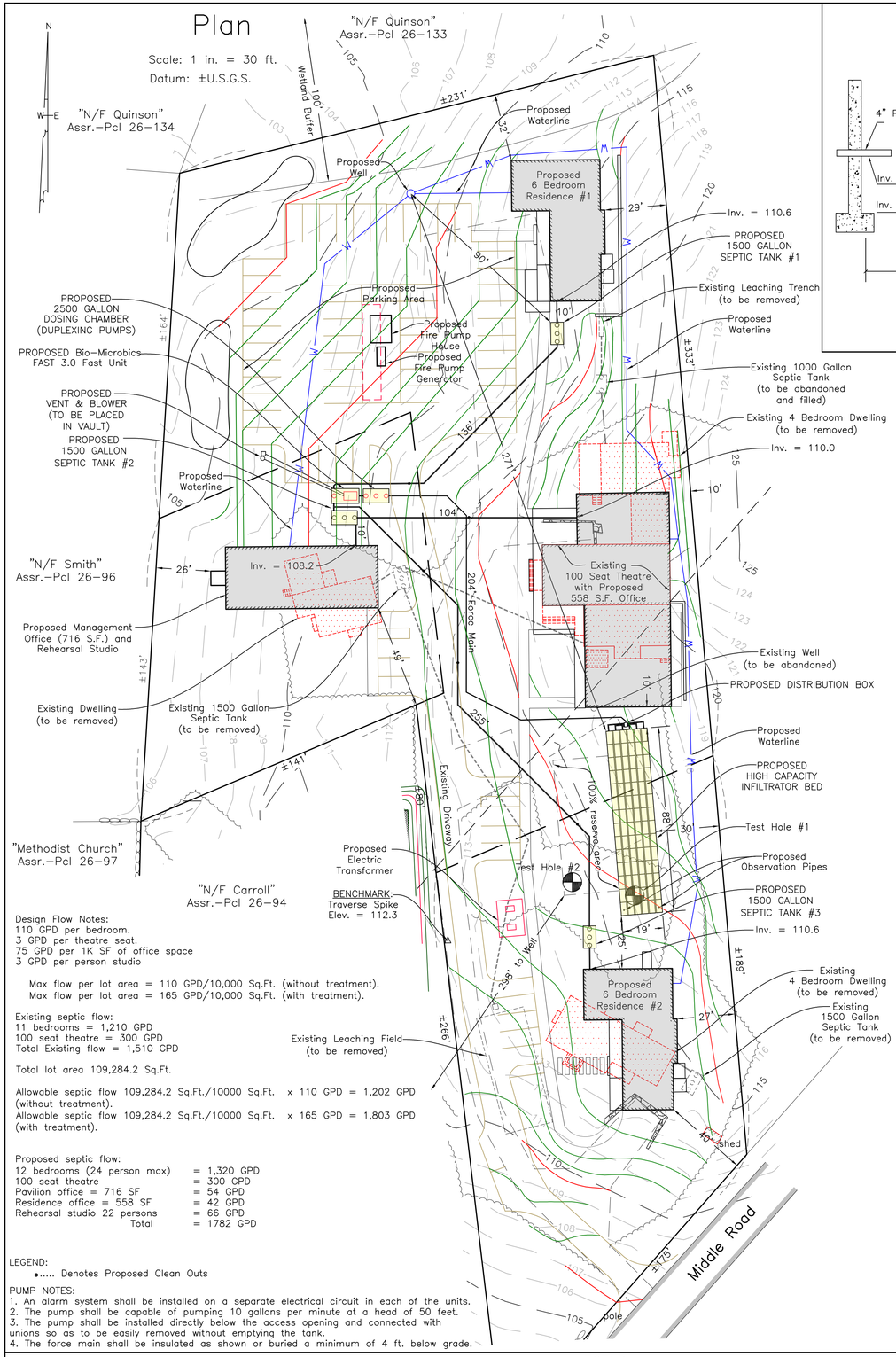
Plan

Scale: 1 in. = 30 ft.
Datum: ±U.S.G.S.



Design Flow Notes:
110 GPD per bedroom.
3 GPD per theatre seat.
75 GPD per 1K SF of office space
3 GPD per person studio

Max flow per lot area = 110 GPD/10,000 Sq.Ft. (without treatment).
Max flow per lot area = 165 GPD/10,000 Sq.Ft. (with treatment).

Existing septic flow:
11 bedrooms = 1,210 GPD
100 seat theatre = 300 GPD
Total Existing flow = 1,510 GPD

Total lot area 109,284.2 Sq.Ft.

Allowable septic flow 109,284.2 Sq.Ft./10000 Sq.Ft. x 110 GPD = 1,202 GPD (without treatment).
Allowable septic flow 109,284.2 Sq.Ft./10000 Sq.Ft. x 165 GPD = 1,803 GPD (with treatment).

