

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

September 13, 2022

Dutchess County Health Department
Attn: Dan Keeler, PE
85 Civic Center Plaza - Suite 106
Poughkeepsie, New York 12601

Re: Lot 4 - Filed map 9132
Tax Id # 135689-6156-02-872849
Cooper Road
Town of Wappinger

Mr. Keeler:

Please find the following enclosed:

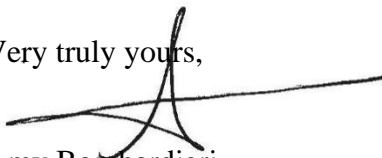
- One (1) copy of the OWTS design plans
- One (1) copy of the Engineers Report for OWTS and Water Supply Design.
- One (1) application fee check for \$595.00.

This proposed project is for the conversion of an existing residence constructed in 1920. The building is over 4,000 sf. The proposed use is for 4 multi family dwelling units, 2 bedrooms in each, for a total of 8 bedrooms. The sewage disposal system will need to be upgraded in accordance with the department of health and improvements to the driveway in accordance with the town and fire codes will be completed. Interior modification to the building will be completed to construct the dwelling units. The project is an active application for Site Plan and Special Use Permit and is scheduled for a Wappinger Planning Board public hearing on September 19, 2022. The planning board circulated to be Lead Agent in July. Your response, dated July 14, 2022 (file number 123314), was received at the Town and forwarded to this office.

Included herein are the design plans and SDS report.

Please feel free to contact me if you require any further information on this matter.

Very truly yours,



Amy Bombardieri

Cc: Town of Wappinger, file

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 9132A - Lot #4

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

Date: September 8, 2022

1.0 Purpose

This report shall outline the design of the proposed sewage disposal system (SDS) that will support four 2-bedroom (multi-family) dwelling units for a total of 8 bedrooms. This project consists of the conversion of an existing residence constructed in 1920. This is currently under review by the Town of Wappinger.

The 3.62 acre parcel is identified by tax ID # 135689-6156-02-872849.

2.0 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 multi-family residence is 880 gal/day. The entire interior is being gutted; the plumbing fixtures will meet low flow rating. A 2,500 gallon septic tank is proposed.

3.0 Onsite Wastewater Treatment System

3.1 SDS Design for Eight-Bedroom home (Max.)

The primary and replacement areas are 170 feet apart. The soil test results are slightly different. The primary system is based on an application rate of 0.45 gpd/sf and the reserve on a rate of 0.50 gpd/sf. The design calculations are as follows:

Primary

Required Area = 880 GPD / 0.45 Application Rate = 1,956 sq.ft.

$$1,956 \text{ SF} * 75\% = 1,467 \text{ SF}$$

$$1,467 \text{ SF} / 2' = 734 \text{ LF} \rightarrow 12 @ 64' \text{ ea} = 768 \text{ LF}$$

Reserve

Required Area = 880 GPD / 0.50 Application Rate = 1,760 sq.ft.

$$1,760 \text{ SF} * 75\% = 1,320 \text{ SF}$$

$$1,320 \text{ SF} / 2' = 660 \text{ LF} \rightarrow 10 @ 66' \text{ ea} = 660 \text{ LF}$$

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

A 2,500 gallon pump chamber is proposed. The dose is set to 75% of the primary volume. The chamber will provide 2 days storage above the high level alarm.

4.0 Water Supply

The lot shall be served by the existing well as shown on the attached plan.

Appendix

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

Mid Hudson Development

P.O. Box 636

1. Name & address of applicant: Fishkill NY 12540
2. Name of Project: Conversion to Multi-Family Dwelling revision to f.m. 9132a
3. Location: T/V/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: N/A
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? NO
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? YES
22. Date observed: 04/12/22 & 06/28/22
23. Name of Health Inspector: Dan Keeler, P.E.
24. Project design flow (gallons per day) 880 GPD
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: 135689-6156-02-872849
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: _____

DEEP TEST RESULTS

DUTCHESS COUNTY DEPARTMENT OF BEHAVIORAL AND COMMUNITY HEALTH

Date: 4/12/22

Name of property: Morningside (formerly)

Ⓣ(V)(C) Wappinger

TAX GRID #

1	3	5	6	8	9	6	1	8	6	0	2	8	7	2	8	4	9
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Owner of property: Mid-Hudson Holdings

Engineer: Day / Stokosa

Person directing test: Amy Bombardieri

DCHD Rep: D. Keeler

HOLE #	LOT #	TOTAL DEPTH	ROCK DEPTH	WATER DEPTH	MOTTLING DEPTH	SOIL DESCRIPTION
1		6'	—	3.5'	—	clay loam
2		6'	—	3.5'	—	clay loam

General remarks (terrain; weather; springs, streams, etc.)

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

MIDHUDSON
DEVELOPMENT CORP

Name: _____

TAX GRID # _____

135689-6156-02-872849

(T)(V)(C) Wm. J. Stokosa

Date: SEPTEMBER 13, 2022

By: **DAY STOKOSA**
ENGINEERING P.C.

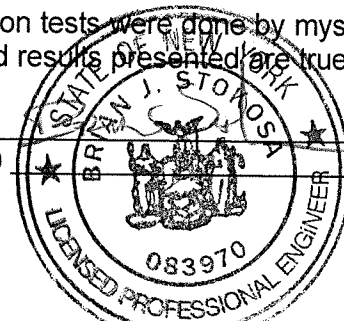
DCHD Inspector _____

Lot No.	Test Hole No.	Test Hole Depth	Soil Type	Soaked	TEST RUNS					
					*	1	2	3	4	5
	1	24"	Silt Loam	4/11/22	Finish	9:41	10:16	10:53	11:31	
					Start	9:00	9:40	10:17	10:55	
					Time	34	36	36	36	
	2	30"	Silt Loam	4/11/22	Finish	9:41	10:27	11:16	12:06	
					Start	9:03	9:42	10:28	11:20	
					Time	38	45	46	46	
	3	24"	Silt Loam	6/27/22	Finish	10:41	11:25	12:08	12:48	
					Start	10:00	10:43	11:25	12:05	
					Time	41	42	43	43	
	4	30"	Silt Loam	6/27/22	Finish	10:39	11:22	12:05	12:48	1:31
					Start	10:02	10:41	11:22	12:05	12:48
					Time	37	42	43	43	43
					Finish					
					Start					
					Time					
					Finish					
					Start					
					Time					
					Finish					
					Start					
					Time					
					Finish					
					Start					
					Time					

I, B. Stokosa, 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: September 13, 2022

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





WE Series Model 3885

SUBMERSIBLE EFFLUENT PUMPS



FEATURES

Impeller: Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

Casing: Cast iron volute type for maximum efficiency. 2" NPT discharge.

Mechanical Seal: Silicon Carbide vs. Silicon Carbide sealing faces. Stainless steel metal parts, BUNA-N elastomers.

Shaft: Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.

Fasteners: 300 series stainless steel.

Capable of running dry without damage to components.

Designed for continuous operation when fully submerged.

EXTENDED WARRANTY AVAILABLE FOR RESIDENTIAL APPLICATIONS.

APPLICATIONS

Specifically designed for the following uses:

- Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS

Pump

- Solids handling capabilities: $\frac{3}{4}$ " maximum
- Discharge size: 2" NPT
- Capacities: up to 140 GPM
- Total heads: up to 128 feet TDH
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

MOTORS

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on $\frac{1}{3}$ - 1 $\frac{1}{2}$ HP models.
- Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.

