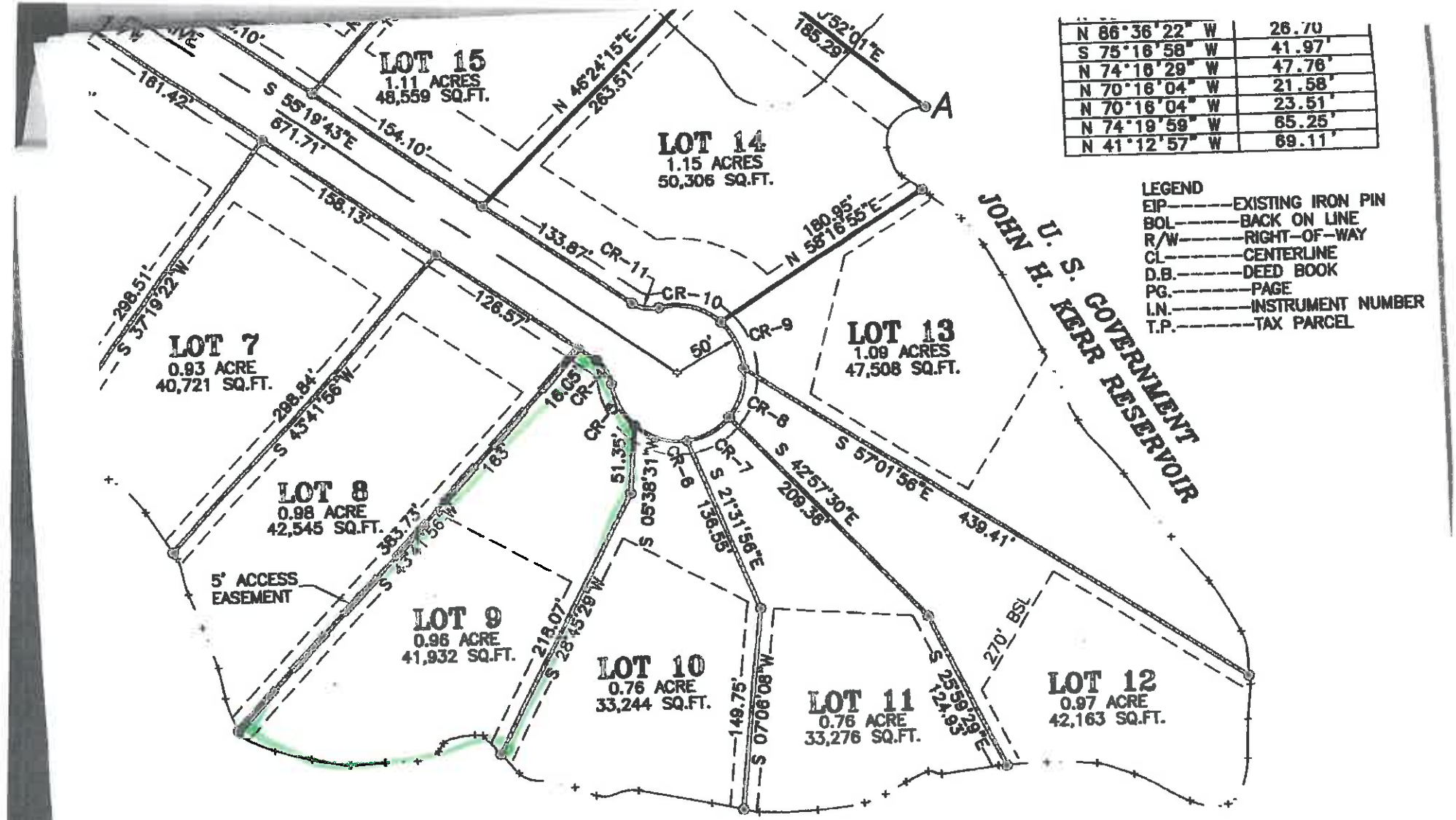
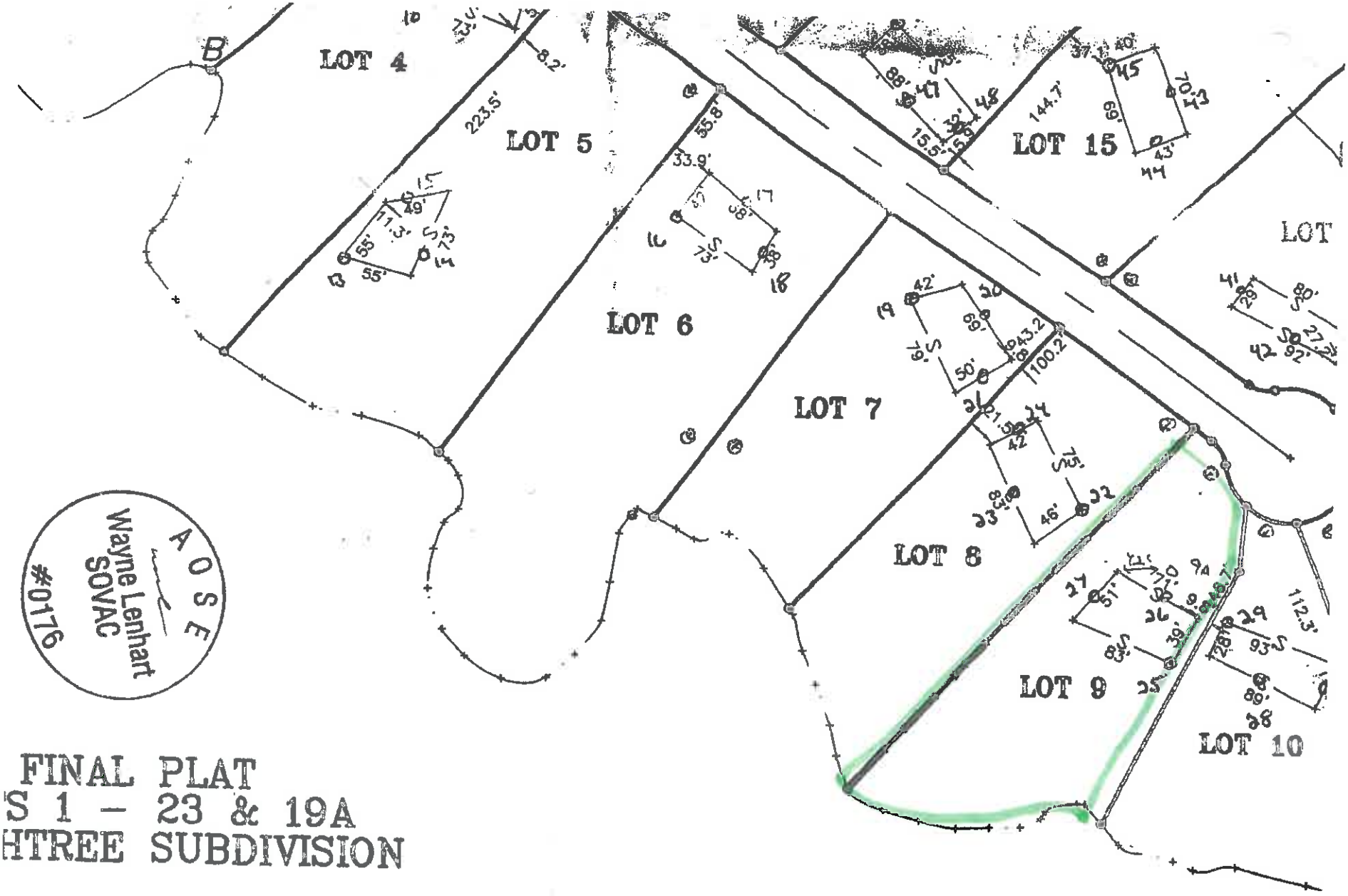