Proposed septic flow:

12 bedrooms (24 person max)	= 1,320 GPD
100 seat theatre	= 300 GPD
Pavilion office = 716 SF	= 54 GPD
Residence office = 558 SF	= 42 GPD
Rehearsal studio 22 persons	= 66 GPD
Total	= 1782 GPD

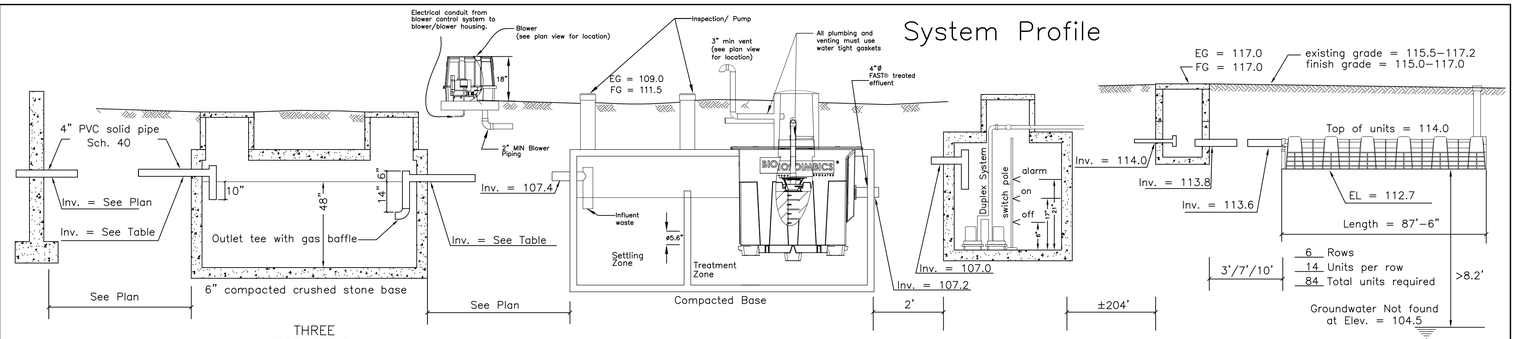
LEGEND:
•..... Denotes Proposed Clean Outs

PUMP NOTES:
1. An alarm system shall be installed on a separate electrical circuit in each of the units.
2. The pump shall be capable of pumping 10 gallons per minute at a head of 50 feet.
3. The pump shall be installed directly below the access opening and connected with unions so as to be easily removed without emptying the tank.
4. The force main shall be insulated as shown or buried a minimum of 4 ft. below grade.

LEGEND
XX.X .....PROPOSED CONTOUR
XX.X .....EXISTING CONTOUR
+100.7.....EXISTING SPOT ELEVATION
— W — .....WATER SERVICE LINE
.....TEST HOLE LOCATION

S:\Survey\15\1573\Carlson 1573\1573.dwg

System Profile



THREE 1500 GALLON SEPTIC TANK (see note 5)

FAST Tank (Model 3.0) (see note 13)

2500 GALLON PUMP CHAMBER

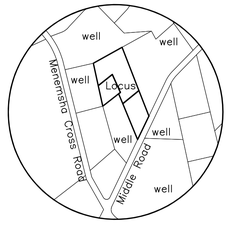
DISTRIBUTION BOX

H–20 HIGH CAPACITY LEACHING CHAMBER BED

ELEVATION TABLE

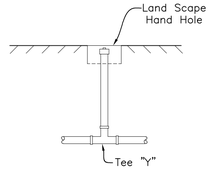
	Inlet Invert Elev.	Outlet Invert Elev.
Tank #1	110.2	110.0
Tank #2	107.8	107.6
Tank #3	110.2	110.0

Assr.–Pcl 26–90

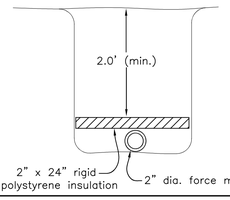


LOCUS MAP
Scale: 1:500

CLEAN OUT DETAIL



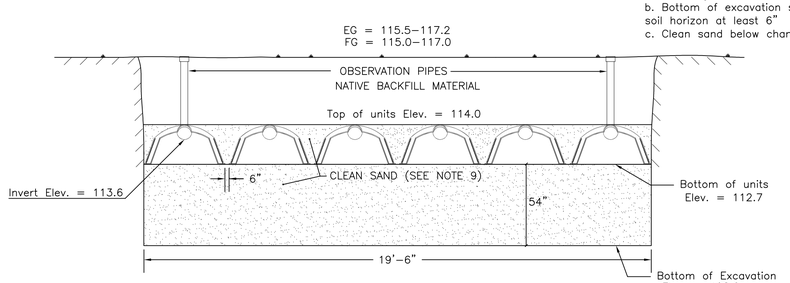
FORCEMAIN DETAIL



System Cross Section

NOTE: Not to scale

NOTES:
a. Leaching chamber rows shall be spaced 6" apart.
b. Bottom of excavation shall extend into the "C" soil horizon at least 6"
c. Clean sand below chambers to be compacted in 6" Lifts



To avoid compaction, no machinery is allowed within three vertical feet of bottom of excavation without the specific approval of the design engineer.
This leaching facility is not designed for H–20 loads and shall not be driven upon, even though H–20 leaching chambers are specified.