- SJTOW or STOW severe duty oil and water resistant power cords.
- $\frac{1}{3}$ - 1 HP models have NEMA three prong grounding plugs.
- 1 $\frac{1}{2}$ HP and larger units have bare lead cord ends.

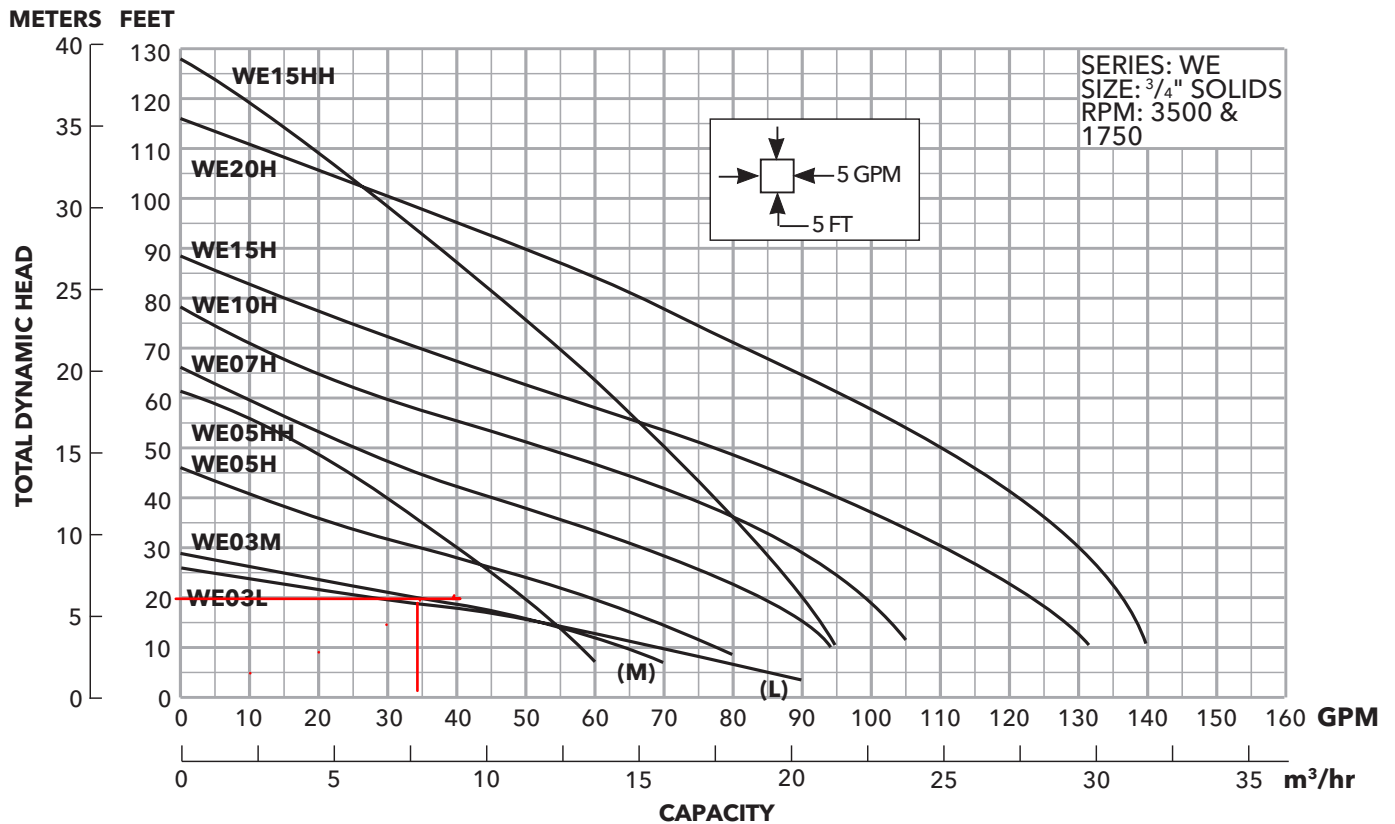
Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.
- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- Bearings: Upper and lower heavy duty ball bearing construction.
- Power Cable: Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
- O-ring: Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

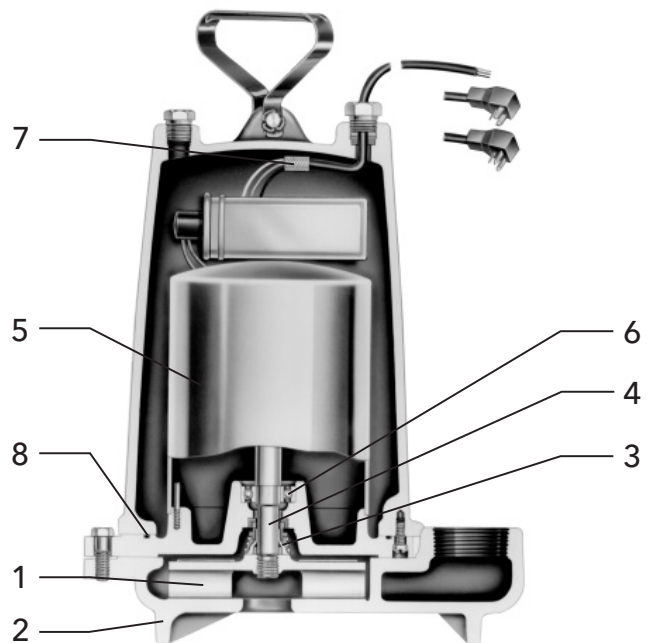


Tested to UL 778 and CSA 22.2 108 Standards
By Canadian Standards Association File #LR38549



COMPONENTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical Seal
4	Motor Shaft
5	Motor
6	Ball Bearings
7	Power Cable
8	Casing O-Ring



