EDWARD B. WALSH & ASSOCIATES, INC.
Complete Civil Engineering Design / Consultation Services
Whiteland Business Park
855 Springdale Drive, Suite 202
Exton, PA 19341

May 3, 2023

John Granger, Township Manager
West Vincent Township
729 Saint Matthews Road
Chester Springs, PA 19425

RE: UPI 25-5-35 Minor Subdivision Planning Module
PA DEP Code# 1-15970-382-2
West Vincent Township, Chester County

Mr. Granger:

Attached please find one (1) copy of the Planning Module for UPI 25-5-35 Minor Subdivision located at 1830 Saint Mathews Road.

Please review and complete the following:

- Complete Section Q (Municipal Action) of the Component 2 Form and provide all the additional information that is required for this section.
- Provide verification that the module resubmission dated April 14, 2022, was reviewed, and EBWA was given permission to submit.
- Provide verification that the current module resubmission was reviewed and EBWA was given permission to submit.
- Respond to the comments CCPC provided in Component 4B from the resubmission dated April 14, 2022.
- Review and sign the O&M Agreement.

Thank you, in advance, for your assistance with this matter and if you need any additional information, please do not hesitate to contact me.

Very truly yours,
EDWARD B. WALSH & ASSOCIATES, INC.

Haley Wallace

Haley Wallace

SEWAGE FACILITIES PLANNING MODULE

1830 Saint Matthews Road

Code# 1-15970-382-2

WEST VINCENT TOWNSHIP
CHESTER COUNTY

June 28, 2018

Revised: July 29, 2021

REVISED: AUGUST 8TH, 2022

REVISED: MAY 3, 2023

Prepared By:

Edward B. Walsh and Associates, Inc.
855 Sprindale Drive, Suite 202
Exton, PA 19341
610-903-0060

TRANSMITTAL LETTER

3850-FM-BCW0355 Rev. 5/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

TRANSMITTAL LETTER FOR SEWAGE FACILITIES PLANNING MODULE

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) USE ONLY				
DEP CODE #	CLIENT ID #	SITE ID #	APS ID #	AUTH. ID #

TO: Approving Agency (DEP or delegated local agency)
PA DEP Southeast Regional Office
2 East Main Street
Norristown, PA 19401

Date _____

Dear Sir/Madam:

Attached please find a completed sewage facilities planning module prepared by Edward B. Walsh and Associates, Inc. *(Name)*

Project Engineers *(Title)* for Minor Subdivision for UPI 25-5-35 *(Name)*

a subdivision, commercial ,or industrial facility located in West Vincent Township

Chester *(City, Borough, Township)* County.

Check one

☐ (i) The planning module, as prepared and submitted by the applicant, is approved by the municipality as a proposed ☐ revision ☐ supplement for new land development to its Official Sewage Facilities Plan (Official Plan), and is ☐ adopted for submission to DEP ☐ transmitted to the delegated LA for approval in accordance with the requirements of 25 *Pa. Code* Chapter 71 and the *Pennsylvania Sewage Facilities Act* (35 P.S. §750),

OR

☐ (ii) The planning module will not be approved by the municipality as a proposed revision or supplement for new land development to its Official Plan because the project described therein is unacceptable for the reason(s) checked below:

Check Boxes

☐ Additional studies are being performed by or on behalf of this municipality which may have an effect on the planning module as prepared and submitted by the applicant. Attached hereto is the scope of services to be performed and the time schedule for completion of said studies.

☐ The planning module as submitted by the applicant fails to meet limitations imposed by other laws or ordinances, officially adopted comprehensive plans and/or environmental plans (e.g., zoning, land use, 25 *Pa. Code* Chapter 71). Specific reference or applicable segments of such laws or plans are attached hereto.

☐ Other (attach additional sheet giving specifics).

Municipal Secretary: Indicate below by checking appropriate boxes which components are being transmitted to the approving agency.

☐ Resolution of Adoption
☐ Module Completeness Checklist
☐ 2 Individual and Community Onlot Disposal of Sewage
☐ 3 Sewage Collection/Treatment Facilities
☐ 3s Small Flow Treatment Facilities
☐ 4A Municipal Planning Agency Review
☐ 4B County Planning Agency Review
☐ 4C County or Joint Health Department Review

Municipal Secretary (print) *Signature* *Date*

RESOLUTION

3850-FM-BCW0356 Rev. 5/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code No.
1-15970-382-2

RESOLUTION FOR PLAN REVISION FOR NEW LAND DEVELOPMENT

RESOLUTION OF THE (SUPERVISORS) (COMMISSIONERS) (COUNCILMEN) of West Vincent
(TOWNSHIP) (BOROUGH) (CITY), Chester COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the *Pennsylvania Sewage Facilities Act*, as Amended, and the rules and Regulations of the Pennsylvania Department of Environmental Protection (DEP) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters of the Commonwealth and/or environmental health hazards from sewage wastes, and to revise said plan whenever it is necessary to determine whether a proposed method of sewage disposal for a new land development conforms to a comprehensive program of pollution control and water quality management, and

WHEREAS Timothy & Amanda Maxwell (land developer) has proposed the development of a parcel of land identified as Minor Subdivision for UPI 25-5-35 (name of subdivision), and described in the attached Sewage Facilities Planning Module, and proposes that such subdivision be served by: (check all that apply), ☐ sewer tap-ins, ☐ sewer extension, ☐ new treatment facility, ☒ individual onlot systems, ☐ community onlot systems, ☐ spray irrigation, ☐ retaining tanks, ☐ other, (please specify). _____

WHEREAS, West Vincent Township (municipality) finds that the subdivision described in the attached Sewage Facilities Planning Module conforms to applicable sewage related zoning and other sewage related municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the (Supervisors) (Commissioners) (Councilmen) of the (Township) (Borough) (City) of West Vincent hereby adopt and submit to DEP for its approval as a revision to the "Official Sewage Facilities Plan" of the municipality the above referenced Sewage Facilities Planning Module which is attached hereto.

I _____ (Signature), Secretary, West Vincent Township Board of Supervisors (Borough Council) (City Councilmen), hereby certify that the foregoing is a true copy of the Township (Borough) (City) Resolution # _____, adopted, _____, 2023.

Municipal Address:

West Vincent Township
729 Saint Matthews Road
Chester Springs, PA 19425
Telephone (610) 458-1601

Seal of Governing Body

COMPLETENESS CHECKLIST

Component 2 Checklist

Applicant Checklist (✓ or N/A)	Materials Required to be Included in the Planning Package	DEP Completeness Review
DEP Checklist Letter		
	DEP checklist letter is attached with items checked off by the applicant (or applicant's authorized representative) as included.	
	DEP checklist letter certification statement completed and signed	
Transmittal Letter (Form 3800-FM-BPN PSM0355)		
	Transmittal Letter is attached, completed and the appropriat e boxes in Section (i) are checked.	
	Transmittal Letter is signed by the municipal secretary	
Resolution of Adoption (Form 3800-FM-BPNPSM0356)		
	Resolution of Adoption is attached and completed	
	Resolution of Adoption is signed by the municipal secretary	
	Resolution of Adoption has a visible municipal seal	
Component 4A - Municipal Planning Agency Review (Form 3800-FM-BPNPSM0362A)		
	Component 4A is attached, completed and signed	
	Municipal Responses to Component 4A comments are included	
Component 4B – County Planning Agency Review (Form 3800-FM-BPNPSM0362B)		
	Component 4B is attached, completed and signed	
	Municipal Responses to Component 4B comments are included	
Component 4C – County or Joint Health Department Review (Form 3800-FM-BPNPSM0362C)		
	Component 4C is attached, completed and signed	
	Municipal Responses to Component 4C comments are included	
Component 2 Sewage Facilities Planning Module (Form 3800-FM-BPNPSM0352)		
Section A: Project In formation		
	Section A.1. The Project Name is completed	
	Section A.2. The Brief Project Description is completed	
Section B: Client Information		
	Client Information is complet ed	
Section C: Site Information		
	Site Information is completed	
	A copy of the 7.5 minute USGS Topographic map is attached with the development site outlined, as required by the instructions and the checklist	

Component 2 Checklist

Section D: Project Consultant Information		
	Project Consultant Information is completed	
Section E: Availability of Drinking Water Supply		
	The appropriate box is checked in Section E	
	For existing public water supplies, the name of the company is provided	
	For public water supplies, the certification letter from the public water company is attached	
Section F: Project Narrative		
	The Project Narrative is attached	
	All information required in the module directions has been addressed	
	Discussion of the municipality's Sewage Management Program or how the long-term operation and maintenance of the onlot sewage facilities will occur shall be included in the narrative	
Section G: General Site Suitability		
	Section G.1. The plot plan is attached and contains all items in the module instructions under Section G.1	
	Copies of easement(s) or right-of-way(s) are attached	
	Section G.2. The residual tract planning waiver request information is completed	
	Section G.3.a. The approving agency was notified at least 10 days prior to soil testing	
	Section G.3.a. All Site Investigation and Percolation Test Reports for Onlot Disposal of Sewage (Form 3800-FM-BPNPSM0290A) are attached, whether suitable or not suitable	
	Section G.3.b. The marginal site information is completed	
	Section G.3.c. IRSIS information is provided, if applicable	
	Section G.4. The boxes are checked regarding Wetland Protection	
	Section G.5. The boxes are checked regarding Primary Agricultural Land	
	Section G.6. The boxes are checked confirming consistency with the Historic Preservation Act	
	The Cultural Resources Notice (CRN) (Form 0120-PM-PY0003) is attached	
	A return receipt for its submission to the PHMC is attached	
	The PHMC review letter is attached	
Section H: Sewage Enforcement Officer (SEO) Action		
	Section H.1. The site suitability section is completed	
	Section H.2. The marginal site information is completed	

Component 2 Checklist

	Section H.3. The residual tract information is completed	
	The SEO has signed and dated the form	
Section I: Alternative Sewage Facilities Analysis		
	The Alternative Sewage Facilities Analysis is attached	
	All information required in the module directions has been addressed	
Section J: Protection of Rare, Endangered or Threatened Species		
	Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt is attached	
	PNDI Review Receipt, if no potential impacts identified, is not older than 2 years	
	All supporting resolution documentation from jurisdictional agencies (when necessary) is attached and not older than 2 years	
	A completed PNDI Large Project Form (PNDI Form) (Form 8100-FM-FR0161) is attached with all supplemental materials and DEP is requested to complete the search.	
Section K: Permeability Testing		
	The Permeability Testing information is attached	
Section L: Preliminary Hydrogeologic Study		
	The Preliminary Hydrogeologic Study is attached	
	The Preliminary Hydrogeologic Study is signed and sealed by a Professional Geologist	
Section M: Detailed Hydrogeologic Study		
	The Detailed Hydrogeologic Study is attached	
	The Detailed Hydrogeologic Study is signed and sealed by a Professional Geologist	
Section N: Retaining Tanks		
	All boxes are checked indicating the use and type of Retaining Tanks	
	Section N.1.a. The Holding Tank replacement information is completed	
	Section N.1.b. The Holding Tank Ordinances or Regulations are attached	
	Section N.2. The Privies/Chemical Toilet information is provided	
	Section N.3.a. The Retaining Tank Cleaner information is completed	
	Section N.3.b. The Disposal Site information is completed	
	The letter of agreement with the disposal site is attached	
Section O: Public Notification Requirement		
	All Public Notification boxes in this section are checked	

	The public notice is attached, if public notification is necessary	
	All comments received as a result of the notice are attached	
	The municipal responses to these comments are attached	
	The box is checked indicating that no comments were received, if valid	
Section P: False Swearing Statements		
	The field test evaluator's false swearing statement is completed and signed	
	The planning module preparer's false swearing statement is completed and signed	
Section Q: Municipal Actions		
	Section Q.1. The municipality has checked the box identifying marginal conditions, if applicable	
	The municipality has checked 1 of the 4 boxes indicating their selected method of providing long-term sewage disposal to this subdivision	
	The justification for the selected method of long-term sewage disposal is attached, as required in Section Q of the instructions	
	Section Q.2. The municipality has checked the box requesting a waiver of planning requirements for the residual tract, if applicable	
	Section Q.3. Option selected to assure long-term proper operation and maintenance for a non-municipal DEP permitted or community system is identified and attached	
	The municipal official has signed and dated the information in Section Q	
	The municipal official information, including name, address, and telephone number is completed	
Section R: Planning Module Review Fee		
	The correct fee has been calculated	
	The correct fee has been paid	
	The request for fee exemption has been checked	
	The deed reference information is provided to support the fee exemption	
	The developer has signed and dated Section R	
Completeness Checklist		
	The module completeness checklist is included	
	All completeness items have been checked as included by the municipality, as appropriate	
	The Municipal Official has signed and dated the checklist	

Component 2 Checklist

NOTE: DEP should be notified at least ten days prior to soils testing activities for this project.

CERTIFICATION STATEMENT

I certify that this submittal is complete and includes all requested items. I understand that failure to submit a complete module package may result in a denial of the application.

Signed: _____ Date: _____
Applicant (or Applicant's authorized representative)

Signed: _____ Date: _____
Municipal Secretary

COMPONENT 2

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

Code No.

SEWAGE FACILITIES PLANNING MODULE

Component 2. Individual and Community Onlot Disposal of Sewage

(Return completed module package to appropriate municipality)

DEP USE ONLY				
DEP CODE#	CLIENT ID#	SITE ID#	APS ID#	AUTH ID#

This planning module component is used to fulfill the planning requirements of Act 537 for the following types of projects: (1) proposing the use of individual onlot sewage disposal systems (including individual residential spray irrigation systems (IRSIS)) and except for those projects qualifying for the "exception to the requirement to revise the Official Plan" under Chapter 71, Section 71.55, (2) proposing retaining tanks (including holding tanks, privies, chemical, incinerating, recycling or composting toilets), (3) proposing municipal permitted community onlot sewage disposal systems, and (4) proposing DEP permitted individual or community large volume onlot sewage disposal systems.

This component, along with any other documents specified in the cover letter, must be submitted to the municipality with jurisdiction over the project site for review and approval. All appropriate documentation must be attached for the Sewage Facilities Planning Module package to be complete. Refer to the instructions for help in completing this component.

REVIEW FEES: Amendments to the Sewage Facilities Act established fees to be paid by the applicant for review of planning modules for land development. These fees may vary depending on the approving agency for the project (DEP or delegated local agency). Please see Section R and the instructions for more information on these fees.

NOTE: All projects must complete Sections A through I and Sections N through R. Complete Sections J, K, Land/or M if indicated ☒. The municipality should complete Section Q if marginal conditions are present and/or if a waiver of the planning requirements is requested for the residual tract and/or if assurance of long term O & M option is required.

A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name Minor Subdivision for UPI 25-5-35

2. Brief Project Description 2 lot single family residential subdivision of of approximately 57 acres. Lot 1 will contain the existing dwelling and barns. Lot #2 is the proposed dwelling lot.

B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)

Municipality Name	County	City	Boro	Twp
West Vincent	Chester	☐	☐	☒

Municipality Contact Individual – Last Name	First Name	MI	Suffix	Title
Granger	John			Twp. Manager

Additional Individual Last Name	First Name	MI	Suffix	Title
Shillenn	Kathryn			Twp. Secretary

Municipality Mailing Address Line 1	Mailing Address Line 2
729 Saint Matthews Road	

Address Last Line – City	State	ZIP+4
Chester Springs	PA	19425

Phone+ Ext.	FAX (optional)	Email (optional)
6104581601	6104581603	

C. SITE INFORMATION (See Section C of instructions)

Site (Land Development or Project) Name
Minor Subdivision for UPI 25-5-35

Site Location Line 1	Site Location Line 2
1830 Saint Matthews Road	

Site Location Last Line – City	State	ZIP+4	Latitude	Longitude
ChesterSprings	PA	19425	40.131209	-75.597240

Detailed Written Directions to Site From the intersection of route 100 and 113 go north on route 113. Make a left on Route 401. Right on Saint Matthews Road.

Description of Site The site contains approx. 57 acres which consists mainly of open pasture. There is an existing dwelling barn, horse riding rink and associated infrastructure. The dwelling is served by on-lot well and septic.

Site Contact (Developer/Owner)

Last Name	First Name	MI	Suffix	Phone	Ext.
Maxwell	Timonthy			6108277511	

Site Contact Title	Site Contact Firm (if none, leave blank)
Property Owner	
FAX	Email

Mailing Address Line 1	Mailing Address Line 2
1380 Saint Matthews Road	

Mailing Address Last Line – City	State	ZIP+4
Chester Springs	PA	19425

D. PROJECT CONSULTANT INFORMATION (See Section D of instructions)

Last Name	First Name	MI	Suffix
Brower	Adam	J	

Title	Consulting Firm Name
Project Manager	Edward B. Walsh and Associates, Inc.

Mailing Address Line 1	Mailing Address Line 2
855 Springdale Dr	Suite 202

Address Last Line – City	State	ZIP+4	Country
Exton	PA	19341	USA

Email	Phone	Ext.	FAX
abrower@ebwalshinc.com	6109030031		6109030080

E. AVAILABILITY OF DRINKING WATER SUPPLY

The project will be provided with drinking water from the following source: (Check appropriate box)

- ☒ Individual wells or cisterns.
- ☐ A proposed public water supply.
- ☐ An existing public water supply.

If existing public water supply is to be used, provide the name of the water company and attach documentation from the water company stating that it will serve the project.

Name of water company: _____

F. PROJECT NARRATIVE (See Section F of instructions)

☒ A narrative has been prepared as described in Section F of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section F of the instructions.

G. GENERAL SITE SUITABILITY (See Section G of attached instructions)

This section must be completed when the proposed method of sewage disposal is the use of onlot sewage disposal systems or privies. The purpose of the information provided in this section is to determine the general suitability of the site for onlot disposal of sewage. Site suitability should not be construed as approval for permit issuance on individual lots. Additional testing may be required for permit issuance.

NOTE: If one or more lots in this subdivision are planned to be served by individual residential spray irrigation systems (IRSIS), please see the specific information on IRSIS in Section G.3 of the attached instructions.

1. **PLOT PLAN**

The following information is to be submitted on a plot plan of the proposed subdivision or development:

a. Location of all soil profiles and percolation tests.
b. Slope at each test area.
c. Soil types and boundaries.
d. Existing and proposed streets, roadways, access roads, etc.
e. Lot lines and lot sizes.
f. Existing and proposed rights-of-way.
g. Existing and proposed drinking water supplies for proposed and contiguous lots.
h. Existing buildings.
i. Surface waters.
j. Wetlands – from National Wetland Inventory Mapping and USDA Hydric Soils Mapping.
k. Floodplain or floodprone area soils, floodways (Federal Flood Insurance Mapping).
l. Designated open space areas.
m. Remaining acreage under the same ownership and contiguous lots.
n. Existing onlot or sewerage systems; pipelines, transmission lines, etc., in-use or abandoned.
o. Prime agricultural land.
p. Orientation to North

2. **RESIDUAL TRACT PLANNING WAIVER REQUEST**

A waiver from sewage facilities planning ☒ is, ☐ is not requested for the residual land tract associated with this project. (See Section H, Section Q, Component 4 and instructions for additional information).

3. **SOILS INFORMATION**

a. Attach copies of "Site Investigation and Percolation Test Report" (3800-FM-WSFR0290A) (formerly known as "Appendix A") form(s) for the proposed subdivision.

b. Marginal conditions for long-term onlot sewage disposal [x] are, ☐ are not present. See marginal conditions information in Sections H and Q and in attached instructions.

c. If one or more lots in this subdivision are planned to be served by Individual Residential Spray Irrigation Systems (IRSIS), please see the specific information on IRSIS in Section G of the instructions.

4. **WETLAND PROTECTION**

YES NO

a. ☐ ☒ Are there wetlands in the project area? If yes, ensure these areas appear on the plot plan as shown in the mapping or through on-site delineation.

b. ☐ ☒ Are there any construction activities (encroachments, or obstructions) proposed in, along, or through the wetlands? If yes, Identify any proposed encroachments on wetlands and identify whether a General Permit or a full encroachment permit will be required. If a full permit is required, address time and cost impacts on the project. Note that wetland encroachments should be avoided where feasible. Also note that a feasible alternative **MUST BE SELECTED** to an identified encroachment on an exceptional value wetland as defined in Chapter 105. Identify any project impacts on streams classified as HQ or EV and address impacts of the permitting requirements of said encroachments on the project.

5. **PRIMARY AGRICULTURAL LAND PROTECTION**

YES NO

☒ ☐ Will the project involve the disturbance of prime agricultural lands?

If yes coordinate with local officials to resolve any conflicts with the local prime agricultural land protection program. The project must be consistent with such municipal programs before the sewage facilities planning module package may be submitted to DEP.

If no, prime agricultural land protection is not a factor to this project. Proceed to G.6.

☒ ☐ Is this project consistent with the municipal prime agricultural land protection program.

6. **HISTORIC PRESERVATION ACT**

YES NO

a. ☒ ☐ Sufficient documentation is attached to confirm that this project is consistent with DEP Technical Guidance 012-0700-001 *Implementation of the PA State History Code* (available online at the DEP Web site at www.depweb.state.pa.us select "subject" then select "technical guidance"). As a minimum this includes copies of the completed Cultural Resources Notice (CRN), a return receipt for its submission to the PHMC and the PHMC review letter.