N 86°36'22" W	26.70'
S 75°16'58" W	41.97'
N 74°16'29" W	47.76'
N 70°16'04" W	21.58'
N 70°16'04" W	23.51'
N 74°19'59" W	65.25'
N 41°12'57" W	69.11'

LEGEND
EIP------EXISTING IRON PIN
BOL------BACK ON LINE
R/W------RIGHT-OF-WAY
CL-------CENTERLINE
D.B.------DEED BOOK
PG.-------PAGE
I.N.------INSTRUMENT NUMBER
T.P.------TAX PARCEL

200 300

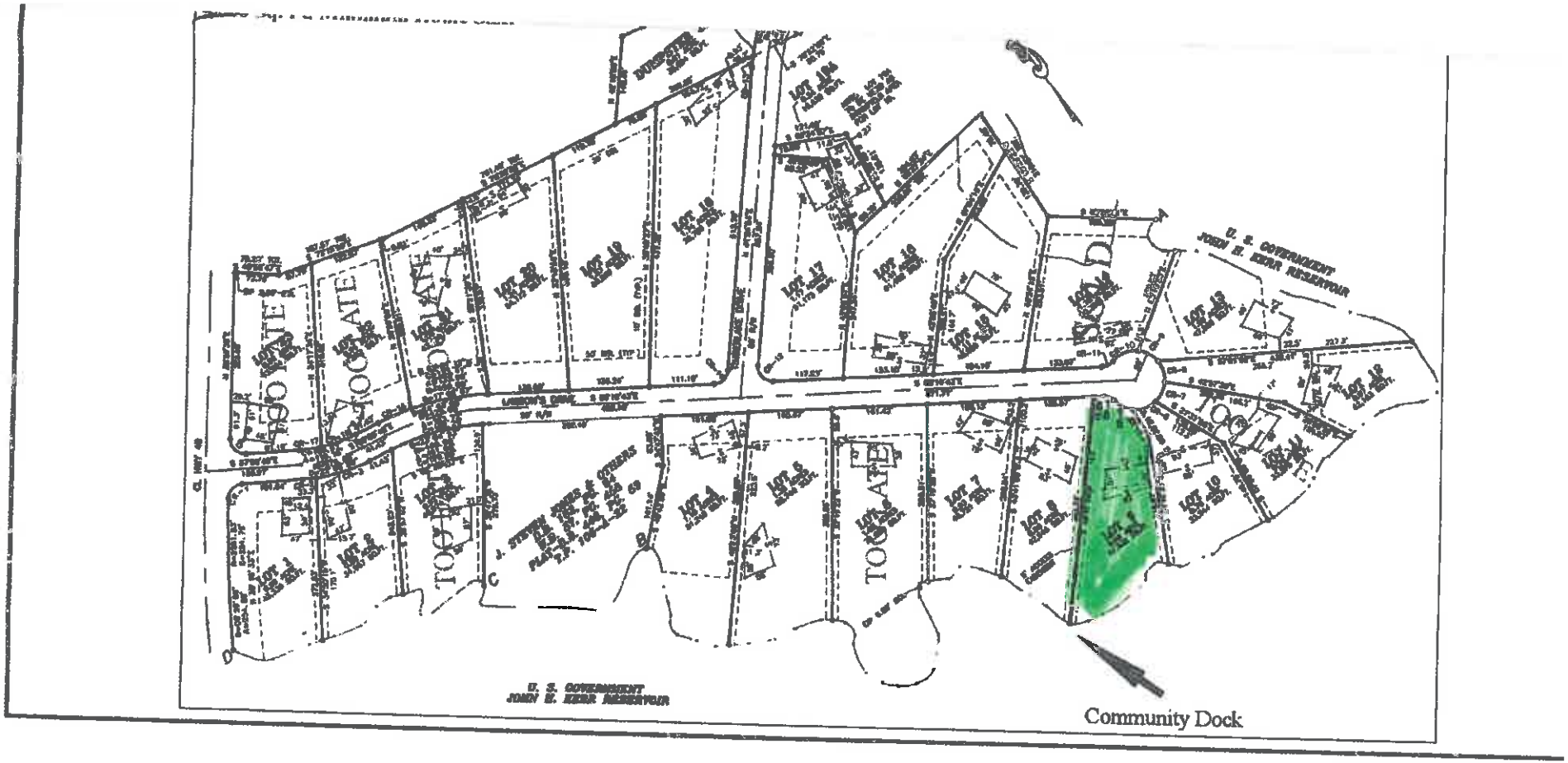
CRUTCHFIELD & ASSOCIATES, INC.
SURVEYORS - ENGINEERS - PLANNERS
7996 HIGHWAY 47 EAST P. O. BOX 268
CHASE CITY, VIRGINIA 23924
434-372-5884 FAX 434-372-0871
FILE NO.: 06020.CRD
06020FP.DWG
DATE: FEB. 9, 2007



A O S E
Wayne Lenhart
SOVAC
#0176

FINAL PLAT
S 1 – 23 & 19A
HTREE SUBDIVISION

VEN JONES & OTHERS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U. S. GOVERNMENT
JOHN H. KERR RESERVOIR
U. S. GOVERNMENT
JOHN H. KERR RESERVOIR
Community Dock

COMMONWEALTH of VIRGINIA

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

SOUTHSIDE HEALTH DISTRICT

http://www.vdh.state.va.us/LHD/south/south.htm

434 Washington Street / P.O. Box 560
Boydton, VA 23917
Telephone: 434-738-8815
FAX: 434-738-6295

DISTRICT HEALTH DIRECTOR
Charles Devine, M.D.
Email: Charles.Devine@vdh.virginia.gov

November 29, 2006

Mr. Robert L. Hendrick
Zoning Administrator
Post Office Box 307
Boydton, Virginia 23917

Dear Mr. Hendrick:

RE: Review of Proposed Subdivision Plat for Individual Onsite Sewage Systems, in the Beechtree Subdivision, lots 1-23 in Mecklenburg County.

On November 27, 2006 the County of Mecklenburg requested the Virginia Department of Health via the Mecklenburg County Health Department review the proposed subdivision plat identified above. This letter is to inform you that the above referenced subdivision plat is approved for individual onsite sewage systems in accordance with the provisions of the *Code of Virginia*, and the *Sewage Handling and Disposal Regulations* (12 VAC 5-610-10 et seq., the *"Regulations"*).

This request for subdivision review was submitted pursuant to the provisions of §32.1-163.5 of the *Code of Virginia* which requires the Health Department to accept private soil evaluations and designs from an Authorized Onsite Soil Evaluator (AOSE) or a Professional Engineer working in consultation with an AOSE for residential development. This subdivision was certified as being in compliance with the Board of Health's regulations by: Wayne Lenhart, #0176, (434) 374-5141. This subdivision approval is issued in reliance upon that certification.

