

LOCATION MAP
SCALE 1" = 3000'

Recommended for Approval

Bob O'Conor

Freely Rose, P.E.

Received and approved
for the Ulster County Health Department
2/25/2023

Carol M. Smith, MD, MPH
Commissioner of Health

Lauren Smith, MPH 2/25/23
Public Health Director

PROPOSED SEPTIC SYSTEM FOR MAD BATTERS PASTRIES

578 ROUTE 44-55
HIGHLAND, NEW YORK

TOWN OF MARLBOROUGH 95.2-2-10

COUNTY OF ULSTER



PROPOSED SEPTIC SYSTEM
MAD BATTERS PASTRIES
578 ROUTE 44-55
HIGHLAND, NEW YORK
TOWN OF MARLBOROUGH 95.2-2-10

SCALE AS SPECIFIED	LSD	LSD	10/20/2022
DRAUN BY	LSD	LSD	REvised
APPROVED	LSD	JAN 31 2023	DRAWING

Louis S. Dubois, P.E.
8 COOK LANE
NEW PALTZ, NEW YORK
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	Model	Length	Width	Height	Inlet	Outlet	Weight	Covers
	LB-750	102"	58"	56"	46"	43"	6,900	3-8" 1-20"
	LB-1000	120"	60"	56"	46"	43"	8,700	3-8" 1-20"
	ST-1000	102"	58"	65"	55"	51"	8,700	3-8" 1-20"
	LB-1250	126"	68"	57"	47.5"	44.5"	9,800	12"X16" 20"X27" 8"X12"
	ST-1250	120"	60"	65"	55"	51"	9,500	3-8" 1-20"
	ST-1500	126"	68"	65"	55"	52"	10,600	12"X16" 22"X29" 8"X12"
	ST-2000	144"	78"	68"	56"	53"	13,100	12"X16" 22"X29" 8"X12"
	ST-2500	144"	78"	83"	71"	68"	14,900	12"X16" 22"X29" 8"X12"
	ST-3000	144"	78"	94"	82"	79"	16,000	12"X16" 22"X29" 8"X12"
Specifications								
Concrete Min. Strength: 4,000 psi at 28 days Reinforcement: #4 bar gr. 60, Forta Ferro 5 lb/cy Air Entrainment: 6% Construction Joint: Butyl Rubber Sealant Pipe Connection: Polylok Seal (patented) Weight varies Load Rating: 300 psf					Precast Septic Tanks Non-Traffic Design 750 to 3,000 Gallons			