H. SEWAGE ENFORCEMENT OFFICER ACTION (See Section H of attached instructions)

1. I have confirmed the information relating to the general suitability for onlot sewage disposal contained in this component. Confirmation of this information was based upon on-site verification of soil tests, general site conditions and other generally available soils information. The proposed development site:
   - ☐ Is generally suitable for onlot disposal. This module does not constitute individual permit approval.
   - ☒ Is marginal for long-term onlot disposal. (See instructions for information on marginal conditions).
   - ☐ Is not generally suitable for onlot disposal. (See my attached comments regarding this determination).
   - ☐ Cannot be evaluated for general site suitability because of insufficient soils testing.
2. The proposed development site is considered "marginal for onlot disposal" or for long-term onlot system use because one or more of the following conditions exist. (Check all that apply).
   - ☒ Soils profile examinations which document areas of suitable soil intermixed with areas of unsuitable soils.
   - ☒ Site evaluation which documents soils generally suitable for elevated sand mounds with some potential lots with slopes over 12%.
   - ☐ Site evaluation which documents soils generally suitable for in-ground systems with some potential lots with slopes in excess of 20%.
   - ☐ Lot density of more than 1 Residential Dwelling Unit/acre.
   - ☐ Proposed use of a community onlot disposal system or system serving commercial, industrial or institutional uses.

3. Residual Tract Facilities (For use only when there is an existing onlot disposal system on the residual tract)

☐ I have inspected the lot on which the existing building and existing onlot disposal system is located and have concluded, based on soils mapping or soils evaluation, permit information or site inspection that the long-term sewage disposal needs of this site and the building currently served can be met. (Required) Z224685

☒ I further acknowledge that no violations of the Sewage Facilities Act are known to me or have become apparent as a result of my site inspection. No inferences regarding future performance of the existing onlot disposal system should be drawn from this acknowledgement. (Required)

☐ A brief description and sketch of the existing system and site is attached. (Optional)

Signature of Certified Sewage Enforcement Officer having jurisdiction in municipality where development is proposed	Certification #	Date
[signature]	3030	11/15/22

I. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (See Section I of attached instructions)

This analysis consists of a narrative that will support the chosen sewage disposal method by comparing it to methods already in use in the area or to any other available method. Attach the narrative to the package and title it **Alternative Analysis**. The narrative should describe:

1. the chosen sewage disposal method, and whether the method is interim (to be replaced within 5 years) or ultimate (will serve the development beyond 5 years). Also provide the number of lots or EDU's that will be served.

I. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (Continued) (See Section I of attached instructions)

2. the types of land uses adjacent to the project area (agricultural, residential, commercial etc.) and the type of sewage disposal method serving each of those land uses.
3. if the sewage facilities described in (2) are in need of improvement due to high rates of onlot malfunction or overloaded public sewers.
4. the sewage disposal method indicated for the development area in the municipality's Official Sewage Facilities Plan. (Such as: onlot disposal systems, public sewers, etc.).
5. existing and/or proposed sewage management program(s) in the area and/or any other municipal options necessary to satisfy the requirements of section(s) 71.72 or 71.73 including the provisions of the selected option.
6. potential alternative sewage disposal methods that are available for the project.
7. why the proposed disposal method was chosen over the alternative methods discussed.
8. who will be the owner of the facility, and who will be responsible for operation and maintenance of the facility.
9. any other information that the developer feels will support the chosen disposal method.

Complete the following sections (J, K, L and/or M) if indicated ☒.
If none are indicated, go directly to Section N.

☐ J. PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES
(See Section J of instructions)

Check one:

☒ The "Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt" resulting from my search of the PNDI database and all supporting documentation from jurisdictional agencies (when necessary) is/are attached.

☐ A completed "Pennsylvania Natural Diversity Inventory (PNDI) Project Planning & Environmental Review Form," (PNDI Form) available at www.naturalheritage.state.pa.us , and all required supporting documentation is attached. I request DEP staff to compete the required PNDI search for my project. I realize that my planning module will be considered incomplete upon submission to the Department and that the DEP review will not begin, and that processing of my planning module will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

"Applicant or Consultant Initials jd"

☐ **K. PERMEABILITY TESTING** (See Section K of attached instructions)

☐ The information required in Section K of the instructions is attached.

☒ **L. PRELIMINARY HYDROGEOLOGIC STUDY** (See Section L of attached instructions)

☒ The information required in Section L of the instructions is attached.

☐ **M. DETAILED HYDROGEOLOGIC STUDY** (See Section M of attached instructions)

☐ The information required in Section M of the instructions is attached.

N. RETAINING TANKS (See Section N of attached instructions)

The term "Retaining Tank" includes holding tanks and privies, as well as, chemical, incinerating, recycling, and composting toilets. Check the appropriate box.

☐ Yes ☒ No Does this new land development project propose either interim or long-term use of retaining tanks?
If yes, complete the remainder of Section N.
If no, completion of the remainder of Section N is not required. Proceed to Section O.

What types of retaining tanks are proposed? Check all that apply.

☐ Holding Tank ☐ Privy ☐ Chemical ☐ Incinerating ☐ Recycling ☐ Composting

1. **Holding Tanks** – are only to be used in new land development as an interim sewage disposal method and only for a period of time determined by DEP. A replacement sewage disposal method is required and an implementation schedule for that replacement method must be developed. Local ordinances must also be ***in place*** to provide for the maintenance of the tanks. Complete a. and b. below. For exceptions to these requirements see Chapter 71, Section 71.63 (Retaining Tanks).

   a. The following questions will help determine if a holding tank can be used.

      1) ☐ Yes ☐ No Does the Official Sewage Facilities plan or revision provide for replacement of the tanks by adequate sewage services?

      2) ☐ Yes ☐ No Does the Official Sewage Facilities Plan or revision include financial assurances for the implementation of the replacement method?

      If yes, what is the replacement sewage disposal method?

      Method _____

      If no, holding tanks may not be used.

   b. Chapter 72 requires that the municipality, sewer authority or other DEP approved entity with responsibility over the holding tanks have ***in place*** ordinances, regulations or restrictions established to maintain the tanks as outlined in Chapter 71, Section 71.63(c)(3). Attach documentation that the responsible agency has developed these ordinances or restrictions. These projects must also complete Part 3 below (Retaining Tank Pumping and Content Disposal).

2. **Privies/Chemical Toilets**
Projects that propose privies as the method of sewage disposal must complete a, b and c below. For exceptions to these requirements see Chapter 71, Section 71.63 (Retaining Tanks).

   a. Complete Section G of this Component.

   b. The municipality, sewer authority, management agency or other DEP approved entity with responsibility over the site must have ordinances, regulations or restrictions established that assume responsibility for the removal of a privy and installation of an approved onlot sewage disposal system when water under pressure is provided to that lot. Attach a copy of these ordinances, regulations or restrictions.

c. These projects must also complete Part 3 below (Retaining Tank Pumping and Content Disposal).

N. RETAINING TANKS cont'd. (See Section N of attached instructions)

3. Retaining Tank Pumping and Content Disposal

a) Name of Retaining Tank Cleaner _____
(This can be the municipality or a contracted cleaner)

Address _____

Telephone Number _____

b) Name of Disposal Site _____

Type of treatment facility _____

NPDES or Land Disposal permit number _____

County _____ Municipality _____

Attach letter of agreement with the proposed disposal site verifying adequate capacity for disposal needs. Retaining tank wastes must be disposed of at a DEP permitted facilities or sites.

c) A municipality, sewer authority, or sewage management agency may delegate or contract for the collection and disposal of retaining tank contents, except that the ultimate responsibility for the proper collection and disposal of the contents shall remain with the municipality, authority or agency.

O. PUBLIC NOTIFICATION REQUIREMENT (See Section O of attached instructions)

This section must be completed to determine if the applicant will be required to publish certain facts about the project in a newspaper of general circulation in accordance with Chapter 71, Section 71.53(d)(6) to provide a chance for the general public to comment on proposed new land development projects. This notice may be provided by the applicant or the applicant's agent, the municipality or the local agency by publication in a newspaper of general circulation within the municipality affected. Where an applicant or an applicant's agent provides the required notice for publication, the applicant or applicant's agent shall notify the municipality or local agency and the municipality and local agency will be relieved of the obligation to publish. The required content of the publication notice are found in Section O of the instructions.

To complete this section, each of the following questions must be answered with a "yes" or "no". Newspaper publication is required if any of the following are answered "yes". Check all boxes that apply.

	Yes	No	
1.	☐	☒	Does the project propose the construction of a sewage treatment facility?
2.	☐	☒	Will the project change the flow at an existing sewage treatment facility by more than 50,000 gallons per day?
3.	☐	☒	Will the project result in a public expenditure for the sewage facilities portion of the project in excess of $100,000?
4.	☐	☒	Will the project lead to a major modification of the existing municipal administrative organizations within the municipal government?
5.	☐	☒	Will the project require the establishment of *new* municipal administrative organizations within the municipal government?
6.	☐	☒	Will the project result in a subdivision of 50 lots or more?
7.	☐	☒	Does the project involve a major change in established growth projections?
8.	☐	☒	Does the project involve a different land use pattern than that established in the municipality's Official Sewage Facilities Plan?
9.	☐	☒	Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)?
10.	☐	☒	Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in Chapter 71.21(a)(5)(i), (ii), (iii)?

O. PUBLIC NOTIFICATION REQUIREMENT (Continued)

11. ☐ ☒ Will sewage facilities discharge into high quality or exceptional value waters?

☐ Attached is a copy of:
- ☐ the public notice,
- ☐ all comments received as a result of the notice,
- ☐ the municipal response to these comments.

☐ No comments were received. A copy of the public notice is attached.

P. FALSE SWEARING STATEMENT (See Section P of attached instructions)

The individual performing the tests and field evaluations necessary to complete ***Section G*** must provide the information below and sign the false swearing statement found to the right.

I verify that the soils information statements made in this component are true and correct to the best of my knowledge, information and belief. I understand that false statements in this component are made subject to the penalties of 18 PA C.S.A. §4904 relating to unsworn falsification to authorities.

Scott J. Andress
Name (Print)

Environmental Scientist
Title

Signature 5/17/2018
Date

125 Dowlin Forge Road, Exton, PA 1341
Address

610-903-0042
Telephone Number

Check One:

☐ The individual conducting these tests is a Sewage Enforcement Officer authorized to perform this work under a fee schedule established by the municipality.

☒ The individual conducting these tests is not a Sewage Enforcement Officer employed by the local agency in which this development is located.

The individual completing the rest of the component must provide their name, title, address, telephone number and sign the false swearing statement found to the right.

I verify that the statements made in this component are true and correct to the best of my knowledge, information and belief. I understand that false statements in this component are made subject to the penalties of 18 PA C.S.A. §4904 relating to unsworn falsification to authorities.

Scott J. Andress
Name (Print)

Environmental Scientist
Title

125 Dowlin Forge Road, Exton, PA 1341
Address

610-903-0042
Telephone Number

☒ A waiver of the planning requirements is requested for the residual tract of this subdivision. The requirements of Section G.2 of the instructions have been met.

Signature 5/17/2018
Date

Q. MUNICIPAL ACTIONS (Marginal conditions, Residual Tract Waiver and/or O&M option)

(See Section Q of attached instructions)

This section is to be completed by the municipality if marginal conditions have been identified on the project site and/or if a waiver of the planning requirements has been requested for the residual tract of the subdivision and/or if an assurance of long term operation and maintenance is required by Section 71.72. If none of these conditions are met, do not complete this section.

1. ☐ The proposed development has been identified in Section G and/or Section H as having marginal conditions or other concerns for the long-term use of onlot sewage systems. The municipality has selected the following method of providing long-term sewage disposal to this subdivision: (Check one)

   ☐ Provision of a sewage management program meeting the minimum requirements of Chapter 71, Section 71.73

   ☐ Replacement area testing

   ☐ Scheduled replacement with sewerage facilities

   ☐ Reduction of the density of onlot systems

   ☐ The justification required in Section Q of the instructions is attached.

2. ☐ A **waiver** of the planning requirements for the residual tract of this subdivision has been requested.

   The municipality acknowledges acceptance of this proposal and requests a waiver of the sewage facilities planning requirements for the residual tract designated on the subdivision plot plan. Our municipal officials accept full responsibility now and in the future to identify any violation of this waiver and to submit to the approving agency any required sewage facilities planning for the designated residual tract should a violation occur or construction of a new sewage-generating structure on the residual tract of the subdivision be proposed. We understand that such planning information may require municipal officials to be responsible for soil testing and other environmental assessments for the residual tract in the future.

3. ☐ The **option** selected to assure long-term proper operation and maintenance, required by Title 25, PA Code, Section 71.72, for the proposed DEP permitted non-municipal sewage facility or local agency permitted community onlot sewage system is clearly identified and attached.

Chairperson or Secretary of Governing Body	Signature / Date
Municipality Name	
Address	Address
	(Area Code) Telephone No. (___)

R. PLANNING MODULE REVIEW FEE (See Section R of attached instructions)

The Sewage Facilities Act establishes a fee for the DEP planning module review. DEP will calculate the review fee for the project and invoice the project sponsor **OR** the project sponsor may attach a self-calculated fee payment to the planning module prior to submission of the planning package to DEP. (Since the fee and fee collection procedures may vary if a "delegated local agency" is conducting the review, the project sponsor should contact the "delegated local agency" to determine these details.) Check the appropriate box.

☐ I request the DEP calculate the review fee for my project and send me an invoice for the correct amount. I understand the Department's review of my project will not begin until the Department receives the correct review fee from me for the project.

R. PLANNING MODULE REVIEW FEE cont'd. (See Section R of attached instructions)

☐ I have calculated the review fee for my project using the formula found below and the review fee guidance in the instructions. I have attached a check or money order in the amount of$ _____payable to "**Commonwealth of PA, DEP**". **Include DEP code number on check.** I understand the Department will not begin review of my project unless it receives the fee and determines the fee is correct. If the fee is incorrect, The Department will return my check or money order, send me an invoice for the correct amount. I understand the Department's review will NOT begin until I have submitted the correct fee.

☒ I request to be exempt from the DEP planning module review fee because this planning module creates **only** one new lot and is the **only** lot subdivided from a parcel of land as that land existed on December 14, 1995. I realize that subdivision of a second lot from this parcel of land shall disqualify me from this review fee exemption. I am furnishing the following deed reference information in support of my fee exemption.

County Recorder of Deeds for Chester County

Deed Volume NA Book Number 10686

Page Number 1477 Date Recorded 09/24/2021

Formula:

Lots (or EDUs) X $30.00=$

Note: (1) To calculate the review fee for any project, use the number of lots created or the whole number of project equivalent dwelling units (EDU), (whichever is greater) in the above formula.

(2) When using the number of lots, include only the number of lots being proposed when calculating the review fee. Do not include any "Residual Land Parcel/Lot".

(3) In all projects, the minimum sewage flow per lot is equal to 400 gallons per day (GPD) and represents a generic three-bedroom house on each lot. Projects that knowingly propose houses larger than the generic three-bedroom unit allow for the increased sewage flows from these larger units by adding 100 gallons per day for each additional bedroom in the house to this initial 400 GPD figure. The resulting project flow is in excess of the minimum 400 GPD for each lot created and must be converted into equivalent dwelling units (EDU) in order to correctly calculate the review fee. See note 4.

(4) To determine the total number of EDUs for a project, first determine the total project flow by adding together the flow from each proposed lot. Divide this total project flow by 400 GPD and, if it is greater than the number of lots being proposed, enter this greater figure in the above formula.

Timothy Maxwell
Developer Name (Print)

DocuSigned by:
Timothy Maxwell
7B1DCDBCA1413440...
Signature

August 25, 2021 | 7:54:50 PM EDT
Date

STOP - CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
THREE WORKING DAYS NOTICE
Pennsylvania One Call System, Inc.
1-800-242-1776

COMPLETENESS CHECKLIST

The individual completing the component should use the checklist below to assure that all items are included in the planning module package. The municipality should confirm that the required items have been included within 10 days of receipt, and if complete, sign and date the checklist.

ALL ONLOT/RETAINING TANK PROPOSALS

- ☒ Name and address of land development project
- ☒ USGS 7.5 minute topographic map with the development area plotted
- ☒ Project narrative
- ☐ Letter of intent to serve the project from the public water supplier (if applicable)
- ☒ Alternative analysis narrative
- ☐ Proof of public notification (if applicable)
- ☒ Plot plan of project with all required information
- ☒ A Site Investigation and Percolation Test Report forms for each soil profile examination and percolation test performed
- ☒ Preliminary Hydrogeology (if applicable)
- ☐ Permeability Testing (if applicable)
- ☐ Detailed Hydrogeology (if applicable)
- ☒ Sewage Enforcement Officer's signature
- ☒ Soils information preparer's signature
- ☒ Completed Component 4 (Planning Agency Review) for each existing planning agency and health department

Projects proposing holding tanks or privies are required to provide the following additional information.

HOLDING TANKS

- ☐ Copies of all ordinances, regulations, and/or restrictions governing holding tank maintenance
- ☐ Copy of the replacement method implementation schedule
- ☐ Copy of the financial assurances description for the replacement sewage disposal method
- ☐ Name of the tank cleaner/hauler
- ☐ Name and permit number of the disposal site
- ☐ Disposal site approval for holding tank contents disposal

PRIVIES

- ☐ Site Investigation and Percolation Test Report forms for all soil profiles and percolation tests
- ☐ Copies of ordinances, regulations, and/or restrictions for replacement of privies
- ☐ Disposal site approval for retaining tank contents disposal

MUNICIPAL ACTION

- ☒ Component 2, with SEO signature
- ☒ Component 4, planning agency comments and responses to those comments
- ☐ Proof of public notification
- ☐ Comments and responses generated by public notification
- ☒ Transmittal letter

_____
Signature of Municipal Official

_____
Date Submittal Determined Complete

EDWARD B. WALSH & ASSOCIATES, INC.
Complete Civil Engineering Design / Consultation Services
Lionville Professional Center
125 Dowlin Forge Road
Exton, PA 19341

May 1, 2018

Mr. Timothy Maxwell
1830 Saint Matthews Road
Chester Springs, PA 19425

RE: 1830 Saint Matthews Road Subdivision
Lot #2 Drip Irrigation Septic Testing
West Vincent Township
Chester County, PA

Mr. Maxwell:

I have completed the soils evaluation on Lot #2 of your proposed subdivision located at 1830 Saint Matthews Road in West Vincent Township, Chester County, Pennsylvania. The evaluation was conducted on April 26, 2018 to determine site suitability for drip irrigation sewage disposal system, per the requirements of PA DEP's Alternate Technology Listing, January 4, 2010, and March 1, 2012. The soil probes were also observed by Hollis Weston, Chester County Sewage Enforcement Officer.

The property is located on the south side of Saint Mathews Road and west of Pughtown Road. The property contains an existing 4 bedroom dwelling, driveway, barn and is served with an on-site well and on site sewage disposal. The property is irregularly shaped and consists of approximately 57 acres; after the proposed subdivision Lot#2 will contain approximately 21 Acres. Soil testing for the proposed new lot, Lot #2, were conducted by this office and consisted of three (3) soil probes.

Soil interpretations were based on actual on-site soil conditions observed in soil probes 4-26-1 through 4-26-3 and on the soil series mapping by Soil Survey Staff, Natural Resource Conservation Service, United States Department of Agriculture Web Soil Survey; available at http://websoilsurvey.nrcs.usda.gov. The area of soil testing is located within an area mapped as containing the Gladstone soil series. The Gladstone series consists of very deep, well drained soils formed in residuum and colluvium from granitic gneiss. The depth to a seasonally high water table is generally greater that eighty (80) and the depth to bedrock is generally between sixty-five (65) and sixty-seven (67) inches below the soil surface.

The soils within soil probes (4-26-1 thru 4-26-3) had limiting zones ranging from twenty-three (23) to twenty-nine (29) inches below the soil surface as identified by redoximorphic features. The area was determined to be suitable for a drip irrigation sewage disposal system with secondary treatment. Results of these evaluations are summarized as follows:

The soil textures consisted of silt loams and silty clay loams with moderate granular and subangular blocky structure. Based on the soils observed at these locations the proposed septic system area meets PA DEP's requirements for a micro-mound drip irrigation sewage disposal system. **Based on the slope, soil texture, soil consistence, and soil structure I assigned loading rate of 0.28 gallons per linear foot per day with tubing spacing of a minimum of 2.0-foot on center. Secondary effluent treatment is required due to the limiting zone being less than 24" from the soil surface.**

The septic system designer shall design the system large enough to accommodate the peak daily flow rate. The system shall be designed on contour and within the area tested. All surface water runoff and gutter downspouts shall be diverted around all components of the septic system. If the system cannot be designed within the area tested please contact this office so that a determination can be made as to whether additional hand augers are needed to supplement the previous testing. This report does not constitute permit issuance or approved by the Chester County Health Department and/or Pa DEP. If the designer has any question with the items outlined it this report please contact me for further discussion.

Should you have any questions regarding this report please contact me at 484-880-7069.

Sincerely,
Edward B. Walsh and Associates, Inc.