Pursuant to § 360 of the *Regulations* this approval is not an assurance that Sewage Disposal System Construction Permits will be issued for any lot in the subdivision identified above *unless* that lot is specifically identified on the above referenced plat as having an approved site for an onsite sewage disposal system, and unless all conditions and circumstances are present at the time of application for a permit as are present at the time of this approval.

Unless otherwise noted in submitted plans, this subdivision approval is issued in reliance upon the certification that approved lots are suitable for "traditional systems", however, actual system designs may be different at the time construction permits are issued.

This subdivision approval does not pertain to the requirements of local ordinances.

Sincerely,

Catherine Flynn

Catherine Flynn
Environmental Health Specialist

Revised Use this 1 of 4

Soil Summary Report
Date: 8/25/06 7 1/4/07

Submitted by: Wayne Lenhart, AOSE #0176
Submit to: Meck. Co. Health Dept.

RECEIVED
JAN - 8 2007

Name: Steve Jones & Others

Address:

Property Location: C'ville – N on 15, L on 49 approx. 1.7 miles to private road on right

Subdivision: Beechtree Section: Lot: Lot # 9

Position in landscape: ridge Slope: 2-4%
Depth to rock Max. Min. None X
Depth to seasonal water table Max. Min. None X
Estimated perc rate: 55 min/in. per minute Ksat

Soil Borings/Site Sketch Attached

Hole #	Horizon	Depth/inches	Description	Texture Group
25	A	0-16	Brown Loam (at edge of field terrace)	II
	Bt1	16-55	Red Clay (terrace)	IV
	Bt2	55-120	Red w/ brownish yellow & yellow brown mottles Clay w/ heavy feldspar	IV
	C	120-150	Red Loam w/ many fine mica	II
26	A	0-12	Brown Loam	II
	Bt1	12-40	Red Clay (terrace)	IV
	Bt2	40-97	Red w/ brownish yellow & yellow brown mottles Clay w/ some feldspar	IV
	C	97-150	Red to yellow red Sandy clay loam w/ common mica	II
27	A	0-10	Brown Loam	II
	Bt1	10-43	Red Clay (terrace)	IV
	Bt2	43-110	Red w/ brownish yellow & yellow brown mottles Clay	IV
	C	110-150	Red Loam w/ common mica	II

AOSE
Wayne Lenhart
SOVAC

Appendix E

Abbreviated Design Form

This form is to be used by the AOSE/PE when establishing the suitability of a site for the issuance of a certification letter or subdivision approval. The form is intended to convey sufficient information to the reviewer to establish that the area certified (the "footprint") is sufficient in size, configuration, and depth to accommodate a system design that substantially complies with the requirements of the Sewage Handling and Disposal Regulations (12 VAC 5-610-20 et seq.). Do not provide information on this form based on Substituted Systems (GMP #116).

Beech tree Lot 9

Primary Area

A. Permeability/Percolation Rate 55

B. Depth to limiting factor (in.) 150

C. Depth of installation (in.) 132

D. Design Flow (# bedrooms and/or gpd) 450

E. ☑ Septic Effluent ☐ Secondary or better

F. ☐ Gravity ☐ LPD ☐ Other: ______

G. ☐ Trench System ☐ Other: ______

H. Trench bottom area required (sq. ft.) 1260
- Trench length (ft.) 70
- Trench width (ft.) 3
- Number of trenches 6
- Center to center spacing (ft.) 9
- Total area (footprint) required (sq. ft.) 70' x 48'

I. Bed, mound, non-trench area required (sq. ft.) ______
- Dimensions (L x W) ______

Describe: ______

J. Area provided (sq. ft.) ______
- Dimensions (L X W) ______

50% Reserve Area

A. Permeability/Percolation Rate 55

B. Depth to limiting factor (in.) 150'

C. Depth of installation (in.) 132

E. Design Flow (# bedrooms or gpd) 450

E. ☑ Septic Effluent ☐ Secondary or better

F. ☐ Gravity ☐ LPD ☐ Other: ______

G. ☐ Trench System ☐ Other: ______

H. Trench bottom area required (sq. ft.) 630
- Trench length (ft.) 70
- Trench width (ft.) 3
- Number of trenches 3
- Center to center spacing (ft.) 9
- Total area (footprint) required (sq. ft.) 70' x 21'

I. Bed, mound, non-trench area required (sq. ft.) ______
- Dimensions (L x W) ______

Describe: ______

J. Area provided (sq. ft.) ______
- Dimensions (L X W) ______

3BR Dec 1/4/07

AOSE
Wayne Lenhart
SOVAC
…176

9A	A	0-20	Brown Loam	
	Bt1	20-50	Red Clay (terrace)	II IV
	Bt2	50-94	Red w/ brownish yellow & yellow brown mottles Clay w/ feldspars	IV
	C1	94-116	Mixed yellow red/ yellow brown Sandy clay loam w/ few feldspars	II
	C2	116-150	Red w/ brownish yellow/ yellow brown mottles Loam w/ common mica & few feldspars	II

Sufficient area for 9 – 70 ft. lines (6 primary, 3 reserve)
Recommend 132 in. installation depth
Effluent pump system required
Class IIIB well required
Install LGMI 60 in. deep above proposed drainfield

AOSE
Wayne Lenhart
SOVAC

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

Mecklenburg County Health Department
969 Madison Street
Boydton, Virginia 23917
(434) 738-9557 Voice
(434) 738-6295 Fax

OSE Construction Permit

Well and Sewage Contractors: Please notify Health Department and OSE or PE 48 hours prior to installation to arrange for inspection

3-2-2021

John Burns

9642 23rd Bay Street

Norfolk, Virginia 23518

RE: _____ Level 1 Review

Tax Map/GPIN: 105F00-(01)--009

HDID: 21-158-0017 **Reserve:** 50 % reserve area provided

System Capacity: 3 Bedrooms/ 450 Gallons Per Day

Dear Applicant :

This letter and the attached drawings, specifications, and calculations (14 pages) dated 2-8-2021, constitute your permit to install a sewage disposal system and well if applicable on the property referenced above. Your application for a permit was submitted pursuant to §32.1-163.5 of the Code of Virginia, which requires the Health Department to accept private soil evaluations and designs from an Onsite Soil Evaluator (OSE) or a Professional Engineer working in consultation with an OSE for residential development. VDH is not required to perform a field check to verify the private evaluations of OSEs or PEs and such a field check may not have been conducted for the issuance of this permit.

The soil absorption area ("site"), sewage system design, and the well location and construction if applicable were certified by Robert Johansen Private OSE as substantially complying with the Board of Health's regulations (and local ordinances if the locality has authorized the local health department to accept private evaluations for compliance with local ordinances). This permit is issued in reliance upon that certification. VDH hereby recognizes that the soil and site conditions acknowledged by this permit are suitable for the installation of an onsite sewage system. The attached plat shows the approved area for the sewage disposal system; there are additional records on file with the Mecklenburg County Health Department pertaining to this permit, including the Site and Soil Evaluation Report. This construction permit is null and void if any substantial physical change in the soil or site conditions occurs where a sewage disposal system is to be located.