MODELS

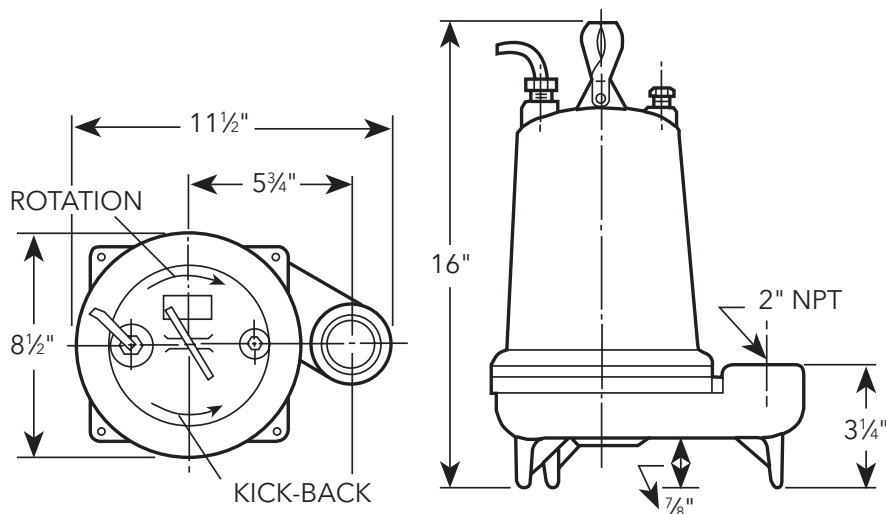
Order Number	HP	Phase	Volts	RPM	Impeller Diameter (in.)	Maximum Amps	Locked Rotor Amps	KVA Code	Full Load Efficiency %	Resistance		Power Cable Size	Weight (lbs.)	
										Start	Line-Line			
WE0311L	0.33	1	115	1750	5.38	10.7	30.0	M	54	11.9	1.7	16/3	56	
WE0318L			208			6.8	19.5	K	51	9.1	4.2			
WE0312L			230			4.9	14.1	L	53	14.5	8.0			
WE0311M			115			10.7	30.0	M	54	11.9	1.7			
WE0318M			208			6.8	19.5	K	51	9.1	4.2			
WE0312M			230			4.9	14.1	L	53	14.5	8.0			
WE0511H	0.5		115	3450	3.56	14.5	46.0	M	54	7.5	1.0	14/3	60	
WE0518H			208			8.1	31.0	K	68	9.7	2.4	16/3		
WE0512H			230			7.3	34.5	M	53	9.6	4.0	16/3		
WE0538H		3	200			4.9	22.6	R	68	NA	3.8	14/4		
WE0532H			230			3.3	18.8	R	70	NA	5.8			
WE0534H			460			1.7	9.4	R	70	NA	23.2			
WE0537H			575			1.4	7.5	R	62	NA	35.3			
WE0511HH		1	115			3.88	14.5	46.0	M	54	7.5	1.0		14/3
WE0518HH			208		8.1		31.0	K	68	9.7	2.4	16/3		
WE0512HH			230		7.3		34.5	M	53	9.6	4.0	16/3		
WE0538HH		3	200		4.9		22.6	R	68	NA	3.8	14/4		
WE0532HH			230		3.6		18.8	R	70	NA	5.8			
WE0534HH			460		1.8		9.4	R	70	NA	23.2			
WE0537HH			575		1.5		7.5	R	62	NA	35.3			
WE0718H		0.75	1		208		4.06	11.0	31.0	K	68	9.7		2.4
WE0712H					230	10.0		27.5	J	65	12.2	2.7		14/3
WE0738H	3		200	6.2	20.6	L		64	NA	5.7	14/4			
WE0732H			230	5.4	15.7	K		68	NA	8.6				
WE0734H			460	2.7	7.9	K		68	NA	34.2				
WE0737H			575	2.2	9.9	L		78	NA	26.5				
WE1018H	1	1	208	4.44	14.0	59.0	K	68	9.3	1.1	14/3			
WE1012H			230		12.5	36.2	J	69	10.3	2.1	14/3			
WE1038H		3	200		8.1	37.6	M	77	NA	2.7	14/4			
WE1032H			230		7.0	24.1	L	79	NA	4.1				
WE1034H			460		3.5	12.1	L	79	NA	16.2				
WE1037H			575		2.8	9.9	L	78	NA	26.5				
WE1518H	1.5	1	208	4.56	17.5	59.0	K	68	9.3	1.1	14/3			
WE1512H			230		15.7	50.0	H	68	11.3	1.6	14/3			
WE1538H		3	200		10.6	40.6	K	79	NA	1.9	14/4			
WE1532H			230		9.2	31.7	K	78	NA	2.9				
WE1534H			460		4.6	15.9	K	78	NA	11.4				
WE1537H			575		3.7	13.1	K	75	NA	16.9				
WE1518HH		1	208		5.50	17.5	59.0	K	68	9.3	1.1	14/3		
WE1512HH			230			15.7	50.0	H	68	11.3	1.6	14/3		
WE1538HH		3	200	10.6		40.6	K	79	NA	1.9	14/4			
WE1532HH			230	9.2		31.7	K	78	NA	2.9				
WE1534HH			460	4.6		15.9	K	78	NA	11.4				
WE1537HH			575	3.7		13.1	K	75	NA	16.9				
WE2012H	2	1	230	5.38	18.0	49.6	F	78	3.2	1.2	14/3			
WE2038H		3	200		12.0	42.4	K	78	NA	1.7	14/4			
WE2032H			230		11.6	42.4	K	78	NA	1.7				
WE2034H			460		5.8	21.2	K	78	NA	6.6				
WE2037H			575		4.7	16.3	L	78	NA	10.5				

PERFORMANCE RATINGS (gallons per minute)

Order No.		WE-03L	WE-03M	WE-05H	WE-07H	WE-10H	WE-15H	WE05HH	WE15HH	WE-20H
Total Head Feet of Water	HP	⅓	⅓	½	¾	1	1½	½	1½	2
	RPM	1750	1750	3500	3500	3500	3500	3500	3500	3500
	5	86	-	-	-	-	-	-	-	-
	10	70	63	78	94	-	-	58	95	-
	15	52	52	70	90	103	128	53	93	138
	20	27	35	60	83	98	123	49	90	136
	25	5	15	48	76	94	117	45	87	133
	30	-	-	35	67	88	110	40	83	130
	35	-	-	22	57	82	103	35	80	126
	40	-	-	-	45	74	95	30	77	121
	45	-	-	-	35	64	86	25	74	116
	50	-	-	-	25	53	77	-	70	110
	55	-	-	-	-	40	67	-	66	103
	60	-	-	-	-	30	56	-	63	96
	65	-	-	-	-	20	45	-	58	89
	70	-	-	-	-	-	35	-	55	81
	75	-	-	-	-	-	25	-	51	74
	80	-	-	-	-	-	-	-	47	66
	90	-	-	-	-	-	-	-	37	49
	100	-	-	-	-	-	-	-	28	30

DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



STANDARD PANEL OPTIONS

Pump Order Number	K Series		Boulay Series	
	Simplex	Duplex	Simplex	Duplex
WE0311L	KS19020WF	KD19020WF	S10020	D10020
WE0318L	KS19020WF	KD19020WF	S10020	D10020
WE0312L	KS19020WF	KD19020WF	S10020	D10020
WE0311M	KS19020WF	KD19020WF	S10020	D10020
WE0318M	KS19020WF	KD19020WF	S10020	D10020
WE0312M	KS19020WF	KD19020WF	S10020	D10020
WE0511H	KS19020WF	KD19020WF	S10020	D10020
WE0518H	KS19020WF	KD19020WF	S10020	D10020
WE0512H	KS19020WF	KD19020WF	S10020	D10020
WE0538H	KS31255WF	KD31255WF	S34063	D34063
WE0532H	KS31255WF	KD31255WF	S32540	D32540
WE0534H	KS31255WF	KD31255WF	S31625	D31625
WE0537H	N/A	N/A	S31625	D31625
WE0511HH	KS19020WF	KD19020WF	S10020	D10020
WE0518HH	KS19020WF	KD19020WF	S10020	D10020
WE0512HH	KS19020WF	KD19020WF	S10020	D10020
WE0538HH	KS31255WF	KD31255WF	S34063	D34063
WE0532HH	KS31255WF	KD31255WF	S32540	D32540
WE0534HH	KS31255WF	KD31255WF	S31625	D31625
WE0537HH	N/A	N/A	S31625	D31625
WE0718H	KS19020WF	KD19020WF	S10020	D10020
WE0712H	KS19020WF	KD19020WF	S10020	D10020
WE0738H	KS34518WF	KD34518WF	S36310	D36310
WE0732H	KS34518WF	KD34518WF	S34063	D34063
WE0734H	KS31255WF	KD31255WF	S32540	D32540
WE0737H	N/A	N/A	S31625	D31625
WE1018H	KS19020WF	KD19020WF	S10020	D10020
WE1012H	KS19020WF	KD19020WF	S10020	D10020
WE1038H	KS34518WF	KD34518WF	S36310	D36310
WE1032H	KS34518WF	KD34518WF	S36310	D36310
WE1034H	KS34518WF	KD34518WF	S32540	D32540
WE1037H	N/A	N/A	S32540	D32540
WE1518H	KS19020WF	KD19020WF	S10020	D10020
WE1512H	KS19020WF	KD19020WF	S10020	D10020
WE1538H	KS34518WF	KD34518WF	S31016	D31016
WE1532H	KS34518WF	KD34518WF	S36310	D36310
WE1534H	KS34518WF	KD34518WF	S34063	D34063
WE1537H	N/A	N/A	S32540	D32540
WE1518HH	KS19020WF	KD19020WF	S10020	D10020
WE1512HH	KS19020WF	KD19020WF	S10020	D10020
WE1538HH	KS34518WF	KD34518WF	S31016	D31016
WE1532HH	KS34518WF	KD34518WF	S36310	D36310
WE1534HH	KS34518WF	KD34518WF	S34063	D34063
WE1537HH	N/A	N/A	S32540	D32540
WE2012H	KS19020WF	KD19020WF	S10020	D10020
WE2038H	KS34518WF	KD34518WF	S31016	D31016
WE2032H	KS34518WF	KD34518WF	S31016	D31016
WE2034H	KS34518WF	KD34518WF	S34063	D34063
WE2037H	N/A	N/A	S34063	D34063