Scott Andress, SEO
Qualified Soil Scientist

On-lot Sewage Disposal Testing

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-1 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 25" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	10	A, Dark Yellowish Brown (10 YR 3/4) silt loam; weak; subangular blocky friable
10	TO	25	Bt, Strong Brown (7.5 YR 4/6) gravelly silt loam; mod; subangular blocky, friable; 15%CF
25	TO	36	Bt2, Brown (7.5 YR 5/4) silty clay loam; Com Dist; moderate; subangular blocky; friable
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate: 0.28

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole
_____	_____ "	_____		_____ "
_____	_____ "	_____		_____ "
_____	_____ "	_____		_____ "
_____	_____ "	_____		_____ "
_____	_____ "	_____		_____ "
_____	_____ "	_____		_____ "
_____	_____ "	_____		_____ "
TOTAL OF MIN / IN →		_____	=	_____ Min / Inch
TOTAL NO. OF HOLES→		_____		

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-2 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 24" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments
☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS **DESCRIPTION:**

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	11	A, Dark Yellowish Brown (10 YR 3/4) silt loam; weak; subangular blocky friable
11	TO	24	Bt, Strong Brown (7.5 YR 4/6) gravelly silt loam; mod; subangular blocky, friable; 25%CF
24	TO	34	Bt2, Brown (7.5 YR 5/4) silty clay loam; Com Dist; moderate; subangular blocky; friable
	TO		
	TO		
	TO		Loading Rate: 0.28

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period		Perc. Rate as Minutes/Inch		Depth of Hole	
		"				"
		"				"
		"				"
		"				"
		"				"
		"				"
TOTAL OF MIN / IN →				=		Min / Inch
TOTAL NO. OF HOLES→						

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-3 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 12" Ave. Perc. Rate _____

☐ UNSUITABLE . ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	12	A, Dark Yellow Brown (10 YR 4/4) gravelly silt loam; weak; subangular blocky friable; 15%CF
12	TO	26	Bt, Brown (7.5 YR 4/4) gravelly silt loam; Com Dist; mod; subangular blocky, friable; 15%CF
	TO		
	TO		
	TO		
	TO		Loading Rate:

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole
	"			"
	"			"
	"			"
	"			"
	"			"
	"			"
TOTAL OF MIN / IN →			=	Min / Inch
TOTAL NO. OF HOLES →				

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-4 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 16" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	9	A, Dark Yellowish Brown (10 YR 4/4) silt loam; weak; subangular blocky friable
9	TO	16	Bt, Yellowish Brown (10 YR 5/6) silt loam; mod; subangular blocky, friable; 15%CF
16	TO	30	Bt2, Yellowish Brown (10 YR 5/4) silty clay loam; Com Dist; mod; subangular blocky; friable
	TO		
	TO		
	TO		Loading Rate:

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
	"		"
	"		"
	"		"
	"		"
	"		"
	"		"

TOTAL OF MIN / IN → _____ = _____ Min / Inch

TOTAL NO. OF HOLES→ _____

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-5 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 14" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	9	A, Dark Yellowish Brown (10 YR 4/4) silt loam; weak; subangular blocky friable
9	TO	14	Bt, Yellowish Brown (10 YR 5/6) silt loam; mod; subangular blocky, friable
14	TO	30	Bt2, Yellowish Brown (10 YR 5/4) silty clay loam; Com Dist; mod; subangular blocky; friable
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate:

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole	
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
TOTAL OF MIN / IN →		_____	=	_____	Min / Inch
TOTAL NO. OF HOLES→		_____			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-6 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 14" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments
☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS **DESCRIPTION:**

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	9	A, Dark Yellowish Brown (10 YR 3/4) silt loam; weak; subangular blocky friable
9	TO	14	Bt, Yellowish Brown (10 YR 5/6) silt loam; mod; subangular blocky, friable; 15%CF
14	TO	24	Bt2, Yellowish Brown (10 YR 5/4) silty clay loam; Com Dist; mod; subangular blocky; friable
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate: 0.28

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)
Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole
_____	_____"	_____		_____"
_____	_____"	_____		_____"
_____	_____"	_____		_____"
_____	_____"	_____		_____"
_____	_____"	_____		_____"
_____	_____"	_____		_____"
TOTAL OF MIN / IN →		_____	=	_____ Min / Inch
TOTAL NO. OF HOLES→		_____		

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____ Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-BCW0290A 4/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. Z150812 Municipality West Vincent County Chester

Site Location 1830 Saint Matthews Road-Lot#2 Subdivision Name UPI 25-5-35

☒ SUITABLE Soil Type GdC Slope 12% Depth to Limiting Zone 29 Ave. Perc. Rate

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodway ☐ Other

SOILS DESCRIPTION:

Soils Description Completed by: Scott Andress (EBWA) and Hollis Weston (CCHD) Date: 4/26/2018

Inches			Description of Horizon
0	TO	8	Ap, 10YR4/4, Silt Loam, Mod. Granular, Friable
8	TO	21	Bt1, 10YR5/4, Silt Loam, M. SBK, Friable,
21	TO	29	Bt2, 10YR5/6, Silty Clay Loam, M. SBK, Firm
29	TO	36	Bt3,10YR5/6, Silty Clay Loam, M. SBK ,Firm, Common Distinct Redox.
	TO		
	TO		TP#4-26-1

PERCOLATION TEST:

Percolation Test Completed by: Date:

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole	
	"				"
	"				"
	"				"
	"				"
	"				"
	"				"
TOTAL OF MIN /IN →			=		Min / Inch
TOTAL NO. OF HOLES→					

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department of Environmental Protection (DEP).

(S) Sewage Enforcement Officer (SEO)

☐ White - Local Agency ☐ Pink - Local DEP Office ☐ Yellow - Applicant

3800-FM-BCW0290A 4/2016

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. Z150812 Municipality West Vincent County Chester

Site Location 1830 Saint Matthews Road-Lot#2 Subdivision Name UPI 25-5-35

☒ SUITABLE Soil Type GdC Slope 12% Depth to Limiting Zone 23 Ave. Perc. Rate

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodway ☐ Other

SOILS DESCRIPTION:

Soils Description Completed by: Scott Andress (EBWA) and Hollis Weston (CCHD) Date: 4/26/2018

Inches			Description of Horizon
0	TO	8	Ap, 10YR4/4, Silt Loam, Mod. Granular, Friable
8	TO	23	Bt1, 10YR5/4, Silt Loam, M. SBK, Friable,
23	TO	42	Bt2, 10YR5/6, Silty Clay Loam, M. SBK, Firm, Common Distinct Redox.
	TO		
	TO		
	TO		TP#4-26-2

PERCOLATION TEST:

Percolation Test Completed by: Date:

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
	"		"
	"		"
	"		"
	"		"
	"		"
	"		"

TOTAL OF MIN/IN → = Min/Inch

TOTAL NO. OF HOLES→

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department of Environmental Protection (DEP).

(S) Sewage Enforcement Officer (SEO)

☐ White - Local Agency ☐ Pink - Local DEP Office ☐ Yellow - Applicant

3050-FM-BCW0290A 4/2016

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. Z150812 Municipality West Vincent County Chester

Site Location 1830 Saint Matthews Road-Lot#2 Subdivision Name UPI 25-5-35

☒ SUITABLE Soil Type GdC Slope 12% Depth to Limiting Zone 24 Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodway ☐ Other _____

SOILS DESCRIPTION:

Soils Description Completed by: Scott Andress (EBWA) and Hollis Weston (CCHD) Date: 4/26/2016

Inches			Description of Horizon
0	TO	9	Ap, 10YR4/4, Silt Loam, Mod. Granular, Friable
9	TO	24	Bt1, 10YR5/4, Silt Loam, M. SBK ,Friable,
24	TO	36	Bt2, 10YR5/6, Silty Clay Loam, M. SBK,Firm, Common Distinct Redox.
	TO		
	TO		
	TO		TP#4-26-3

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
	"		"
	"		"
	"		"
	"		"
	"		"
	"		" Min / Inch
TOTAL OF MIN/IN →		=	
TOTAL NO. OF HOLES→			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department of Environmental Protection (DEP).

(S) _____
Sewage Enforcement Officer (SEO)

☐ White - Local Agency ☐ Pink - Local DEP Office ☐ Yellow - Applicant

3800-FM-WSFR0290A 9/2005

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality _____ County _____

Site Location _____ Subdivision Name _____

☐ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone _____ Ave. Perc. Rate _____

☐ UNSUITABLE ☐ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other _____

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches			Description of Horizon
0	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____

PERCOLATION TEST:

Percolation Test Completed by: Michael Sexton Date: 11-27-18

Weather Conditions: ☐ Below 40°F ☒ 40°F or above ☐ Dry ☒ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☒ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
1	X		10/30	1/8	1/8	1/8	1/8				
2	↓		10/30	0	0	0	0				
3			10/30	0	0	0	0				
4			10/30	0	0	0	0				
5			10/30	0	0	0	0				
6			10/30	0	0	0	0				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period		Perc. Rate as Minutes/Inch		Depth of Hole	
1	1/8	"	240		20	"
2	0	"	240			"
3	0	"	240			"
4	0	"	240			"
5	0	"	240			"
6	0	"	240			"
TOTAL OF MIN / IN →			1,440	=	240	Min / Inch
TOTAL NO. OF HOLES→			6			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSFR0290A 9/2005

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality _____ County _____

Site Location _____ Subdivision Name _____

☐ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone _____ Ave. Perc. Rate _____

☐ UNSUITABLE ☐ Mottling ☐ Seeps or Ponded Water ☒ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other _____

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches			Description of Horizon
0	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____
_____	TO	_____	_____

PERCOLATION TEST:

Percolation Test Completed by: Michael Sexton Date: 4-27-18

Weather Conditions: ☐ Below 40°F ☒ 40°F or above ☐ Dry ☒ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☒ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
1	X		10/30	1/8	1/8	0	0				
2			10/30	0	0	0	0				
3			10/30	4 3/8	4 3/8	4 3/8	4 3/8				
4			10/30	1/8	0	0	0				
5			10/30	0	0	0	0				
6			10/30	1/8	1/8	1/8	1/8				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period		Perc. Rate as Minutes/Inch	Depth of Hole		
1	0	"	240	20	"	
2	0	"	240		"	
3	4 3/8	"	6.9		"	
4	0	"	240		"	
5	0	"	240		"	
6	1/8	"	240		"	Min / Inch
TOTAL OF MIN / IN →			1,206.9	=	20.15	
TOTAL NO. OF HOLES →			6			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-1 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 25" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments
☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	10	A, Dark Yellowish Brown (10 YR 3/4) silt loam; weak; subangular blocky friable
10	TO	25	Bt, Strong Brown (7.5 YR 4/6) gravelly silt loam; mod; subangular blocky, friable; 15%CF
25	TO	36	Bt2, Brown (7.5 YR 5/4) silty clay loam; Com Dist; moderate; subangular blocky; friable
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate: 0.28

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)
Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
_____	_____ "	_____	_____ "
_____	_____ "	_____	_____ "
_____	_____ "	_____	_____ "
_____	_____ "	_____	_____ "
_____	_____ "	_____	_____ "
_____	_____ "	_____	_____ "
TOTAL OF MIN / IN →		_____ =	_____ Min / Inch
TOTAL NO. OF HOLES→		_____	

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-2 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 24" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	11	A, Dark Yellowish Brown (10 YR 3/4) silt loam; weak; subangular blocky friable
11	TO	24	Bt, Strong Brown (7.5 YR 4/6) gravelly silt loam; mod; subangular blocky, friable; 25%CF
24	TO	34	Bt2, Brown (7.5 YR 5/4) silty clay loam; Com Dist; moderate; subangular blocky; friable
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate: 0.28

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole	
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
_____	_____ "	_____		_____	"
TOTAL OF MIN / IN →		_____	=	_____	Min / Inch
TOTAL NO. OF HOLES→		_____			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-3 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 12" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	12	A, Dark Yellow Brown (10 YR 4/4) gravelly silt loam; weak; subangular blocky friable; 15%CF
12	TO	26	Bt, Brown (7.5 YR 4/4) gravelly silt loam; Com Dist; mod; subangular blocky, friable; 15%CF
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate:

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period		Perc. Rate as Minutes/Inch		Depth of Hole	
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
TOTAL OF MIN / IN →			_____	=	_____	Min / Inch
TOTAL NO. OF HOLES→			_____			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-4 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 16" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	9	A, Dark Yellowish Brown (10 YR 4/4) silt loam; weak; subangular blocky friable
9	TO	16	Bt, Yellowish Brown (10 YR 5/6) silt loam; mod; subangular blocky, friable; 15%CF
16	TO	30	Bt2, Yellowish Brown (10 YR 5/4) silty clay loam; Com Dist; mod; subangular blocky; friable
	TO		
	TO		
	TO		Loading Rate:

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole
	"			"
	"			"
	"			"
	"			"
	"			"
	"			"
TOTAL OF MIN / IN →			=	Min / Inch
TOTAL NO. OF HOLES→				

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____ Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-5 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 14" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	9	A, Dark Yellowish Brown (10 YR 4/4) silt loam; weak; subangular blocky friable
9	TO	14	Bt, Yellowish Brown (10 YR 5/6) silt loam; mod; subangular blocky, friable
14	TO	30	Bt2, Yellowish Brown (10 YR 5/4) silty clay loam; Com Dist; mod; subangular blocky; friable
_____	TO	_____	
_____	TO	_____	
_____	TO	_____	Loading Rate:

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period		Perc. Rate as Minutes/Inch		Depth of Hole	
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	"
_____	_____	"	_____		_____	" Min / Inch
TOTAL OF MIN / IN →			_____	=	_____	
TOTAL NO. OF HOLES→			_____			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S)_____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

3800-FM-WSWM0290A Rev. 10/2003

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ONLOT DISPOSAL OF SEWAGE

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE SIDE

Application No. _____ Municipality West Vincent County Chester

Site Location 1830 St Matthews, Test Pit 2-2-6 Subdivision Name _____

☒ SUITABLE Soil Type _____ Slope _____% Depth to Limiting Zone 14" Ave. Perc. Rate _____

☐ UNSUITABLE ☒ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☐ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other Bottom of test pit

SOILS DESCRIPTION:

Soils Description Completed by: Darren Knepper (Soil Scientist) Date: February 2, 2022

Inches			Description of Horizon
0	TO	9	A, Dark Yellowish Brown (10 YR 3/4) silt loam; weak; subangular blocky friable
9	TO	14	Bt, Yellowish Brown (10 YR 5/6) silt loam; mod; subangular blocky, friable; 15%CF
14	TO	24	Bt2, Yellowish Brown (10 YR 5/4) silty clay loam; Com Dist; mod; subangular blocky; friable
	TO		
	TO		
	TO		Loading Rate: 0.28

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: _____

Weather Conditions: ☐ Below 40°F ☐ 40°F or above ☐ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☐ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								
			10 / 30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch		Depth of Hole	
	"				"
	"				"
	"				"
	"				"
	"				"
	"				"
TOTAL OF MIN / IN →			=		Min / Inch
TOTAL NO. OF HOLES→					

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by DEP.

(S) _____
Sewage Enforcement Officer

☐ White - Local Agency ☐ Yellow - Applicant ☐ Pink - Local DEP Office

CHD

Chester County Health Department

Pre-Soak and Perc Form

Name Maxwell Application # 2150512

Subdivision _____ Municipality W. Vincent

Location 1330 Saint Matthews Rd Contractor Warner Associates

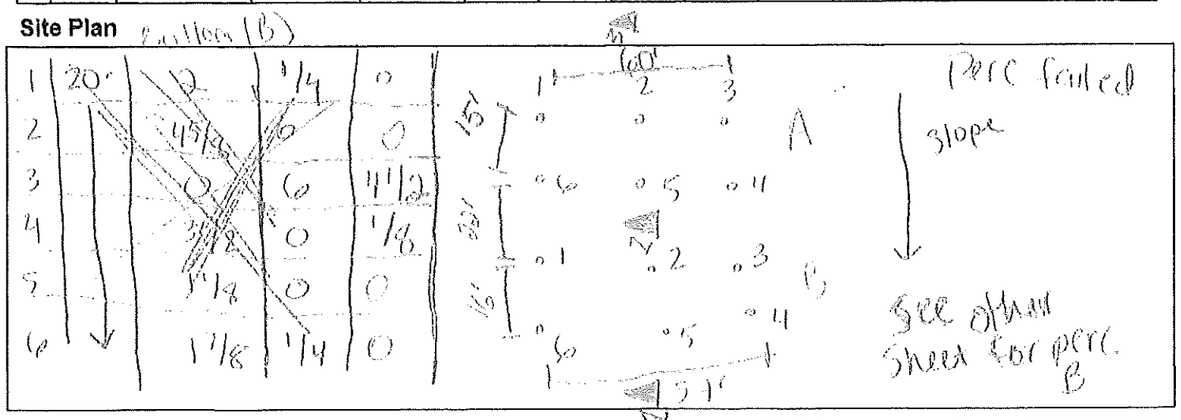
Test Pit 1, 2, 3 Lot # _____ Slope % 10%

Initial Presoak was checked on: 4/16 Holes were dug at depth(s) of: 20 inches

and appeared to be properly prepared and presoaked. _____
Enforcement Officer Signature

	Hole Depth	Remaining Water	PS1 (not set)	PS2	1	2	3	4	5	6	7	8	Time Interval
1	20	2 1/8	1/4	1/2	1/8	1/16	1/16	1/8					30/10 min
2	|	6	0	0	0	0	0	0					30/10 min
3	|	5 1/2	|	0	0	0	0	0					30/10 min
4	|	6 1/4	|	0	0	0	0	0					30/10 min
5	|	7	|	0	0	0	0	0					30/10 min
6	|	5 3/4	|	0	0	0	0	0					30/10 min
7													30/10 min
8													30/10 min
9													30/10 min

Site Plan Bottom (B)



I, the undersigned, the (agent for) OWNER do hereby acknowledge receipt of notice from the Chester County Health Department's completion of percolation testing in connection with the above captioned sewage permit application number, said notice is given by said Department in accordance with 35 P.S. 750.7(b)(8) Et Seq. I further acknowledge that all test holes must be backfilled within (3) three days of the date of this notice.

Enforcement Officer _____ Date 4/27/16 Received by _____

Rev 4/14/11

CCHD

Chester County Health Department

Pre-Soak and Perc Form

Name Maxwell Application # [illegible]

Subdivision ______ Municipality W. Vincent

Location 1330 Saint Matthews Rd Contractor Walsh

Test Pit Wk 3 Lot # ______ Slope % 10%

Initial Presoak was checked on: 8/1/16 Holes were dug at depth(s) of: 20 inches

and appeared to be properly prepared and presoaked. ______
Enforcement Officer Signature

	Hole Depth	Remaining Water	PS1	PS2	1	2	3	4	5	6	7	8	Time Interval
1	20	3	1/4	0	1/8	1/8	0	0					30/10 min
2	20	4 5/8	0	0	0	0	0	0					30/10 min
3	20	0	6	4 1/2	4 3/4	4 3/8	4 1/4	4 1/8					30/10 min
4	20	2 1/2	0	1/4	0	0	0	0					30/10 min
5	20	1 1/16	0	0	0	0	0	0					30/10 min
6	20	1 7/8	1/4	0	1/8	1/8	1/8	1/8					30/10 min
7													30/10 min
8													30/10 min
9													30/10 min

Site Plan

(Perc test B) * see perc test A plot plan

I, the undersigned, the (agent for) OWNER do hereby acknowledge receipt of notice from the Chester County Health Department's completion of percolation testing in connection with the above captioned sewage permit application number, said notice is given by said Department in accordance with 35 P.S. 750.7(b)(8) Et Seq. I further acknowledge that all test holes must be backfilled within (3) three days of the date of this notice.

[illegible signature] 4/13/16 [illegible signature]

Enforcement Officer | Date | Received by

Rev 4/14/11

DK Environmental Services

TO: Josh Delaney
EB Walsh Inc

FROM: Darren Knepper
DK Environmental Services
Soil Scientist

Date: February 4, 2022

RE: Soil Test Pit Investigation
1830 St Mathews Road
West Vincent Township

On February 2, 2022, a soils investigation was conducted on the proposed Lot 2 at 1830 St Mathews Rd in West Vincent Township, Chester County. The purpose of the soil test pit investigation was to determine soil suitability for a drip irrigation sewage disposal system. Soil Scientist Darren Knepper examined six test pits during the investigation to determine whether any soil limitations are present at the proposed drip irrigation sites. A previous test pit investigation was conducted by Scott Andress of EB Walsh at this site. This investigation was intended to supplement and further delineate the soils around the proposed primary and secondary sewage disposal sites. Josh Delaney of EB Walsh represented the home owner and coordinated the test pit investigation. Test pits were also observed by Hollis Weston of the Chester County Health Department (CCHD), sewage enforcement officer (SEO) for West Vincent Township. Nancy Sansoni as well as Suzanne Banks represented the Pennsylvania Department of Environmental Protection (PADEP) and observed the testing as well

Soil suitability for septic system use is determined by several factors, including:

- Soil Limitations
- Slope
- Percolation Rates

Soil interpretations are based on actual soil conditions observed in the test pits and on the soil series mapped by the USDA Natural Resources Conservation Service and published in the Soil Survey of Chester County, Pennsylvania.

Soil limitations that may inhibit the renovation of sewage effluent include:

- Redoximorphic Features
- Fragipan
- Water Table
- High coarse fragment content
- Bedrock

The depth at which a limiting zone is identified in a test pit determines the type of septic system permitted by Pennsylvania Department of Environmental Protection (PADEP) regulations. Test pits that have limiting zones within 20 inches of the ground surface are generally considered unsuitable for the installation of a conventional on-lot subsurface disposal system. Test pits with limiting zones greater than 20 inches below ground surface (bgs) may be considered for placement of some types of subsurface septic systems; however, evaluation of other site conditions, such as slope and percolation rates, may be factors in site suitability determination.

According to PADEP's regulations, sites proposed for drip irrigation technology must be classified as either moderately well or well-drained soils with a minimum depth to rock or high coarse fragment content greater than 20 inches bgs. In general, these conditions are determined based on field evaluations. The presence of redoximorphic features at a depth greater than 20 inches bgs generally indicates a soil drainage class of at least moderately well drained. Percolation testing is not a requirement for determining drip irrigation system site suitability.

Results

The site is currently an existing property being proposed for subdivision. Topography across the proposed site is moderately sloping. The six test pits were labeled with the date and numbered in the order in which they were completed. Approximate test pit locations can be found on the attached site sketch. Results of this investigation are summarized in the paragraph below.

Results for the proposed Site 1 (lowest on the slope) two additional test pits were evaluated to bracket the East side of the proposed site. Test pits 2-2-1 and 2-2-2 were found to be limited by redoximorphic features at 25 and 24 inches bgs respectively. These two test pits would be matched up with the EB Walsh test pits 1 and 2 on the site plan. Based on the soil characterization results the soils observed in the soil probes meet PADEP's requirements for a drip irrigation sewage disposal system. A loading rate of 0.28 was assigned based on soil texture and structure.