If modifications or revisions are necessary between now and when you construct your dwelling, please contact the OSE/PE who performed the evaluation and design on which this permit is based. Should revisions be necessary during construction, your contractor should consult with the OSE/PE that submitted the site evaluation or site evaluation and design. The OSE/PE is authorized to make minor adjustments in the location or design of the system at the time of construction provided adequate documentation is provided to the Mecklenburg County Health Department.

The OSE/PE that submitted the certified design for this permit is required to conduct a final inspection of this sewage system when it is installed and to submit an inspection report and completion statement. As the owner, you are responsible for giving reasonable notice to the OSE/PE of the need for a final inspection. If the designer is unable to perform the required inspection, you may provide an inspection report and

completion statement executed by another OSE/PE. The Mecklenburg County Health Department is not required to inspect the installation but may perform an inspection at its sole discretion. No part of this installation shall be covered until it has been inspected by the OSE/PE as noted herein. The sewage system may not be placed into operation until you have obtained an Operation Permit from the Mecklenburg County Health Department.

This Construction Permit is null and void if conditions are changed from those shown on your application or if conditions are changed from those shown on the Site and Soil Evaluation Report and the attached construction drawings, specifications, and calculations. VDH may revoke or modify any permit if, at a later date, it finds that the site and soil conditions and/or design do not substantially comply with the Sewage Handling and Disposal Regulations, 12 VAC 5-610-20 et seq., or if the system would threaten public health or the environment.

This permit approval has been issued in accordance with applicable regulations based on the information and materials provided at the time of application. There may be other local, state, or federal laws or regulations that apply to the proposed construction of this onsite sewage system. The owner is responsible at all times for complying with all applicable local, state, and federal laws and regulations. This construction permit is transferrable until expired or deemed null and void. A permit transfer form may be found on the VDH website at http://www.vdh.virginia.gov/environmental-health/gmp-2015-01-forms/ .
If you have any questions, please contact me.

This permit expires: 9-2-2022

Sincerely,

Craig Allen EHSS

Craig Allen
Environmental Health Specialist, Sr.
Mecklenburg County Health Department

CC: Robert Johansen OSE

Tax Map/GPIN #: 105F00-(01)--009

HDID#: 21-158-0017

WHAT YOU WILL NEED TO GET YOUR SEPTIC SYSTEM OPERATION PERMIT

- Your system must have a **satisfactory inspection** at the time of installation. This will be done by either a representative of the local Health Department, a private OSE, or a PE, depending on the designer of your permitted system. If your system is designed/inspected by an OSE or PE, they must submit a copy of the inspection results, complete with an as-built diagram, to the Health Department.
- Please ensure that your contractor turns in a **Completion Statement** to the local Health Department after installation.

IF YOUR PERMIT IS FOR BOTH A SEPTIC SYSTEM AND WELL YOU WILL ALSO NEED

- Your well must have **satisfactory inspection** results after installation. Please give the Health Department several days notice to schedule this inspection before your Operation Permit will be requested.
- The Health Department must receive a copy of your **water sample test result** being negative/satisfactory for coliform bacteria. You are responsible for performing this test and ensuring the results are received at the Health Department
- Please ensure that your Well Driller submits a Uniform **Water Well Completion Statement or GW-2** to the Health Department, including documentation of a proper well abandonment if required by permit Allow 5 business days after the last piece of documentation is received for the Operation Permit to be issued. To avoid delays, clearly label each piece of documentation with the property Tax Map/GPIN number and HDID number shown above and on your construction permit.
- *Please note that due to individual circumstances of your permit there may be additional required items not covered by this checklist.*

  If you have any questions about any of the items on this list, please do not hesitate to contact the Mecklenburg County Health Department at (434) 738-9557.

OSE/PE Report For:

☒ Construction Permit ☐ Repair Permit ☐ Voluntary Upgrade Permit ☐ Certification Letter ☐ Subdivision Approval

Property Location:

911 Address: TBD; Lawson's Drive, Clarksville, VA 23927 City: _____

Lot 9 Section _____ Subdivision Beechtree

GPIN or Tax Map # 36512 Health Dept ID # _____

Latitude _____ Longitude _____

Applicant or Client Mailing Address:

Name: John Burns

Street: 9642 23rd Bay Street

City: Norfolk State VA Zip Code 23518

Prepared by:

OSE Name Robert Johansen License # 1940001333

Address 810 High Rock Road

City Cumberland State VA Zip Code 23040

PE Name _____ License # _____

Address _____

City _____ State _____ Zip Code _____

Date of Report 2/8/2021 Date of Revision #1 _____

OSE/PE Job # _____ Date of Revision #2 _____

Contents/Index of this report (e.g., Site Evaluation Summary, Soil Profile Descriptions, Site Sketch, Abbreviated Design, etc.)

Permit Package

2. System Specs
3. Site Sketch
4. French Drain Sketch
5. Pump Plans
6. Pump Data
7. Pump Specs
8. SS 1
4. SS 2
10. ADF for Primary
11. ADF for Reserve
12. Well Add
13. Plat
14. Plat

Certification Statement

I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the *applicable provisions of the* Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-630), *the* Regulations for Alternative Onsite Sewage Systems (12VAC5-613) and all other applicable laws, regulations and policies implemented by the Virginia Department of Health. I further certify that I currently possess any professional license required by the laws and regulations of the Commonwealth that have been duly issued by the applicable agency charged with licensure to perform the work contained herein.

☑ The work attached to this cover page has been conducted under an exemption to the practice of engineering, specifically the exemption in Code of Virginia Section 54.1-402.A.11

I recommend that a (select one): construction permit ☒ certification letter ☐ subdivision approval ☐ be (select one) Issued ☒ repair permit ☐ voluntary upgrade ☐ Denied ☐

