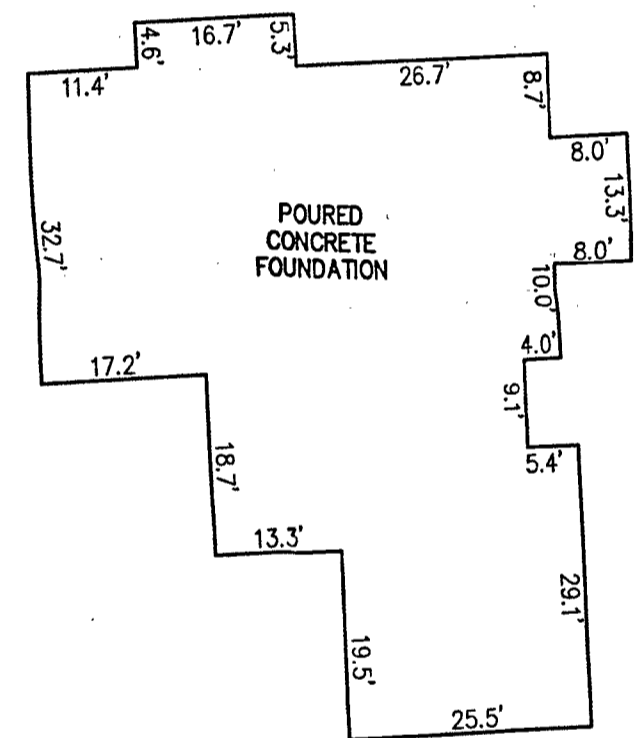
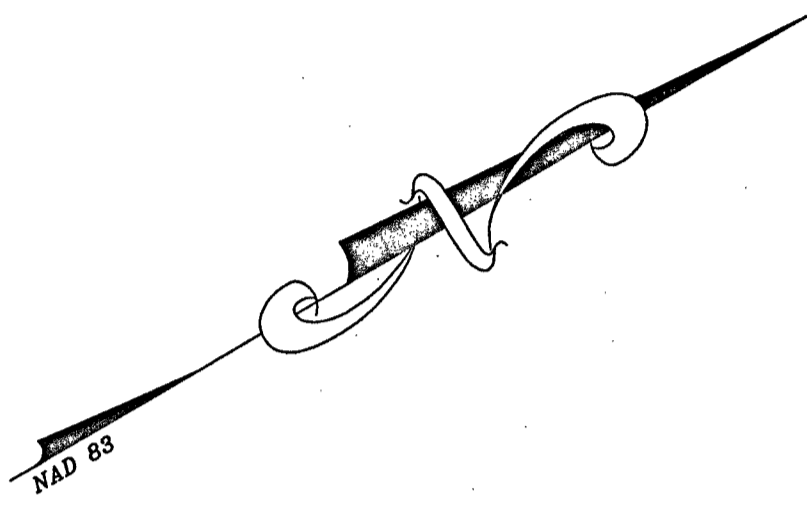
Phone (410) 461-2855 x1833

Cell (410) 491-5962

Fax (410) 750-3784

GENERAL NOTES:

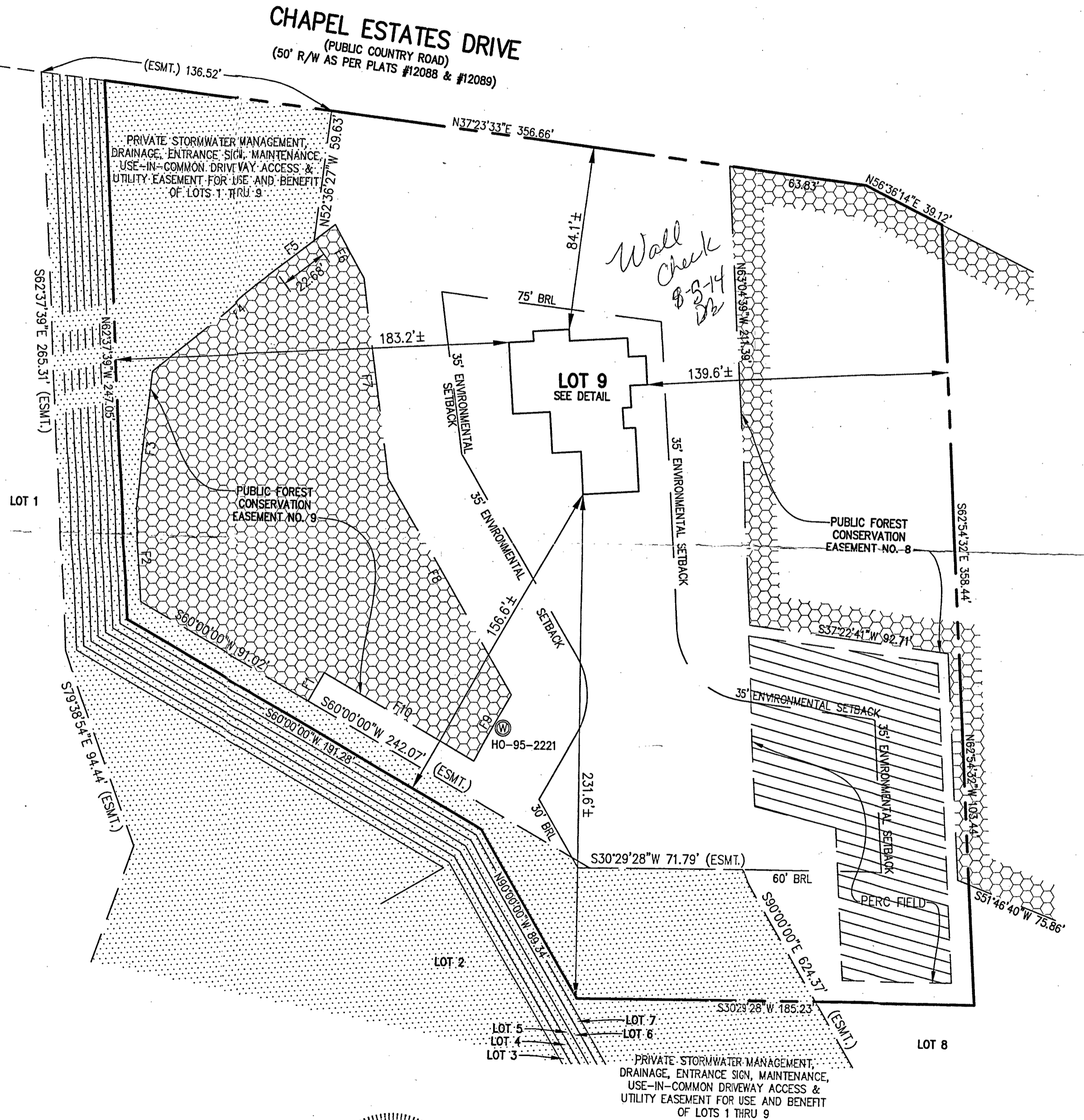
- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING OF FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE FINANCING FOR RE-FINANCING MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0135-D EFFECTIVE NOV. 6, 2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1' (±).
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-2221 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2014.
- 7) BUILDING PERMIT #(B-13003493)



DETAIL:
1"=20'

FLOODPLAIN EASEMENT LINE TABLE

LINE	LENGTH	BEARING
FL1	31.72'	N05°08'06"E
FL2	31.13'	N20°19'43"E
FL3	34.31'	N17°06'27"E
FL4	32.35'	N03°10'38"E
FL5	62.13'	N07°20'00"W
FL6	49.26'	N12°16'06"E
FL7	56.26'	N02°12'12"E
FL8	97.21'	N03°12'26"E
FL9	54.42'	N08°25'56"E



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2855

#11775 CHAPEL ESTATES DRIVE
TOP OF FOUNDATION ELEVATION = 380.3'±

Mark L. Rober 3/10/14
PROFESSIONAL LAND SURVEYOR DATE
REG. # 339



HOUSE LOCATION DRAWING
FOUNDATION LOCATION: 3/7/14
FINAL LOCATION: _____
BOUNDARY SURVEY: _____
SCALE: 1"=40'
DATE: 3/10/14
DRAWN BY: JRP
CHECKED BY: MLR
PROJECT No.: 12060-6001

