

3 Van Wyck Lane
Wappingers Falls, New York 12590
Phone: 845-223-3202

Engineer's Report
for the redesign of the
Water Supply & OWTS
for
Filed map 9132 - Lot #1

Location:
Cooper Road
Wappinger Falls, NY 12533
County of Dutchess

Date: March 8, 2022
Revised: April 27, 2022

1.0 Purpose

This report shall outline the redesign of the existing OWTS that will support a 3-bedroom dwelling to be constructed. The applicant wishes to realign the lot lines and redesign the septic to reduce the size of the system by using infiltrators and to meet separation requirements to adjacent wells. The existing soils information from filed map 9132 have been verified by this office and detailed in the rear of this report based upon our findings. While the soil test locations are not in the area of the revised septic location, due to the existing grades, the fill in the septic area is 8'-10'.

The parcel is identified by tax ID # 135689-6156-02-869803 Town of Wappingers, Dutchess County, New York.

2.0 Project Background

The proposed project site consists of one 0.918 acre parcel and is located in the Town of Wappingers in Dutchess County, New York.

3.0 Proposed Project

By realigning the lot lines with lot 3 of the same filed map and shifting the SDS on lot 1 to the east, the required separation to the adjacent existing wells can be achieved. The applicant wishes to reconfigure the OWTS layout with infiltrators. This report will outline the design of the OWTS redesign and water supply design. The lot line realignment will not impact the approved well location or approved sewage disposal system location on lot 3.

4.0 Design Flows

According to the Dutchess County Design and Construction Standards Plan Submission Guide (September 1, 2016), the flow for a new residence is 110 gal/day/bedroom. Therefore, the total daily flow rate for the proposed residence is 330 gal/day. Water saving fixtures were observed via site visit performed by this office.

5.0 Septic Tank Design

5.1 Septic Tank Selection

The residence will be limited to a three bedroom design flow of 330 gal/day.

As per Table D-2 within "Design Standards for Wastewater Treatment Works Intermediate Sized Wastewater Treatment Systems, 2014:

Daily Flow, "Q" (gpd)	Tank Size (gallons)
Under 5,000	1.5Q
5,000 – 15,000	$3750 + 0.75Q$
15,000 +	Q

$$Q < 5,000\text{gpd}$$

Therefore, Tank size = $1.5Q$

$$\text{Tank size} = (1.5)(330\text{ gpd})$$

$$\text{Tank size} = 495\text{ gallons}$$

In accordance with Section 75-A.6, Table 3 of the Dutchess County Design and Construction Standards, the minimum required septic tank capacity for a 3-bedroom design is 1,000 gallons. Therefore, the proposed 1,000-gallon tank is sufficient.

6.0 Onsite Wastewater Treatment System

6.1 SDS Design for Three-Bedroom home (Max.)

The design of the primary and replacement absorption fields shall be based on an application rate of 0.45 gal/day/square foot from the existing soil. The primary/replacement absorption field design calculations are as follows:

$$\text{Required Area} = 330\text{ GPD} / 0.45\text{ Application Rate} = 734\text{ sq.ft.}$$

$$\text{Required Lateral Length} = 734\text{ sq. ft.} / 2'\text{ trench width} = 367\text{ l.f.}$$

This office is proposing the use of infiltrators for the OWTS to reduce the required lineal feet of the absorption field by 25%.

$$367\text{ ft} \times 75\% = 276'\text{ (Required lineal feet of infiltrators)}$$

For the primary area 5 laterals at 56' per lateral for a total of 280 linear feet. For the 100% expansion area, 6 laterals at 47 linear feet per lateral for a total of 276 linear feet. The EQ36 infiltrator trenches shall be separated 6' center to center.

7.0 Water Supply

The lot shall be served by a proposed well as shown on the attached plan and detail.

Appendix

DUTCHESS COUNTY DEPARTMENT OF HEALTH
APPLICATION FOR APPROVAL OF PLANS FOR A WASTEWATER DISPOSAL SYSTEM

Mid Hudson Development

1. Name & address of applicant: P.O. Box 636
Fishkill NY 12540
2. Name of Project: OWTS & Water Supply Design
3. Location: TM/C Town of Wappinger
4. Project Engineer: Day & Stokosa Engineering P.C.
5. Address: 3 Van Wyck Lane
Wappinger Falls NY 12590
6. Type of Project ☒ Private/Residential ☐ Camp ☐ Commercial ☐ Apartments
☐ Institutional ☐ Mobile Home Park ☐ Office Building
☐ Food Service ☐ Other (specify) _____
☐ Realty Subdivision
7. Is this project subject to State Environmental Quality Review (SEQR)?
Type status (check one) ☐ Type I ☒ Type II ☐ Exempt ☐ Unlisted
8. Is a Draft Environmental Impact Statement (DEIS) required? No
9. Has a DEIS been completed and found acceptable by the Lead Agency? N/A
10. Name of Lead Agency: Town of Wappinger Planning Board
11. Is this project in an area under the control of local Planning, Zoning or other officials, ordinances? Yes
12. If so, have plans been submitted to such authorities? Yes
13. Has preliminary approval been granted by such authorities? Yes
14. Type of sewage disposal system discharge: ☐ Surface waters ☒ Ground waters
15. If surface water discharge, what is the stream class designation? N/A
16. Waters index number (surface) N/A
17. Is project located near a public water supply system? No
18. If yes, name of water supply: N/A Distance to water supply: N/A
19. Is project site near a public sewage collection or disposal system? No
20. Name of sewage system: N/A Distance to sewage system: No
21. Were subsurface soil tests observed by a Health Department representative? No
22. Date observed: 10/12/20 & 04/12/22 Name of Health Inspector: Dan Keeler, P.E.
24. Project design flow (gallons per day) 330GPD - 3 BDRM Max.
25. Is an application for State Pollutant Discharge Elimination System (SPDES) required? No