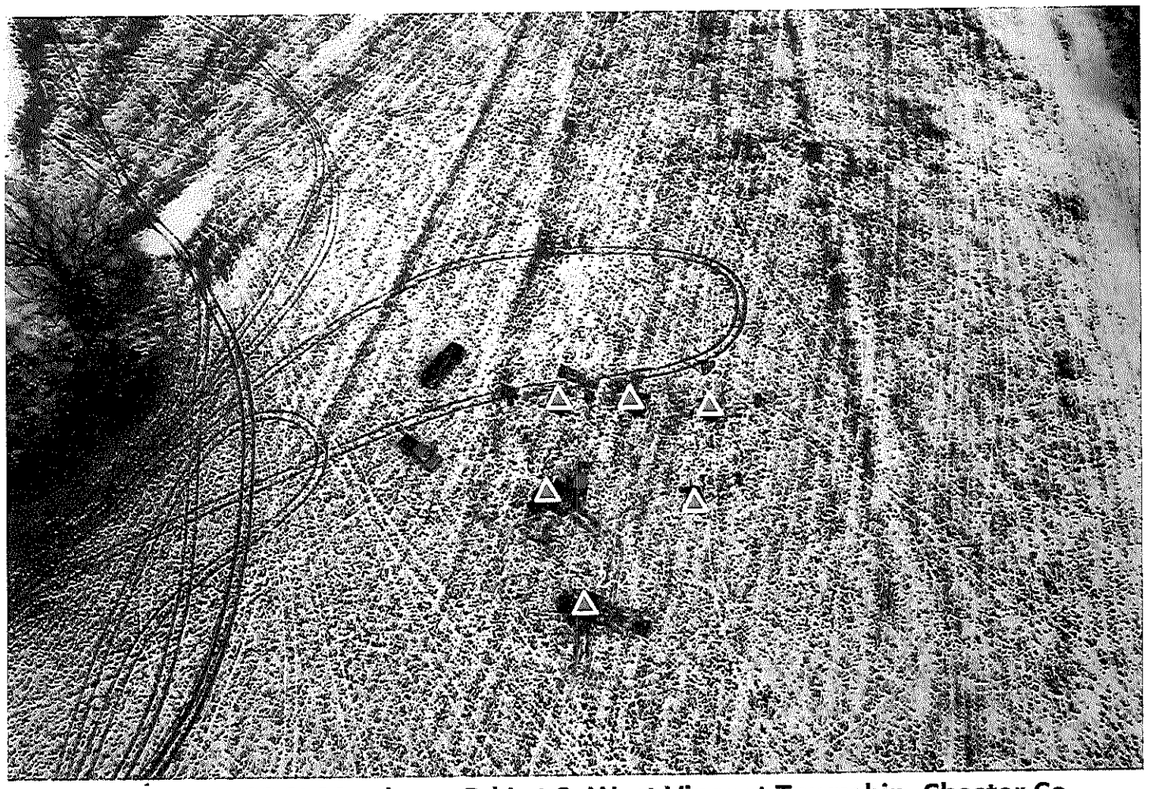
The proposed Site 2 (upslope from Site 1): The test pits conducted on the east side of the proposed sewage disposal site (2-2-3 to 2-2-6) where found to be limited by redoximorphic features between 12 and 16 inches bgs. Using test pits 2 and 3 from the previous EB Walsh investigation along with test pits 2-2-2 through 2-2-6 from this investigation a drip micro mound could be proposed as an option. Based on the soil characterization results, the soils observed meet PADEP's requirements for a micro-mound sewage disposal system. An infiltration loading rate of 0.4 (gal/ft^2/day) and a hydraulic linear loading rate of 4.0 (g/lf/d) was assigned, based on soil texture and structure.

Sincerely,
DK Environmental Services

Darren Knepper
Qualified Soil Scientist

DK Environmental Services

*site sketch, approximate locations, 2/02/2022

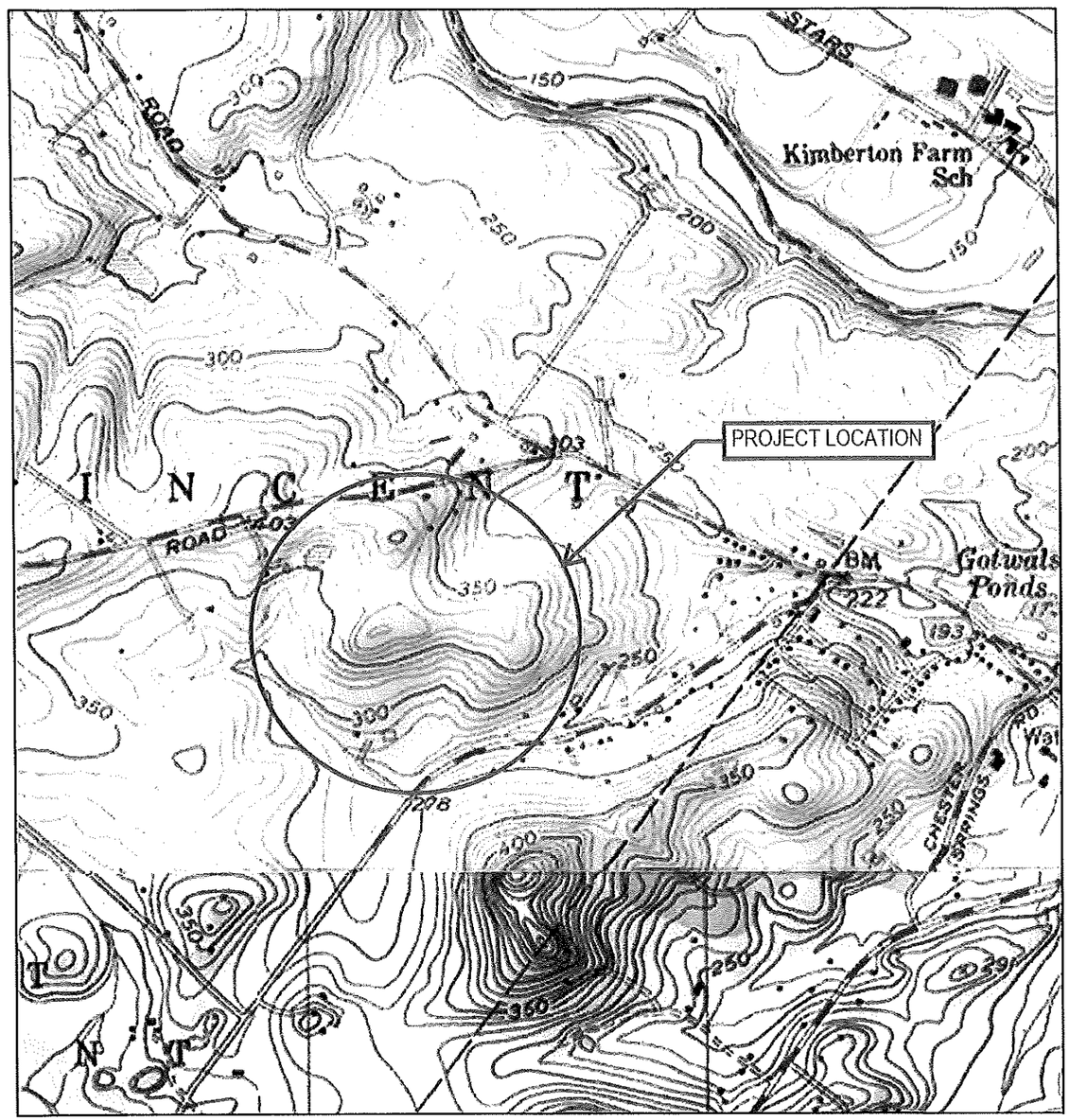


1830 St Matthews Rd Lot 2, West Vincent Township, Chester Co.

COMPONENT 2
ADDITIONAL INFORMATION

U.S.G.S MAP

1830 Saint Matthews Road



4/13/2023, 12:56:12 PM

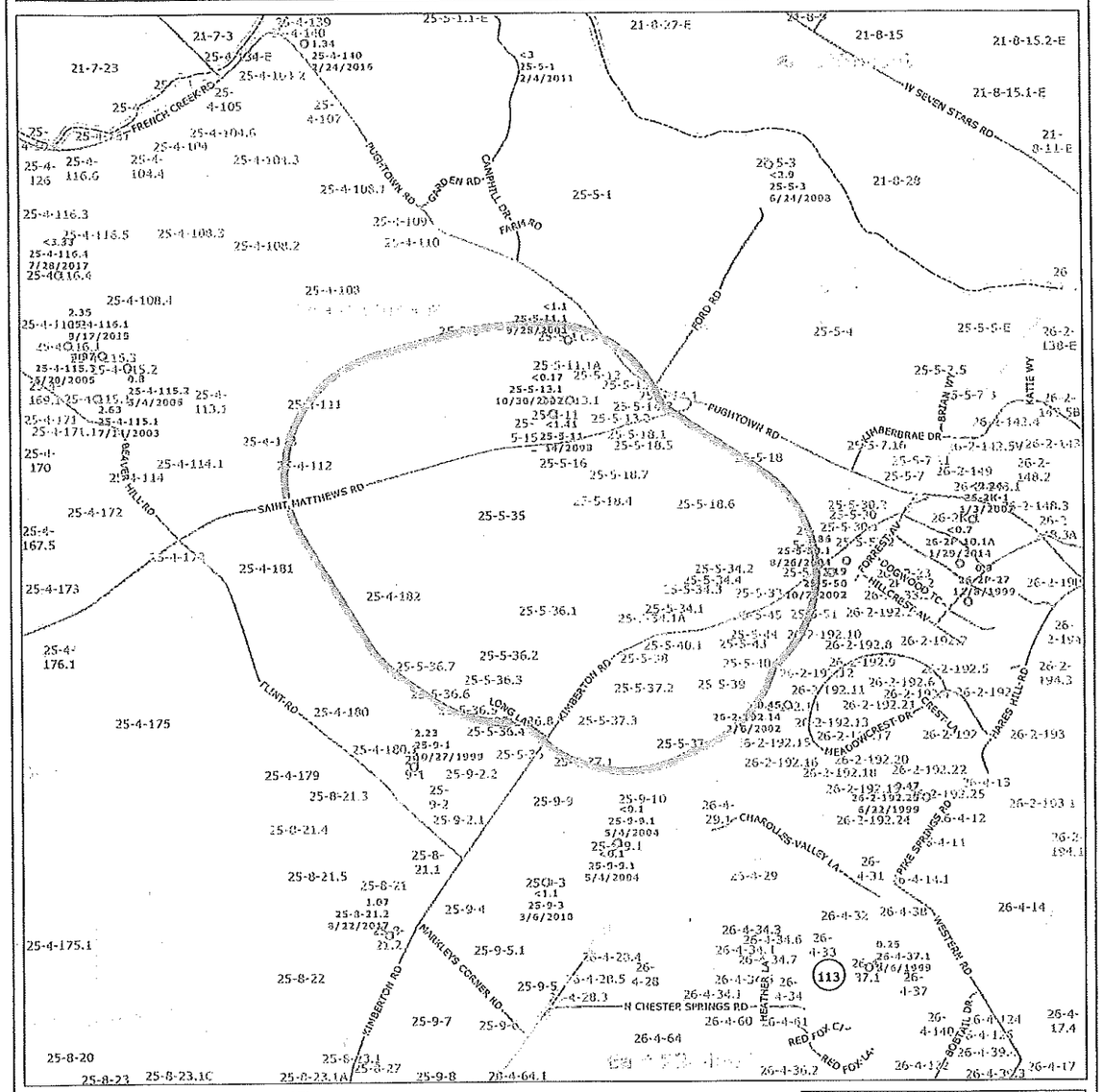
Name: Phoenixville

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

NITRATE MAP



Nitrate-Nitrogen Concentrations Within 1/4 Mile of 25-5-35

- ● >= 10 mg/L
- 5 - 9.99 mg/L
- ○ 0 - 4.99 mg/L

0 0.2 0.4
Miles

CCHD

Map Created: 4/12/2018 1:49:23 PM

Limitation of Liability and Use: County of Chester, Pennsylvania makes no claims as to the completeness, accuracy or content of any data contained hereon, and makes no representation of any kind, including, but not limited to, the warranties of mechantibility or fitness for a particular use,nor are any such warranties to be implied or infered with respect to the information or data furnished herein.

Mapping of well permit data reflects permits issued and approved since approximately 1999.
Well permits exist as parcel centroids.

COMPONENT 2 – SECTION E
AVAILABILITY OF DRINKING WATER SUPPLY

Section E – Availability of Drinking Water Supply

The project will utilize individual drinking water wells to be permitted by the Chester County Health Department.

COMPONENT 2 – SECTION F
PROJECT NARRATIVE

Section F. - Project Narrative

1. The applicant is proposing to subdivide tax parcel 25-5-35 consisting of approximately 57 acres into two single family dwelling lots. Lot #1 will contain the existing structures and consist of approximately 35 acres. Lot#2 will be for the proposed dwelling and consist of approximately 21 acres.

2. The proposed new lot is estimated to have sewage flows of 600 gallons per day or 1.5 EDU's. The existing dwelling contains 4 bedrooms for a calculated flow of 500 gallons per day or 1.25 EDU's.

3. The ultimate method of sewage treatment and disposal is by way of individual on-lot sewage disposal systems. Lot #2 was tested for both a primary and replacement area septic system. A residual tract waiver has been requested for Lot#1.

4. The proposed new lot has estimated sewage flow of 600 gallons per day or 1.5 EDU's. The existing dwelling is 4 bedrooms or 500 gallons per day.

5. The total acreage of the proposed subdivision is approximately 57 acres.

6. The project sponsor does not own any adjacent land.

COMPONENT 2 – SECTION G
GENERAL SITE SUITABILITY

ITEM G. 4 – Wetland Protection

There is a stream running along Kimberton Road; However the access to the home is now being considering to originate from St. Matthews road, and therefor eliminating any possible disturbance to wetlands.

ITEM G. 5. – Prime Agricultural Land Protection

The project will impact Prime Agricultural Soils as identified in Township Ordinances however this proposal is consistence with those ordinances.

ITEM G. 6. – Historic Preservation Act

It is our opinion that the project qualifies for an exemption from notification because the project is proposing less than 10 acres of disturbance; as listed in the DEP/PHMC Policies and Procedures Implementation of the History Code List of Exemptions.

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

January 19, 2022

Josh Delaney
Edward B. Walsh
855 Springdale Drive Suite 202
Exton PA 19341

RE: ER Project # 2022PR00232.001, Maxwell Subdivision , Department of Environmental Protection, West Vincent Township, Chester County

Dear Josh Delaney:

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Above Ground Resources
No Above Ground Concerns - Environmental Review - No Effect - Above Ground

Based on the information received and available within our files, it is our opinion that the proposed project will have No Effect on above ground historic properties, including historic buildings, districts, structures, and/or objects, should they exist. Should the scope of the project change and/or should you be made aware of historic property concerns, you will need to reinitiate consultation with our office using PA-SHARE.

For questions concerning above ground resources, please contact Sara-Ladd Clark at saralclark@pa.gov.

Archaeological Resources
No Archaeological Concerns - Environmental Review - No Effect - Archaeological

Based on the information received and available in our files, in our opinion, the proposed project should have No Effect on archaeological resources. Our analysis indicates that archaeological resources are potentially located in this project area. Should the scope of the project be amended to include additional ground-disturbing activity and/or should you be made aware of historic property concerns, you will need to reinitiate consultation with our office using PA-SHARE.

For questions concerning archaeological resources, please contact Sara-Ladd Clark at saralclark@pa.gov.

Sincerely,

Emma Diehl
Environmental Review Division Manager

COMPONENT 2 – SECTION I
ALTERNATIVE ANALYSIS

Section I - Alternative Sewage Facilities Analysis

1) The chosen method of sewage disposal is by way of individual on-lot sewage disposal systems. This alternative is considered to be the ultimate method of sewage treatment and reclamation for the two dwellings.

2) The properties to the north, south and west are zoned R2 –Residential. The properties to the east are zoned Kimberton Village. The surrounding properties are all served with on-lot sewage disposal systems.

3) There are no known sewage disposal needs in the immediate vicinity of the project.

4) The Townships official sewage facilities plan identifies the project area as being in served by on-lot sewage disposal.

5) There are no known sewage management programs that the project will be required to participate.

6) Alternative sewage disposal methods, which might be employed to serve the project, include stream discharge and public sewer. Public sewer is not a viable option because public sewer is not available in this portion of the Township. Stream discharge is not a viable option because there are land based disposal options available for the property.

7) The chosen method of sewage disposal via on-lot sewage disposal systems was selected because it best meets the short and long term sewage disposal needs of the project and it is consistent with the current Act 537 plan.

8) The individual lot owners will be responsible for the operation and maintenance of their respective on-lot sewage disposal systems.

COMPONENT 2 – SECTION J
PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES

1. PROJECT INFORMATION

Project Name: **Minor Subdivision for UPI 25-5-35**
Date of Review: **5/15/2023 09:38:20 AM**
Project Category: **Development, Residential, single-family living unit (not located within a subdivision)**
Project Area: **57.78 acres**
County(s): **Chester**
Township/Municipality(s): **WEST VINCENT TOWNSHIP**
ZIP Code:
Quadrangle Name(s): **PHOENIXVILLE**
Watersheds HUC 8: **Schuylkill**
Watersheds HUC 12: **Lower French Creek**
Decimal Degrees: **40.131150, -75.597096**
Degrees Minutes Seconds: **40° 7' 52.1391" N, 75° 35' 49.5460" W**

2. SEARCH RESULTS

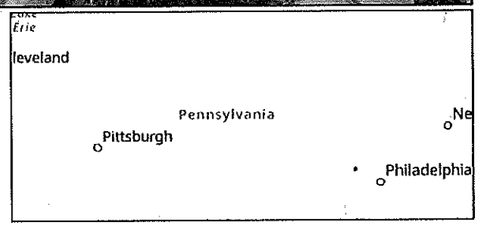
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Minor Subdivision for UPI 25-5-35

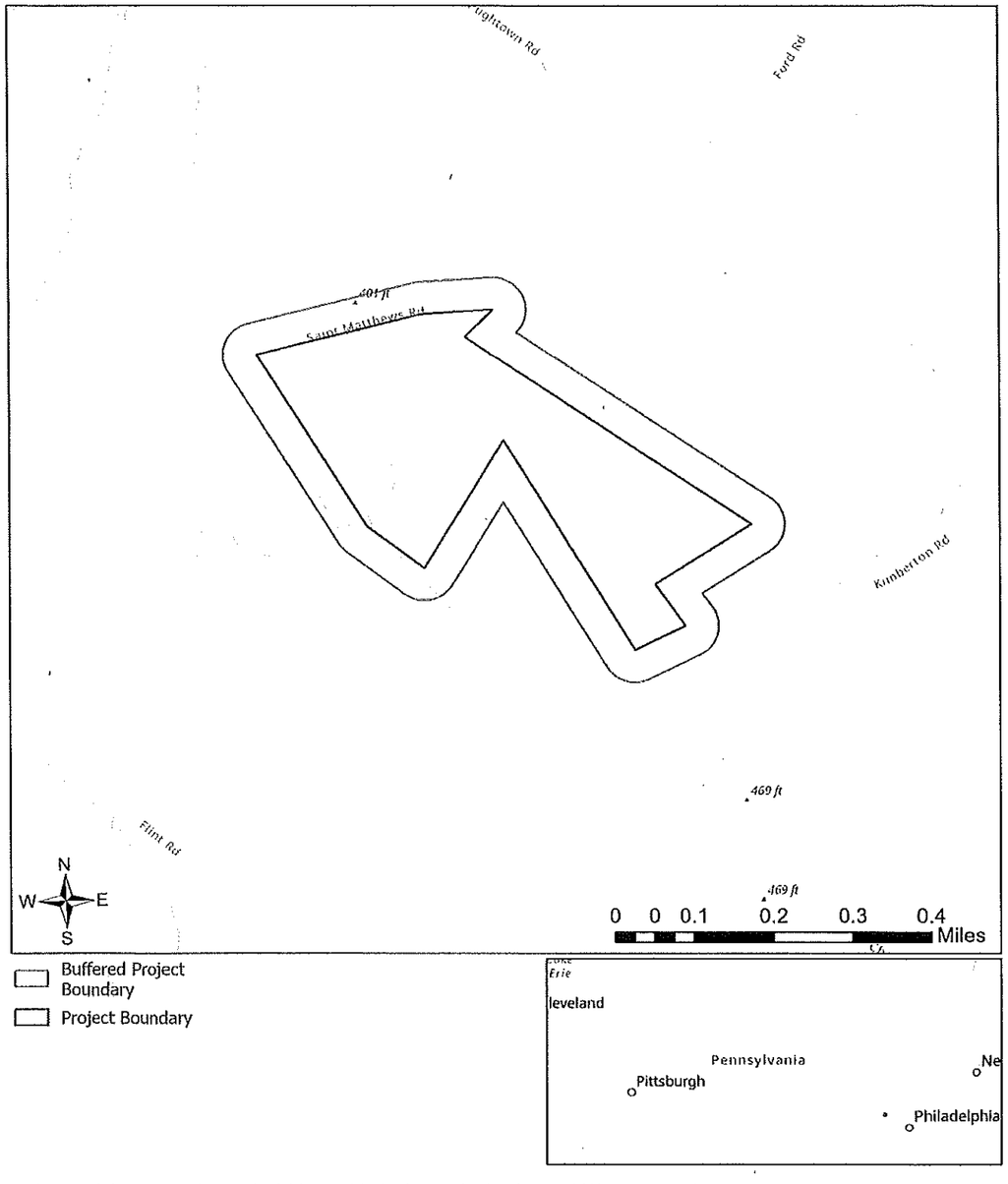
Buffered Project Boundary

Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Minor Subdivision for UPI 25-5-35



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

RESPONSE TO QUESTION(S) ASKED

Q1: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.
Your answer is: Someone qualified to identify and delineate wetlands (holding a natural resource degree or equivalent work experience) has investigated the site, and determined that NO wetlands are located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission
RESPONSE:
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources
RESPONSE:
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission
RESPONSE:
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service
RESPONSE:
No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Haley Wallace
Company/Business Name: Edward B. Walsh & Associates, Inc,
Address: 855 Springdale Drive, Suite 202
City, State, Zip: Exton, PA 19341
Phone:(610) 257-7457 Fax:(610) 903-0080
Email: hwallace@ebwalshinc.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Haley Wallace
applicant/project proponent signature

5/15/2023
date

Wetland Determination Report

Completed By: Josh Delaney, SEO – Edward B. Walsh & Associates

August 4th, 2022

1830 St. Matthews Road
West Vincent Township, Chester County

Dear Recipient:

Edward B. Walsh & Associates; more specifically Josh Delaney, their qualified wetland delineator, made a site visit to determine if there were wetlands within 300' of the project area. Following the United States Army Corps of Engineers Wetland Delineation Manual of 1987, and the regional supplement for the eastern mountain piedmont region. No wetlands were found within 300' of the proposed project area.