LOT 9
CHAPEL RISE
LOTS 1 THRU 9
PLAT NOS. 22020 THRU 22023
FIFTH ELECTION DISTRICT -
HOWARD COUNTY, MARYLAND

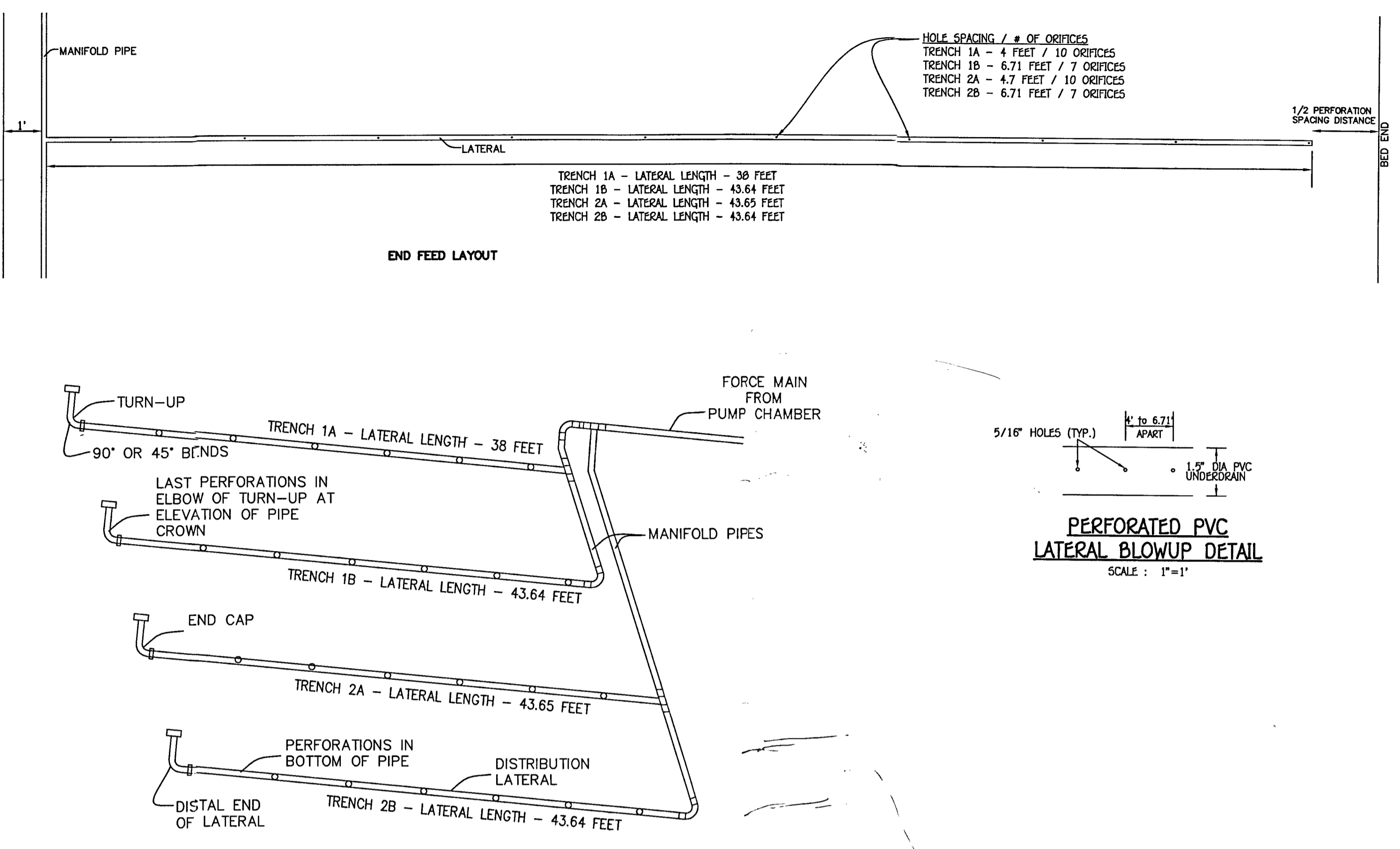
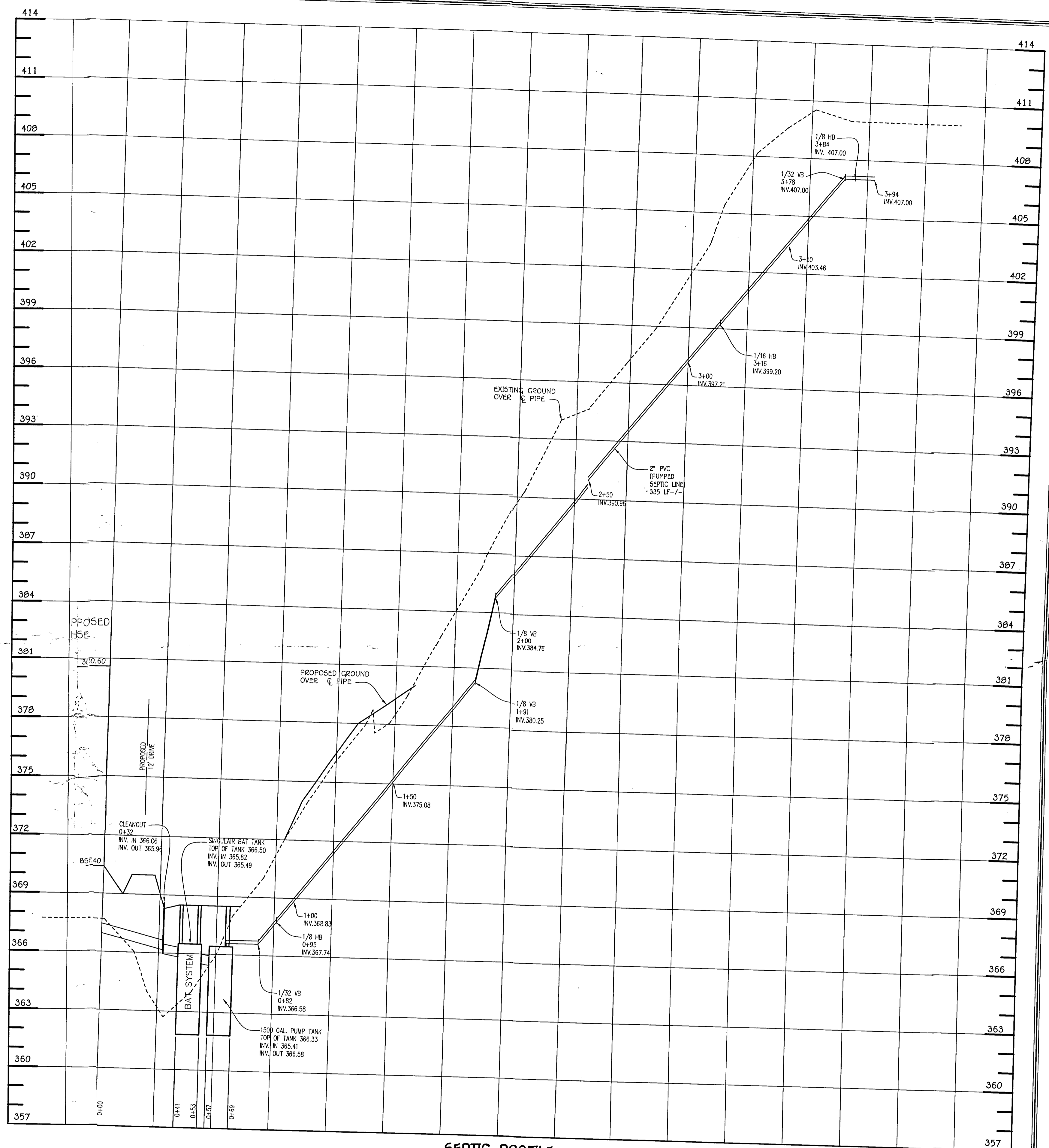
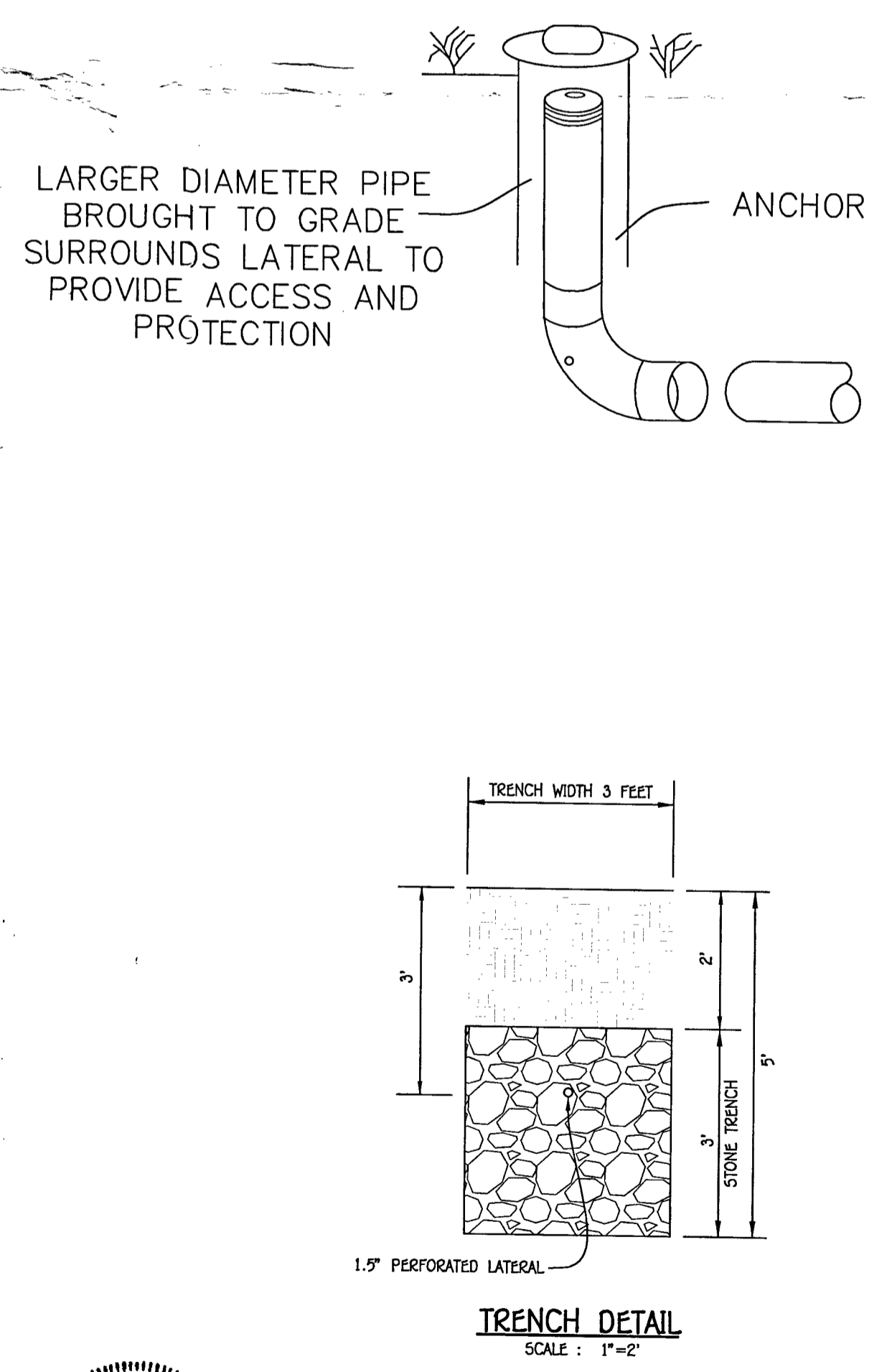