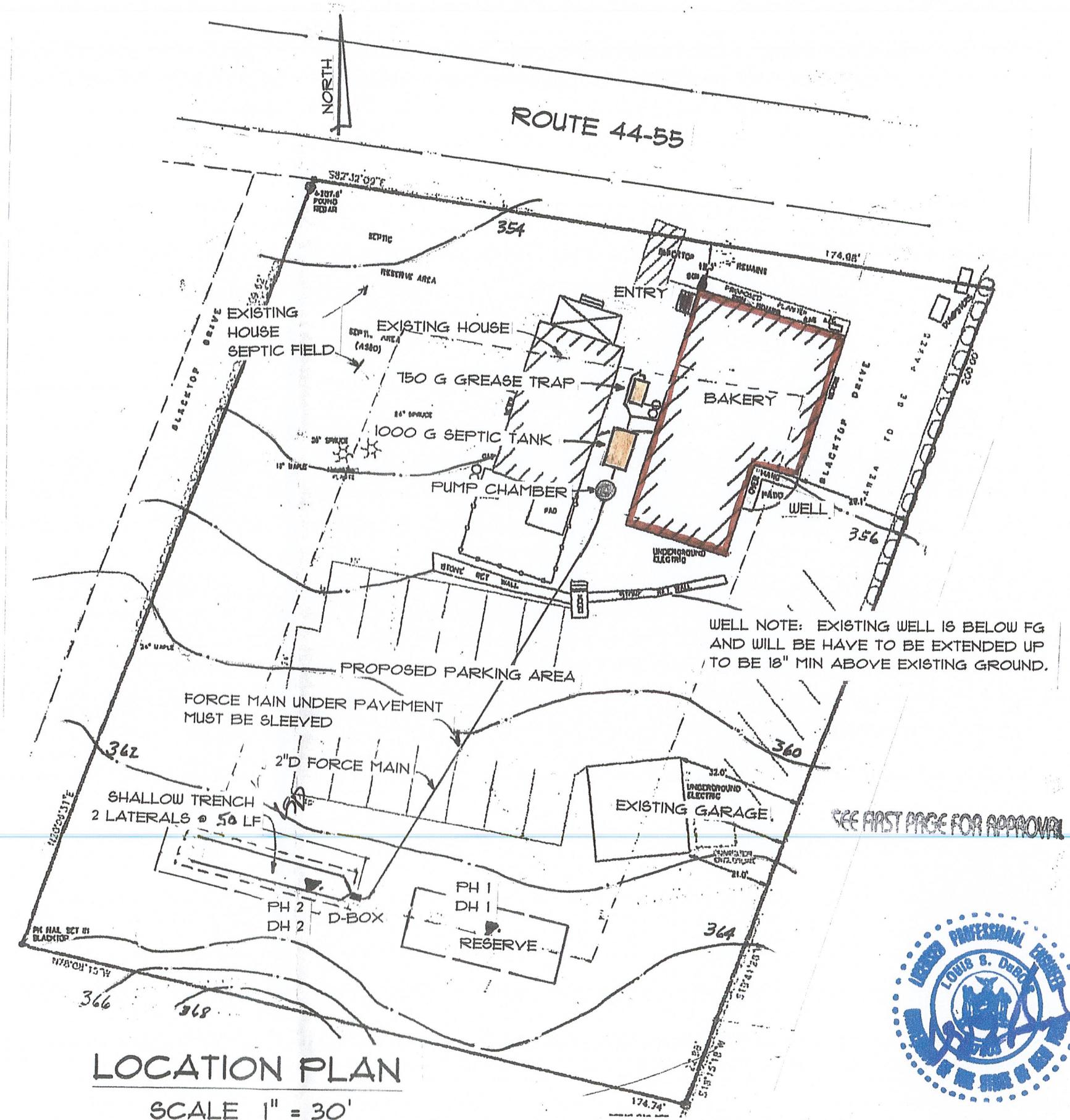
DESIGN LOAD COMPUTATION

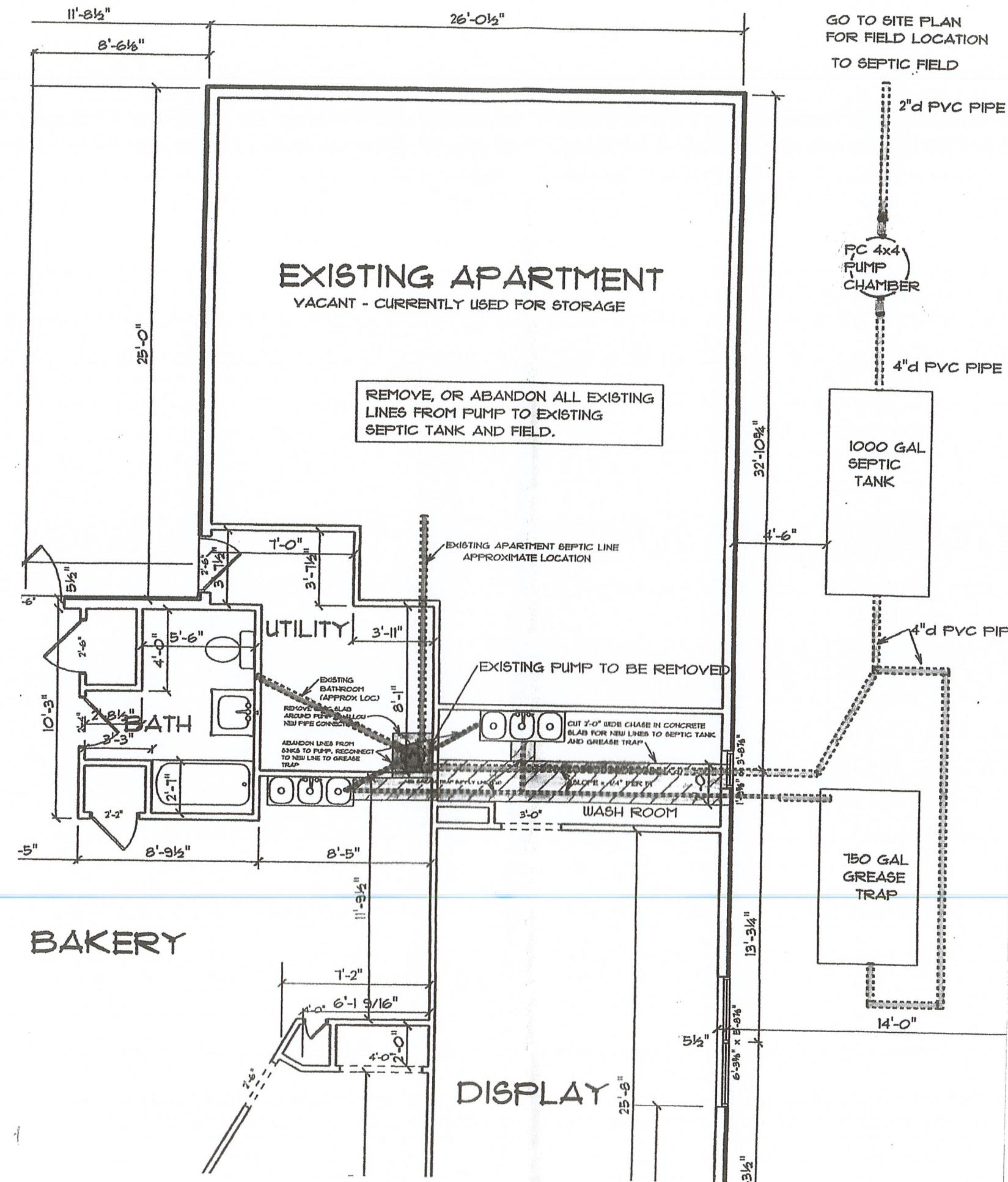
$$1 \text{ EMPLOYEES} \times 15 \text{ gpd} \times 0.8 = 84 \text{ GPD}$$

$$560 \text{ SF BAKERY*} \times 0.1 \text{ gpd} = 56$$