The site was sampled for 3 different criteria of a wetland.

Hydrophytic Vegetation – Hydric Soils – Hydrology.

None of these indicators were present within 300' of the project area.

Please feel free to reach out with any questions regarding this determination.

Sincerely,

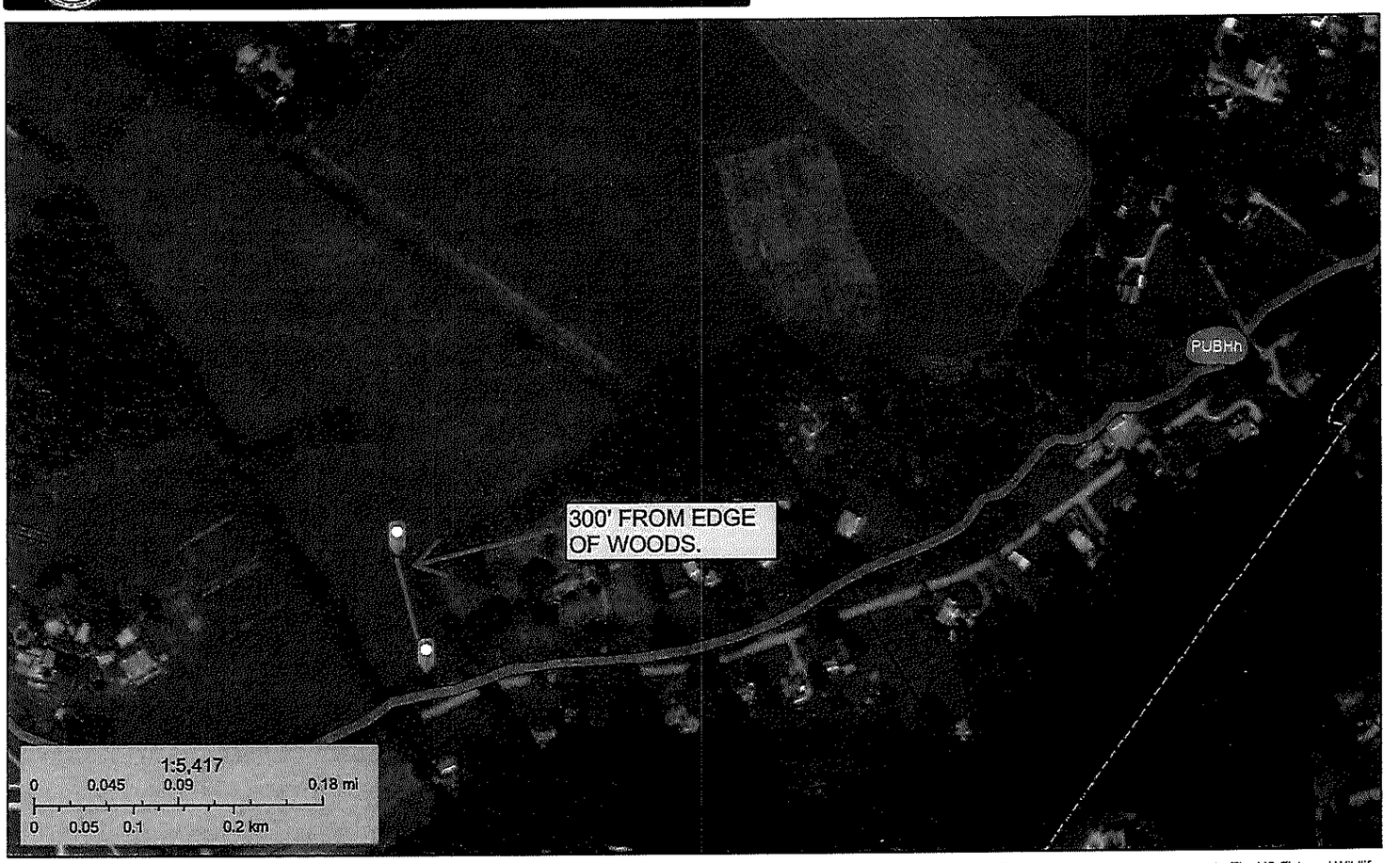
Josh Delaney, SEO

EDWARD B. WALSH & ASSOCIATES, INC.
855 SPRINGDALE DRIVE, SUITE 202
EXTON PA, 19341

U.S. Fish and Wildlife Service

National Wetlands Inventory

1830 ST. MATTHEW ROAD



August 2, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

SEPTIC SYSTEM DESIGN

AMERICAN
Manufacturing Company, Inc.

PERC-RITE® PRE-INSTALLATION GUIDANCE SUMMARY

PRE-CONSTRUCTION GUIDANCE FOR

The following are recommended steps prior to initiating construction.

1. Purchase and have delivered all additional standard parts such as PVC pipe, treatment tanks, and electrical wiring, that is available.
2. Rent the proper machine for tubing installation. A vibratory plow is required for in-ground installs; no cable pullers.
3. Make sure the drip equipment package is complete once it has been delivered.
4. Using an elevation control method, lay out each tubing run on contour. Confirm that the drip install area has been properly marked in the field and is on contour and that the site is ready for installation. Tubing can only be installed in dry soil conditions.
5. Notify the "Startup" Dealer you are starting a new installation and a startup inspection will be needed soon.

NOTICE: A 28 page Dealer manual is available to all installers for detailed instruction. Installers who have not gone through American Perc-Rite® training please call your Dealer or Distributor for scheduling the training.

TRAINING OPPORTUNITIES

American Manufacturing provides drip training in several formats. We assist local and state regulators in developing seminar materials to describe the complete drip system design, installation, and operation, in accordance with the National Standard adopted by "NOWRA". We work with academics in the same manner. There are also conference opportunities for training through NOWRA and its' affiliates.

For installers who need immediate training to perform a new system install, American can provide online help with a "Zoom" call seminar that describes the system in as much detail as the installer needs. Questions can be answered as needed.

Our field sales personnel are available for hands-on training during the installation itself. However, lead time is necessary to plan this training. Our personnel are busy so scheduling well ahead of time is important.

Site visits to American in Elkwood, Virginia are available for in-house hands-on training. Again, scheduling well ahead of time is necessary.

PERC-RITE® DRIP SYSTEM INSTALLATION PROCEDURE

The following are recommended construction steps:

1. Deliver necessary equipment to the site and stage in an area where access and egress will not damage the installation area.

2. Prepare dispersal area for installation.

3. Set the septic tank, treatment unit (if applicable), pump tank and components including the pump, the Cool Guide™, the pump kit, the float tree, as well as the junction box, and wiring.

4. Place Hydraulic Unit at location specified on the design. A drained gravel base is needed. Gravity flow is needed for the flush line back to the building sewer line prior to the first tank. Mount the control panel and complete all necessary wiring. Make sure to properly ground the panel.

5. Dig ditches for supply and return manifold.

6. Dig ditches for supply and return lines.

7. Cut the tubing at the proper lengths (+4') and Install drip tubing at depth specified by the designer per instructions. (Cover ends with duct tape)

8. Construct loop ends to connect runs of tubing. Loop ends should be elevated to pitch into the drip tubing with specified final cover. Install loops (flex tubing) connecting ends of drip tubing.

9. Dry fit pressure lines and field manifolds.

10. Glue all fittings and place air release valve boxes around air release valves.

11. Install electrical service and connections to components.

IMPORTANT: Notify the "Startup" Dealer you are starting a new installation and a startup inspection is requested.

12. **Before backfilling any of the system components,** the start-up must be performed. This must be scheduled with the Contractor. The pump tank must be filled with clean water for the Start-up and the system needs to be pressure tested for leaks prior to being backfilled. Flush all fields through the air release valves. Operational checklist should be filled out.

13. Add the enclosure to the Hydraulic Unit and prepare to backfill around all components.

14. Backfill once lines and fields are determined to have no leaks. Backfilling is to be controlled to prevent damage to the pipes or fittings. Do not compress soil over the field.

16. Grade, seed, and mulch site and coordinate final inspection.

17. Fill out and send in the warranty registration form.

Commonwealth of Pennsylvania
Department of Environmental Protection (DEP)
Bureau of Point and Non-Point Source Management
Harrisburg, PA

Issued to: American Manufacturing Co, Inc.
PO Box 97
Elkwood, VA 22718-0097
Phone: 800-345-3132
www.americanonsite.com

Technology: American PERC-RITE® (PERC-RITE secondary effluent)

Classification Type: Alternate technology (A2014-0022-0002)

Classification Date: February 6, 2004 (ASG)
February 24, 2014

In accordance with Title 25, Chapter 73, Section 73.72, DEP has classified the American PERC-RITE secondary effluent (PERC-RITE secondary effluent) drip irrigation system for use as an alternate onlot sewage treatment system in the Commonwealth of Pennsylvania. This classification permits the use of the American PERC-RITE secondary effluent drip irrigation as components used for the specific purposes of distributing secondary effluent wastewater for discharge to an absorption area.

I. Technology Description

Drip irrigation is the technology by which effluent at the secondary treatment level is distributed to the drip dispersal field using a configuration of components that consists of an automated controller, a septic tank(s) and/or an aerobic tank, a pump tank(s), a hydraulic unit(s), and a network of flexible drip emitter tubing. Distribution of sewage to the drip dispersal field, network forward flushing, and for backflushing of filter wash solids to the pretreatment train are activated by a controller. Through drip irrigation, wastewater is distributed in small dose volumes over an infiltration field to aid in maintaining the aerobic environment in the soil for biochemical treatment of the wastewater.

II. Design Requirements: The minimum specifications in this Section may not be sufficient to design a complete system for all applications.

a. General System Requirements:

(1) The system is to be configured as a complete package from a single source consisting of drip tubing, specialized field fittings, pump and pump chamber components, filtration units (headworks), and control panels at a minimum. All components shall be designed and manufactured to resist the corrosive effects of wastewater and common household chemicals.

(2) The system manufacturer shall make available head loss charts, tables, formulas for various drip tubing lateral lengths during a dosing and flushing cycle, and pertinent information such as minimum/maximum zone size, and filter flushing requirements.

(3) Pump selection shall take account of the operating flow and pressure for the drip dispersal field when calculating the total dynamic head required for filter backwashing, field dosing, and dripline flushing. All disposal and flushing parameters must meet the listed manufacturer's requirements and fall within the operational range of the pump selected.

(4) The drip irrigation system shall provide the means, at minimum, to accurately calculate flows, pump cycle counter, pump elapsed time, counts of automated flushing events and alarm events. This requirement is to be accomplished by having a flow meter and a control unit that performs these functions. These functions are necessary to provide proper operation and maintenance and to verify and monitor emitter performance, scouring or flushing performance, and water use.

(5) A programmable timer control panel shall be employed to regulate dosing frequency, volume, and other pertinent information. The control panel is to provide manual capability to operationally verify filter flushing, dosing, and flushing.

(6) Components shall be UL Listed. Schematic and manual to be provided with control. The panel is to provide accommodation for optional remote alarm. Installation is to be according to all local codes. The electrical control equipment shall be mounted within a NEMA 4X rated enclosure with a rigid latching door. All switches shall be clearly identified, and all internal wiring shall be factory installed.

(7) The system must be equipped with a dosing tank alarm to alert the operator of problems with the system.

b. Treatment Tank Requirements:

(1) Tank installations must consist of either a two-compartment rectangular tanks, two rectangular tanks in series, and otherwise conform to meet the requirements of Section 73.31. Cylindrical tanks meeting the requirements of Section 73.31 may also be used. Vertically aligned circular (round) tanks are not permitted. Aerobic treatment tanks must be in compliance with Section 73.32.

(2) Configuration Sequence: Sewage must be further treated using one of the methods described by Section II.b.(2).

(i) A septic tank followed by an intermittent sand filter designed in accordance with Chapter 73, Section 73.162.

(ii) A septic tank followed by a treatment component that is both designed in accordance with the listings and able to achieve secondary treatment standards (i.e. effluent which does not exceed 25 mg/l $CBOD_5$ and 30 mg/l TSS as monthly averages).

(iii) An aerobic treatment unit satisfying the requirements of Section 73.32 may be used in place of a septic tank. This option will require (1) the specific aerobic tank proposed to be identified and (2) a letter from the drip manufacturer indicating that the drip manufacturer has evaluated the specific tank for compatibility with their system.

c. Dosing Chamber Requirements:
   (1) A dosing chamber shall be employed after the treatment tank and before the drip dispersal system, and shall be sized and equipped so as to permit flow equalized timed dosing of the daily sewage flow with adequate reserve storage capacity for those times when the system is inoperable.
   (2) The dosing chamber working volume (surge storage) shall be at a minimum 60% of the peak design flow volume. This volume may be calculated from the timer enable to the high water alarm floats. In no case shall a pump tank volume be less than what is typically required for a standard septic tank for the system. Flow equalization volume utilized to time dose an upstream pretreatment component, may be used as a portion of the drip dose equalization volume requirements.
   (3) The dosing chamber shall be equipped with an audible and visual high-water alarm set to provide reserve capacity to allow for the prompt repair of the system. The minimum amount of reserve volume above the high water alarm is 25% of the peak daily flow. A low-water separate cutoff device (float) shall be provided to prevent damage to the pump during low-water conditions and shall be separate from the timer enable device (float).
   (4) The dosing chamber shall be fitted with watertight access risers to grade and be secured against unauthorized entry.
d. Hydraulic Unit Filtration Requirements:
   (1) Final filtration must be provided by a hydraulic headworks unit fitted with disc filters to remove suspended solids. A minimum of two ¾" diameter inlet Arkal disc filters (no greater than 115 microns) are required. Automatic filter backwashing is required.
   (2) The in-line filters shall achieve the drip tubing manufacturer's minimum specified filtration at a rate equal to or greater than the peak discharge rate during forward flushing. The filters are to be backwashed at the manufacturer specified minimum psi requirement.
   (3) The hydraulic headworks and control system must include a mechanism to automatically backflush the filters independently before each dose. The filters are to be backwashed at the manufacturer specified minimum psi requirement.
   (4) Filter wash residuals must be returned to the head of the pretreatment train (i.e. the first compartment of the septic tank or the inlet of an aerobic treatment tank) prior to entering the drip dose pump chamber. The flush return volume shall not exceed the hydraulic capacity of the treatment unit.
   (5) The hydraulic unit must be protected from temperatures below freezing in accordance with the manufacturer's specifications.
e. Use of the Component/System and Siting Requirements:
   (1) The soils must be classified morphologically as either well drained or moderately well drained as determined by a soil scientist who is a professional member of the Pennsylvania Association of Professional Soil Scientists (PAPSS) or is a qualified soil scientist as defined in Section 73.1.

(2) On these sites, the treatment and disposal distribution configuration is based on the tubing linear loading rate derived from Table 1, the soil morphological analysis, and the Hydraulic Linear Loading Rate (HLLR) in accordance with Section II.f.

(3) Preparation of a soils report which includes the following at a minimum:

(i) Inclusion of project name, project location, date of investigation, soils series, and slope.

(ii) A minimum of two soil profile test pits shall be evaluated to verify the morphology of the proposed absorption site. These soil profiles shall include two soil profile evaluations bracketing the proposed absorption area as determined by the soil scientist. The soil profiles may be supplemented with the use of hand auger to confirm soil conditions between profiles. Excessive disturbance of soils within the proposed drip zone must be avoided.

(iii) Determination of the depth to the seasonal high water table limiting zone and/or the depth to the rock limiting zone.

(iv) Determination of the soil drainage classification and assigning the appropriate tubing linear loading rate consistent with Table 1 and with Section II.f by using the most restrictive results from the soil profile evaluations conducted. The shape and grade of structure, as well as textural classification of the mineral soil from the profile horizon above the seasonal high water table or restrictive horizon, is used to determine these rates. Note this information is to be attached to the permit application.

(v) The on-contour spacing of the soil profile evaluations shall not exceed 100 feet in length.

(vi) In cases where the calculated area length exceeds 100 feet, additional soil profile evaluations are required to verify the soil morphology of the absorption area.

(vii) Overall site suitability will be limited by the most restrictive depth to the seasonal high water table, depth to rock formation and soil morphology from all of the soil test pits evaluated.

(viii) The soils report must provide the designer with the recommended tubing depth and site-specific details of the delineated area, including a preliminary design (dimensions of the area, slope of site, etc.) meeting the specifications of Section II.e. The report should identify and offer recommendations to address site conditions (i.e. soil quality, slope, stoniness, vegetation, surface drainage, site preparation, depth of installation, etc.) that could affect the design and/or field installation.

(ix) Signature of the qualified soil scientist (a professional member of the Pennsylvania Association of Professional Soil Scientists (PAPSS) or is a qualified soil scientist as defined in Section 73.1) certifying the contents of the soils report which includes the items in Section II.e.

(4) The site must meet the minimum horizontal isolation distances described in Section 73.13 plus an additional two (2) feet beyond the outermost drip tubing in a drip distribution zone.

(5) The slope in each drip distribution zone must not exceed 25%.

(6) The minimum depth to the limiting zone from the mineral soil surface must be greater than or equal to 20 inches. A minimum vertical isolation distance of 14 inches must be maintained between the depth of installation of the drip distribution tubing and the seasonal high water table limiting zone. A minimum vertical isolation distance of 20 inches must be maintained between the depth of installation of the drip distribution tubing and the shallowest indication of rock. The maximum tubing installation depth is 12 inches from the soil surface.

f. Drip Distribution Requirements:

(1) Each drip dispersal field or zone shall be time-dosed at regular intervals throughout the day at an average design flow dose regime, as specified by the manufacturer and designer. The absorption area is sized on peak daily design flow. The system controller shall provide for a zone to be rested or manually removed from service. The controller shall have the capability to bypass the zone(s) that have been taken out of service and dose the next available zone with normal sequence continuation. Mechanical indexing valves to control zone dosing shall not be used.

(2) To maintain uniform distribution, the minimum dose volume in a drip dispersal network is calculated using 80% of the dose being dispersed during times of equal distribution, accounting for pressurization time and redistribution of pump shut off and no less than three times the volume of pipe (plus the volume of supply, return lines, and field manifolds, where applicable). These conditions are intended to provide equal distribution within the network (less than 10% variability) including network pressurization and gravity redistribution at pump shut off.

(3) A minimum of two zones are required for each system, with adequate flow equalization provided to accommodate time dosing of the zones.

(4) The drip tubing must follow the contour of the land and maintain a uniform installation depth.

(5) Each zone must automatically flush a minimum of 25 cycles to clean the drip tubing, maintaining a scouring velocity of 2 feet per second at the distal end of each lateral connection. Field network flush residuals must be returned back to the head of the treatment train or, if the site design requires, to a separate settling tank prior to the dosing tank. The flush return volume is not to exceed the hydraulic capacity of the pretreatment unit.

(6) The sizing of the drip tubing network shall be based on the site evaluation, in accordance with Table 1. The maximum loading rate must be no more than 0.34 gallons per day per linear foot of tubing. The total linear feet of drip tubing required is the maximum design flow in gpd divided by this loading rate.

(7) The tubing must have continuous self-cleaning pressure-compensating emitters every 2 feet with spacing between tubing. All emitters within the zone shall provide equal distribution between plus or minus 10%, including network pressurization and redistribution at pump shut off. Only tubing manufactured by Netafim has been shown to meet these requirements. Tubing is to be installed between 1 and 3 feet unless justification for different spacing is provided due to site conditions (i.e. trees,

irregular topography, etc.). Tubing separations less than 2 feet require recommendation of the soil scientist.

(8) The maximum horizontal linear load (the gallons per foot along the topographic contour) is 4.6 gallons per day as calculated on the average daily flow of the onlot system. The average daily flow is 50% of the maximum design flow as listed in 73.17 (relating to sewage flows).

(9) The horizontal linear load equals the average daily gallons per day divided by the length of the system.

(10) The minimum horizontal length required is the average daily flow divided by 4.6.

(11) The sewage enforcement officer may require the site plan for the drip distribution zones to be developed by or in consultation with the manufacturer or a representative of the manufacturer of the drip distribution system being installed.

(12) All drip distribution systems shall be equipped with devices or methods to prevent the gravity redistribution of effluent in the absorption area and minimize redistribution of the effluent remaining in the tubing after the end of a dose cycle to lower portions of the drip zone. On slopes greater than 5%, top-feed supply and return manifolds shall be used.

g. Construction:

(1) An onsite preconstruction conference attended by the sewage enforcement officer, designer, installer, and the property owner prior to construction is recommended.