26. Has application been submitted to local NYSDEC office? No
27. Is any portion of this project located within a designated wetland? No
28. Is a Wetland Permit required? No 29. Has application been made to local DEC office? No
30. Does project require a Stream Disturbance Permit? No
31. Is project located within 1000 feet of existence of abandoned landfill, hazardous waste site, salt stockpile or any other potential known source of contamination? No
Describe: None known of
32. Does this project involve discharge or storage of industrial or hazardous wastes? No
Describe: None known of
33. Is there a local master plan on file with the Town, Village, City? Yes
34. Are community water, sewer facilities planned to be developed within 15 years? No
35. Are any sewage disposal areas in excess of 10% slope? No
36. Tax Map I.D. Number: 135689-6156-02-849810
37. Approved plans are to be returned to: Applicant X Engineer

If the application is signed by a person other than the applicant shown in Item 1, the application must be accompanied by a letter of authorization. Failure to comply with this provision may be grounds for the rejection of any submission.

I hereby affirm, under penalty of perjury, that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A Misdemeanor pursuant to Section 210.45 of the Penal Law.

Signatures and official titles: Mid Hudson Development

P.O. Box 636

Fishkill NY 12540

Mailing address:

MEMORANDUM

To: Bruce M. Flower, Chairman,
and the Town of Wappinger Planning Board

Date: April 13, 2022

Subject: **Cooper Road - Lot Line Realignment**
Tax Lots 6156-02-869803 and 6156-02-852826

As requested, we reviewed the application submitted by Day Stokosa Engineering (the “Applicant” and “Owner”) for Subdivision Plat Approval.

The Property

The subject property is known as Tax Lots 6156-02-869803 and 6156-02-852826 on the Town of Wappinger Tax Assessment Maps and they are located on Cooper Road within the 1 Family Residence (R-20) zoning district (the “Subject Property” or “Site”).

The Proposal

The Applicant is proposing to realign lots 1 and 3 of filed map 9132 by shifting lot 1 to the north-east and rerouting the long drive of lot 3 around. The purpose of this is to allow the sewage disposal system on lot 1 to shift and comply with separation requirements from water supply (the “Project” or “Proposed Action”).

Submission

The Applicant has submitted for review an Application for Subdivision Plat Approval dated 1/12/22; a Short Environmental Assessment Form (Short EAF) with no date; a narrative prepared by Day Stokosa Engineering dated 3/9/22; a comment response memo prepared by Day and Stakosa Engineering with no date; and a 2 sheet subdivision plat entitled “Lot Line Realignment Filed Map 9132 Lots 1 & 3” prepared by Day Stakosa Engineering, dated 1/11/22 last revised 3/9/22.

We offer the following comments for your consideration.

REVIEW COMMENTS

1. **SEQRA.** The Proposed Action is considered a Type 2 action pursuant to SEQRA. No further SEQRA actions are required.

2. Common Driveway. The Applicant should demonstrate conformance with §240-20.A(1) which states that, "It shall be demonstrated that each single-family residential lot is capable of independent access over its own frontage".

We have no further comments. If you have any questions with respect to the above, please let us know.

Sarah Brown, AICP
Principle Planner

Malcolm Simpson
Planner

cc: James Horan, Esq.
Barbara Roberti
Jon Bodendorf, PE
Michael Sheehan
Amy Bombardieri (Applicant)

**DUTCHESS COUNTY DEPARTMENT OF HEALTH
PERCOLATION TEST DATA**

Name: LANDS OF ELEUARO (T)(M)(C) W. M. Miller Date: 10/12/21
TAX GRID #

		6	1	5	6	0	2	8	4	9	8	1	0
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By: D+S ESH DCHD Inspector _____

Lot No.	Test Hole No.	Test Hole Depth	Soil Type	Soaked	TEST RUNS					
					*	1	2	3	4	5
1	1	30"	Silt Loam	YES	Finish	10:30	11:01	11:36	12:19	1:03
					Start	10:15	10:20	11:02	11:36	12:20
					Time	21	75	34	43	43
	2	30"	Silt Loam	YES	Finish	10:55	11:32	12:12	12:30	1:46
					Start	10:15	10:55	11:32	12:12	1:00
					Time	30	37	40	46	46
	3	30"	Silt Loam	4/14/22	Finish	8:57	9:45	10:34		
					Start	8:09	8:57	9:46		
					Time	48	48	48		
	4	30"	Silt Loam	4/14/22	Finish	9:38	10:21	11:04	11:48	
					Start	9:01	9:39	10:21	11:05	
					Time	37	42	43	43	
	5	24"	Silt Loam	4/14/22	Finish	8:41	9:15	9:48	10:21	
					Start	8:13	8:43	9:16	9:49	
					Time	28	32	32	32	
	6	24"	Silt Loam	4/14/22	Finish	9:45	10:36	11:28	12:21	1:13
					Start	9:03	9:49	10:36	11:29	12:21
					Time	42	47	52	52	52
					Finish					
					Start					
					Time					
					Finish					
					Start					
					Time					
					Finish					
					Start					
					Time					
					Finish					
					Start					
					Time					

I, D. S. Miller, the undersigned, certify that these percolation tests were done by myself or under my direction according to the standard procedure. The data and results presented are true and correct.

Dated: May 02, 2022

Signature: _____
License No. (P.E.)(L.S.) _____