OSE/PE Signature _____ Date 2-8-21

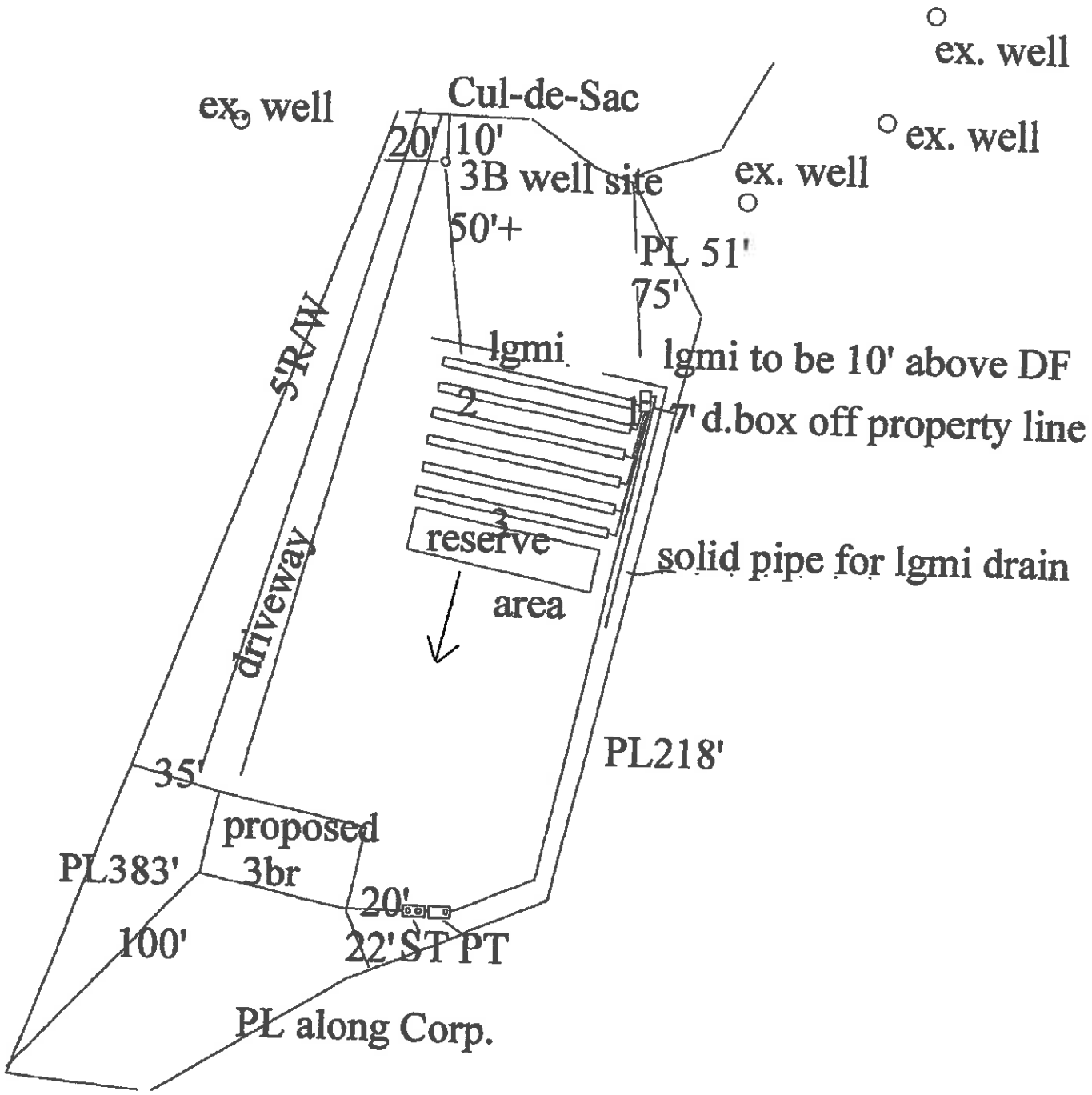
This form contains personal information subject to disclosure under the Freedom of Information Act. Revised 12/1/2014

System Specifications

Property ID: lot 9

Applicant Information	
Name John Burns Address 9642 23rd Bay Street, Norfolk, VA 23518	Phone _____
Location Information	
Tax Map No. 36512 GPIN No. _____ Directions _____	Property Address TBD; Lawson's Drive, Clarksville, VA 23927 Subdivision Beechtree Section _____ Block _____ Lot 9; 0.96 acres
General Information	
System Type st, df (e.g. septic tank, drainfield) Type of Property res (e.g. commercial, residential, etc.) Conditions none	Number of bedrooms 3 Daily flow 450 (gpd) **Well Specifications: 3b** **Grouted 50' min., Cased 50' min.**
Sewer Line	**Septic Tank – Inlet/Outlet Structure**
Schedule 40 PVC, 4" x or equivalent (add check or describe equivalent below) _____	Capacity: 1000gallons ST 2nd septic tank 1000 gallons PT Per the *2000 Sewage Handling & Disposal Regulations*, Check which option chosen: Septic tank with inspection port ☒ Septic tank with effluent filter ☐ Reduced maintenance septic tank ☐
Conveyance line/force main Information	**Distribution box Information**
Method pumping (e.g. gravity, pumping, dosing siphon) If pumping, attach Pump Spec Sheet Material sch. 40 Pipe diameter 2" Slope of pipe _____ (in inches)	No. of boxes 2 No. of outlets 10 splitter box required: Yes☒ No☐
Header line Information	**Percolation line Information/Absorption Area**
1500 pound crush strength Yes☒ Minimum slope is 2"/100 ft. Yes ☒	Center to center spacing 9 ft. Required spacing 9 ft. Installation depth 132 inches Aggregate depth 13'' Laterals 6 length 70' Graveless no laterals 5 length70' Lateral bottom slope 2 per 50' inches Lateral width 36 inches

AOSE 1940001333 Date2-8-2021


ex. well
ex. well
Cul-de-Sac
ex. well
20'
10'
3B well site
ex. well
50'+
PL 51'
75'
5'RAW
lgmi
lgmi to be 10' above DF
2
1
7' d.box off property line
3
reserve
area
solid pipe for lgmi drain
driveway
PL218'
35'
proposed
3br
PL383'
20'
100'
22' ST PT
PL along Corp.

Scale 1" = 50'

Health Department
Identification Number

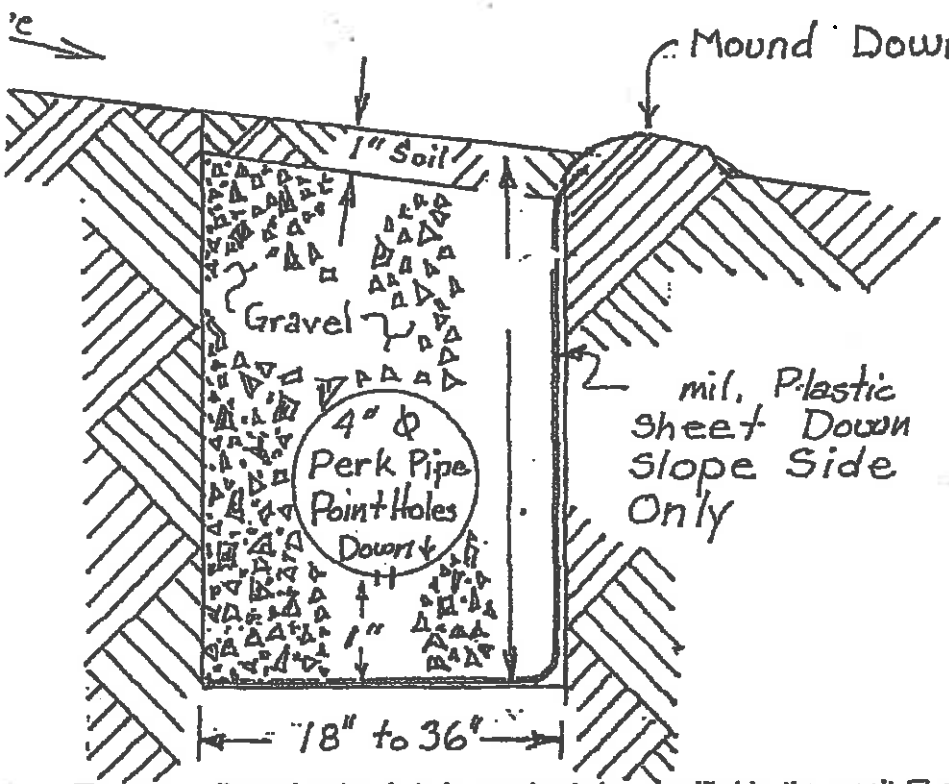
Schematic drawing of sewage disposal system and topographic features.