Note: Boulay Series part numbers have additional available features, see page 7 for more information.

Note: K Series panel part numbers include floats, to order without float switches, remove the 'WF' suffix. Boulay Series panels do not include float switches.



K-SERIES

- NEMA 4X dead front outdoor rated enclosure
- Red LED alarm beacon
- HOA selector switch
- Field wiring terminal block
- Single phase models handle 120, 208 and 230V service
- Three phase models handle 200, 230 and 460V service
- Requires separate control/alarm power feed
- See brochure "BCPKSDPANELS" for additional information

BOULAY SERIES

- NEMA 4X outdoor rated enclosure
- Red alarm beacon
- HOA selector switch
- Through door pump run light(s)
- Through door alarm test and horn silence button
- Single phase models handle 120, 208 and 230V service
- Three phase models handle 200, 230, 460 and 575V service
- Accepts single or dual power feed
- See brochure "BCP3 R11" for additional information on simplex models
- See brochure "BCP4 R14" for additional information on duplex models

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xyleminc.com



Xylem Inc.
2881 East Bayard Street Ext., Suite A
Seneca Falls, NY 13148
Phone: (866) 325-4210
Fax: (888) 322-5877
www.xylem.com/goulds

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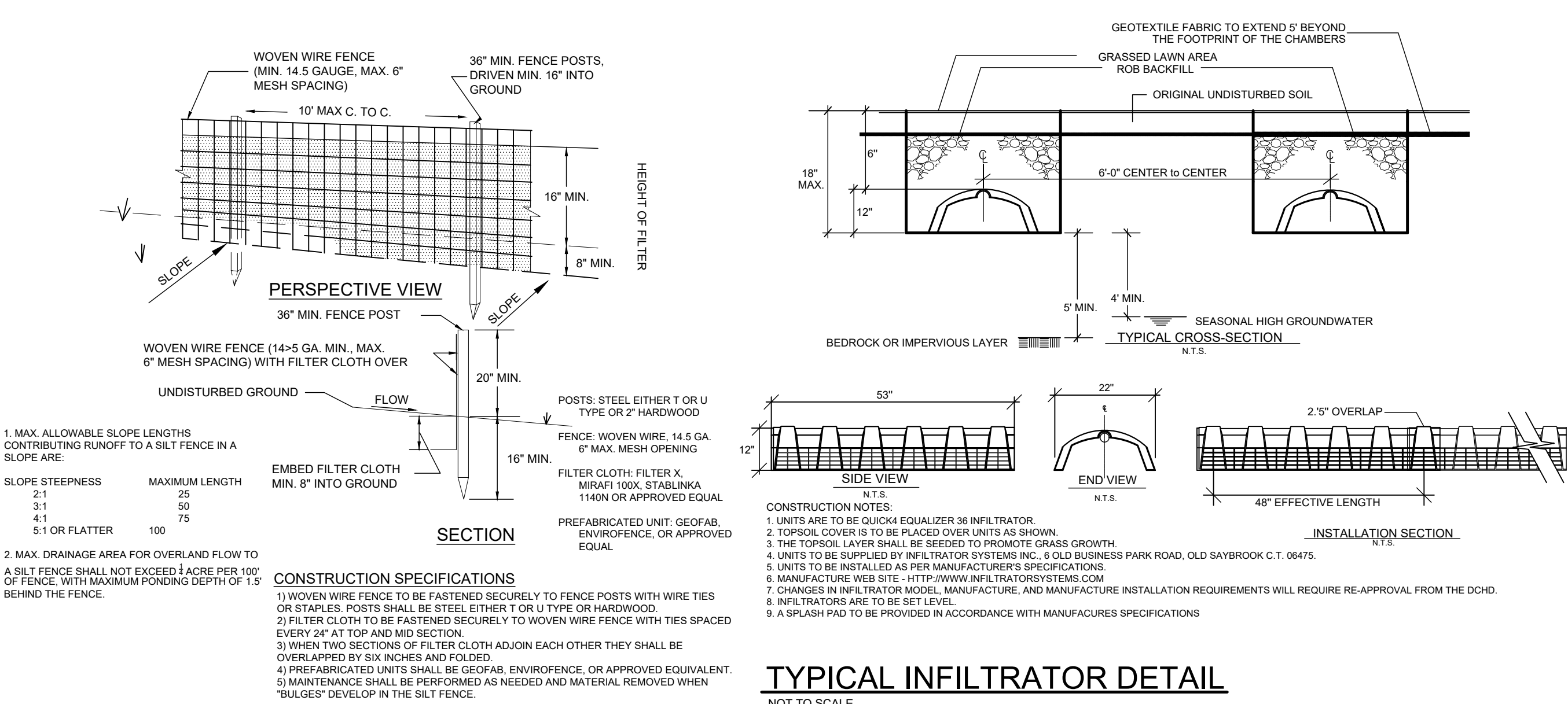
SCALE	DRAWN BY	DRAWING NO.
AS NOTED	ALB	
DATE	CHECKED BY	G001
06.02.2022	BJS	



The profile view graph displays the vertical alignment of a road. The horizontal axis represents stationing from 0+00 to 4+94.35. The vertical axis represents elevation in feet, ranging from 270 to 340. A dashed line represents the 'EXISTING GRADE' and a solid line represents the 'PROPOSED GRADE'. The proposed grade includes a vertical curve with the following data points:

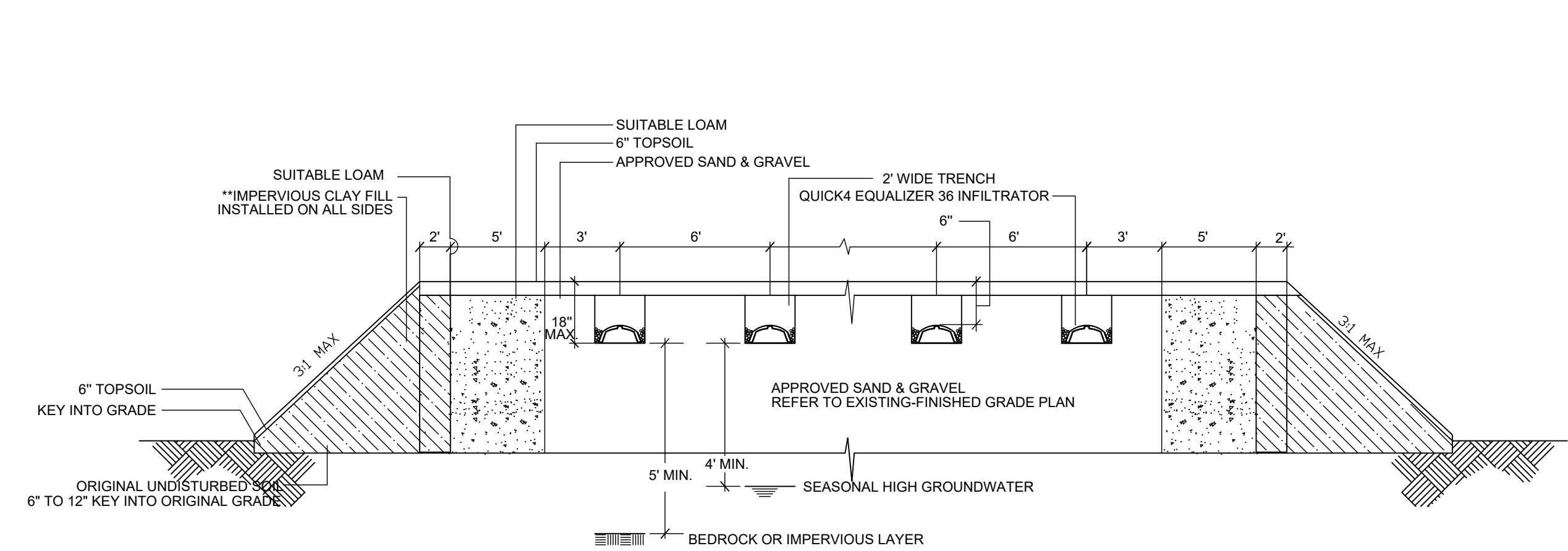
Station	Elevation (ft)	Grade (%)
0+00	281.5'	4.00%
0+50	287.2'	0.78%
1+00	284.12'	6.46%
1+50	294.3'	9.92%
2+00	299.07'	10.04%
2+50	306.2'	
3+00	304.18'	
3+50	314.2'	
4+00	309.21'	
4+50	318.8'	
4+94.35	314.23'	3.27%

SCALE	DRAWN BY	DRAWING No.
AS NOTED	ALB	
DATE	CHECKED BY	C130
06.02.2022	BJJ	



SILT FENCING PLAN

NOT TO SCALE



- CONSTRUCTION NOTES:**
1. FILL SHALL BE SAND AND GRAVEL FILL, WITH A STABILIZED PERCOLATION RATE WHICH IS LESS THAN OR EQUIVALENT TO THE PERCOLATION RATE OF THE VIRGIN SOIL, AND NO MORE 10 MINUTES PER INCH. THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE FILL MATERIAL IS IN THE PROPER PLACE, IS OF THE PROPER QUANTITY AND DIMENSIONS, AND IS OF PROPER QUALITY. PROPER QUALITY MUST BE DEMONSTRATED BY STABILIZED PERCOLATION TESTS. THE RESULTS OF WHICH SHALL BE SUBMITTED WITH THE ENGINEER'S CERTIFICATION.
 2. LATERALS TO BE PLACED 6' ON CENTERS WITH THE LIMITS OF THE GRAVEL, 3' BEYOND THE CENTER OF THE TRENCH.
 3. THE CLAY FILL TO BE OF AN IMPERVIOUS NATURE AND PLACED BEYOND THE LIMITS OF GRAVEL.
 4. INFILTRATORS TO BE SET LEVEL.
 5. THE SYSTEM SHALL NOT BE INSTALLED IN WET OR FROZEN SOIL.
 6. A NYSPE SHALL CERTIFY THE INSTALLATION OF THE CLAY KEY TO THE DCHD.
 7. THE SOUTHERN AND EASTERN PROPERTY LINE AND LIMITS OF THE FILL MATERIAL FOR THE OWTS SHALL BE STAKED OUT BY A NYSLLS PRIOR TO INSTALLATION OF THE OWTS AND APPURTENANCES.

TYPICAL FILL PAD DETAIL

NOT TO SCALE

PERCOLATION TEST DATA

PERCOLATION TESTS HOLES 1 AND 2 WERE PERFORMED ON THE DATE OF MAY 13, 2022. PERCOLATION TESTS HOLES 3 AND 4 WERE PERFORMED ON THE DATE OF JULY 14, 2022. PERCOLATION HOLES WERE DUG AND SOAKED 24 HOURS PRIOR TO TESTING.

PERCOLATION TEST RUN(S)						DESIGN RATE IMPLEMENTED
T.H. NO.	DEPTH	1	2	3	4	
1	24"	34	36	36	36	PRIMARY AREA 46-60 DESIGN RATE 880 GPD / 0.45 = 1,956 SF 1,956 SF * 75% = 1,467 SF 1,467 SF / 2' TRENCH WIDTH = 734 LINEAR FEET
2	30"	38	45	46	46	
3	24"	41	43	43	43	REPLACEMENT AREA 31-45 DESIGN RATE 880 GPD / 0.50 = 1,760 SF 1,760 SF * 75% = 1,320 SF 1,320 SF / 2' TRENCH WIDTH = 660 LINEAR FEET
4	30"	37	42	43	43	