(2) Drip lines are typically installed below the soil surface using a vibratory plow, a standard trencher up to 6 inches wide, or by manual or hand installation to a maximum depth of 12 inches from the soil surface, with 6 inches being the optimum installation depth. Cable pullers shall not be used where the tubing installation depth is within 3 inches of clay loam and clay texture or the soil is stoney. Tubing must not be installed into backhoe trenches. Other methods of installation may be considered in consultation with the manufacturer or a representative of the manufacturer of the drip distribution system being installed. Where installation depths less than 6 inches from the soil surface are necessary due to stoniness, additional cover shall be required to provide 6 to 12 inches of cover. Cover may be either clean mineral soil or native soil of a texture no heavier than Loam. Imported mulch or compost is permissible in wooded areas of passive activity with established forest litter. For installation less than 6 inches, the tubing may not be installed on the ground surface unless the surface is first scarified to create adequate soil and tubing interface.

(3) The manufacturer's representative must be present to oversee the installation of the system. The current list of representatives is available from the manufacturer. As an alternative, contractors who have completed a training course provided by the manufacturer and have successfully installed a sufficient number of drip systems under the direct supervision of the manufacturer's representative may install the system independently of oversight by the manufacturer only after receiving written verification of their status as a qualified installer by the manufacturer's representatives.

(4) Installation of the drip distribution system shall meet the specifications provided by the individual manufacturer.

(5) Drip tubing is susceptible to freezing when sufficient turf cover is not established in non-wooded areas prior to winter operation. When turf cover will not be established prior to winter operation, other measures, such as a temporary cover of mulch or straw, should be used to insulate over the tubing, manifolds, force mains, valve boxes, and other components of the drip installation subject to freezing.

(6) Soil moisture conditions are to be at or below field capacity during construction. These conditions must be determined in the manner that soil moisture conditions are determined prior to the construction of an elevated sand mound.

h. Location: The American Perc-Rite secondary may be installed for the treatment of domestic strength wastewater (as defined by Table 1 of Miscellaneous Data to be used in Conjunction with PA DEP listings) serving a new construction or as a repair.

III. Minimum Maintenance Standards:

a. The manufacturer's representative must meet with the property owner within one (1) month of system start-up and/or occupancy of the dwelling and with the local agency's SEO upon request, to explain the operation and maintenance of the system and provide written instructions to the property owner that includes:

(1) Instructions on the operation and maintenance of the system;

(2) The locations of all parts of the system;

(3) A caution notice regarding disturbance of the drip zones that may cause system damage (i.e. excavation for trees, fencing, etc.);

(4) An explanation of the automatic alarm system;

(5) A statement requiring that the manufacturer's representative be contacted if the alarm system is activated.

b. Warranty:

The manufacturer of the drip distribution system must provide a minimum 2-year warranty on all defects due to materials or workmanship.

c. Inspection:

(1) A maintenance agreement must be established between the property owner and the service provider experienced in the operation and maintenance of the American PERC-RITE.

(2) Inspection of the area around the soil absorption area every 6 months by the homeowner to ensure that there is no ponding of effluent or downgradient seepage.

(3) Inspection by the maintenance provider at least annually to ensure that:

(i) The dosing flows in each drip zone are consistent with the design;

(ii) The system tubing network is flushing properly;

(iii) The in-line filters are in good working order;

(iv) The system is backwashing the in-line filters to remove debris.

(4) The service provider shall inspect at least the following items at an interval frequency recommended by the manufacturer's requirements:
   (i) Septic tanks, dosing tanks and lift pumps shall be inspected for structural integrity of the tank, inlet and outlet baffles, solids retainer, pumps, and electrical connections by the maintenance provider.
   (ii) Aerobic tanks shall be inspected for structural integrity of the tank, inlets, and outlet baffles, buoyed solids retainer, pumps, siphons, and electrical connections.
(5) The manufacturer's authorized service provider may make operational adjustments (i.e. dose volume, dose frequency) based on system performance, in consultation with the manufacturer and/or designer.
(6) The inspection and concurrent pumping of excess solids shall be conducted in accordance with the manufacturer's requirements.
(7) In the event that the drip dispersal is found to be out of compliance, the manufacturer or the manufacturer's representative will assist in developing an action plan to bring the system into compliance.

IV. Permitting Requirements

a. An SEO who has successfully completed an appropriate Department sponsored training course that included this specific technology or has received review delegation in writing from the Department may independently review the design and issue the permit for systems including components designed under this listing. All other system proposals under this listing must be submitted to the Department for review and comment.
b. The soil drainage classification and the appropriate tubing linear loading rate and horizontal linear loading rate consistent with Table 1 must be attached to the permit application.
c. The operation and maintenance conditions specified in Section III must be attached to the permit issued by the local agency.
d. The sewage enforcement officer shall include on both the *Application for An Onlot Sewage Disposal* permit (Part III, Section 1) and the permit, the classification number itemized in the Classification Type of this listing.

V. Planning Requirements

Not applicable.

Table 1

Texture	Structure							
	Shape						Structureless	
	Platy			Prismatic/Blocky/Granular			Single Grain	Massive
	Strong	Moderate	Weak	Strong	Moderate	Weak		
Gravelly Coarse Sand	NOT APPLICABLE (N/A)							N/A
Coarse Sand							.34	
Sand								
Fine Sand							.34 -.25	
Very Fine Sand								
Loamy Coarse Sand							.34	
Loamy Sand								
Loamy Fine Sand							.34 -.25	
Loamy Very Fine Sand								
Coarse Sandy Loam			.34 - .25	.34		.34 -.25	N/A	≤.25
Sandy Loam								
Fine Sandy Loam			≤.25	.34 -.25		≤.25		
Very Fine Sandy Loam								
Loam				.34		.34-.25		
Silt Loam								
Sandy Clay Loam				.34 -.25		≤.25		
Clay Loam								
Silty Clay Loam								
Sandy Clay				.25 - ≤.15				
Silty Clay								
Clay								

Notes:
- All values in gallons per day per linear foot of tubing

PENNSYLVANIA WORKSHEET - Dispersal system design worksheet for residential systems.

line #	INPUTS	Select One	
		yes	You must be able to answer **YES** to both questions in order to continue. Are supply and return pipes 1"?
		yes	Is the lift to the HU <8' and the run to the HU<30' with 1-1/2" pipe?
1	Anaerobic	Select aerobic or anaerobic.	ASD15 Units are septic or secondary. Washdown units are secondary or better.
2	0.28	LLR - Tubing (gpd/LF)	Maximum 0.34. Expressed in gal/day/LF tubing. ***Input from loading rate tab.***
	2.00	Avg. Spacing of Tubing (ft)	Range from 1 to 3. The distance between runs of tubing.
3	500	GPD — # Bedrooms: 4	Design quantity of wastewater to disperse. # Bedrooms is used to calculate GPD. **400 gpd for *up to 3 bedrooms; 100 gal. per each additional bedroom.***
4	100	Contour Run Length	Enter the tubing length along contour. If run length is not on table, use the actual run length. Example: 85 ft.
5	2.5	Contour Loading Rate Provided	Average GPD divided by the contour run length.
6	100	Supply LF	Length of supply line between hydraulic unit and farthest zone.
7	10	Lift Ft.	Vertical lift from off level in the pump chamber and highest zone elevation.
8	4.6	Linear Loading Rate Required	Reference Loading Rate tab. Maximum 4.6.
9	YES	Is LLR Design Criteria met?	Yes or no comparison for required linear load.
10	1786	Total LF Tubing	**Required** total linear feet of tubing to treat and disperse wastewater.
11	17.86	Calculated Runs	Determines number of runs (Total LF / Contour RL). **Rounds up to the next whole number.** Found on Zone Detail Table.
	18	Min. # Runs	
12	Z: Z; L: 2; R: 3 (Z column: 3)	Zone Detail — ASD 15: Z253. Input the appropriate Zone Detail # into the drop-down list to the left.	On Zone Detail Table, cross the next highest Run Length (ft) from 100 with the row for at least 18 runs. — **Use the ASD 15 Zone Detail Table.** Select zone detail from column with next higher **Contour Run Length** and with equal or greater **# Runs.** You may input your Zone Detail # in the indicated cell next to the chart. It will then appear in the second column to the left on this worksheet.
13	88	Max. Lift Allowed — ASD 15: 88. Select which Lift & Distance Table you used in the box to the left.	On Lift & Distance Table, cross the Supply/Return 100 with the column for 3 laterals — **Use the ASD 15 Lift & Distance Table.** You may input your Lift in the indicated cell next to the chart. It will then appear in the second column to the left on this worksheet.
14	1800	LF Provided	Total linear feet of tubing **Provided** to disperse wastewater.
15	900	LF/Zone	Total linear feet per zone.
16	YES	Is design criteria met & will zone flush?	Reference Lift & Distance Table for pump capacity determined by the length of run to the farthest field and the number of laterals. For 1" supply and return only.

*In line # 16, **Z** = # of zones, **L** = laterals per zone, **R** = runs per lateral

Legend:
- given by engineer
- auto-computed
- looked up on tables
- user select

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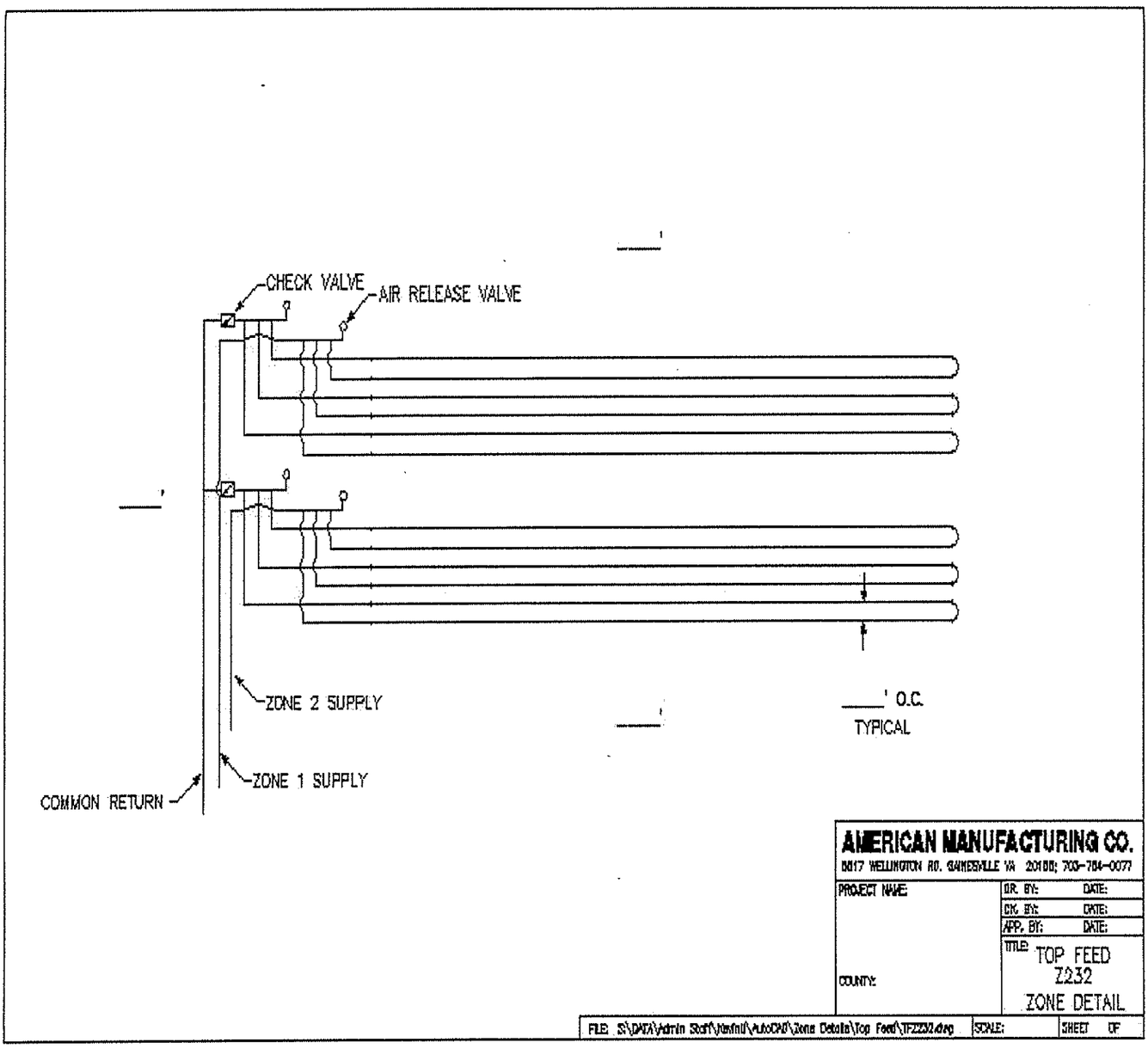
CHECK VALVE
AIR RELEASE VALVE
ZONE 2 SUPPLY
ZONE 1 SUPPLY
COMMON RETURN
O.C.
TYPICAL
AMERICAN MANUFACTURING CO.
8017 WELLINGTON RD. GAINESVILLE VA 20155; 703-754-0077
PROJECT NAME:
COUNTY:
DR. BY:
DATE:
CK. BY:
DATE:
APP. BY:
DATE:
TITLE: TOP FEED
Z232
ZONE DETAIL
FILE: S:\DATA\Admin Staff\Jamie\AutoCAD\Zone Details\Top Feed\TFZ232.dwg
SCALE:
SHEET OF

Commonwealth of Pennsylvania
Department of Environmental Protection (DEP)
Bureau of Point and Non-Point Source Management
Harrisburg, PA

Issued to: American Manufacturing Co, Inc.
PO Box 97
Elkwood, VA 22718-0097
Phone: 800-345-3132
www.americanonsite.com

Technology: **American PERC-RITE®** (PERC-RITE micromound)

Classification Type: Alternate technology (Listing #A2010-0006-0002)

Classification Date: **January 4, 2010, March 1, 2012**

In accordance with Title 25, Chapter 73, Section 73.72, DEP has classified the American PERC-RITE® (PERC-RITE micromound) drip irrigation system for use as an alternate onlot sewage treatment system in the Commonwealth of Pennsylvania. This classification permits the use of the PERC-RITE micromound as components used for the specific purposes of distributing sewage for discharge to a micromound absorption area.

I. Technology Description

Drip irrigation (PERC-RITE micromound) is the technology by which effluent at either the primary treatment level or the secondary treatment level is distributed to the drip dispersal field using a configuration of components that consists of an automated controller, a septic tank(s), a pump tank(s), a hydraulic unit(s), and a network of flexible drip emitter tubing. Distribution of sewage to the drip dispersal field, network forward flushing, and for backflushing of filter wash solids to the pretreatment train are activated by a controller. Through drip irrigation, wastewater is distributed in small dose volumes over an infiltration field to aid in maintaining the aerobic environment in the soil for biochemical treatment of the wastewater. Final discharge for distributing sewage will be to a drip irrigation micromound absorption area.

II. Design Requirements: The minimum specifications in this section may not be sufficient to design a complete system for all applications.

a. General System Requirements:

(1) The system is to be configured as a complete package from a single source consisting of drip tubing, specialized field fittings, pump and pump chamber components, filtration units (headworks) and control panels at a minimum. All components shall be designed and manufactured to resist the corrosive effects of wastewater and common household chemicals.

(2) The system manufacturer shall make available head loss charts, tables, formulas for various drip tubing lateral lengths during a dosing and flushing cycle, other pertinent information such as minimum/maximum zone size, and filter flushing requirements.

(3) Pump selection shall take account of the operating flow and pressure for the drip dispersal field when calculating the total dynamic head required for filter back washing, field dosing, and dripline flushing. All disposal and flushing parameters must meet the listed manufacturer's requirements and fall within the operational range of the pump selected.

(4) The drip irrigation system shall provide the means, at minimum, to accurately calculate flows, pump cycle counter, pump elapsed time, counts of automated flushing events and alarm events. This requirement is to be accomplished by having a flow meter and a control unit that performs these functions. These functions are necessary to provide proper operation and maintenance and to verify and monitor emitter performance, scouring or flushing performance, and water use.

(5) A programmable timer control panel shall be employed to regulate dosing frequency, volume, and other pertinent information. The control panel is to provide manual capability to operationally verify filter flushing, dosing, and flushing.

(6) Components shall be UL Listed. Schematic and manual to be provided with control. The panel is to provide accommodation for optional remote alarm. Installation is to be according to all local codes. The electrical control equipment shall be mounted within a NEMA 4X rated enclosure with a rigid latching door. All switches shall be clearly identified, and all internal wiring shall be factory installed.

(7) The system must be equipped with a dosing tank alarm to alert the operator of problems with the system.

b. Treatment Tank Requirements:

(1) For systems designed to treat primary effluent, concrete septic tanks used must be either two-compartment rectangular tanks or two rectangular tanks in series, and/or otherwise conform to meet the requirements of Section 73.31. Cylindrical tanks meeting the requirements of Section 73.31 may also be used. Vertically aligned circular (round) tanks are not permitted.

(2) If an aerobic treatment unit or any other secondary treatment technology is proposed as an initial treatment, the application must include a letter from the drip system manufacturer recommending both its use and as a component compatible with PERC-RITE drip micromound.

c. Dosing Chamber Requirements:

(1) A dosing chamber shall be employed after the treatment tank and before the drip dispersal system, and shall be sized and equipped so as to permit flow equalized timed dosing of the daily sewage flow with adequate reserve storage capacity for those times when the system is inoperable.

(2) The dosing chamber working volume (surge storage) shall be at a minimum 60% of the peak design flow volume. This volume may be calculated from the timer enable to the high water alarm floats. In no case shall a pump tank volume be less than what is typically required for a standard septic tank for the system. Flow equalization volume utilized to time dose an upstream pretreatment component, may be used as a portion of the drip dose equalization volume requirements.

(3) The dosing chamber shall be equipped with an audible and visual high-water alarm set to provide reserve capacity to allow for the prompt repair of the system. The minimum amount of reserve volume above the high water alarm is 25% of the peak

daily flow. A low-water separate cutoff device (float) shall be provided to prevent damage to the pump during low-water conditions and shall be separate from the timer enable device (float).

(4) The dosing chamber shall be fitted with watertight access risers to grade to secure against unauthorized entry.

d. Hydraulic Unit Filtration Requirements:

(1) Final filtration must be provided by a hydraulic unit fitted with disk filters to remove suspended solids. A minimum of two disc filters are required.

(2) The in-line filters shall achieve the drip tubing manufacturer's minimum specified filtration at a rate equal to or greater than the peak discharge rate during flushing.

(3) The hydraulic headworks and control system must include a mechanism to automatically backflush the filters independently before each dose. The filters are to be backwashed at the manufacturer specified minimum psi requirement.

(4) Filter flush residuals must be returned to the head of the pretreatment train or, if the design requires, to a settling tank, to allow for primary settling prior to entering the drip dose pump chamber. The filter flush return volume shall not to exceed the hydraulic capacity of the pretreatment unit.

(5) The hydraulic unit must be protected from temperatures below freezing in accordance with the manufacturer's specifications.

e. Use of the Component/System and Siting Requirements:

(1) The minimum soils drainage class morphology must be at minimum somewhat poorly drained as determined by a soil scientist who is a professional member of the Pennsylvania Association of Professional Soil Scientists (PAPSS) or is a qualified soil scientist as defined in Section 73.1.

(2) On these sites, the treatment and disposal distribution configuration is based on the basal loading rate and the horizontal linear loading rate derived from the soil morphological analysis and the Hydraulic Linear Loading Rate (HLLR) described by Table 1.

(3) Preparation of a soils report which includes the following at a minimum:

i. Inclusion of project name, project location, date of investigation, soils series, and slope.

ii. A minimum of four soil profile test pits shall be evaluated to verify the morphology of the proposed absorption site. These soil profiles shall include two soil profile evaluations on contour, bracketing the proposed absorption area, and two soil profile evaluations downgradient with the distance determined by the soil scientist. The soil profiles may be supplemented with the use of hand auger to confirm soil conditions between profiles. Excessive disturbance of soils within the proposed drip zone must be avoided.

iii. Determination of the depth to the seasonal high water table limiting zone and/or the depth to the rock limiting zone.

iv. Determination of the soil drainage classification and assigning the appropriate loading rate and horizontal linear load consistent with Table 1 by using the most restrictive results from the soil profile evaluations conducted. The shape and grade of structure, as well as textural classification of the mineral soil from the profile horizon above the seasonal high water table or restrictive horizon, is used

to determine these rates. Note this information is to be attached to the permit application.

v. The spacing of the soil profile evaluations shall not exceed 100 feet in length.

vi. In cases where the calculated area length exceeds 100 feet, additional soil profile evaluations are required to verify the soil morphology of both the absorption area and the downgradient area.

vii. Overall site suitability will be limited by the most restrictive depth to the seasonal high water table, depth to rock formation and soil morphology from all of the soil test pits evaluated.

viii. The soils report must provide the designer with site-specific details of the delineated area, including a preliminary design (dimensions of the area, slope of site, etc.) meeting the specifications of Section II.e. The report should identify and offer recommendations to address site conditions (i.e. soil quality, slope, stoniness, vegetation, surface drainage, site preparation, depth of installation, etc.) that could affect the design and/or field installation.

ix. Signature of the qualified soil scientist (a professional member of the Pennsylvania Association of Professional Soil Scientists (PAPSS) or is a qualified soil scientist as defined in Section 73.1) certifying the contents of the soils report which includes the items in Section II.e.

(4) The site must meet the minimum horizontal isolation distances described in Section 73.13 plus an additional two (2) feet beyond the outermost drip tubing in a drip distribution zone.

(5) The slope in each drip irrigation zone must be between 0 percent and 15 percent. Table 1 details slope limitations for specific USDA texture groups.

(6) This system may be used on sites where soils range between greater than or equal to 10 inches to evidence of high water table and greater than or equal to 16 inches to rock.

(7) The site must meet the requirements described in Section 73.12.

f. Drip Distribution Requirements:

(1) Each drip dispersal field or zone shall be time-dosed at regular intervals throughout the day at an average design flow dose regime, as specified by the manufacturer and designer. The absorption area is sized on peak daily design flow. The system controller shall provide for a zone to be rested or manually removed from service. The controller shall have the capability to bypass the zone(s) that have been taken out of service and dose the next available zone with normal sequence continuation. Mechanical indexing valves to control zone dosing shall not be used.

(2) To maintain uniform distribution, the minimum dose volume in a drip dispersal network is calculated using 80% of the dose being dispersed during times of equal distribution, accounting for pressurization time and redistribution of pump shut off and no less than three times the volume of pipe (plus the volume of supply, return lines, and field manifolds, where applicable). These conditions are intended to provide equal distribution with the network (less than 10% variability) including network pressurization and gravity redistribution at pump shut off.

(3) The system shall be capable of forward flushing each drip field or zone at a minimum fluid velocity, as required by the listed manufacturer. The velocity is to be no less that

2 feet per second. The residuals are to be returned back to the head of the pre-treatment train as or if the specific design requires, to a separate settling tank to allow for primary settling prior to a dosing station. Field flushing velocity shall be designed at the distal end of each lateral connection. Each zone must be automatically flushed a minimum of 25 cycles. The flush return volume is not to exceed the hydraulic capacity of the pretreatment unit.

g. Micromound Absorption Area:

(1) The micromound must follow the contour of the land.
(2) A minimum of 2 inches of sand must be placed over the tubing.
(3) The minimum sand depth below the tubing is 12 inches for primary pretreatment and 8 inches with secondary pretreatment with the sand tapered or incorporated into the toe of berm (basal) area.
(4) The tubing must have continuous self cleaning pressure-compensating emitters spaced every 2 feet with spacing between tubing between 0.5 and 0.75 feet over the sand bed. All emitters within the zone shall provide equal distribution between plus or minus 10 percent including network pressurization and redistribution at pump shut off. Only tubing manufactured by Netafim has been shown to meet these requirements. No substitutions of other drip tubing is permitted.
(5) The maximum possible sand bed tubing area loading rate is 0.75 gpd/ft^2.
(6) Sand used must meet the requirements specified by Section 73.55(c). Material passing through #200 sieve should be <5%. Cement Concrete Sand TYPE "A" or ASTM C-33 concrete sand preferred.
(7) The basal loading rate must be consistent with Table 1. The basal area is the scarified absorption area interface which includes the drip tubing sandbed and the sanded downslope toe of berm. Peak flows in accordance with Section 73.17 shall be used in the design.
(8) All mounds must be constructed with a minimum of 3:1 berm.
(9) All accepted mound site protection and construction practices must be adhered.
(10) The sewage enforcement officer may require additional information from the soil scientist and/or require the site plan for the micromound to be developed by or in consultation with the manufacturer or a representative of the manufacturer of the drip distribution system being installed.

h. Construction:

(1) Soil moisture conditions are to be at or below field capacity during construction. These conditions must be determined in the manner that soil moisture conditions are determined prior to construction of an elevated sand mound.
(2) The manufacturer's representative must be present to oversee the installation of the system. The current list of representatives is available from the manufacturer. As an alternative, contractors who have completed a training course provided by the manufacturer and have successfully installed a sufficient number of drip systems under the direct supervision of the manufacturer's representative may install the system independently of oversight by the manufacturer only after receiving written verification of their status as a qualified installer by the manufacturer's representatives.

(3) Installation of the drip distribution system shall meet the specifications provided by the manufacturer.
(4) The sand bed tubing area is to be located in the upslope portion of the basal area.
(5) The area surrounding the tanks and the absorption areas shall be constructed to divert surface water.

III. Minimum Maintenance Standards:

a. The manufacturer's representative must meet with the property owner within one (1) month of system start-up and/or occupancy of the dwelling and with the local agency's SEO upon request, to explain the operation and maintenance of the system and to provide written instructions to the property owner that includes:
(1) Instructions on the operation and maintenance of the system;
(2) The locations of all parts of the system;
(3) A caution notice regarding disturbance of the drip zones that may cause system damage (i.e. excavation for trees, fencing, etc.);
(4) An explanation of the automatic alarm system;
(5) A statement requiring that the manufacturer's representative be contacted if the alarm system is activated.

b. Warranty:
The manufacturer of the drip irrigation system must provide a minimum 2-year warranty on all defects due to materials or workmanship.

c. Inspection:
(1) A maintenance agreement must be established between the property owner and the service provider experienced in the operation and maintenance of the American PERC-RITE.
(2) Inspection of the area around the soil absorption area every 6 months by the homeowner and annually by the service provider to ensure that there is no ponding of effluent or downgradient seepage.
(3) Inspection by the maintenance provider at least annually to ensure that:
i. The dosing flows in each drip zone are consistent with the design;
ii. The system tubing network is flushing properly;
iii. The in-line filters are in good working order;
iv. The system is backwashing the in-line filters to remove debris.
v. Septic tanks and dosing tanks shall be inspected for structural integrity of the tank, inlet and outlet baffles, solids retainer, pumps, and electrical connections by the maintenance provider.
(4) A manufacturer's authorized service provider may make operational adjustments (i.e. dose volume, dose frequency), based on system performance, in consultation with the manufacturer and/or designer.
(5) The inspection and concurrent pumping of excess solids shall be conducted in accordance with the manufacturer's requirements.
(6) In the event that the drip dispersal is found to be out of compliance, the manufacturer or the manufacturer's representative will assist in developing an action plan to bring the system into compliance.

IV. Permitting Requirements

a. An SEO who has successfully completed an appropriate Department sponsored training course that included this specific technology or has received review delegation in writing from the Department may independently review the design and issue the permit for systems including components designed under this listing. All other system proposals under this listing must be submitted to the Department for review and comment.
b. The soil drainage classification and the appropriate loading rate and horizontal linear loading rate consistent with Table 1 must be attached to the permit application.
c. The operation and maintenance conditions specified in Section III must be attached to the permit issued by the local agency.

V. Planning Requirements

Not applicable.

Table 1

USDA Texture Group	Texture	Basal Loading (gal/ ft^2/day)[a]	Limitation Depth (inches)[b]	Horizontal Linear Load in gal/linear ft./day (g/lf/d)[c] SLOPES
I Sands	Sand, Loamy Sand	≤ .6	≥ 10" to seasonal high water table ≥16" to rock	≤ 5 g/lf/d Slope ≤ 15%
II Coarse Loams	IIa Sandy Loam			
	IIb Loam			
III Fine Loams	IIIa Sandy Clay Loam, Silt Loam	≤ .4		≤ 4 g/lf/d Slope ≤ 15%
	IIIb Clay Loam, Silty Clay Loam			
IV Clays	IVa Sandy Clay, Silty Clay, Clay	≤ .2		≤ 3 g/lf/d Slope ≤ 15%
	IVb	Special Considerations [d]		≤ 2 - 3 g/lf/d Slope ≤ 15% Slope ≥ 5%

NOTES:

[a] Based on most limiting condition from ground surface to limitation. Basal area to be protected from all activity.

[b] Evaluate conditions 12 inches below limitations if possible.

[c] Based on peak daily design flow. Maximize Horizontal Linear Load at all times. May vary with slope, texture and depth to limitation. Based on site/soil determination (estimation) of vertical and horizontal subsurface water movement over limitation. Multi-zoned systems allow for staggering and separation of uneven sized mounds if necessary, with justification to obtain the landscape linear loading rate.

[d] IVb soils may have other infiltration considerations other than texture including density, consistence, plasticity, structure and mixed clay mineralogy.

(1) Basal Loading determines the sand/soil interface absorption area

$$Basal\,Loading, ft^2 = \frac{Peak\,gpd}{\left(Basal\,Loading\,value \frac{gal}{ft^2\,day}\right)}$$

(2) Horizontal Linear Load determines the minimum system length.

$$HorizontalLinearLoad, ft = \frac{peakgpd}{\left(HorizontalLinearLoadvalue\frac{gal}{lf\,d}\right)}$$

(3) Sand Bed loading determines the sand area where the tubing will be placed.

$$SandBedLoading, ft^2 = \frac{peakgpd}{\left(SandBedTubingLoadingRate\frac{gal}{ft^2}\right)}$$

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line #	INPUTS	Select One / yes / yes		You must be able to answer **YES** to both questions in order to continue. Are supply and return pipes 1"? Is the lift to the HU <8' and the run to the HU<30' with 1-1/2" pipe?
1	**Anaerobic**	Select One: Anaerobic or Aerobic?		ASD15 Units are septic or secondary. Washdown units are secondary or better.
2	IIIb. Clay Loam, Silty Clay Loam	Select a soil texture/structure.		Found in column 2 on the Loading Rate Chart. (given by site evaluator)
	10 in. to water	Limitation Depth (inches)		Given by site evaluator.
3	500	GPD	# Bedrooms: 4	Design quantity of wastewater to disperse. # Bedrooms is used to calculate GPD. **400 gpd for *up to 3 bedrooms; 100 gal. per each additional bedroom.***
4	125	Contour Run Length (L)		Enter the length along contour including 3:1 sideslopes of sandbed.
	4.00	Contour Loading Rate		Total design gallons divided by Contour length of Mound.
5	8	Slope (%)		The slope of the area mound is installed in. Max. 15%
	1.32	Slope Correction		Multipy by this factor for additional area needed due to slope.
6	0.4	Design Basal Loading Rate		Basal loading rate needed from perc rate or soil texture chart.
7	6	Min. Sand Bed Width (A)		Needed for sand to cover sand treatment area @0.75 gpd/ft2
	11	Min. Basal Width (A+I)		Distance down slope needed for sand to cover basal area.
8	12	Depth of Sand		Minimum depth of sand under tubing.
	26	Mound Height (inches) (D+F+H)		Height of mound from original ground surface to new ground surface.
9	8.58	Min. Down Slope (I) (FT)		Based on slope.
10	9	Required Down Slope (I)		Greater of Min. down slope to cover basal, or slope correction factor.
11	4	Horizontal Linear Load (g/LF/d)		Input from the Hydraulic Linear Loading Rate Chart located in the Landscape Loading Tab.
12	YES	Is Design Criteria met?		Yes or no comparison for required landscape linear load.
13	1	# of Mounds		Only One mound is allowed.
14	0.71	Actual Sand Bed Loading Rate		Calculated sand bed loading rate based on actual layout.
15	0.28	Actual Basal Loading Rate		Calculated basal loading rate based on actual layout.
16	4.00	Actual Landscape Linear Load (LLL)		Calculated landscaper linear loading rate based on actual layout.
17	6 feet	A		Sand bed area design width
	118 feet	B	Tubing run length 114	Sand bed design length along contour
	12 inches	D		Depth of sand under tubing
	2 inches	F		Sand cover over tubing
	12 inches	H		Thickness of soil layer over sand fill.
	8 inches	G		Thickness of soil layer over upslope sand bed not over tubing.
	5 feet	J		Upslope width of sand from sandbed to upslope berm.
	3.5 feet	K		Sideslope dimension
	125 feet	L		Total length along contour including sideslope
	9 feet	I		downslope sand cover of basal area (toe of berm)
	20 feet	W		Total downslope width dimension of mound

MICROMOUND WORKSHEET - Dispersal system design worksheet for residential systems.

ZONE LAYOUT WORKSHEET

18	7			Lift (feet)		Static lift from "OFF" float to highest elevation in mound(s)	
19	100			Supply (LF)		Longest supply pipe run length to mound(s)	
20	912			Total LF Tubing per Mound		**Required** total linear feet of tubing to treat and disperse wastewater.	
21	8.00			Calculated Runs per Mound		Determines number of runs (Total LF / Contour RL). **Rounds up to the next whole number.** Found on Zone Detail Table.	
	8			Min. # Runs per Mound			
22	912			Total LF Tubing		Minimum tubing for total mound system.	
23	Z	L	R	Zone Detail	Zone Detail = Z Z222 1000 Input the appropriate Zone Detail # into the drop-down list to the left.	On **Zone Detail Table**, cross the next highest **Run Length** (ft) from 118 with the row for at least 8 **runs**	**Use the ASD 15 Zone Detail Table.** Select zone detail from column with next higher **Contour Run Length** and with equal or greater **# Runs.** Input your Zone Detail # in the indicated cell next to the chart. It will then appear in the column to the left on this worksheet.
	Z	2	2	2			
24	98			Max. Lift Allowed	ASD 15: 98 This number is input from the Lift & Distance tab.	On **Lift & Distance Table,** cross the **Supply/Return** 100 with the column for 2 **laterals**	**Use the ASD 15 Lift & Distance Table.** Input your Lift in the indicated cell next to the chart. It will then appear in the column to the left on this worksheet.
25	912			LF Provided		Total linear feet of tubing **Provided** to disperse wastewater.	
26	456			LF/Zone		Total linear feet per zone.	
27	YES			Will zone flush?		Reference Lift & Distance Table for pump capacity determined by the length of run to the farthest field and the number of laterals. For 1" supply and return only.	

*In line **# 11**, **Z** = # of zones, **L** = laterals per zone, **R** = runs per lateral

given by engineer
auto-computed
looked up on tables
user select

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MICROMOUND WORKSHEET - Dispersal system design worksheet for residential systems.

OPERATING PARAMETERS

28	**500**	**Peak Gallons per day**	Maximum or design gallons per day.
29	**300**	**Average Gallons per day**	Average gallons per day. (calculated as 60% of Peak)
30	**2.32**	**Dosing Flow (gpm)**	Based on .61 gph per emitter.
31	**5.52**	**Flushing Flow (gpm)**	Flow to generate 2 fps at the distal end of each lateral.
32	**26.676**	**Gallons per dose**	The zone dose volume is 3.5 - 5 times the volume of the pipe.
33	**18.74**	**Peak Design Doses per day**	The total number of zone doses. Individual zone doses is this number divided by the number of zones.
34	**573.5**	**Run Time (Seconds)**	Estimated run time for dose gallons based on filtration capacity, flushing flow, and dosing rate
35	**min** **180**	**Default Standard Rest Time**	This is the rest time at average flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
36	**min** **108**	**Default Peak Rest Time**	This is the rest time at peak flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
37	**min** **128.04**	**(Recommended)** **Calculated Standard Rest Time**	This is the rest time at average flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
38	**min** **76.83**	**(Recommended)** **Calculated Peak Rest Time**	This is the rest time at peak flow. The rest time is independent of run time. (60 min. rest = 24 doses per day)
39	**doses / day** **11.2**	**(Recommended)** **Calculated Standard doses per day**	This is the total number of doses per day independent of the number of zones. The rest time is independent of run time. Example: 300 average gal. per day / 50 gal per dose = 6 doses per day
40	**doses / day** **18.7**	**(Recommended)** **Calculated Peak doses per day**	This is the total number of doses per day independent of the number of zones. The rest time is independent of run time. Example: 500 peak gal. per day / 50 gal per dose = 10 doses per day

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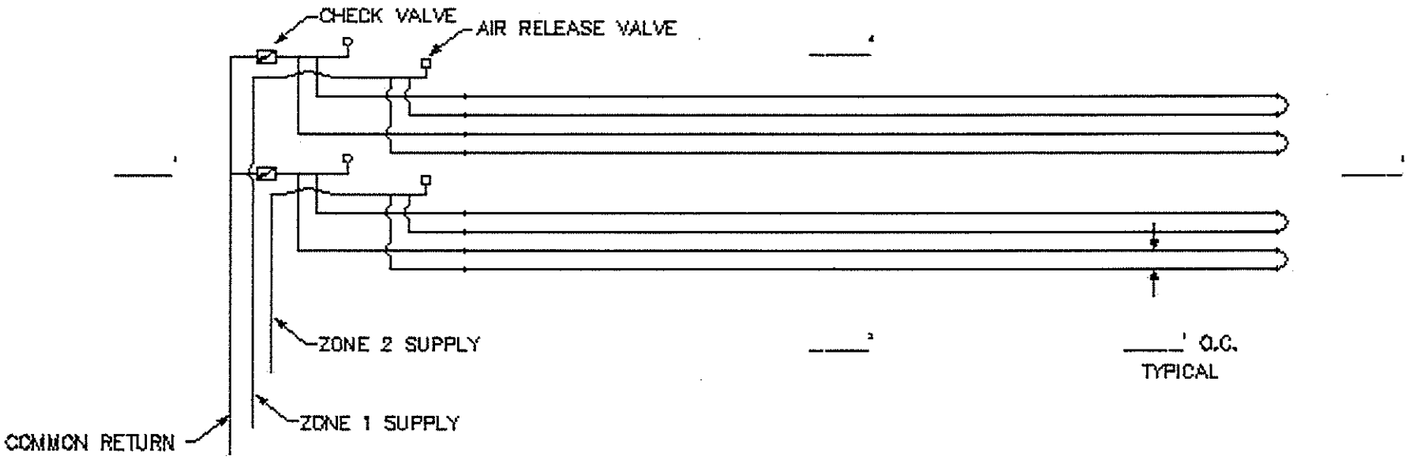


AMERICAN MANUFACTURING CO.
5517 WELLINGTON RD. GAINESVILLE VA. 20155 703-754-0077

PROJECT NAME:	DR. BY: DATE:
	CK. BY: DATE:
	APP. BY: DATE:
COUNTY:	TITLE: TOP FEED Z222 ZONE DETAIL
FILE: S:\DATA\Admin Staff\Kevin\AutoCAD\Zone Details\Top Feed\TF222.dwg	SCALE: SHEET OF

COMPONENT 4A

3850-FM-BCW0362A 6/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code #:
1-15970-382-2

SEWAGE FACILITIES PLANNING MODULE
COMPONENT 4A - MUNICIPAL PLANNING AGENCY REVIEW

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the local municipal planning agency for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name
Minor Subdivision for UPI 25-5-35

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by municipal planning agency _____
2. Date review completed by agency _____

SECTION C. AGENCY REVIEW (See Section C of instructions)

Yes	No		
☐	☐	1.	Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, *et seq.*)?
☐	☐	2.	Is this proposal consistent with the comprehensive plan for land use? If no, describe the inconsistencies _____
☐	☐	3.	Is this proposal consistent with the use, development, and protection of water resources? If no, describe the inconsistencies _____
☐	☐	4.	Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation?
☐	☐	5.	Does this project propose encroachments, obstructions, or dams that will affect wetlands? If yes, describe impacts _____
☐	☐	6.	Will any known historical or archaeological resources be impacted by this project? If yes, describe impacts _____
☐	☐	7.	Will any known endangered or threatened species of plant or animal be impacted by this project? If yes, describe impacts _____
☐	☐	8.	Is there a municipal zoning ordinance?
☐	☐	9.	Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
☐	☐	10.	Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance?
☐	☐	11.	Have all applicable zoning approvals been obtained?
☐	☐	12.	Is there a municipal subdivision and land development ordinance?

SECTION C. AGENCY REVIEW (continued)

Yes	No	
☐	☐	13. Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
☐	☐	14. Is this plan consistent with the municipal Official Sewage Facilities Plan? If no, describe the inconsistencies _____
☐	☐	15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe _____
☐	☐	16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision?
☐	☐	If yes, is the proposed waiver consistent with applicable ordinances? If no, describe the inconsistencies _____

17. Name, title and signature of planning agency staff member completing this section:
Name: _____
Title: _____
Signature: _____
Date: _____
Name of Municipal Planning Agency: _____
Address _____
Telephone Number: _____

SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)

This component does not limit municipal planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets.

The planning agency must complete this component within 60 days.

This component and any additional comments are to be returned to the applicant.

On-Lot Sewage Management Agreement
(Micro Mound Drip Irrigation System)

This Agreement made this _____ day of _____, 2023 by and between West Vincent Township, Chester County, Pennsylvania (here in after the **"Township"** and the **"County"**),and Timothy and Amanda Maxwell (here in after the **"Owner"**).

WHEREAS, Owner is presently owner of a certain tract of land known as 1830 Saint Matthews Road, Chester Springs, PA located in West Vincent Township, Chester County, Pennsylvania (here in after the **"Property"**).

WHEREAS, Owner desires to install a drip micro mound on-lot sewage disposal system that requires routine and scheduled operation and maintenance to be installed and operated upon the aforementioned Property and Owner.

WHEREAS, the System shall include items such as a building sewers, septic tanks, treatment tanks, storage tanks, filtration equipment, pumps, disinfection equipment, drip tubing controls, wiring, conduits and all necessary and appurtenant air, telephone, and electrical power supplies, that require routine and scheduled maintenance to ensure proper operation.

WHEREAS, the Township is willing to allow the installation of the System upon the Property provided that the Owner agrees to operate and maintain the System upon certain terms and conditions as set forth by the rules and regulation of the Township and more Particularly set forth herein.

WHEREAS, the Township and Owner desire to memorialize the agreements reached between them with respect to the operation and maintenance of the aforesaid System to ensure the orderly operation and maintenance of the System.

NOW THEREFORE, for and inconsideration of the covenants contained herein, the parties do agree as follows:

1) The Owner shall receive and provide the Township, prior to installation, a copy of an installation permit from the Sewage Enforcement Officer in accordance with the requirements of the DEP.

2) The Owner shall retain an installation contractor trained and authorized by the System Manufacturer to install the System.

3) The owner shall annually renew, for the life of the System, a system maintenance contract with an authorized service provider and shall annually provide to the Township a copy of said contract. The Maintenance Contractor shall be a private independent contractor who has been given special training by the original equipment manufacturer and is authorized by the manufacturer to service the equipment and is approved by the Township to provide such services within the borders of the Township.