Show the lot lines of the building lot and building site, sketch of property showing any topographic features which may impact on the design of the system, all existing and/or proposed structures including sewage disposal systems and wells within 100 feet of sewage disposal system and reserve area. The schematic drawing of the sewage disposal system shall show sewer lines, pretreatment unit, pump station, conveyance system, and subsurface soil absorption system, reserve area, etc. When a nonpublic drinking water supply is to be located on the same lot show all sources of pollution within 100 feet. Not To Scale

☐ The information required above has been drawn on the attached copy of the sketch submitted with the application. Attach additional sheets as necessary to illustrate the design.

Section View

Install to 60" deep



NOTE

1. Lateral Groundwater Movement Interceptor (LGMI) diverts ground water from absorption area
2. Ditch width may vary from 18" to 36"
3. Line down slope side only with Plastic
4. Use 4" Dia. Perk Pipe 1" from b-tm.
5. Fill ditch w/ ½-1½" Gravel

The sewage disposal system is to be constructed as specified by the permit ☐ or attached plans and specifications ☐.

This sewage disposal system construction permit is null and void if (a) conditions are changed from those shown on the application (b) conditions are changed from those shown on the construction permit.

No part of any installation shall be covered or used until inspected, corrections made if necessary, and approved, by the local health department or unless expressly authorized by the local health dept. Any part of any installation which has been covered prior to approval shall be uncovered, if necessary, upon the direction of the Department.

Date: _____ Issued by: _____ Sanitarian

This Construction Permit Valid until

Date: _____ Reviewed by: _____ Supervisory Sanitarian

If FHA or VA financing

Reviewed by Date _____ _____ Supervisory Sanitarian Date _____ _____ Regional Sanitarian

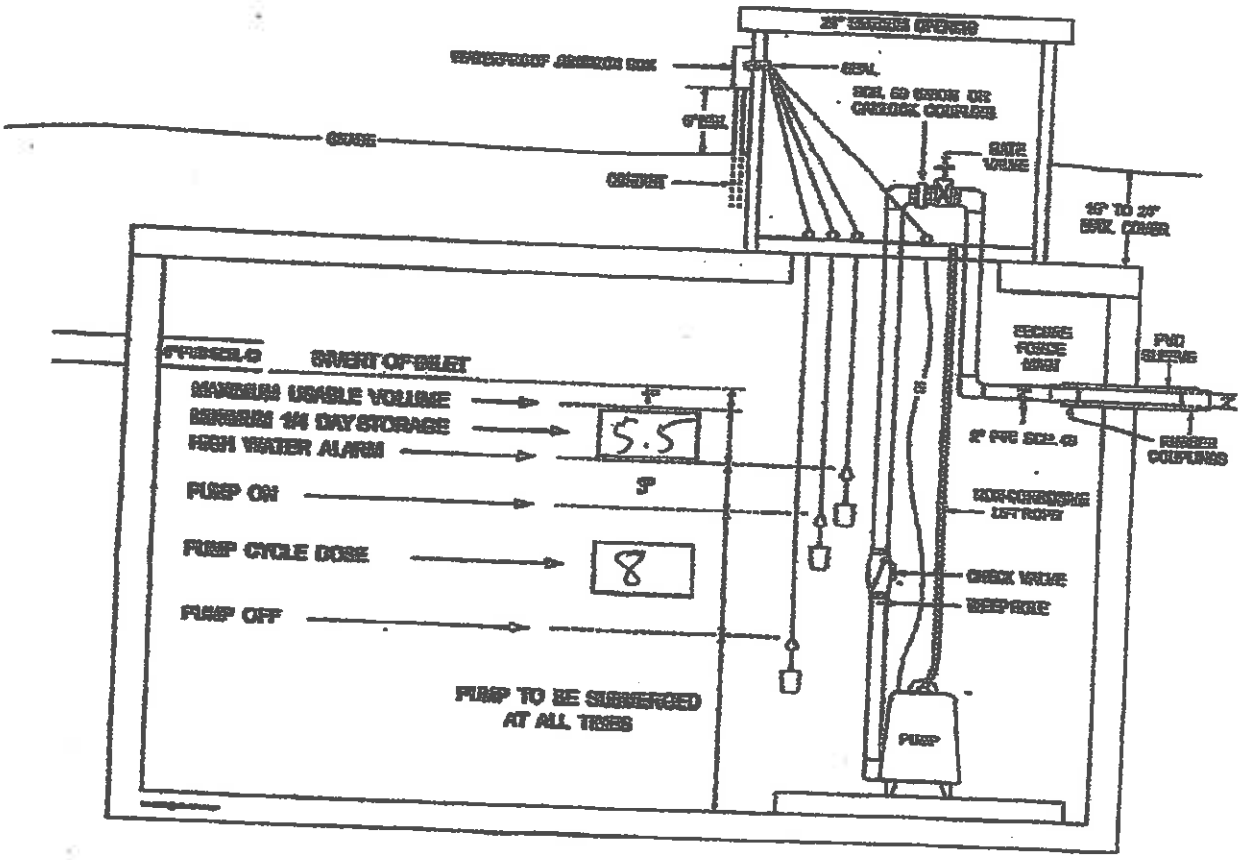
PUMP SYSTEM PLANS AND SPECIFICATIONS

Pump Chamber Size in Gallons 1000
Drawdown in Gallons (Each Pump Cycle) 16
Drawdown in Inches (Each Pump Cycle) 8"

Force Main Shall be 2" Diameter SCH. 40 PVC Pressure Pipe with Pressure Fittings.
Pump Must Provide 36 Gallons per Minute Minimum and 84 Gallons per Minute Minimum at System Head.

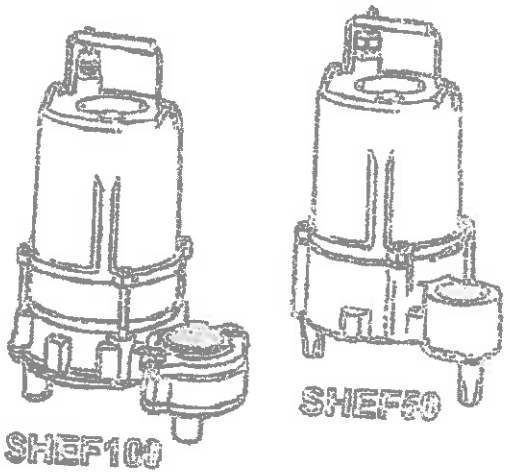
Maximum Pump Cycle Time (Drawdown in Gallons / 36 (GPM) = 4 mins., 26 secs.
Minimum Pump Cycle Time (Drawdown in Gallons / 84 GPM) = 1 mins., 54 secs.