$$\text{TOTAL} = 140 \text{ GPD}$$

- AREA DOES NOT INCLUDE STORAGE, BATHROOM AND DISPLAY AREAS





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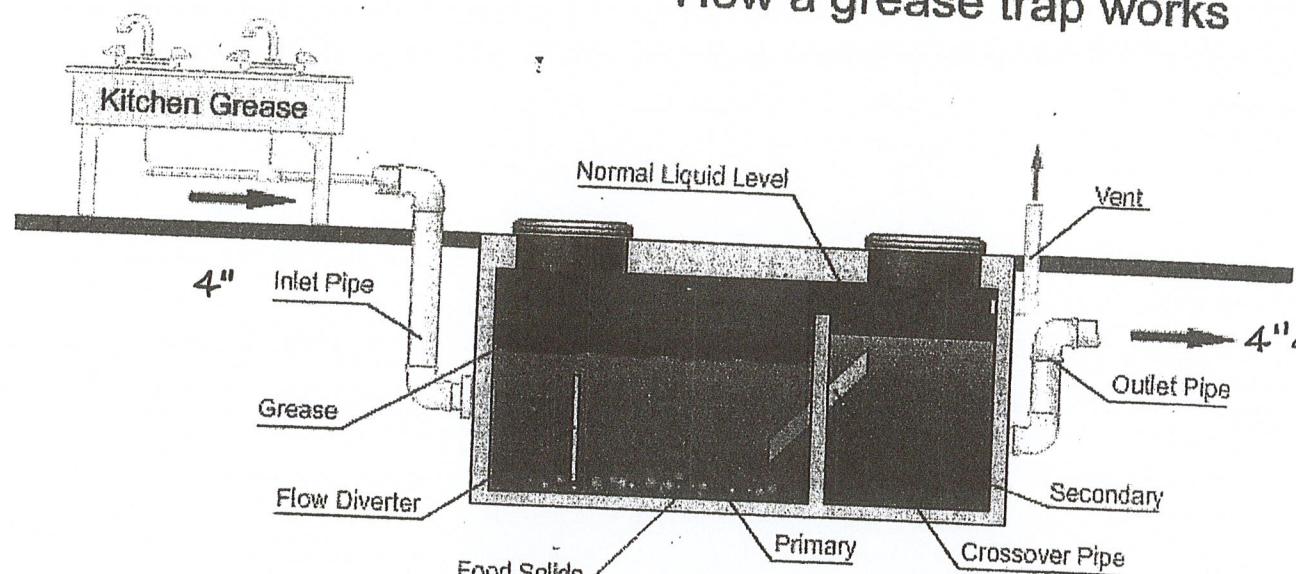