Notes

1. This plan is to be used only for the approval and installation of a sewage disposal system and is not to be used for any other purpose.

2. All construction and components shall conform to Massachusetts State Environmental Code TITLE V and Local Board of Health Requirements.

3. This design does not warrant the location of underground pipes, wires, utilities or other underground structures. The installer shall be responsible for locating and relocating these objects as necessary.

4. No garbage grinder is allowed with this system.

5. Any portion of this system subject to vehicular traffic shall be capable of H–20 loading.

6. An observation pipe shall be placed as shown and capped at grade so as to allow monitoring of liquid level in the leaching system. Place re–rod flush at each to aid in relocating with metal detector.

7. All access covers are to weigh at least 150 lbs. or screwed down.

8. Leaching Chambers shall consist of Infiltrator high capacity, ADS high capacity biodiffusor or an approved equivalent.

9. Any clean sand fill required by this design is to have less than 4% passing the No. 100 sieve.

10. No wells could be found within 150' of the proposed leaching facility, and no leaching facilities could be found within 150' of the proposed well.

11. The engineer is to inspect and approve the installation and placement of all septic components before final backfilling.

12. A letter certifying satisfactory construction of this system is to be provided to the owner and the Board of Health by the Engineer.

13. MicroFAST tank installation shall conform to all construction requirements and specification of Biomicrobics, Inc. Installation contractor is responsible for obtaining and reviewing all pertinent installation manuals & instructions from Biomicrobics, Inc.

14. Backwash from water filtration system are not allowed with this system and shall be discharged into a separate leaching facility.

15. Schedule 80 PVC pipe shall be used when sewer lines are present below driveway or parking areas.

SOIL DATA

Soil evaluator: Reid G. Silva, P.E.
Witnessed By: Marina Lent

Deep Observation Hole 1
Date: October 5, 2018
Surface elevation = 117.0

Depth	Horizon	Texture
0"–10"	A	Sandy loam
10"–36"	B	Loamy sand
36"–60"	C1	Loamy sand dense
60"–80"	C2	fine Sand (white)
80"–120"	C3	coarse Sand (white)

Perc. rate < 5 mpi. @ 80"
No groundwater found at Elev. = 107.0

Deep Observation Hole 2
Date: October 5, 2018
Surface elevation = 114.5

Depth	Horizon	Texture
0"–10"	A	Sandy loam
10"–38"	B	Loamy sand
38"–58"	C1	Loamy sand dense
58"–80"	C2	fine Sand (white)
80"–120"	C3	coarse Sand (white)

Perc. rate < 5 mpi. @ 80"
No groundwater found at Elev. = 104.5

Design Criteria

Design Hydraulic Loading:

6 Bedrooms x 110 GPD/Bedroom	=	660 GPD	(Residence #1)
6 Bedrooms x 110 GPD/Bedroom	=	660 GPD	(Residence #2)
558 SF Office x 75 GPD/1K SF	=	42 GPD	(Studio & Theatre)
100 Seat Theatre x 3 GPD/Seat	=	300 GPD	(Studio & Theatre)
716 SF Office x 75 GPD/1K SF	=	54 GPD	(Studio & Theatre)
22 Person Rehearsal Studio x 3 GPD	=	66 GPD	(Studio & Theatre)
Total	=	1782 GPD	

Septic Tank Capacity:
Required: 660 GPD x 200% = 1320 Gal. minimum (Residence #1)
660 GPD x 200% = 1320 Gal. minimum (Residence #2)
462 GPD x 200% = 924Gal. minimum (Studio & Theatre)
Septic tanks provided = 1500 Gal. (Three)

Leaching Capacity Provided:
H–20 High Capacity Leaching Chamber Bed
84 Leaching Chamber Units
84 Units x 6.25 linear ft./unit x 4.72 sq.ft./linear ft. = 2478 sq.ft.
2478 sq.ft. x 0.74 GPD/sq.ft. = 1833 GPD

* Per modified certification for general use High capacity leaching chamber units are allowed 4.7 sq.ft. leaching area per lineal ft. in bed configuration.

Proposed Septic System on Land in Chilmark, Mass.

Designed for: THE YARD
Street Address: 1, 6 & 7 THE YARD
Assessor No.: 26–91, 92, 95
Lot Area: ±2.49 Acres
Designed By: Cody Coutinho
Checked By: R.G.S.
Date: January 8, 2018
Revised: November 7, 2022 – Waterlines

COMMONWEALTH OF MASSACHUSETTS
REID G. SILVA
CIVIL
No. 45205
REGISTERED PROFESSIONAL ENGINEER
October 14, 2022

VINEYARD LAND SURVEYING & ENGINEERING INC.
12 Cournoyer Road
P.O. Box 421
West Tisbury, MA 02575
P 508-693-3774 F 508-629-0440
VLSE.net

Job No. 1573