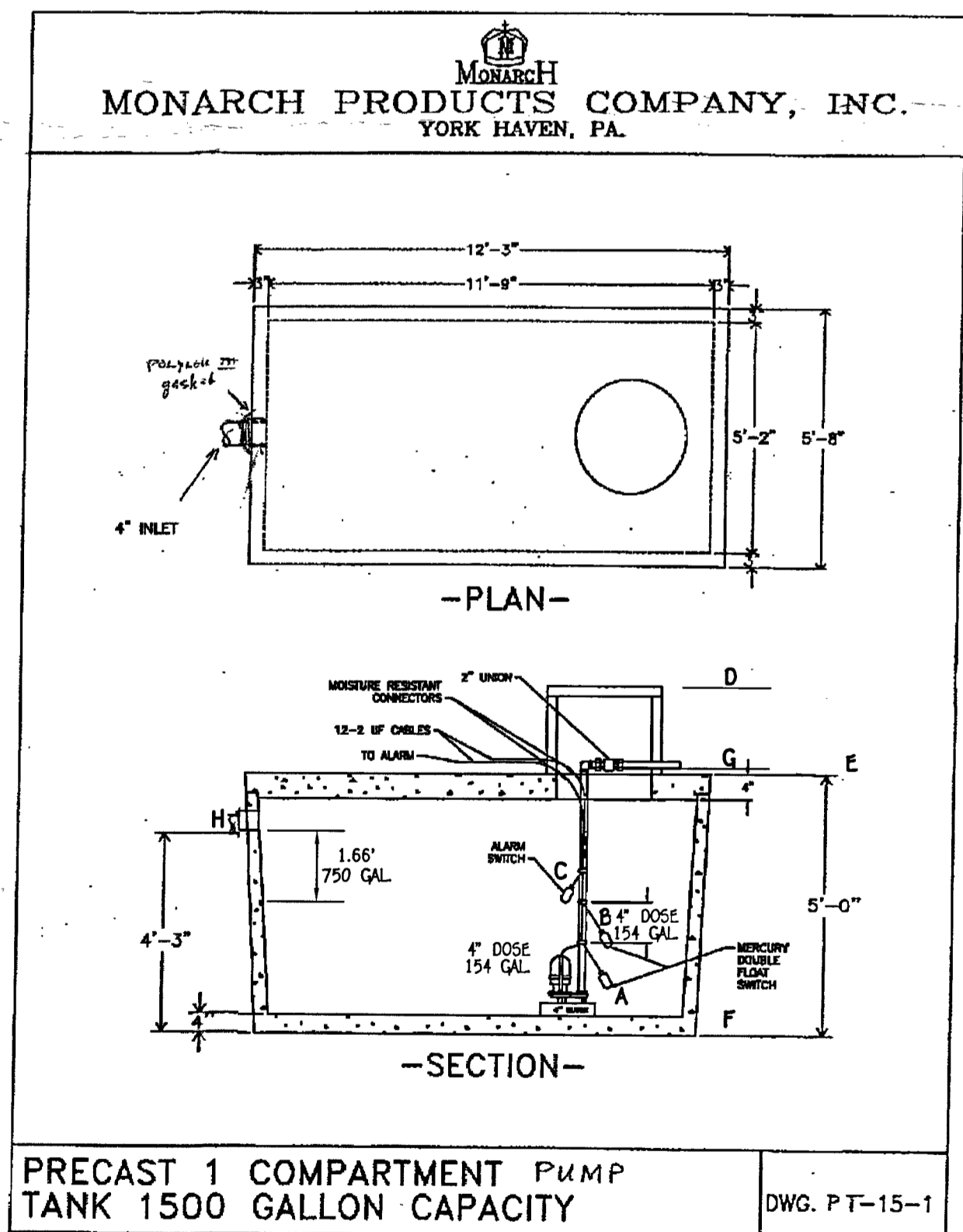
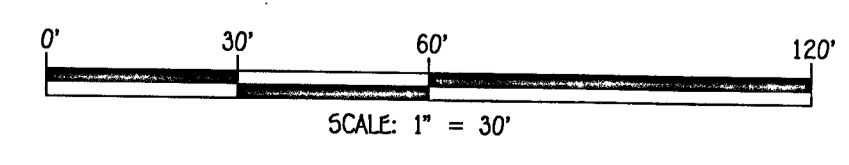


FIGURE 4.1 END MANIFOLD DISTRIBUTION NETWORK



SEPTIC PROFILE
SCALE: HOR. : 1"=30'
VER. : 1"=3'

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. 38386, EXPIRATION DATE: 01/12/16.
Stephanie Tuite 4/3/14
STEPHANIE TUIE
DATE



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLETTTS CITY, MARYLAND 21042
(410) 461-3995

BUILDER/DEVELOPER
COLUMBIA BUILDERS
P.O. BOX 999
COLUMBIA, MARYLAND 21044
410-730-3940

**BAT SEPTIC PROFILE
CHAPEL RISE**
LOT 9
ZONED RC-DEO PLAT NO. 22022
TAX MAP NO.: 29 GRID NOS.: 8 & 14
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2013
SHEET 2 OF 2