PROPOSED SEPTIC SYSTEM
MAD BATTERS PASTRIES
578 ROUTE 44-55
HIGHLAND, NEW YORK
TOWN OF MARLBOROUGH 95-2-2-10

SCALE	AS SPECIFIED	Louis S. Dubois, P.E.	DATE	10/20/2022
DRAWN BY	LSD	8 COOK LANE NEW PALTZ, NEW YORK (845) 691-2247 OFFICE (845) 691-6515 FAX (845) 224-7102 CELL louisdubois@optimum.net	REVISED	JAN 31 2023
APPROVED	LSD		DRAWING	INTERIOR PLAN

3

How a grease trap works



GREASE TRAP DESIGN

The two three-bay sinks will require a grease trap located outside the building, but as close to the source as possible before draining into the septic tank. Each bay of the three bay sink measures 20"x16"x14" deep. The volume of each bay is: $20 \times 16 \times 14 = 4480$ cubic inches. The gallons per minutes = $4480/231 = 19.4$ gpm per bay.

Since there are two sinks draining into a single grease trap, the volumes are adjusted accordingly:

$$\begin{aligned}
 \text{First bay} = 100\% &= 19.4 \text{ gpm} \times 2 = 38.8 \text{ gpm} \\
 \text{Second bay} = 50\% &= 9.7 \text{ gpm} \times 2 = 19.4 \\
 \text{Third bay} = 25\% &= 4.9 \text{ gpm} \times 2 = 9.8
 \end{aligned}$$

TOTAL GPM = 68 gpm

For calculation basis, PDI allowance is that the bay is only 75% full of water when the pots are in the sink:

$$68 \text{ gpm} \times 75\% \equiv 51.0 \text{ gpm}$$

It is recommended that the grease trap be a 750 gallon concrete tank (Woodard GT-750). The line from the sinks to the grease trap are 2" d PVC, going into a 4" d PVC just before the grease trap inlet. The outlet pipe is 4" d and would connect to the bakery septic line before entering the septic tank (Woodard ST-1000).