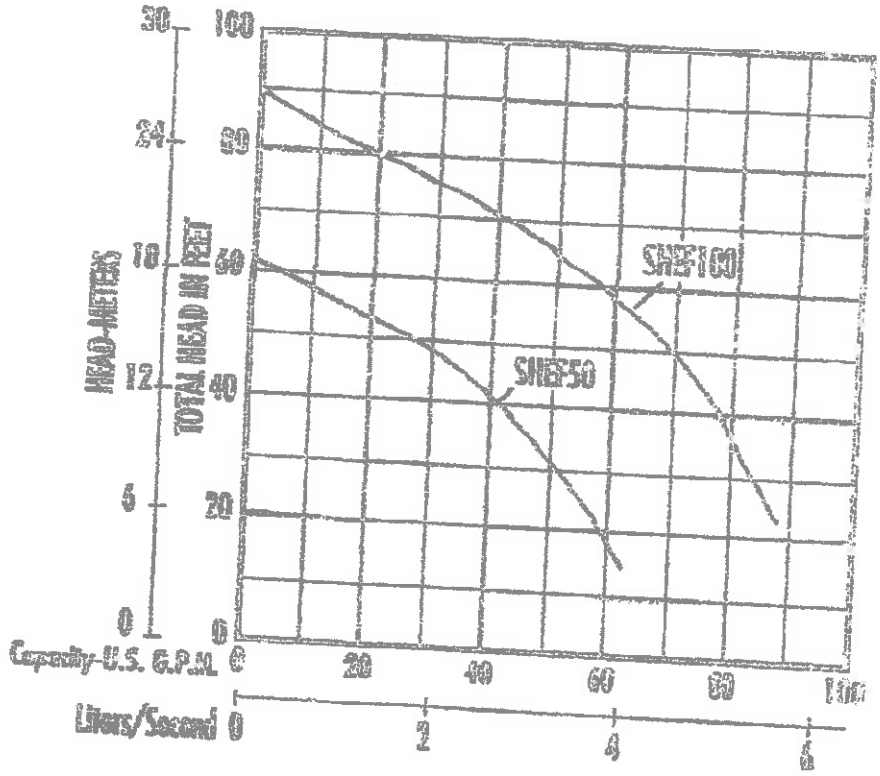
Pump shall be of the open face centrifugal type designed to pump sewage.
The pump station must be provided with controls for automatically starting and stopping the pump based on water level.
The electrical motor control center and master disconnect switch shall be placed in a secure location above grade and remote from the pump station.
Each motor control center shall be provided with a manual override switch.
A high water alarm with remote sensing and electrical circuitry separate from the motor control center circuitry shall be provided.
The alarm shall be audio/visual and shall alarm in an area where it may be easily monitored.
All electrical connections shall be laminated.
Do not use compression fittings.
Force main shall be deep enough to prevent freezing.
Pump chamber shall be level and watertight.



Performance Data — SHEF50/100

RPM: 3450 Discharge: 2" Solids: 3/4"





The curves reflect maximum performance characteristics without exceeding full load (Nameplate) horsepower. All pumps have a service factor of 1.2. Operation is recommended in the bounded area with operational point within the curve limit. Performance curves are based on actual tests with clear water at 70° F. and 1200 feet site elevation.

Conditions of Service:

GPM:_____ TDH:_____

HYDROMATIC®

PUMP SYSTEM DESIGN CRITERIA, SPECIFICATIONS, AND CALCULATIONS

A.	Number bedrooms	3
B.	Gallons per bedroom	150
C.	Design flow in gallons per day (A x B)	450
D.	Minimum pump capacity in gallons per minute (enhanced flow distribution)	36
E.	Maximum pump capacity in gallons per minute using 2" force main	84
F.	Relative elevation of force main at surge basin / distribution box	
G.	Relative elevation of pump off float switch	
H.	Static head in feet (F – G)	
I.	Equivalent length of 2" pipe in feet for this system (all materials are 2"):	25
	1. Length of 2" force main =	210
	2. 5 90 degree bends at 7' feet per bend =	35
	3. 45 degree bends at ___ feet per bend =	
	4. 1 check valve =	13
	5. 1 gate valve =	1
	Total (1+2+3+4+5) =	
J.	Friction loss in feet per 100' of pipe (2" pipe, C=150, 21 GPM)	2.59
K.	Number of 100' pipe increments (I/100)	1.28
L.	Friction head for this system (J x K)	2.59
M.	Total Dynamic Head (H + L)	3
N.	Pump chamber volume in gallons	28
O.	Gallons per inch in pump chamber	1000
	(inside length = _____", inside width = _____")	20
P.	Number of soil absorption trenches	6
Q.	Length of soil absorption trenches	70
R.	Total linear feet of percolation piping (P x Q)	420
S.	Volume pumped per pump cycle in gallons (R x 0.653 x 60%)	160
T.	Volume pumped per pump cycle in inches (S/O)	8
U.	Minimum emergency storage in gallons (C/4)	112.5
V.	Minimum emergency storage in inches (U/O)	5.5
W.	Maximum pump run time in minutes (S/D) 4.44	4 min 26 sec.
X.	Minimum pump run time in minutes (S/E) 1.9	1 min 54 sec.

Pump Selection:

Pump must provide a minimum of 36 GPM at a Total Dynamic Head of 28 feet.

Pump Hydromatic Model # SKF50

VDH Use Only
Health Department ID# _____
Due Date _____

Site and Soil Evaluation Report

(For certification letters and subdivisions)

General Information

Date: 2/8/2021 — **Mecklenburg County Health Department**

Applicant: John Burns

Telephone Number: _____

Address: 9642 23rd Bay Street, Norfolk, VA 23518

Owner: _____ **Address:** TBD; Lawson's Drive, Clarksville, VA 23927

Location: _____

Subdivision Beechtree **Block/Section** _____ **Lot** 9; 0.96 acres

Soil Information Summary

1. **Position in landscape satisfactory** Yes X No ____ **Describe:** sideslope
2. **Slope** 4%
3. **Depth to rock/impervious strata** Max. ____ Min. ____ None X
4. **Free Water Present** No X Yes ____ **Range in inches** ____
5. **Depth to seasonal water table (gray mottling or gray color)** NA inches
6. **Soil percolation rate estimated** Yes X Texture group ☐ I ☐ II ☒ III ☐ IV
   No ____ **Estimated rate** 55 min/in at 132 inches
7. **Percolation test performed** Yes ____ **Number of percolation test holes** ____
   No X **Depth of percolation test holes** ____
   Average percolation rate ____ mpi

Name and title of evaluator: Robert Johansen , Ose 1940001333

Signature: 

Department Use

_____ **Site approved: Drainfield trench bottoms to be placed at** _____ **(inches) depth at site designated on permit.**

_____ **Site disapproved:**

Reasons for rejection: (check all that apply)

1. _____ Position in landscape subject to flooding or periodic saturation.
2. _____ Insufficient depth of suitable soil over hard rock.
3. _____ Insufficient depth of suitable soil to seasonal water table.
4. _____ Rates of absorption too slow.
5. _____ Insufficient area of acceptable soil for required drainfield, and/or Reserve Area.
6. _____ Proposed system too close to well.
7. _____ Other (Specify) _____

Date of Evaluation2-2021 Profile Description

Property ID:lot 9 Soil Evaluation Report

Where the local health department conducts the soil evaluation, the location of profile holes may be shown on the schematic drawing on the constructions permit or the sketch submitted with the application. If soil evaluations are conducted by a private soil scientist, location of profile holes and sketch of the area investigated including all structural features, i.e., sewage disposal system, wells, etc., within 200 feet of site (see section 4) and reserve site shall be shown on the reverse side of this page or prepared on a separate page and attached on this form.