4) Prior to initial start-up of the System or within one month of occupancy of the dwelling or within one month of transfer of the Property to a new owner, the current Owner of the Property shall meet with the service provider and review the operation and maintenance of the System and the service provider shall provide the Owner with the following:
    a. Verbal and detailed written operation and maintenance instructions.
    b. A detailed drawing showing the location, size, material type, and depth of all components of the System. A copy of the detailed drawing shall also be sent to the Township.
    c. A complete review of the system indicating the location of all buried components of the System including provision of a caution notice regarding disturbance near and within the absorption area that would cause damage to the System, such as surface compaction, or excavation for trees and fencing.
    d. A complete explanation of the System's automatic alarm system and who to contact in the event the alarm would be activated.

5) During the first sixth months of operation of the System, and then annually thereafter, the Owner shall have the service provider inspect the System. The service provider shall provide the Owner and Township with copies of a report signed by the service provider certifying that the System is operating in accordance with the permit. The inspection and maintenance program will include at a minimum the manufacturers' recommended services and inspections for each separate component of the System. The report shall also indicate resolution of any deficiencies noted in the service provider's inspection or in any service or alarm call during the past year. If a revision or modification is made to the System, an amended and revised drawing, detailing the revision or modification shall be provided to the owner and the Township. The owner is responsible for obtaining a permit from the Sewage Enforcement Officer, if required, for any revision or modification to the System.

6) If an inspection indicates the need for repair, replacement and/or additional maintenance that is not covered under the maintenance contract, the Owner agrees to have the service provider or another individual authorized by the equipment manufacturer and approved by the Township perform the required repair, replacement and/or additional maintenance. The Owner further agrees to pay all costs of such repair, replacement and/or additional maintenance.

7) The inspection and maintenance program will also include inspection and repair of the inlet and outlet baffles and solids retainers, and the removal of septage or other solids from treatment tanks once every 3 years, or whenever an inspection reveals solids or scum in excess of 1/3 of the liquid depth of the tank. The septage pumper/hauler must be licensed by DEP and approved by the Township to provide such services within the borders of the Township.

8) The Owner shall provide an adequate supply of electrical power with the proper-phase, frequency, voltage as recommended by the equipment manufacturers of the various components of the system.

9) The Owner agrees to not plant trees or shrubs in the micro mound drip irrigation area or to otherwise compact excavate or damage the absorption area. The Owner agrees to protect the micro mound from vehicle traffic, and to divert from the micro mound area and all system components all stormwater runoff from gutters and downspouts, driveways, swales and sump pump discharges.

10) The Owner agrees to use water conservation devices (such as low flow toilets, showerheads, dishwashers, and front-loading clothes washers) and to promptly repair any leaking plumbing fixtures.

11) The Owner agrees to not introduce into the System harmful chemicals (oils and grease, gasoline, antifreeze, pesticides, paints and thinners, industrial soaps and detergents, harsh drain and toilet bowl cleaners) and clogging bulky items (sanitary napkins, diapers, paper towels, cigarette filters, cat litter, plastics, eggshells, bones, coffee grounds, latex products). The Owner also agrees to minimize garbage disposal use and to limit garbage disposal use to ordinary waste.

12) The Owner agrees that the System may be inspected by the Township to ensure it is being properly maintained and all components are in good working order.

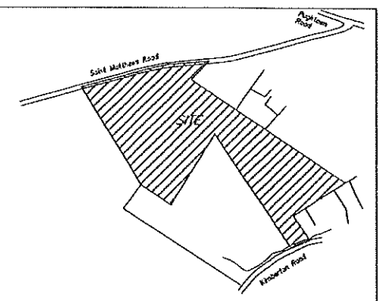
13) It is expressly understood that this Agreement shall be recorded in the Recorder of Deeds Office in and for the County and that this Agreement shall be binding upon Owner, their heirs, administrators, executors, successors, and assigns, including Owner's successor in title to the aforesaid lot which is the subject of this Agreement, it being the express understanding of the parties that any and all duties and obligation of Owner with respect to the operation of the System set forth in this Agreement would also "run with the land" and remain the obligation of the Owners' successors in title for the life of the System.

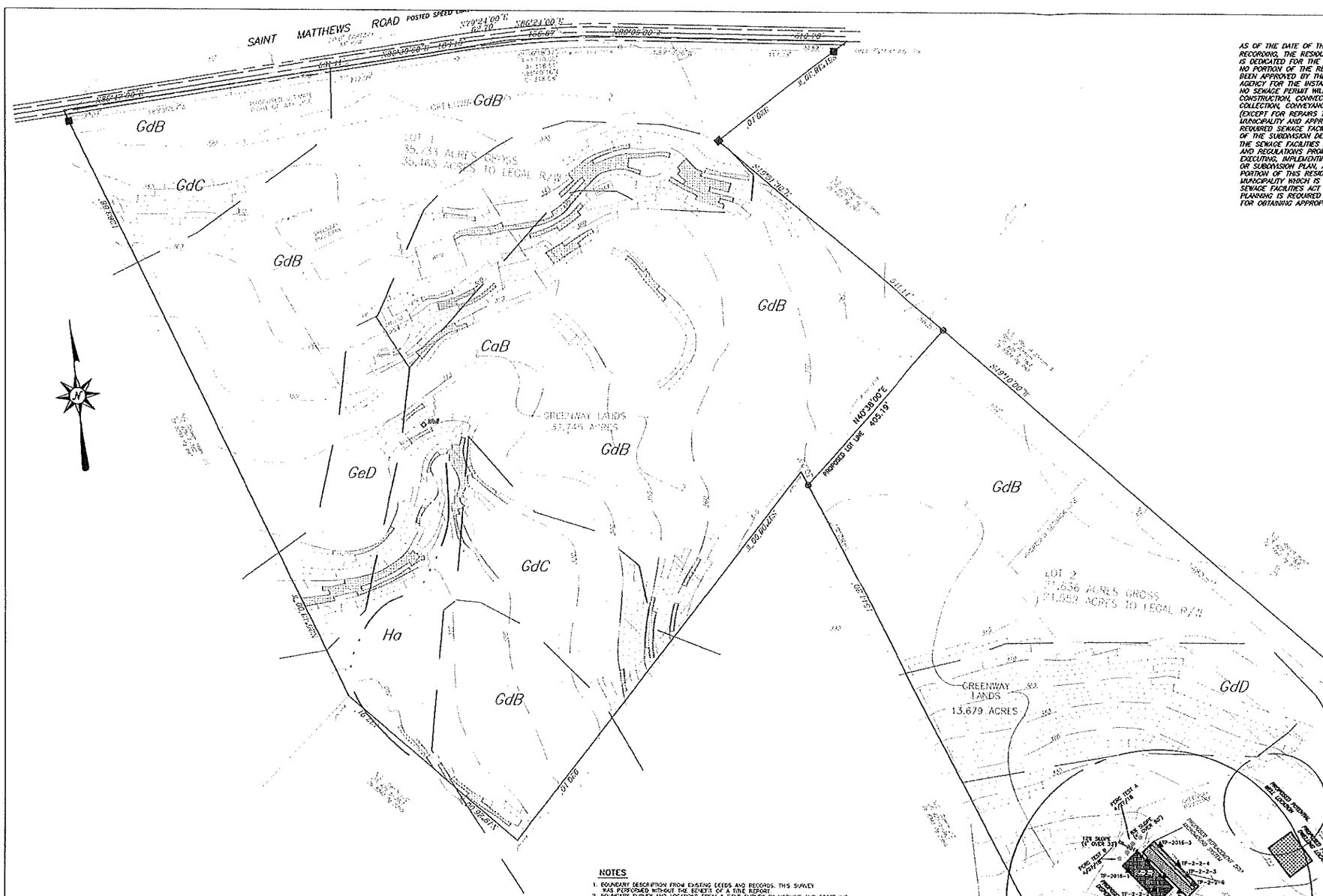
14) The Owner agrees to pay the Township an initial fee of $1,000.00 to set up and maintain a file for the System and further agrees to pay for the recording of the Agreement as provided herein, and any and all costs incurred by the Township to enforce this Agreement, or to inspect, repair, or maintain the System should the Owner fail to maintain the System according to this Agreement. In the event the Owner shall fail to pay the Township for such costs, the Township shall issue fines or institute civil suits against the Owner or file liens against the property in accordance with the Municipal Lien Law, for all such costs incurred by the Township, including reasonable attorney fees.

15) The Township shall fully utilize the legal authority set forth herein and the powers it possesses through enabling statutes to effect the purposes of this Agreement.

IN WITNESS WHEREOF, the parties here to have set their hands and seal the day and year first above written.

SUBDIVISION PLAN





AS OF THE DATE OF THIS DEED/PLOT PLAN/DEED NOTICE RECORDING, THE RESIDUAL TRACT (LOT 1) OF THIS SUBDIVISION IS DEDICATED FOR THE EXPRESS PURPOSE OF RESIDENTIAL USE. NO PORTION OF THE RESIDUAL TRACT OF THIS SUBDIVISION HAS BEEN APPROVED BY THE MUNICIPALITY OR THE APPROVING AGENCY FOR THE INSTALLATION OF SEWAGE DISPOSAL FACILITIES. NO SEWAGE PERMIT WILL BE ISSUED FOR THE INSTALLATION, CONSTRUCTION, CONNECTION TO OR USE OF ANY SEWAGE COLLECTION, CONVEYANCE, TREATMENT OR DISPOSAL SYSTEM (EXCEPT FOR REPAIRS TO EXISTING SYSTEM) UNLESS THE MUNICIPALITY AND APPROVING AGENCY HAVE APPROVED ANY REQUIRED SEWAGE FACILITIES PLANNING FOR THE RESIDUAL TRACT OF THE SUBDIVISION DESCRIBED HEREIN IN ACCORDANCE WITH THE SEWAGE FACILITIES ACT (35 P.S. SECTIONS 750.1 ET SEQ.) AND REGULATIONS PROMULGATED THEREUNDER. PRIOR TO SIGNING, EXECUTING, IMPLEMENTING OR RECORDING ANY SALES CONTRACT OR SUBDIVISION PLAN, ANY PURCHASER OR SUBDIVIDER OF ANY PORTION OF THIS RESIDUAL TRACT SHOULD CONTACT THE MUNICIPALITY WHICH IS CHARGED WITH ADMINISTERING THE SEWAGE FACILITIES ACT TO DETERMINE WHAT SEWAGE FACILITIES PLANNING IS REQUIRED AND THE PROCEDURE AND REQUIREMENTS FOR OBTAINING APPROPRIATE PERMITS OR APPROVALS.

LOCATION MAP 1"= 1000'

PLANNING NOTES:

1.) DUE TO THE PRELIMINARY NATURE OF THIS CONCEPTUAL DESIGN FOR THE SOLE PURPOSE OF CONVEYANCE OF 2 PARCELS AND THE FEASIBILITY OF LOT CONDITIONS AND SOIL CHARACTERISTICS TO ALLOW FOR ON LOT SEWAGE DISPOSAL; EXACT HOME AND DRIVE LOCATIONS HAVE YET TO BE DETERMINED. PRIOR TO ANY FORM OF CONSTRUCTION -- THE OWNER MUST SUBMIT FINAL PLANS ALONG WITH A BUILDING PERMIT/GRADING PERMIT APPLICATION, AND AT THIS TIME, THE OWNER WILL BE RESPONSIBLE FOR OBTAINING ANY OTHER PERMITS FROM GOVERNING AGENCIES IN RELATION TO PADEP PERMITTING (EX. CHAPTER 102 OR CHAPTER 105 PERMITS) IF NECESSARY.

2.) AS OF THE DATE OF THIS DEED/PLOT PLAN/DEED NOTICE RECORDING, THE RESIDUAL TRACT (LOT 1) OF THIS SUBDIVISION IS DEDICATED FOR THE EXPRESS PURPOSE OF RESIDENTIAL USE. NO PORTION OF THE RESIDUAL TRACT OF THIS SUBDIVISION HAS BEEN APPROVED BY THE MUNICIPALITY OR THE APPROVING AGENCY FOR THE INSTALLATION OF SEWAGE DISPOSAL FACILITIES. NO SEWAGE PERMIT WILL BE ISSUED FOR THE INSTALLATION, CONSTRUCTION, CONNECTION TO OR USE OF ANY SEWAGE COLLECTION, CONVEYANCE, TREATMENT OR DISPOSAL SYSTEM (EXCEPT FOR REPAIRS TO EXISTING SYSTEMS) UNLESS THE MUNICIPALITY AND APPROVING AGENCY HAVE APPROVED ANY REQUIRED SEWAGE FACILITIES PLANNING FOR THE RESIDUAL TRACT OF THE SUBDIVISION DESCRIBED HEREIN IN ACCORDANCE WITH THE SEWAGE FACILITIES ACT (35 P.S. SECTIONS 750.1 ET SEQ.) AND REGULATIONS PROMULGATED THEREUNDER. PRIOR TO SIGNING, EXECUTING, IMPLEMENTING OR RECORDING ANY SALES CONTRACT OR SUBDIVISION PLAN, ANY PURCHASER OR SUBDIVIDER OF ANY PORTION OF THIS RESIDUAL TRACT SHOULD CONTACT THE MUNICIPALITY WHICH IS CHARGED WITH ADMINISTERING THE SEWAGE FACILITIES ACT TO DETERMINE WHAT SEWAGE FACILITIES PLANNING IS REQUIRED AND THE PROCEDURE AND REQUIREMENTS FOR OBTAINING APPROPRIATE PERMITS OR APPROVALS.

* 3.) LOT #2 WILL BE SUBJECT TO A PERPETUAL INGRESS/EGRESS BLANKET EASEMENT GRANTED TO THE WEST VINCENT TOWNSHIP, CHESTER COUNTY HEALTH DEPARTMENT, AND PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FOR THE PURPOSE OF INSPECTION AND IMPLEMENTATION OF THE CURRENT & FUTURE OWNERS OBLIGATIONS FOR THE ON LOT SEPTIC SYSTEMS AS SET FORTH IN THE OPERATIONS & MAINTENANCE AGREEMENT. THE EASEMENT IS TO RUN WITH THIS LAND IN PERPETUITY & SHALL BE BINDING ON THE CURRENT AND SUCCEEDING OWNERS OF LOTS #2 AS SHOWN ON THESE PLANS

4.) NO WETLANDS ARE PRESENT WITHIN 300' OF THE PROJECT SITE. THIS WAS VERIFIED BY A FIELD VISIT TO THE SITE BY A PERSON QUALIFIED TO DELINEATE WETLANDS. THIS INFORMATION WAS SUBSTANTIATED BY THE NATIONAL WETLAND INVENTORY AND THEIR DEPICTION OF NO WETLANDS ON THE PROPERTY.

5.) DUE TO MARGINAL CONDITIONS FOUND ON SITE, THIS PLAN DEPICTS A REPLACEMENT ABSORPTION AREA. PLEASE BE AWARE THAT THE AREA OF THE PROPOSED REPLACEMENT AREA IS NOT TO BE DISTURBED IN ANY WAY OTHER THAN ITS CURRENT NATURAL STATE.

6.) THE SLOPES ADJACENT TO THE TESTING PERFORMED IN 2018 WERE EITHER INCORRECT OR TAKEN FROM A DIFFERENT LOCATION. THE SLOPES SHOWN ALONG THE SEPTIC AREAS SHOWN ARE CALCULATED FROM FIELD DATA ACQUIRED VIA FIELD SURVEY IN 2022.

7.) REFER TO PAGES #78 & #79 IN REGARD TO THE MAINTENANCE PROGRAM FOR THE DRIP DISPERSAL SYSTEM.

*PLEASE ADD NOTE ONTO THE TOWNSHIP BUILDING PERMIT PLAN

NOTES

1. BOUNDARY DESCRIPTION FROM EXISTING DEEDS AND RECORDS. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
2. BOUNDARY SURVEY AND LOCATIONS FROM A FIELD SURVEY BY HOPKINS AND SCOTT INC. PROFESSIONAL SURVEYORS 2017.
3. TOPOGRAPHY FROM USGS. AND VERIFIED BY FIELD SURVEY TO VERIFY ELEVATIONS.
4. THIS EXISTING DWELLING IS SERVICED BY ON SITE SEWER AND WATER. THE PROPOSED LOT WILL BE SERVICED BY ON SITE SEWER AND WATER. A FORM B NON BUILDING WAIVER IS BEING REQUESTED.
5. THERE ARE NO WETLANDS LOCATED ON THIS SITE AS PER U.S. FISH AND WILDLIFE NATIONAL WETLANDS INVENTORY.
6. THE SITES SOILS ARE (SEE DETAILED DESCRIPTION)
7. THE UTILITIES ON THE SURFACE, UNDERGROUND AND ABOVE GROUND SHOWN WERE LOCATED IN THE FIELD BY VISIBLE MARKINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UTILITIES ON THE SURFACE, UNDERGROUND AND ABOVE GROUND SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES ON THE SURFACE, UNDERGROUND AND ABOVE GROUND SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
8. SOME UTILITIES ARE SHOWN AS (APPROXIMATE LOCATION) AND OR (UNKNOWN DIRECTION) CONTRACTOR TO VERIFY ALL UTILITIES BEFORE ANY CONSTRUCTION OR DESIGN STARTS.
9. THE PURPOSE OF THIS SUBDIVISION PLAN IS FOR THE SALE AND TRANSFER OF TITLE FOR LOTS #1 AND #2. NO IMPROVEMENTS OR GRADING IS PROPOSED FOR THIS SUBDIVISION.
10. A BUILDING PERMIT PLAN AND ANY OTHER PLANS FOR DEVELOPMENT OF LOT 2 SHALL BE SUBMITTED AND APPROVED BY THE TOWNSHIP AND COUNTY BEFORE ISSUANCE OF A BUILDING PERMIT. A WELL PERMIT ISSUED BY THE COUNTY HEALTH DEPT. WILL BE REQUIRED AS PART OF THE BUILDING PERMIT.
11. A PORTION OF THE PROPERTY IS LOCATED IN SFHA ZONE A NO BFE (1% ANNUAL CHANCE OF FLOOD) ON FEMA FLOOD MAP 42029C0065G EFFECTIVE DATE 09-29-2017. SHOULD A DRIVEWAY BE PROPOSED IN THE FLOODPLAIN AREA, THE APPROPRIATE ANALYSIS MUST BE COMPLETED TO ENSURE IT DOES NOT CREATE AN ADVERSE IMPACT ON THE FLOODPLAIN ELEVATIONS. THE ANALYSIS MUST BE SUBMITTED TO THE TOWNSHIP FOR REVIEW
12. THE APPLICANT IS NOT PROPOSING ANY RESTRICTIONS OTHER THAN TOWNSHIP CODE REQUIRED, GREENWAY LAND CONSERVATION EASEMENT ON THIS SUBDIVISION FOR LOT 1 OR LOT 2.
13. A PERMANENT CONSERVATION EASEMENT MUST BE PLACED OVER THE GREENWAY LANDS TO RESTRICT FROM FUTURE DEVELOPMENT. THE INDIVIDUAL LOT OWNER WILL OWN THE GREENWAY LAND CONTAINED ON HIS/HER LOT AND BE RESPONSIBLE FOR IT'S MAINTENANCE. NOTE THE GREENWAY BOUNDARY MAY BE ADJUSTED BY THE INDIVIDUAL PROPERTY OWNER, SUBJECT TO ACKNOWLEDGEMENT BY THE TOWNSHIP; HOWEVER THE ACREAGE MUST BE MAINTAINED. THE GREENWAY LAND MUST BE UTILIZED PER THE ALLOWABLE USES NOTED IN THE TOWNSHIP ZONING ORDINANCE SECTION 1907.
14. THE EXISTING DWELLING ON LOT 1 IS LISTED AS A CLASS II HISTORIC RESOURCE IN THE WEST VINCENT HISTORIC RESOURCE MAP. THE BUILDING CAN NOT BE DEMOLISHED OR RENOVATED WITHOUT PRIOR APPROVAL FROM THE TOWNSHIP.
15. THE STREET ADDRESS FOR LOT 2 MUST BE OBTAINED AND NOTED ON THE PLAN PRIOR TO PLAN RECORDATION.

GdD: NOT PRIME FARMLAND
GdC: FARMLAND OF STATEWIDE IMPORTANCE
GdB: ALL AREAS ARE PRIMEFARMLAND
GeD: NOT PRIME FARMLAND
CaB: ALL AREAS ARE PRIMEFARMLAND
Ha: NOT PRIME FARMLAND

LEGEND

—— 430 ——	EXISTING INDEX CONTOUR
· · · · · · ·	EXISTING INTERMEDIATE CONTOUR
═ ═══ ═	EXISTING STORM SEWER PIPE
□	WELL
—— —— ——	EXISTING EDGE OF PAVEMENT
————————	EXISTING FENCE
— — — —	EXISTING TREELINE
————————	STREAM LINE
⊓	EXISTING BUILDING
▨	PRECAUTIONARY SLOPES 15% - 25%
▩	PROHIBITIVE SLOPES 25% >
——— ———	GREENWAY BOUNDARY

UPI NO. 25-5-35

EDWARD J. HOLLIDAY

SEPTIC PLAN

PLAN OF MINOR SUBDIVISION
FOR
UPI 25-5-35

WEST VINCENT TOWNSHIP
CHESTER COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
Whiteland Business Park
855 Springdale Drive, Suite 202
Exton, Pennsylvania 19341
Phone: 610-903-0060
Fax: 610-903-0080

Project- 4436
Date- 4-19-23
Scale- 1"= 100'
Drawn- JD
Checked- JD
Sheet- 1 OF 1

Plotted: 4/24/2023 File: F:\JB\4436\FPS\4436-SEPTIC.pro