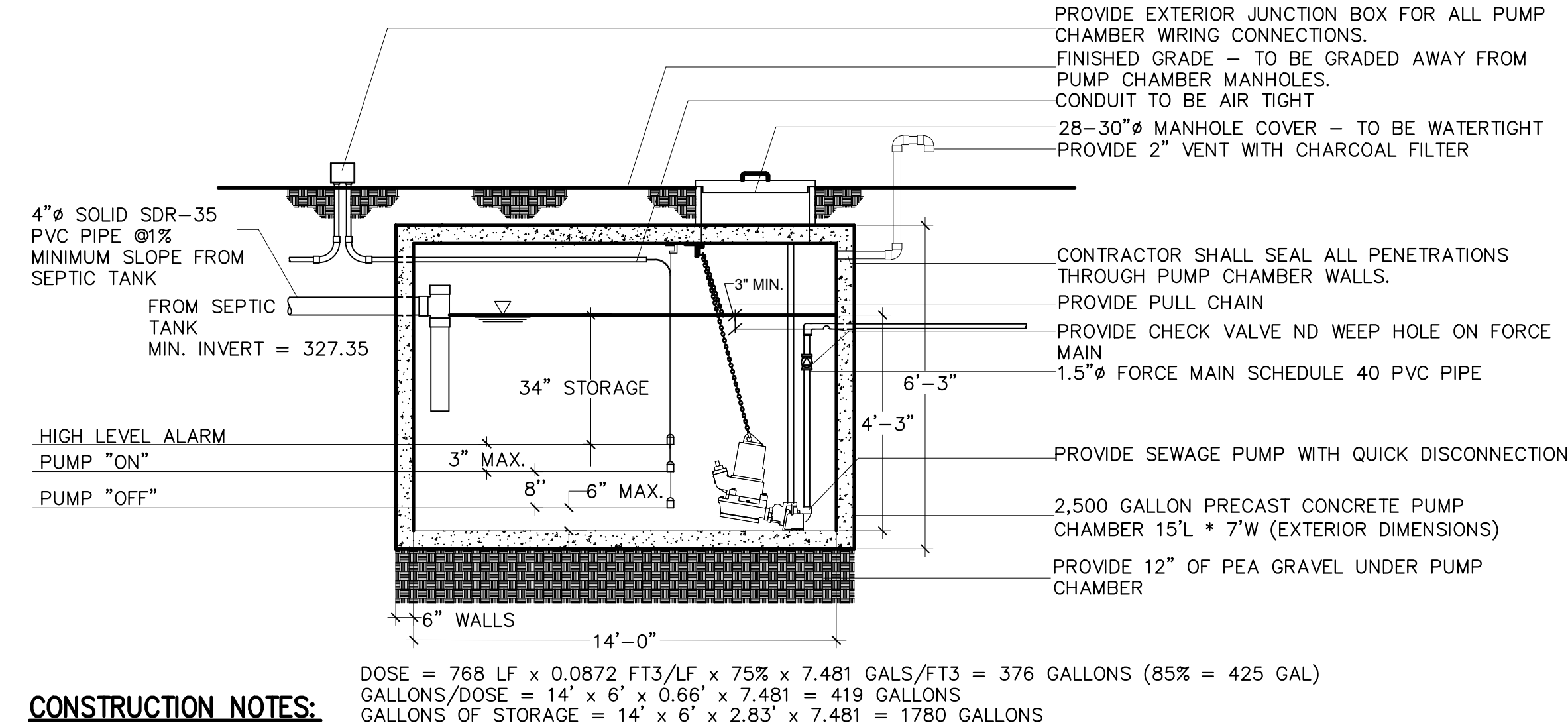
DEEP TEST SOIL DATA

DEEP TESTS 1 AND 2 PERFORMED ON APRIL 12, 2022 AND 3 AND 4 ON JUNE 28, 2022 BY THE OFFICE OF DAY & STOKOSA ENGINEERING P.C. & WITNESSED BY DAN KEELER OF THE DCHD.

TEST HOLE	DEPTH	ROCK	IMP.	WATER	RESULTS
1	6'-0"			3'-6" SEEPAGE	6" TOPSOIL, BAL. - CLAY LOAM
2	6'-0"			3'-6" SEEPAGE	6" TOPSOIL, BAL. - CLAY LOAM
3	7'-6"	38"			6" TOPSOIL, 32" GRAVELY LOAM, BAL. - CLAY LOAM
4	7'-6"	38"			6" TOPSOIL, 32" GRAVELY LOAM, BAL. - CLAY LOAM

TILE FIELD SCHEDULE

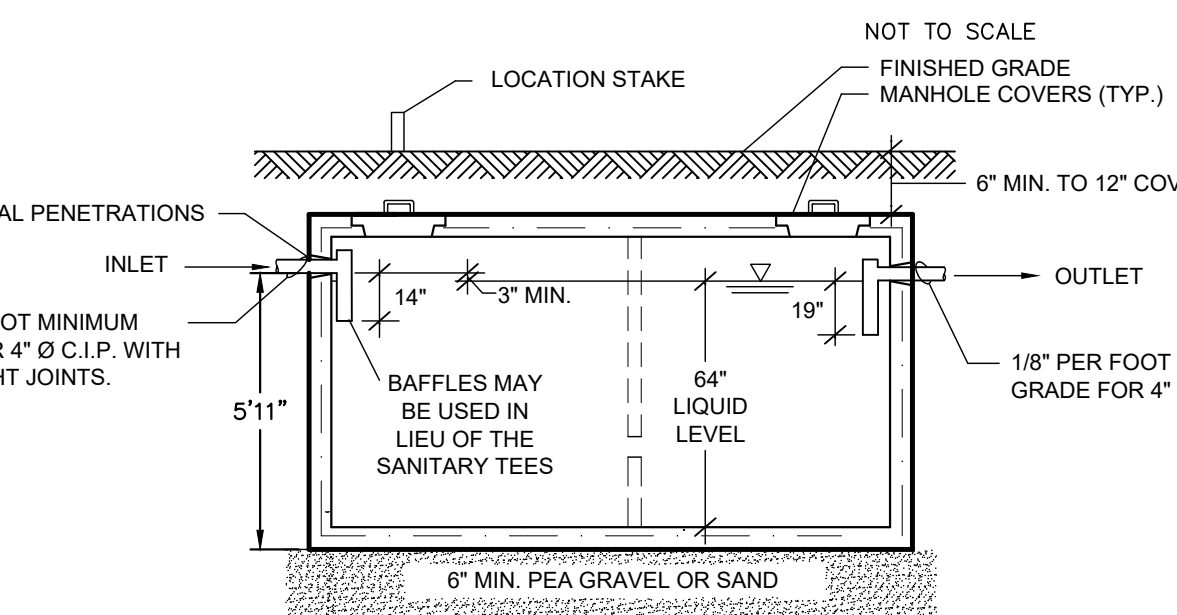
ABSORPTION AREA INFILTRATOR 8 BDRM DESIGN - 880 GPD		SAND & GRAVEL FILL (MINIMUM)	TOPSOIL COVER	TRENCH DEPTH (MAXIMUM)	TRENCH WIDTH	PUMP CHAMBER	DROP BOX	ONSITE WASTEWATER TREATMENT SYSTEM	SEPTIC TANK SIZE (GAL.) 8 BDRM MAX.	FIELD CONFIGURATION 8 BDRM MAX. 880 GPD		L.S.E. MIN. INV.
PRIMARY AREA	REPLACEMENT AREA									PRIMARY AREA	REPLACEMENT AREA	
768 L.F.	660 L.F.	3"0"-PRIMARY 3"6"-RESERVE	6"	18"	24"	PRIMARY - 376 GAL (75%) RESERVE - 366 GAL (85%)	PRIMARY	INFILTRATOR	2,500	12 @ 64 EA. = 768 LF	10 @ 66 EA. = 660 LF	328



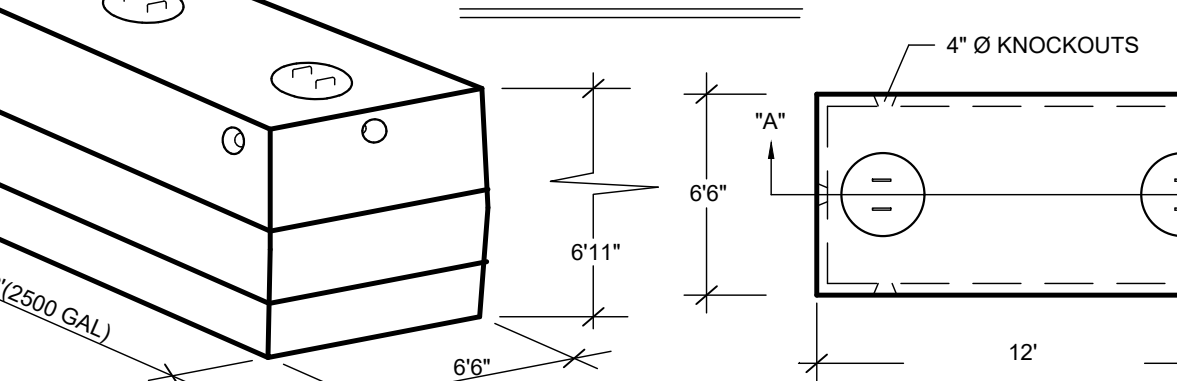
CONSTRUCTION NOTES:

1. ALL ELECTRICAL CONNECTIONS TO BE MADE OUTSIDE OF PUMP CHAMBER, INCLUDING JUNCTION BOX.
2. THE FLOAT HANGER AND/OR BRACKET SHALL BE MADE OF CORROSION RESISTANT MATERIAL.
3. ALL JOINTS AND PENETRATIONS ARE TO BE CAULKED AND MADE WATERTIGHT
4. PUMP TO BE GOULDS 3885 (MODEL #WE03M)
5. CONTROL PANEL TO BE GOULDS (MODEL #D34063)
6. CONTROL SWITCHES TO BE GOULDS (MODEL #A2-3)

TYPICAL 2,500 GALLON PUMP CHAMBER



SECTION A-A



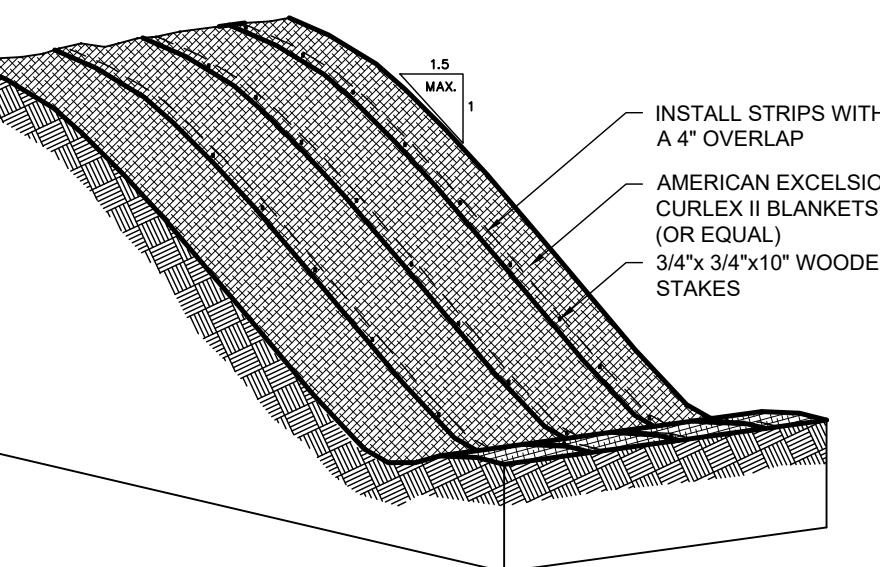
PLAN VIEW

CONSTRUCTION NOTES:

- 1) THE CONTRACTOR SHALL SEAL PENETRATIONS IN THE SEPTIC TANK SO THAT THE SEPTIC TANK IS WATERTIGHT.
- 2) THE SEPTIC TANK SHALL BE CONSTRUCTED FROM CONCRETE WHICH SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT A STANDARD 28 DAY COMPRESSIVE TEST.
- 3) 6"x6"x10 GA. WELDED WIRE FABRIC SHALL BE USED AS REINFORCEMENT FOR THE SEPTIC TANK.
- 4) MULTI-PIECE SEPTIC TANKS SHALL BE SEALED WITH A BUTYL GASKET OR AS PER THE MANUFACTURER'S RECOMMENDATIONS.
- 5) THE SEPTIC TANK SHALL BE TESTED FOR WATER TIGHTNESS BY THE CERTIFYING ENGINEER.

2,500 GALLON SEPTIC TANK DETAIL

SCALE: NOT TO SCALE



SECTION A-A

- NOTES:**
1. CONTRACTOR TO INSTALL AMERICAN EXCELSIOR CURLEX II BLANKETS (OR EQUAL) PARALLEL TO THE SLOPE.
 2. THERE SHALL BE A 4" OVERLAP OVER CONTIGUOUS STRIPS OF MATTING.
 3. INSTALL 3/4" x 3/4" WOODEN STAKES @ 6' INTERVALS. LEAVE A 1" REVEAL.
 4. HYDROSEED SHOULD BE APPLIED TO AREA AS SOON AS PRACTICABLE.
 5. WATER TO BE APPLIED AS REQUIRED TO GERMINATE GRASS SEED.
 6. THE CONTRACTOR TO PERIODICALLY INSPECT MATTING AND MAKE REPAIRS AS NECESSARY.
 7. THE MATTING SHALL BE INSPECTED IMMEDIATELY AFTER A STORM EVENT.
 8. CONTRACTOR TO USE 20% OF RYE GRASS IN THE GRASS SEED MIX TO PROMOTE A STABILIZED GRASS MIXTURE.

EROSION CONTROL MATTING

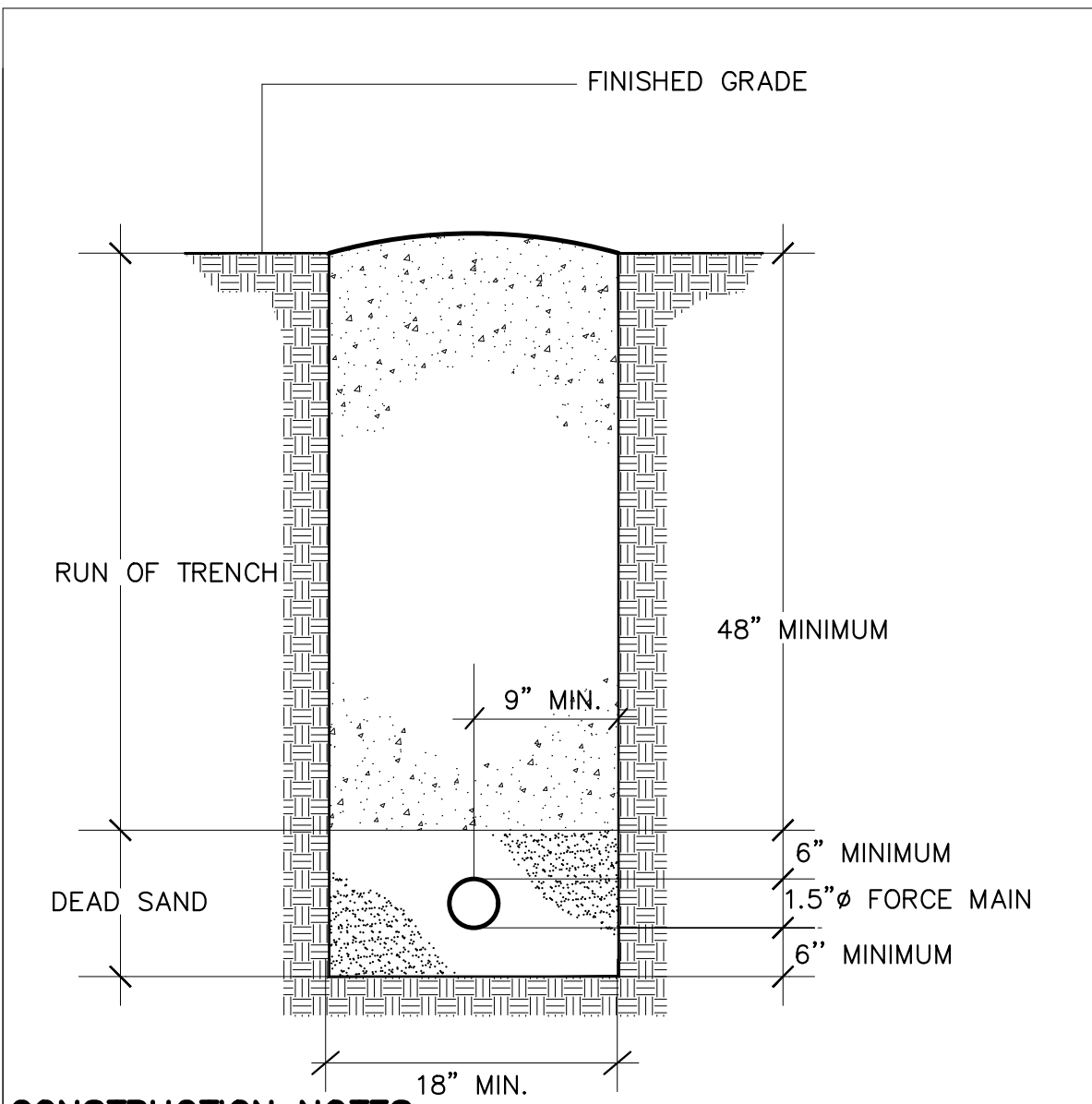
NOT TO SCALE

SDS ABANDONMENT

1. THE EXISTING SEPTIC TANK, DISTRIBUTION BOX AND ANY OTHER STRUCTURE LOCATED WITHIN THE 100% REPLACEMENT AREA IS TO BE PUMPED EMPTY, CLEANED AND REMOVED FROM SITE BY A LICENSED N.Y.S. SEWAGE HAULER PRIOR TO ISSUANCE OF A C.O. ALL VOIDS ARE TO BE REPLACED WITH SANDY LOAM TO EXISTING GRADE.
2. THE EXISTING TILE FIELD IS TO BE ABANDONED BY REMOVING ALL PIPING AND STONE AND REFILLING THE AREA WITH A SANDY LOAM. REMOVED PIPING SHALL BE HAULED TO A D.E.C. APPROVED LANDFILL.



Know what's below.
Call before you dig.



CONSTRUCTION NOTES:

1. THE RUN OF THE TRENCH TO BE 3/4" TO 1-1/2" IN SIZE, FREE OF ANY ORGANIC MATERIAL.
2. THE RUN OF THE TRENCH SHALL BE COMPACTED IN 9" LIFTS.
3. FORCE MAIN SHALL BE PRESSURE TESTED AT 1.5 TIMES THE WORKING PRESSURE FOR A MINIMUM PERIOD OF TWO HOURS.
4. FORCE MAIN TO BE SCHEDULE 40 PVC PIPE, 1.5" IN DIAMETER.
5. PROVIDE INSULATION AROUND FORCE MAIN WHERE 4' OF COVER CANNOT BE MET.

TYPICAL FORCE MAIN

NOT TO SCALE

DC EHSD - STANDARD NOTES FOR RESIDENTIAL PROJECTS

THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:

- "APPENDIX 75-A. WASTE TREATMENT - INDIVIDUAL HOUSEHOLD SYSTEMS, NEW YORK STATE SANITARY CODE."
- "NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS," NYSDEC
- "RESIDENTIAL ONSITE WASTEWATER TREATMENT SYSTEMS, DESIGN HANDBOOK," NEW YORK STATE DEPARTMENT OF HEALTH.
- "PLANNING THE SUBDIVISION AS PART OF THE TOTAL ENVIRONMENT," NEW YORK STATE DEPARTMENT OF HEALTH.
- "NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS."
- "DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES."
- "DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER."

THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF WATER SUPPLY AND SEWAGE DISPOSAL AND TREATMENT FACILITIES; AND, AS A CONDITION OF THIS APPROVAL, A CONSTRUCTION INSPECTION BY A REPRESENTATIVE OF THE DC EHSD SHALL BE DONE TO DETERMINE THAT CONSTRUCTION AT THE TIME OF INSPECTION WAS COMPLETED IN GENERAL CONFORMANCE WITH THE APPROVED PLANS AND ANY AMENDMENT THEREOF.

APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF 5 YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

THE DC EHSD SHALL BE CONTACTED PRIOR TO THE COMMENCEMENT OF THE HOME CONSTRUCTION AND/OR ISSUANCE OF A BUILDING PERMIT FOR A PRE-CONSTRUCTION INSPECTION TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.

ALL WELLS AND ONSITE WASTEWATER TREATMENT SYSTEMS, EXISTING OR APPROVED, LOCATED WITHIN 300 FEET OF THE PROPOSED WELL, ONSITE WASTEWATER TREATMENT SYSTEM ARE SHOWN ON THIS PLAN ALONG WITH ANY OTHER ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY AFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE ONSITE WASTEWATER TREATMENT SYSTEM AND WELL.

IF THE TANK IS DELIVERED TO THE SITE IN SECTIONS, THEN IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE DC EHSD FIELD INSPECTOR AND/OR DESIGN PROFESSIONAL THAT THE TANK IS SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THIS SHALL REQUIRE, AT A MINIMUM, THE FILLING OF THE TANK WITH WATER TO OVERFILL IF IT IS IN FACT SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THE TANK MUST ALSO MEET ANY LOCAL TESTING REQUIREMENTS, INCLUDING POSSIBLE ELECTRICAL AND SAFETY STANDARDS.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE ONSITE WASTEWATER TREATMENT SYSTEM OR WITHIN 50 FEET OF ANY WELL.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE ONSITE WASTEWATER TREATMENT SYSTEM.

THERE SHALL BE NO VEHICULAR TRAFFIC OVER THE ONSITE WASTEWATER TREATMENT SYSTEM. PRIOR TO CONSTRUCTION, THE AREA OF THE SYSTEM SHALL BE STAKED OUT AND FENCED OFF.

ONSITE WASTEWATER TREATMENT SYSTEMS SHALL NOT BE INSTALLED IN WET OR FROZEN SOIL.

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

ALL PROPOSED WELLS AND SERVICE LINES ON THIS PLAN ARE ACCESSIBLE FOR INSTALLATION AND PLACEMENT.

Owner's Consent Note

THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON

OWNER	DATE
-------	------

Owner/Applicant

Mid-Hudson Development
982 NY-82
Hopewell Junction, NY 12533

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

BRIAN STOKOSA, PE	
Revision	
Project No.	2022-019
License No.	083970
DAY STOKOSA ENGINEERING P.C.	
3 Van Wyck Lane Suite 2 Wappingers Falls, New York 12590 (845) 223-3202	
PROJECT: CONVERSION TO MULTIFAMILY DWELLING	
REVISION TO FILED MAP 9132A	
TOWN OF WAPPINGER, DUTCHESS COUNTY, NEW YORK	
DRAWING: DETAIL SHEET	
SCALE	DRAWN BY
AS NOTED	ALB
DATE	CHECKED BY
06.02.2022	BJS
C530	