Specifications

Precast Grease Trap Tanks
Non-Traffic Design
750 to 3,000 Gallons

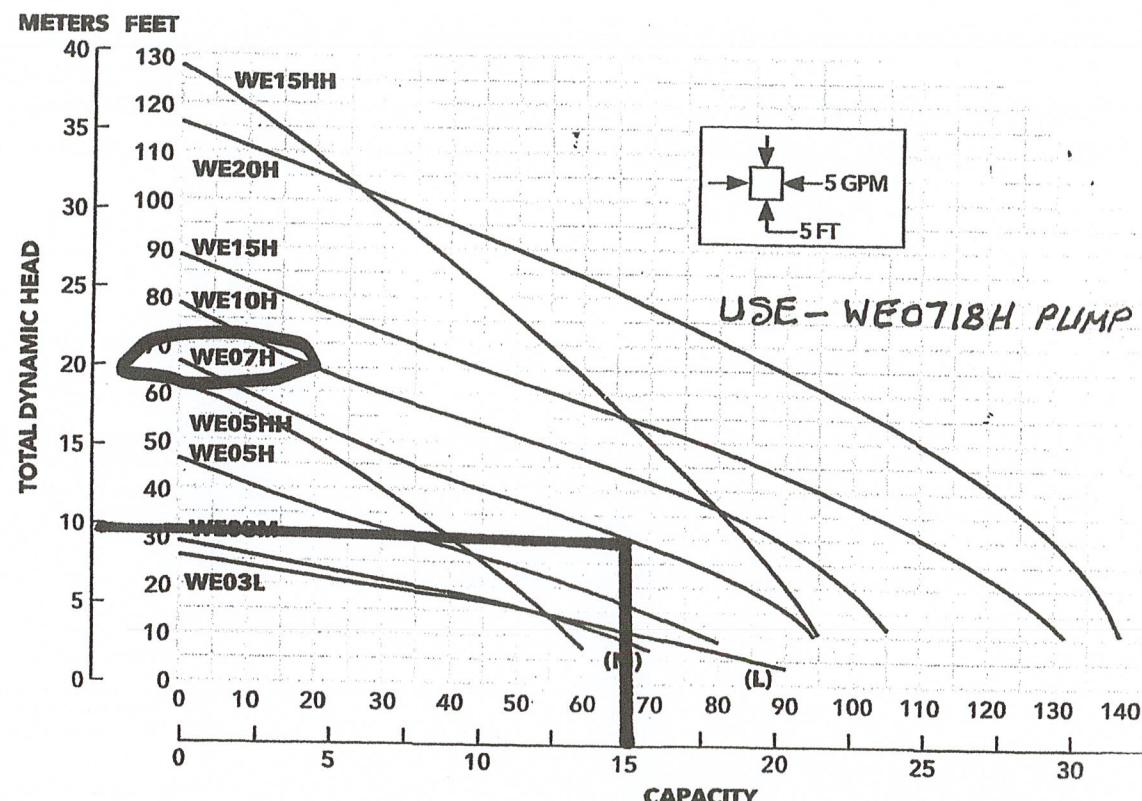
Concrete Min. Strength: 4,000 psi at 28 days
Reinforcement: #4 bar gr. 60, Forta Ferro 5 lb/cy
Air Entrainment: 6%
Construction Joint: Butyl Rubber Sealant
Pipe Connection: Polylok Seal (patented)
Weight varies
Load Rating: 300 psf

WOODARD'S
CONCRETE PRODUCTS, INC.
629 Lybolt Road, Bullville, NY 10915
(845) 361-3471 / Fax 361-1050

www.woodardsconcrete.com

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PUMP CALCULATIONS

FIELD CAPACITY: 4" d PIPE: $2(40') + 5' = 85'$
 2" d PIPE: 120' (FROM PLAN) = 120'

FIELD VOLUME: 4" PIPE: $85 \text{ LF} \times 0.6526 \text{ G/LF} \times 80\% = 44.4 \text{ G}$
 2" PIPE: $120 \text{ LF} \times 0.163 \text{ G/LF} \times 80\% = 15.6 \text{ G}$
 TOTAL = 60.0 G SAY 60 G

USING A 4' DIA CONCRETE PUMP CHAMBER PC-4x4

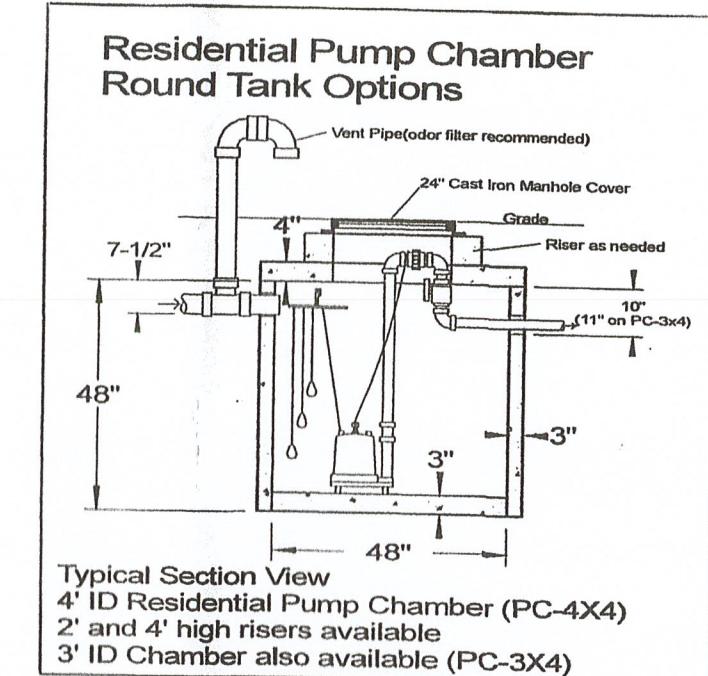
PUMP/TANK MEASUREMENTS:

DOSING VOLUME : $60 \text{ G} / 94 \text{ G/VF} = 0.63' = 7.7" \text{ SAY 8"}$

ONE-DAY STORAGE : $140 \text{ G} / 94 \text{ G/VF} = 1.5' = 18"$

USEABLE STORAGE IN CHAMBER = $48" - 10" = 38"$

ALLOTTING 8" FOR PUMP, 8" FOR DOSING, 3" FOR ALARM
 AND 18" FOR ONE-DAY STORAGE = 37" ok



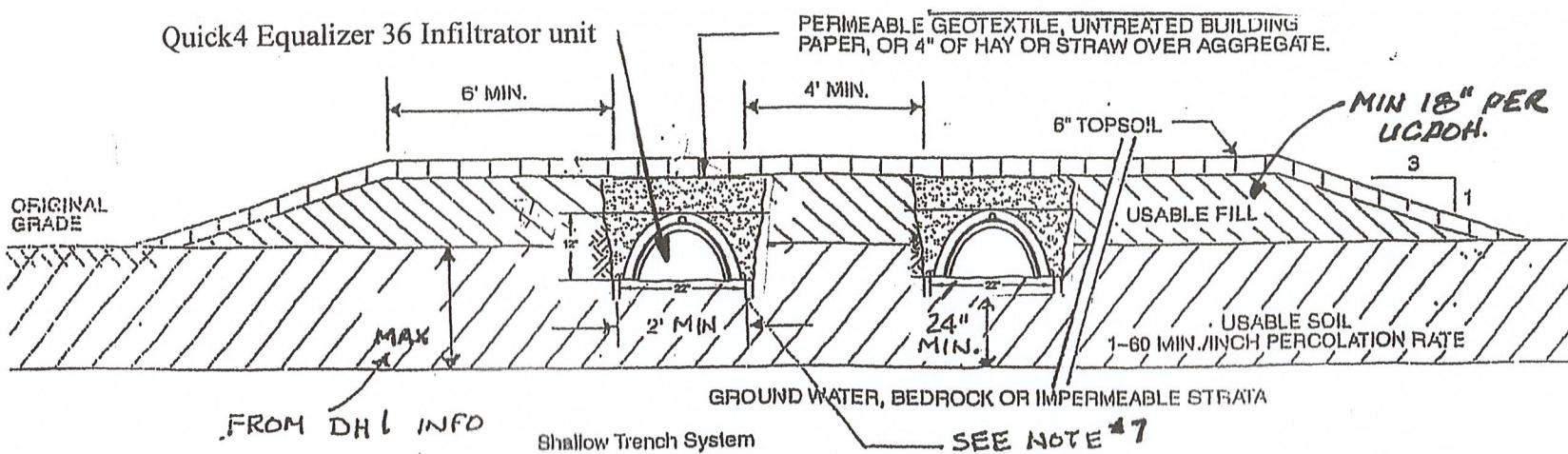
Specifications		Precast Pump Chambers Residential Grade
Concrete Min. Strength: 4,000 psi at 28 days Reinforcement: WWM & Rebar Air Entrainment: 6% Pipe Connection: Polylok Seal or Pipe Boots Volume: 3' ID = 53 gal/vf, 4' ID = 94 gal/vf Load Rating: 300 psf		WOODARD'S CONCRETE PRODUCTS, INC. 629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050 Page 3C 1/11/16

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MAD BATTERS PASTRIES	DRAWN BY	LSD	APPROVED	LSD
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NOTES: BOTTOM OF ALL TRENCHES SHALL NOT BE ABOVE ORIGINAL USABLE SOIL AND TRENCHES SHOULD BE AT LEAST 6" BELOW ORIGINAL GRADE.

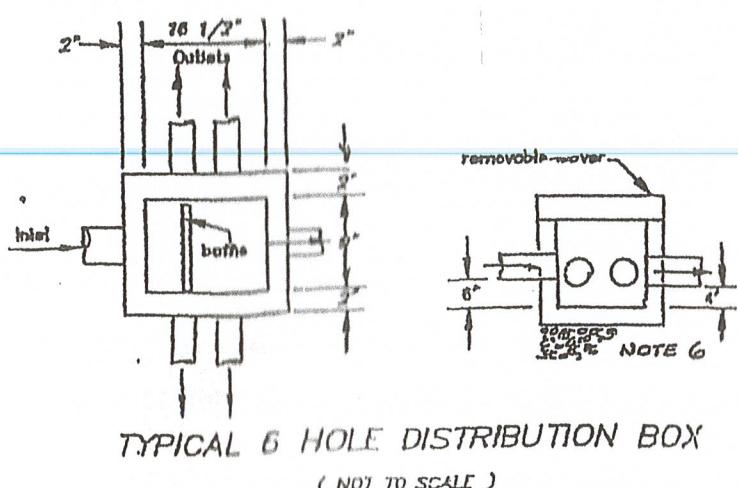
USABLE FILL SHOULD HAVE A PERCOLATION RATE SIMILAR TO BUT NOT FASTER THAN THE USABLE SOIL PERCOLATION RATE.

MAXIMUM DEPTH OF USABLE FILL PLUS SIX INCHES OF TOPSOIL SHALL NOT EXCEED 30 INCHES.

TRENCH BOTTOMS SHALL BE LEVEL. TRENCHES SHALL BE PARALLEL TO GROUND CONTOURS.

ON SLOPED SITES, A DIVERSION DITCH SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT SURFACE RUNOFF FROM ENTERING THE FILL.

FILL SHALL EXTEND AT LEAST SIX FEET BEYOND ENDS OF TRENCHES BEFORE STARTING 1 ON 6 EDGE'S OF FILL.



GENERAL NOTES

- No lots shall be subdivided without the approval of the local Planning Board and the County Department of Health.
- No roof, cellar or footing drains to be discharged into the sewage disposal system.
- All trees must be cut within the primary septic field area.
- No driveways, roadways or parking areas shall be constructed over any portion of the sewage disposal system.
- No component part of any sewage disposal system shall be located or maintained within 100 feet of any spring, reservoir, brook, marsh or any other body of water. No well shall exist within 100 feet of the proposed sewage disposal system.
- A distribution box shall be used with tight joint distributors from the box to the perforated pipe lines utilizing speed levelers.
- Distributions boxes shall be baffled and be bedded with 12" crushed stone. Pipe laterals are to be placed on 6 foot centers and the ends capped, unless on a slope greater than 15%, which then the distance shall increase by 1 foot for every 2 feet in height difference. The trench width is 2 feet. The perforated pipe shall be placed with a maximum slope of 1/16" per foot and a minimum slope is 1/32" per foot. Washed gravel or crushed stone, 3/4" to 1 1/2" in size, shall be placed 6" below the perforated pipe, around the pipe and 2" above the pipe. The bottom of the trench shall be level. For infiltration systems, the lateral spacing is 6 foot centers with end caps. Unit lengths are either 4 feet or five feet in length. Installation is per the typical section shown in plans.
- Precast concrete septic tanks are to be used. They are to be bedded with 6" of crushed stone. The earth cover over the access to the tank shall be a maximum of 12" or if greater, an extension must be furnished to have the cover within 12" of the finished grade.
- The septic line from the house to the septic tank shall be 4" solid PVC, Schedule 40, with a slope of 1/4" per foot minimum. The septic line from the septic tank to the distribution box shall be solid 4" PVC, Schedule 40, with a slope of 1/8" per foot minimum.
- The installation of low-flow plumbing fixtures is required. Toilets should be 1.6 gpf; faucets and showerheads should be 3.0 gpm maximum.
- No basement fixtures are permitted without special sewage design.
- The location of all septic systems and wells must be located as shown on the site plan. The installation and maintenance of residential septic systems shall follow the New York State Department of Health's "Individual Residential Wastewater Treatment Systems", dated 2012 as amended, or for commercial installations, the "Design Standards for Wastewater Treatment Works", issued by the New York State Department of Environmental Conservation, dated 2014.
- All wastewater treatment systems shall be approved and inspected by the County Health Department and certified to the DOH by a NYS Licensed Professional Engineer.
- Construction of absorption facilities shall not occur when the ground is frozen or the soil moisture content is high.

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6	DATE	10/20/2022
REvised	Jan	3 1 2023
SECTION		

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