☐ See application sketch page xx See construction permit see sketch on reverse side or attached to this form

Hole #	Horizon	Depth (inches)	Descriptions of color, textures, etc.	Texture Group
1	A	0-12	7.5YR 4/4 loam	2
	BT1	12-55	2.5YR 4/8 clay	4
	BT2	55-120	var. 2.5YR 4/8, 7.5YR 4/6, 10YR 8/3 clay with feldspar	4
	C	120-150	2.5YR 5/8 micaceous loam & silt loam	2, 3
2	A	0-8	7.5YR 4/4 loam	2
	BT1	8-66	2.5YR 4/8 clay	4
	BT2	66-110	var. 2.5YR 4/8, 7.5YR 5/8, 10YR 6/6, 8/3 clay	4
	C	110-150	2.5YR 4/8 loam with white quartz	2
3	A	0-6	7.5YR 4/4 loam	2
	BT1	6-60	2.5YR 4/8 clay	4
	BT2	60-120	var. 2.5YR 4/8, 7.5YR 4/6, 10YR 8/3, 10R 3/6 clay with feldspar	4
	C	120-150	2.5YR 4/8 micaceous loam & silt loam	2, 3

Remarks:

Abbreviated Design Form

This form is for use with gravity, pump to gravity, enhanced flow, and low pressure distribution (LPD) sewage system designs and when applying for a certification letter or subdivision approval.

This abbreviated design covers the ☐ primary and reserve area, ☒ only the primary area, ☐ only the reserve area (check one) for lot 9 _____ property ID).

Design Basis

Total length of available area: 70' Total width of available area: 48'

Estimated Perc. Rate: 55 at 132 in. (depth) Number of bedrooms (or GPD): 3

Conveyance Method[1]: Pump Distribution method[2] (specify): Enhanced Flow

Dispersal system basis[3] Table 5.4 of SHDR LGMI required? No (Yes/No)

Effluent quality required: Primary (Primary, Secondary, Advanced Secondary)

Square feet per bedroom: 412 Total trench bottom area required: 1236

[1] Gravity, pump, siphon
[2] Enhanced flow, LPD, or Drip Dispersal
[3] Table 5.4 of SHDR, identify the GMP used, or Table 1 of Alt. Sewage Regs

Area Calculations

Number of trenches 6 (Note if a pad is used) Length of pad or trenches: 70'

Width of pad or trenches: 3' Center to center spacing: 9'

Reserve required? yes; see next page Percent reserve area required: 50%

Total width of absorption area required 48' Total trench bottom area provided: 1260

The required width is calculated by multiplying the center-to-center spacing by one less than the number of trenches and adding 1 trench width plus any required reserve area. If the topography is not uniform across the length of the site the trenches will need to flare apart on one end to maintain contour. When this occurs it is necessary to use a center-to-center spacing that accounts for the flair or the installer will not be able to fit the system within the approved area. It is perfectly acceptable to have more area available, especially up and down the slope, than is required.

Note: Actual drainfield design contingent upon Health Department review and approval.

Abbreviated Design Form

This form is for use with gravity, pump to gravity, enhanced flow, and low pressure distribution (LPD) sewage system designs and when applying for a certification letter or subdivision approval.

This abbreviated design covers the ☐ primary and reserve area, ☐ only the primary area, ☒ only the reserve area (check one) for lot 9 property ID).

Design Basis

Total length of available area: 70' Total width of available area: 12'

Estimated Perc. Rate: 55 at 132 in. (depth) Number of bedrooms (or GPD): 3

Conveyance Method[1]: Pump Distribution method[2] (specify): Enhanced Flow

Dispersal system basis[3] Table 1 of Alt. Sewage Regs LGMI required? No (Yes/No)

Effluent quality required: Secondary (Primary, Secondary, Advanced Secondary)

Square feet per bedroom: 187.5 Total trench bottom area required: 281.25

[1] Gravity, pump, siphon
[2] Enhanced flow, LPD, or Drip Dispersal
[3] Table 5.4 of SHDR, identify the GMP used, or Table 1 of Alt. Sewage Regs

Area Calculations

Number of trenches 2 (Note if a pad is used) Length of pad or trenches: 50'

Width of pad or trenches: 3' Center to center spacing: 9'

Reserve required? yes Percent reserve area required: 50%

Total width of absorption area required 12' Total trench bottom area provided: 300

The required width is calculated by multiplying the center-to-center spacing by one less than the number of trenches and adding 1 trench width plus any required reserve area. If the topography is not uniform across the length of the site the trenches will need to flare apart on one end to maintain contour. When this occurs it is necessary to use a center-to-center spacing that accounts for the flair or the installer will not be able to fit the system within the approved area. It is perfectly acceptable to have more area available, especially up and down the slope, than is required.

Note: Actual drainfield design contingent upon Heatlh Department review and approval.

Addendum to AOSE/PE Certification Statement
For Private Well Construction Permit

Instructions: Please check one box in 1-3 below. Statement templates for item #2 and #3 are on the following pages.

The proposed well site shown herein,

☐ 1. Is located a minimum of 50 feet from all property lines.

☒ 2. Is located within 50 feet of the adjacent property line(s) but I have determined that the adjacent property is not used for an agricultural operation.

- ☐ i. Written affirmation from the adjacent property owner(s) that their property is not used for an agricultural operation.
- ☒ ii. Other confirmation that land use is not an agricultural operation, please describe: Subdivision

☐ 3. Is located within 50 feet of an adjacent property line where the property is used for an agricultural operation. For confirmation, I have attached the appropriate documentation pursuant to § 32.1-176.5:2 of the *Code of Virginia*. (check one below)

- ☐ i. Written permission from the adjacent property owner(s) for the well construction.
- ☐ ii. I certify that no other site on the property complies with the Board's Regulations for the construction of a private well.

Tax Map/GPIN #: 105E-00-(01)--009
HDID: 21-158-0017

Reviewer: Craig Allen Ehler **Date:** 3-2-2021

Level I Review

Date of Level I Review:	IN[1]	OUT[2]	N. O.[3]	N. A.[4]	Comments
Location					
Site features affecting well & septic system location identified	✓				
Landscape position indicated	✓				
Absorption Area	✓				
House site located	✓				
Other:					
Separation distance adequate	✓				
Adequate triangulation / scale	✓				
Depth					
Limiting factors (or lack of) noted	✓				
Depth adequate for slope	✓				
Depth adequate for limiting factors	✓				
Timed-Dosing specified (if required)				✓	
Capacity					
Absorption area adequately evaluated (number and location of borings / pits)	✓				
Design flow adequate for intended use	✓				
Adequate trench area, based on flow & estimate / measured perc rate	✓				
Adequate footprint area (including reserve area, if required)	✓				
Treatment					
Treatment level specified	✓				
Treatment level adequate for specified absorption area depth	✓				
Treatment capacity adequate for design flow	✓				

Level II Review

Date of Level II Review:	IN	OUT	N. O.	N. A.	Comments
Location					
Site features affecting location adequately identified					
Separation distances adequate					
Landscape position identified & adequate					
Slope adequately identified					
Depth					
Depth to limiting factors adequate (A)					
Capacity					
Estimated per rate adequate (A)					
Treatment					
Correct level of treatment indicated					

1 In substantial agreement; 2 Not in substantial agreement; 3 Not observed; 4 Not applicable
(A) If one boring indicates disagreement, reviewer should complete a second boring before concluding that there is overall disagreement.

Additional comments, if any: