

John Protonentis, REHS
Environmental Health Coordinator

Environmental & Consumer Health

Email: jprotonentis@ochd.org



OCEAN COUNTY HEALTH DEPARTMENT

P.O. Box 2191
Toms River, NJ 08754-2191
(732) 341-9700 ext. 7480
Fax: (732) 286-1495
www.ochd.org

9/1/2022

Leonard and Janet Haring
811 Farmingdale Road
Jackson, NJ 08527

RE: Septic Design Application
OCHD File 058274/058275
Block 1004 (130.02) Lot 7 (3)
Jackson, NJ 08527

Dear Applicant:

Based upon information submitted on 8/12/2022 regarding the above mentioned proposed RESIDENCE, this agency hereby **approves** the septic plan as submitted. This system is not to include the other structures on this property. Please note this office needs the following prior to issuance of a certificate of compliance:

- A well abandonment report from a licensed well driller for the well to be decommissioned on site, as depicted on the site plan.
- Septic plan design sheet indicating all distances regarding the septic system installed.

This office will issue a certificate of compliance once the subsurface sewage disposal certification by an engineer is submitted, which will incorporate that all aspects of NJAC 7:9A have been met and are within regulation for design and installation.

Please note that Rick Brown from this office has retired and all future correspondence with this office should be directed to John Protonentis, Environmental Health Coordinator.

Should you have any questions, please feel free to contact me at (732) 341-9700, extension 7480 or at jprotonentis@ochd.org.

Sincerely,

John P. Protonentis
Environmental Health Coordinator



Ocean
County
Health
Department

Environmental Health Services

175 Sunset Ave.
P.O. Box 2191
Toms River, NJ 08754
(732) 341-9700 ext. 7416
www.ochd.org



Public Health
Prevent. Promote. Protect

APPLICATION FOR A PERMIT TO INSTALL A SEPTIC SYSTEM
AND/OR A WATER SUPPLY SYSTEM

OCEAN COUNTY
HEALTH DEPARTMENT

NO
PLAN APPROVED
DATE

058274 9/1/2022

Jackson MUNICIPALITY	(A) To construct both a septic & water supply system	Type of Water System X (A) Potable Non-Public ____ (B) Potable Public Non-Community ____ (C) Non-Potable ____ (D) Public Community System
Comm. Code 15 Official Use Only	(B) To construct a water supply system	
Block 014-130.02 New 1004	(C) To replace or alter a water supply system	
Lot(s) 014-3, New 7	X (D) To construct or alter a septic system	
	(E) To replace or repair a septic system	

X CA Abandonment

(Current address of applicant required. All information must be completed.)

NAME OF APPLICANT Leonard + Janet Haring PHONE NO. 732-886-5867
ADDRESS 811 Farmingdale Rd CITY Jackson STATE NJ ZIP 08527
DIRECTIONS TO LOCATION Jackson Mills Rd to Farmingdale Rd

WELL APPLICATION

TYPE OF CASING: Material _____ Diameter _____ Grade _____ Thickness _____

TYPE AND METHODS OF SEALING JOINTS: Type _____ Method _____

METHOD OF INSTALLATION _____ If Rotary or Auger, size of hole _____

GROUTING MATERIAL _____ Depth & Method of grouting: Depth _____
Method _____

STORAGE TANK CAPACITY _____ Model No. _____

WELL DRILLER _____ (Print) _____ Lic # _____ Driller Phone # _____

DRILLER _____ (Signature) _____ State Well Permit # _____

NOTE: Copy of NJDEP "Permit to Drill Well" must be attached. Hose bibs are prohibited on non-potable well, unless such well is sampled. NJDEP's "Well Record" must be immediately submitted to the Health Department upon installation of well.

SEPTIC APPLICATION

TYPE OF BUILDING TO BE SERVED Residential Dwelling Unit: No. of Bedrooms 1

EXPANSION ATTIC, DEN OR REC. ROOM: Yes No X If yes, calculate as additional bedroom _____

PERCOLATION TEST PERFORMED BY Cara Smith Date July 18, 2022 Phone 732-866-0111

WEATHER CONDITIONS AT TIME OF TEST Sunny 90°

ENGINEER'S SIGNATURE AND SEAL [Signature]

NOTE: All engineering date relating to soils, percolation & system design must be on engineer's drawing. Engineer's drawings must be signed & sealed by the engineer.

STATEMENT: Submit four (4) complete legible copies of applications, including engineer's & well driller's submissions. Final approval will only be granted after all inspections are completed, "as-built" drawings are submitted (where required) and satisfactory water analysis received, and all fees are paid. Permit is valid for one (1) year from date of issuance.

Form 1
General Information

Old 1 3 130.02
 new Lot: 7 Block: 1004

1. Type of Permit Needed (check applicable categories):

- ☐ New Construction
☐ Alteration/Expansion or Change in Use
☒ Alteration/Malfunctioning System
☐ Deviation from Standards
☐ Alteration/No Expansion or Change of Use
☐ Repairs to Existing System

2. Location of project:

Municipality: Jackson
 Street Address: 811 Farmingdale Rd
 Zip Code: 08527
 Block No.: old 130.02, new 1004
 Lot No.: old 3, new 7
 New Jersey State Plane Feet Coordinates: (optional) X-Coord.: _____ Y-Coord.: _____

3. Name of Applicant: Leonard + Janet Harim
 Present Address: 811 Farmingdale Rd, Jackson NJ 08527

4. Estimated Cost of Project: (optional) _____

5. Applicants Phone Number: 732-886-5867 (second tel. no.) _____

6. Type of facility:

- ☒ Residential
☐ Commercial/Industrial
 Specify type of establishment: _____

7. Type of waste to be discharged:

- ☒ Sanitary Sewage
☐ Industrial Wastes
☐ Other-(specify): _____

8. Other approvals/certification/waivers/exemptions (attach to application): w/f

- ☐ Pinelands Commission
☐ U.S. Army Corps of Engineers
☐ NJDEP – Bureau of Flood Plain Management
☐ Other – (specify): _____

9. I hereby certify that the information furnished on Form 1 of this application (and the attachments thereto) is true. I am aware that false swearing is a crime in this State and subject to prosecution:

Signature of Applicant: [Signature] Date: 8/4/22

County: Ocean Municipality: Jackson

FOR AGENCY USE ONLY

- ☐ Application Denied – Reason for Denial/Citation of Rules Violated: _____
☐ Application Approved
☐ Application Approved Subject to Approval by NJDEP

Date of Action: _____

Signature of Authorized Agent: _____

Printed Name and Title: _____

Form 2a
General Site Evaluation Data

new Lot: 3 Block: 130.02
7 1004

1. Name of Site Evaluator: Cara L. Smith
 2. Business Address of Site Evaluator: P.O. Box 155, Colts Neck NJ 07722
 3. Business Phone Number of Site Evaluator: (732) 566-0111

4. Special site limitations identified (check appropriate categories): WIA

Flood Plains _____	Bedrock Outcrops _____	Wetlands _____
Excessively Stony _____	Disturbed Ground _____	Steep Slopes _____
Sand Dunes _____	Sink Holes _____	

5. Soil logs - Enter on Form 2b - Use one sheet for each soil log. See P/m

6. Considerations relating to disturbed ground: WIA

- a. Type of disturbance (check appropriate categories)

Filled Area _____	Excavated Area _____	Re-graded Area _____
Subsurface Drains _____	Other-Specify _____	

- b. Pre-existing Natural Ground Surface

Elevation relative to existing ground surface _____

Method of identification _____

- c. Suitability of disturbed ground:

Unsuitable, objects subject to disintegration or change in volume _____

Excessively coarse _____

Proctor test performed _____ % Standard proctor density = _____

7. Hydraulically head test: WIA

- a. Hydraulically restrictive horizon, Depth to bottom: _____

b. Piezometer A, Depth to bottom: _____ Depth of water level (24 hrs): _____

c. Piezometer B, Depth to bottom: _____ Depth of water level (24 hrs): _____

d. Witnessed by: _____ (signature) Date: _____

8. Attachments (check items included)

Site plan: ✓

Key map showing location of site on U.S.G.S. Quadrangle or Other Accurate map: ✓

Key map showing location of site on U.S.D.A. Soil Survey map: _____

Other - Specify _____

9. I hereby certify that the information furnished on Form 2a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator: [Signature]

Signature of Professional Engineer: [Signature]

Date: 8-4-22

License #: 37789

County: Ocean Municipality: Salem



Soil Permeability Class rating Data

Oil 3
View Lot: 7 Block: 1004

1. Test Number: 1 Replicate (letter): _____
2. Sample Depth: 48" Boring Number: 54-2 Date Collected: 7-18-22
3. Course Fragment Content:
Total weight of sample, W.T., grams 231.12
Weight of material retained on 2mm sieve, W.C.F., grams 9.81
Wt. % Coarse Fragment (W.C.F./W.T. x 100, grams 4.2470
4. Oven dry weight (24 hrs., 105° C) of 40 gram air dry sample, grams, Wt. 39.76
5. Hydrometer Calibration, Rc: 5.0
6. Hydrometer reading - 40 seconds, grams, R1: 8.0
Temperature of suspension, °F: 74°
7. Corrected hydrometer reading, grams, R1': 8.0 - 5.0 + 1.2 = 4.2
8. Hydrometer reading - 2 hours, grams, R2: 6.0
Temperature of suspensions, °F: 72°
9. Corrected hydrometer reading, grams, R2': 6.0 - 5.0 + 0.8 = 1.8
10. % sand = (Wt. - R1') / Wt. x 100 = (39.76 - 4.2) / 39.76 x 100 = 89.4476
11. % clay = R2' / Wt. x 100 = 1.8 / 39.76 x 100 = 4.532
12. Sieve Analysis:
a. Oven dry Wt. (2hrs., 105°C) Total sand fraction (soil retained in .047 mm sieve), grams: 34.08
b. Wt. of fine plus very fine sand fraction (Sand passing .25 mm sieve), grams: 7.91
c. % fine plus very fine sand (b/a): 21.9271
13. Soil morphology (Natural soil samples only):
Structure of soil horizon tested: SC
Consistence of soil horizon tested: Dry: _____ Moist: ✓
14. Soil permeability class rating (Based upon average textural analysis of this replicate and other replicate samples):
K Value= k-4

15. I hereby certify that the information furnished on Form 3c of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator: _____

Date: 8-4-22

Signature of Professional Engineer: _____

License #: 37929County: OceanMunicipality: Jackson



Soil Permeability Class rating Data

View Lot: 3 Block: 130.02
7 1004

1. Test Number: 1 Replicate (letter): _____
2. Sample Depth: 48" Boring Number: 54-2 Date Collected: 7-18-22
3. Course Fragment Content:
 Total weight of sample, W.T., grams 231.12
 Weight of material retained on 2mm sieve, W.C.F., grams 9.81
 Wt. % Coarse Fragment (W.C.F./W.T. x 100, grams 4.2470
4. Oven dry weight (24 hrs., 105° C) of 40 gram air dry sample, grams, Wt. 39.76
5. Hydrometer Calibration, Rc: 5.0
6. Hydrometer reading - 40 seconds, grams, R1: 8.0
 Temperature of suspension, °F: 74°
7. Corrected hydrometer reading, grams, R1': $8.0 - 5.0 + 1.2 = 4.2$
8. Hydrometer reading - 2 hours, grams, R2: 6.6
 Temperature of suspensions, °F: 70
9. Corrected hydrometer reading, grams, R2': $6.0 - 5.0 + 0.8 = 1.8$
10. % sand = (Wt. - R1') / Wt. x 100 = $(39.76 - 4.2) / 39.76 \times 100 = 89.41$
11. % clay = R2' / Wt. x 100 = $1.8 / 39.76 \times 100 = 4.537$
12. Sieve Analysis:
 a. Oven dry Wt. (2hrs., 105°C) Total sand fraction (soil retained in .047 mm sieve), grams: 36.12
 b. Wt. of fine plus very fine sand fraction (Sand passing .25 mm sieve), grams: 7.99
 c. % fine plus very fine sand (b/a): 22.1271
13. Soil morphology (Natural soil samples only):
 Structure of soil horizon tested: SC
 Consistence of soil horizon tested: Dry: _____ Moist: ✓
14. Soil permeability class rating (Based upon average textural analysis of this replicate and other replicate samples):
 K Value = K-4
15. I hereby certify that the information furnished on Form 3c of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator: [Signature]Date: 8-4-22Signature of Professional Engineer: [Signature]License #: 37929County: OceanMunicipality: Takom

Form 4
General Design Data

Lot: 3 Block: 130.02
7 1004

1. Volume of sanitary sewage, gal.: 500 gpd
☒ Residential: number of dwelling units: 1 Total number of bedrooms: 1
 Commercial/Institutional – indicate type of establishment and show method of calculation. If estimate is based on water meter data, indicate source of data, frequency of readings, average daily flow, and maximum recorded daily reading: _____
2. Alterations or Repairs
 - a) Reason for alteration or repair (check appropriate categories):
☐ Expansion or change in use ☐ Upgrade existing facilities
☒ Correct malfunctioning system ☐ Other (specify): _____
 - b) Describe nature of alteration or repairs: _____
3. System components:
 - a) Grease trap capacity, gals.: _____
 Show calculation used: 1000 gal
 - b) Septic tank capacities, gals.: _____ First compartment gals.: _____ Second gals.: _____ Third gals.: _____
 - c) Effluent distribution
 Method: _____ Gravity flow: _____ Gravity dosing: _____ Pressure dosing: _____
 Dosing device: Pump: _____ Siphon: _____
 - d) Dosing tank capacities, gals.: Total capacity: _____ Dose volume: _____ Reserve capacity: _____
 - e) Laterals: Total length: 234' Pipe size: 4" Spacing: 3 Total Number: 6
 - f) Connecting pipe: Size: 2" Length: 60'
 - g) Manifold: Size: _____ Length: _____
 - h) Disposal field: Type of installation: mounted 5'11" Reg. trench w/ Fill Liner
 Design permeability (percolation rate): 12.5
 Trenches: Width: _____ Total length: _____ Bed Area: 819.52 ft²
 - i) Seepage pits: Design percolation rate: _____
 Number of pits: _____ Total percolation area provided: _____
4. Attachments: (check items included):
 - ☒ General plan of system showing location of all system components
 - ☒ X-Sections of each system component including grease trap, septic tank, dosing tank, disposal field, seepage pits and interceptor drains
 - ☐ Pump performance curve
 - ☐ Other (specify) _____

5. I hereby certify that the information furnished on Form 4 of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator: _____

Signature of Professional Engineer: _____

Date: 8-4-22License #: 3729

County: _____ Municipality: _____

**GRAVITY DOSING SYSTEM
DESIGN CALCULATIONS**

FOR

NEW: BLOCK 1004, LOT 7
OLD: Block 130.02, Lot 3

**TOWNSHIP OF JACKSON
OCEAN COUNTY
NEW JERSEY**

PREPARED BY

TWO RIVER ENGINEERING

1. DAILY FLOW CALCULATION

Number of bedrooms = 1

First bedroom = 200 gallons per day

Additional Volume = 300 gallons per day

Total daily flow: **500 gallons per day**

2. DOSING VOLUME CALCULATION

Soil permeability = 6 - 20 inches per hour

Required gravity dosing volume = 75% V (minimum) 25% Q (maximum)

Q = Daily volume of sewage

Q = 500 gallons

V = Internal volume of distribution network

$V = \pi \times R^2 \times 8 \times 30$

V = 20.93 c.f. = 156 gallons

25% of 500 gallons = 125 gallons

75% of 156 gallons = 117 gallons

Use **125 gallons**

3. RESERVE CAPACITY CALCULATION

Equal to daily volume of sewage = **500 gallons**

4. LIQUID CAPACITY OF DOSING TANK CALCULATION

Equal to dose volume + reserve storage capacity

125 gallons + 500 gallons = 625 gallons

Use **1000 gallon** dosing tank

5. PUMP CALCULATIONS

Pump must be capable of delivering the total required dose volume within a period of 15 minutes or less when working against a total dynamic head equal to the total design operating head.

Total design operating head = elevation head + friction head

$$\text{Elevation head} = 98.60 - 92.5 = 6.1'$$

$$\text{Friction head} = 60 / 100' \times 8.83 = 5.3'$$

$$\text{Total Design Operating Head} = 11.4'$$

Use **12'**

Dosing Tank Dimensions (1000 Gallon Mershon Tank)

$$L=8'$$

$$W=4'$$

$$D=4.33'$$

$$\text{Area} = 32 \text{ s.f.}$$

$$\text{Volume} = 240 \text{ gallons per foot}$$

$$\text{Net storage capacity} = 240 \times 4.33 = \mathbf{1000\pm \text{ gallons}}$$

Pump on / off operating calculations:

Pump off switch shall be set 6" above pump intake

Pump on switch shall be set a distance, d, above the pump off switch

$$d = (V_d + V_{cp} + V_{pd}) \times (1 \text{ c.f.} / 7.48 \text{ gallons}) \times (12 \text{ in.} / 1 \text{ ft.}) / (A)$$

where:

V_d = Required dose volume

V_{cp} = Internal volume of all pipes which will drain back into dosing tank

V_{pd} = Volume displacement of pump and controls in gallons

A = Internal horizontal area of dosing tank

$$d = (125 + 10 + 5) \times (1 / 7.48) \times (12) / (32)$$

$$d = 7.0 \text{ inches}$$

use **7 inches**

$(240 \text{ gallons per foot}) \times (7 \text{ inches}) \times (1 \text{ foot} / 12 \text{ inches}) = 140 \text{ gallons per 7''}$

Based on 16 hours during which most sewage would be generated:

Average hourly flow = 31 gallons

Maximum hourly flow = 62 gallons

Average period between pump outs (over 16 hours)

$500 \text{ gallons} / 140 \text{ gallons} = 3.57 \text{ times}$

or 1 time every 4.48 hours (269 minutes)

Maximum period between pump outs (over 16 hours)

$1000 \text{ gallons} / 140 \text{ gallons} = 7.14 \text{ times}$

or 1 time every 2.24 hours (134 minutes)

Minimum operating time = $140 \text{ gallons} / 70 \text{ gallons per minute}$
= 2 minutes (120 seconds)

6. PUMP SPECIFICATIONS

Goulds Submersible Sewage Pump (or approved equal)

Model 3886, WS03B

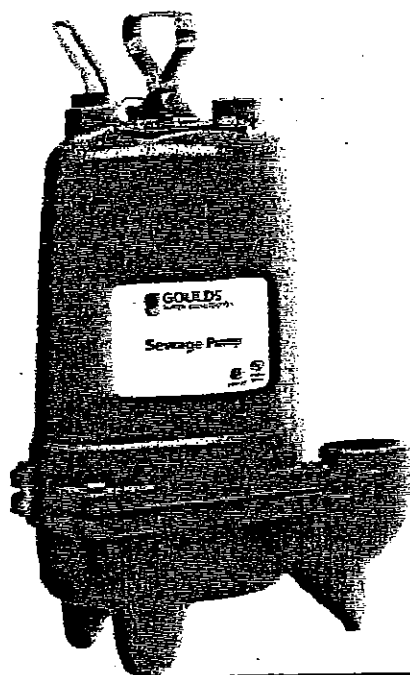
1 Phase

1/3 Horsepower

xylem
Let's Solve Water

TECHNICAL BROCHURE

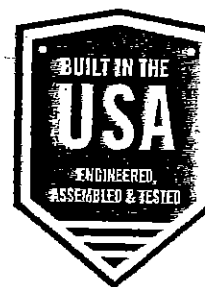
B3886 R3



WS_B Series

Model 3886

SUBMERSIBLE SEWAGE PUMP



GOULDS
WATER TECHNOLOGY
a xylem brand

Wastewater

FEATURES

Impeller: Cast iron, semi-open, dynamically balanced, non-clog with pump out vanes for mechanical seal protection. Optional Silicon bronze impeller available.

Casing: Cast iron volute type for maximum efficiency. Designed for easy installation on A10-20 guide rail or base elbow rail systems.

Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE sealing faces for superior abrasive resistance, 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.

AGENCY LISTINGS



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

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Sewage systems
- Dewatering/Effluent
- Water transfer

SPECIFICATIONS

Pump

- Solids handling capabilities: 2" maximum
- Discharge size: 2" NPT
- Capacities: up to 185 GPM
- Total heads: up to 38 feet TDH
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent

MOTORS

- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer. All ratings are within the working limits of the motor.
- Class B insulation

Single phase (60 Hz):

- All single phase models feature capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- 1/2 - 1 HP models have NEMA three prong ground-ing plugs.

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.
- Bearings: Upper and lower heavy duty ball bearing construction.
- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- 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.
- Motor Cover O-ring: Assures positive sealing against contaminants and oil leakage.

Goulds Water Technology

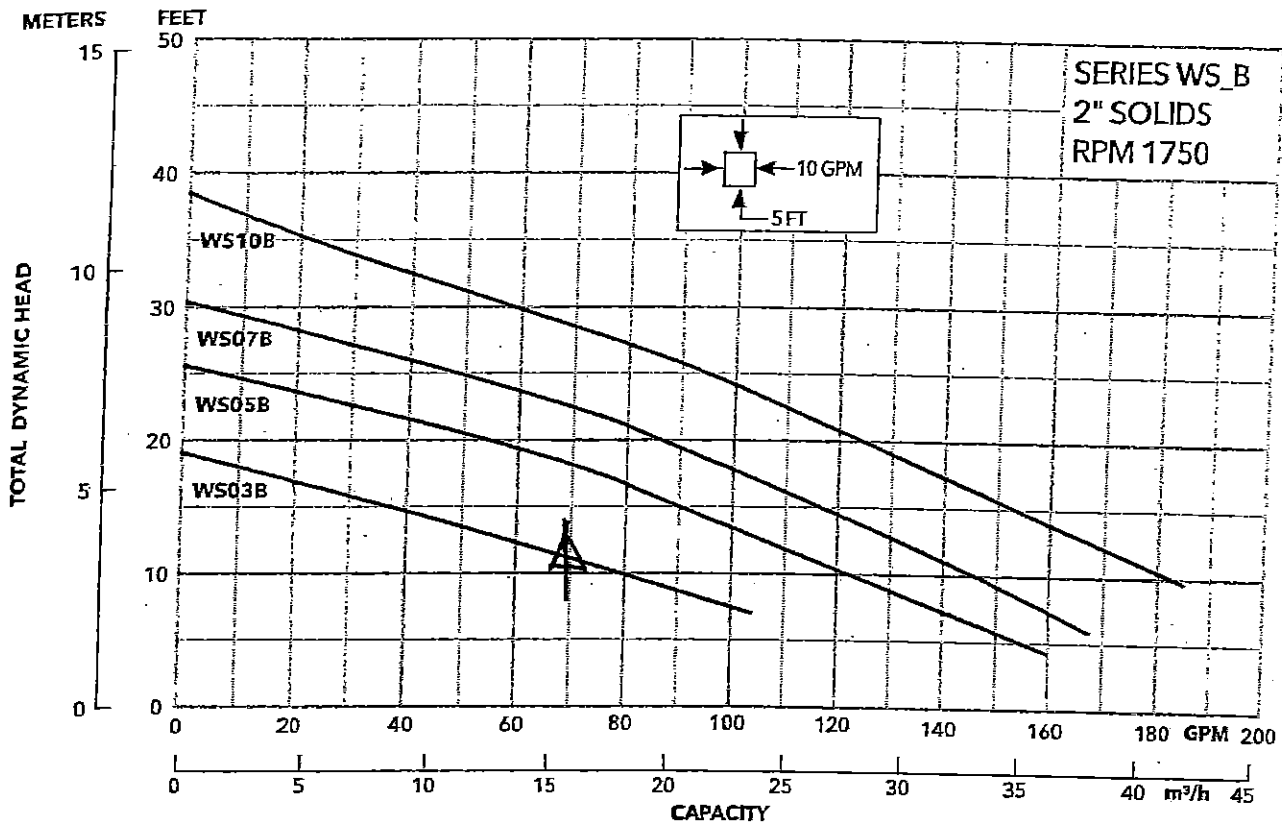
Wastewater

MODELS

Order Number	HP	Phase	Volts	RPM	Impeller Diameter (in.)	Maximum Amps	Locked Rotor Amps	KVA Code	Full Load Efficiency	Resistance		Weight (lbs.)
										Start	Line-Line	
WS0311B	0.33	1	115	1750	4.69	10.7	30.0	M	54	11.9	1.7	63
WS0318B			208			6.8	19.5	K	51	9.1	4.2	
WS0312B			230			4.9	14.1	L	53	14.5	8.0	
WS0511B	0.5	1	115		5.00	14.5	31.1	J	55	9.3	1.4	65
WS0518B			208			8.0	19.5	K	51	9.1	4.2	
WS0512B			230			7.3	16.5	J	54	11.7	5.6	
WS0538B		3	200			3.8	12.3	K	75	NA	6.7	
WS0532B			230			3.3	9.7	K	75	NA	9.9	
WS0534B			460			1.7	4.9	K	75	NA	39.4	
WS0537B			575			1.4	4.3	K	68	NA	47.8	
WS0718B	0.75	1	208		5.38	11.0	39.0	K	65	2.6	1.4	85
WS0712B			230			9.4	24.8	J	57	4.8	2.3	
WS0738B		3	200			4.1	21.2	H	74	NA	4.3	
WS0732B			230			3.6	17.3	J	76	NA	5.6	
WS0734B			460			1.8	8.9	J	76	NA	22.4	
WS0737B			575			1.5	7.3	J	71	NA	29.2	
WS1018B	1	1	208		5.75	14.0	39.0	K	65	2.6	1.4	85
WS1012B			230			12.3	30.5	H	60	4.3	1.8	
WS1038B		3	200			6.0	21.2	H	74	NA	4.3	
WS1032B			230			5.8	17.3	J	76	NA	5.6	
WS1034B			460			2.9	8.9	J	76	NA	22.4	
WS1037B			575			2.4	7.3	J	71	NA	29.2	

Goulds Water Technology

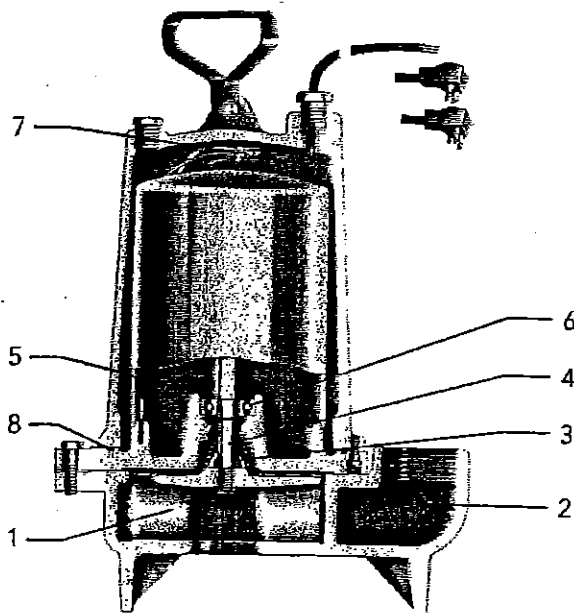
Wastewater



COMPONENTS (for reference only)

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

NOTE: For specific parts breakdown, see repair parts.



Goulds Water Technology

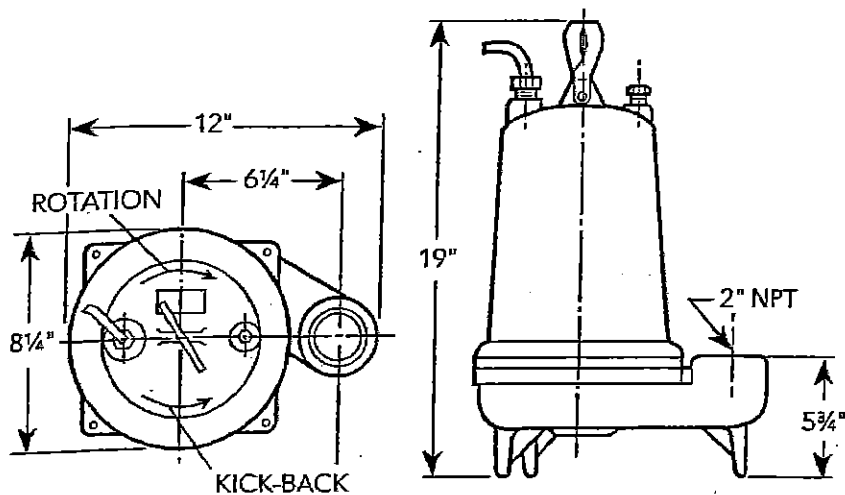
Wastewater

PERFORMANCE RATINGS (gallons per minute)

Order No.		WS03B	WS05B	WS07B	WS10B
Total Head Feet of Water	HP	¾	½	¾	1
	RPM	1750	1750	1750	1750
	10	80	122	145	183
	15	36	90	116	152
	20	-	50	86	123
	25	-	-	48	95
	30	-	-	-	58
	35	-	-	-	20

DIMENSIONS

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

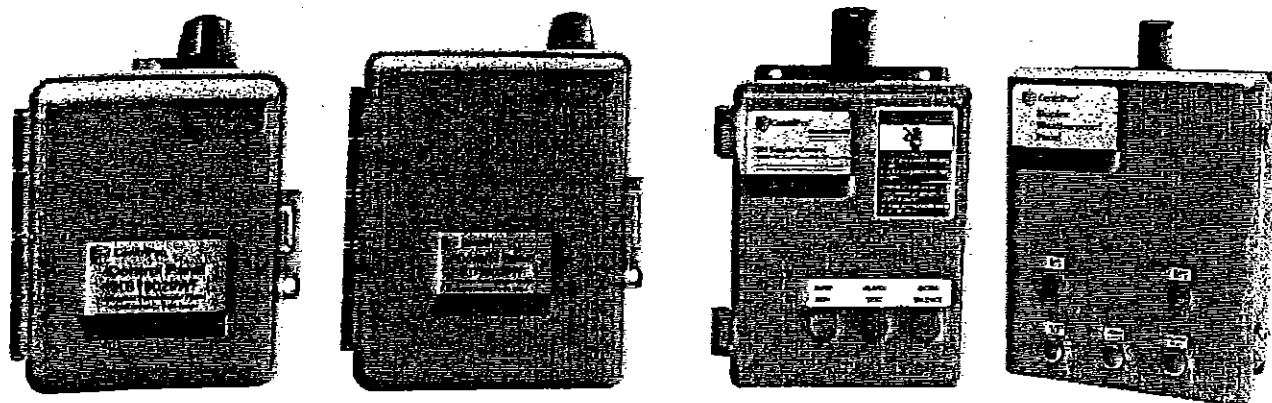


STANDARD PANEL OPTIONS

Pump Order Number	K Series		Boulay Series	
	Simplex	Duplex	Simplex	Duplex
WS0311B	KS19020WF	KD19020WF	S10020	D10020
WS0318B	KS19020WF	KD19020WF	S10020	D10020
WS0312B	KS19020WF	KD19020WF	S10020	D10020
WS0511B	KS19020WF	KD19020WF	S10020	D10020
WS0518B	KS19020WF	KD19020WF	S10020	D10020
WS0512B	KS19020WF	KD19020WF	S10020	D10020
WS0538B	KS31255WF	KD31255WF	S32540	D32540
WS0532B	KS31255WF	KD31255WF	S32540	D32540
WS0534B	KS31255WF	KD31255WF	S31615	D31615
WS0537B	N/A	N/A	S31615	D31615
WS0718B	KS19020WF	KD19020WF	S10020	D10020
WS0712B	KS19020WF	KD19020WF	S10020	D10020
WS0738B	KS31255WF	KD31255WF	S34063	D34063
WS0732B	KS31255WF	KD31255WF	S32540	D32540
WS0734B	KS31255WF	KD31255WF	S31625	D31625
WS0737B	N/A	N/A	S31625	D31625
WS1018B	KS19020WF	KD19020WF	S10020	D10020
WS1012B	KS19020WF	KD19020WF	S10020	D10020
WS1038B	KS34518WF	KD34518WF	S34063	D34063
WS1032B	KS34518WF	KD34518WF	S34063	D34063
WS1034B	KS31255WF	KD31255WF	S32540	D32540
WS1037B	N/A	N/A	S32540	D32540

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

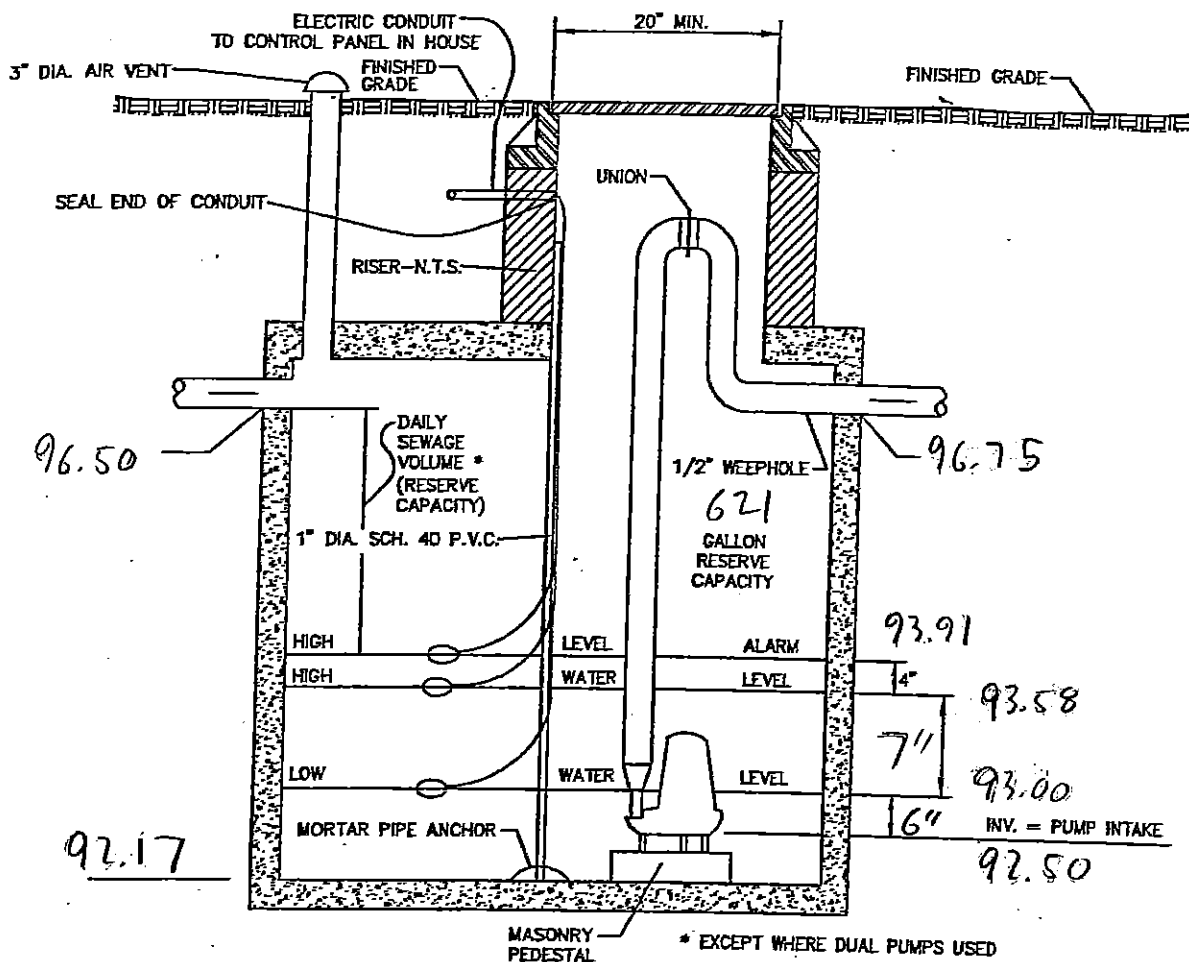


Xylem Inc.
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Seneca Falls, NY 13148
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www.xylem.com/goulds

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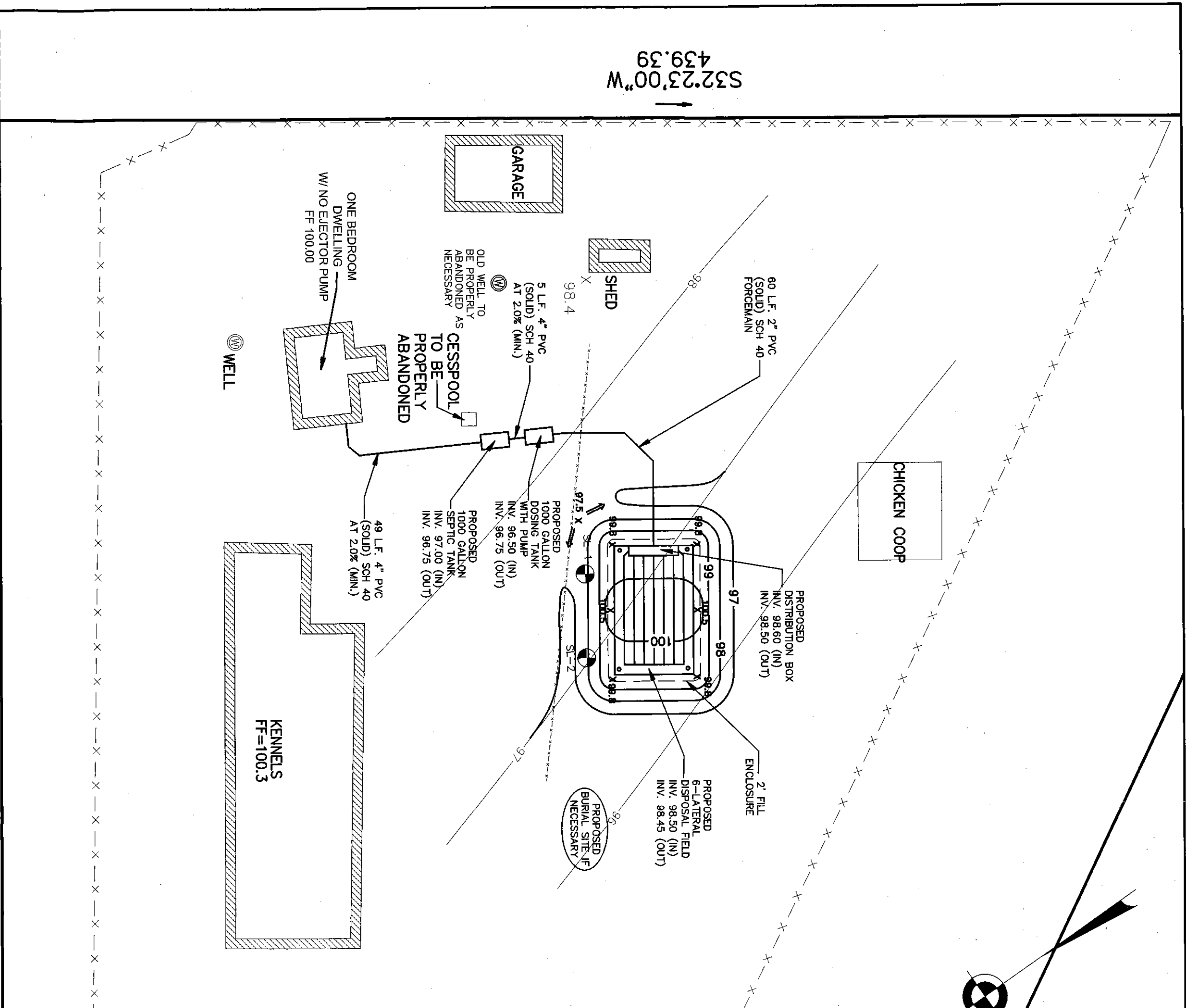
PLASTIC PIPE: FRICTION LOSS (IN FEET OF HEAD) PER 100 FT.

GPM	GPH	1/8"	1/4"	3/8"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"
		ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
1	60	4.25	1.38	.356	.11									
2	120	15.13	4.83	1.21	.38	.10								
3	180	31.97	9.96	2.51	.77	.21	.10							
4	240	54.97	17.07	4.21	1.30	.35	.16							
5	300	84.41	25.76	6.33	1.92	.51	.24							
6	360		36.34	8.83	2.69	.71	.33	.10						
8	480		63.71	15.18	4.58	1.19	.55	.17						
10	600		97.52	25.98	6.88	1.78	.83	.25	.11					
15	900			49.68	14.63	3.75	1.74	.52	.22					
20	1,200			86.94	25.07	6.39	2.94	.86	.36	.13				
25	1,500				38.41	9.71	4.44	1.29	.54	.19				
30	1,800					13.62	6.26	1.81	.75	.26				
35	2,100					18.17	8.37	2.42	1.00	.35	.09			
40	2,400					23.55	10.70	3.11	1.28	.44	.12			
45	2,700					29.44	13.46	3.84	1.54	.55	.15			
50	3,000						16.45	4.67	1.93	.66	.17			
60	3,600						23.48	6.60	2.71	.93	.25			
70	4,200							8.83	3.66	1.24	.33			
80	4,800							11.43	4.67	1.58	.41			
90	5,400							14.26	5.82	1.98	.52			
100	6,000								7.11	2.42	.63	.08		
125	7,500								10.83	3.80	.95	.13		
150	9,000									5.15	1.33	.18		
175	10,500									6.90	1.78	.23		
200	12,000									8.90	2.27	.30		
250	15,000										3.36	.45	.12	
300	18,000										4.85	.63	.17	
350	21,000										6.53	.84	.22	
400	24,000											1.08	.28	
500	30,000											1.66	.42	.14
550	33,000											1.98	.50	.16
600	36,000											2.35	.59	.19
700	42,000												.79	.26
800	48,000												1.02	.33
900	54,000												1.27	.41
950	57,000													.46
1000	60,000													.50

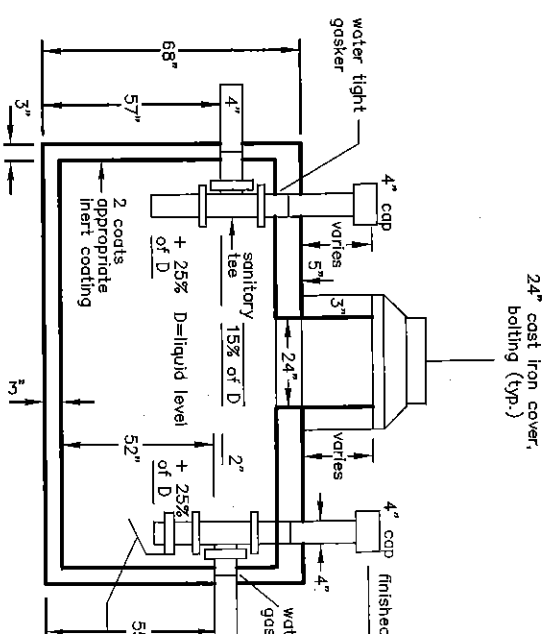
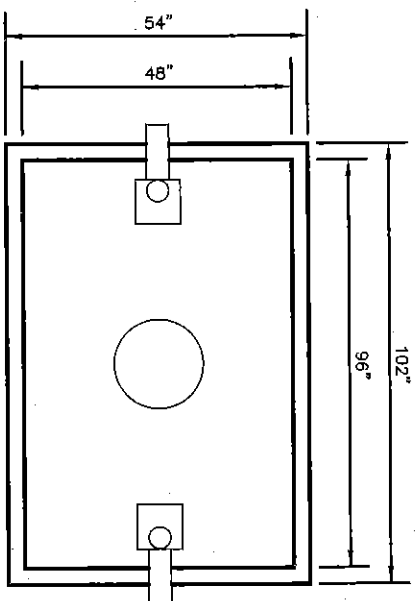


1000 GALLON DOSING TANK WITH PUMP

N.T.S.



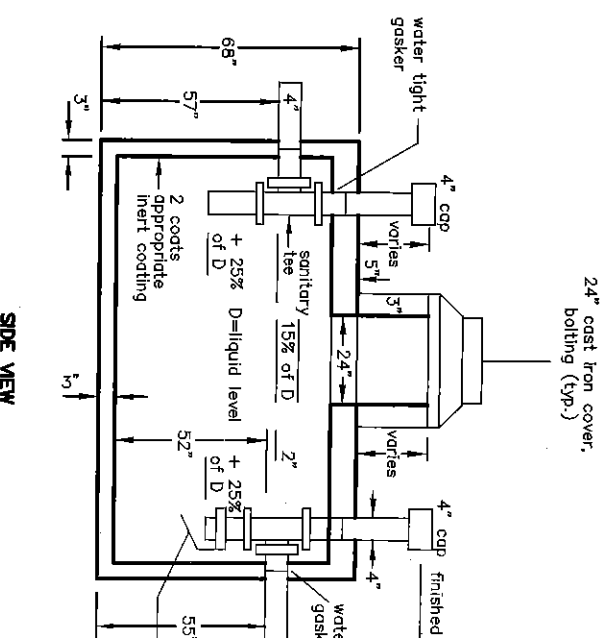
FARMINGDALE ROAD



TOP VIEW

SIDE VIEW

KENNELS
FF=100.3



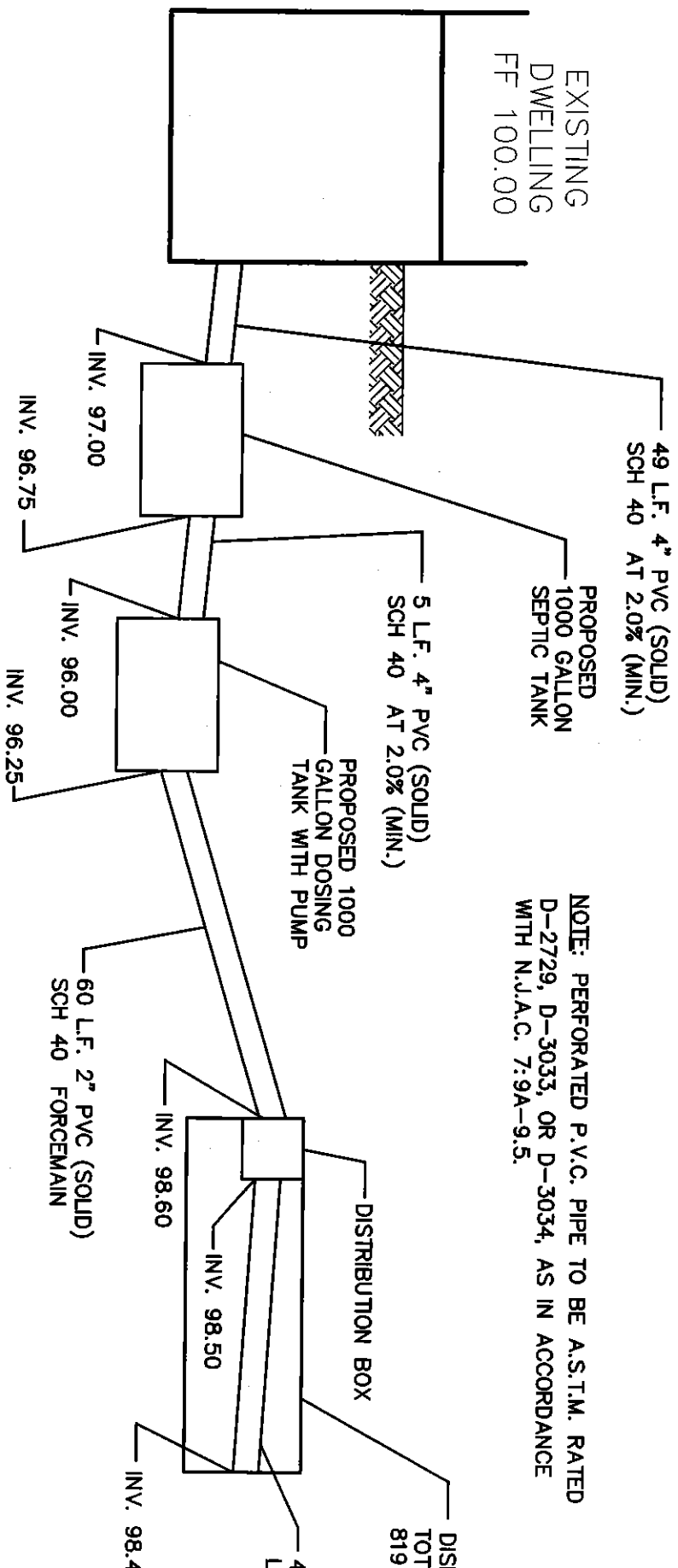
SIDE VIEW

N.T.S.

NOTE: SEPTIC TANK SHALL HAVE AN NSF#46 EFFLUENT FILTER AND NEEDS TO BE TESTED FOR WATER TIGHTNESS.

49 L.F. 4" PVC (SOLID)
SCH 40 AT 2.0% (MIN.)

NOTE: PERFORATED P.V.C. PIPE TO BE A.S.T.M. RATED D-2729, D-3033, OR D-3034, AS IN ACCORDANCE WITH N.J.A.C. 7:9A-9.5.



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A geometric diagram featuring a central circle with a cross inside. Two lines intersect the circle: a straight line and a curved line. The intersection of the straight line and the circle creates a shaded region. The curved line also intersects the circle, and the area between the two lines and the circle is shaded.

CONTRACTOR TO VERIFY THAT WATER SOFTENER DISCHARGE
IS NOT TIED INTO SEPTIC SYSTEM.

NO WELLS WITHIN 100' OF PROPOSED DISPOSAL FIELD
DESIGN MEETS ALL SETBACK REQUIREMENTS

731.78
N32°16'00"W

~~PROPOSED
SPECIAL SITE IF
NECESSARY~~

A diagram showing a rectangular box with a shaded border. To the left of the box, there is a vertical dashed line with 'x' marks at the top and bottom, indicating a hinge or a fold line.

$\times$

1

NEW BLOCK 1004 NEW LOT 7 1 inch = 30 ft.

SOIL LOG #1 (ELEV. 97.5)

TOPSOIL/ORGANIC

GREY (10YR 7/1), MOTTLES @ 48", SINGLE GRAIN, LOOSE, MOIST

WATER ENCOUNTERED

SOIL LOG #1 (ELEV. 97.5)

TOPSOIL/ORGANIC

SECRET

1. PER SOIL LOGS 1 AND 2 TO A MINIMUM ELEV. OF 10.0 FEET.
2. EXCAVATION SHALL BE TO UNNECESSARY COMPACT SIDEWALLS. HEAVY EQUIPMENT LOADERS SHALL BE ON THE SURFACE OF THE DISPOSED MATERIAL.
3. THE HEALTH OFFICER SHALL INSURE THAT EXCAVATION TO INSURE SUFFICIENTLY REMOVED.
4. THE EXCAVATION SHALL BE THROUGHOUT THE AREA.
5. EXCAVATION PRIOR TO BE CARRIED OUT IN ACCORDANCE WITH 7:9A-10.3(c) 2 THROUGHOUT THE AREA.
6. EXISTING GROUND SURFACE SHALL BE PLOWED, DISKING OR PREPARED EXISTING SURFACE.
7. BACKFILL OF SUITABLE MATERIAL OF 6-20 INCHES PER SET FORTH IN THE SPECIFICATIONS FOR SUBSURFACE SEWAGE.
8. ONCE THE EXCAVATION IS COMPLETE, THE ENGINEER SHALL NOTIFY THE UNDERGROUND UTILITY LOCATOR 48 HOURS PRIOR TO THE EXCAVATION.
9. A PERMEABILITY TEST SHALL BE CONDUCTED BY A PROFESSIONAL ENGINEER TO DETERMINE IF AN ACCEPTABLE PERMEABILITY COEFFICIENT OF REPLACEMENT SOIL.

11

ELEV. 98.50

ELEV. 98.50

ELEV. 97.50

ELEV. 97.50

ELEV. 93.50

ELEV. 93.50

ELEV. 89.50

DISC

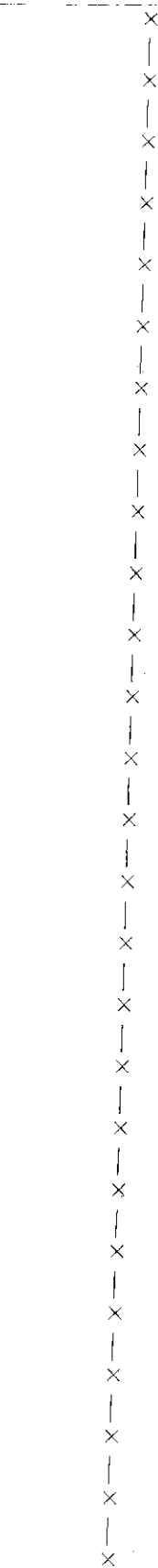
EXCA

AND
THIS
TH

ACCORDING TO N.J.A.C. 17:27, A WAY THAT THOSE OF LOW CONFORMANCE WITH THE PROGRAM CLOSER TO BEING IN COMPLIANCE PRIOR TO IMPROVE THE EXISTING PROGRAM ARE ASSOCIATED WITH

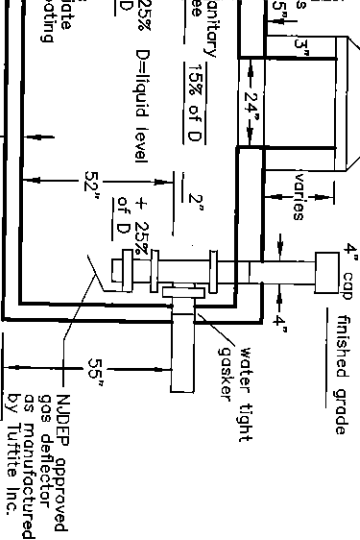
NEW BLOCK 1004
NEW LOT 7
OLD BLOCK 130.02
OLD LOT 3

2. ALL STRUCTURES ASSOCIATED WITH EXISTING SEPTIC SYSTEM TO BE PROPERLY ABANDONED
3. LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO CONSTRUCTION.



S57°37'00"E
619.50

GRAPHIC SCALE

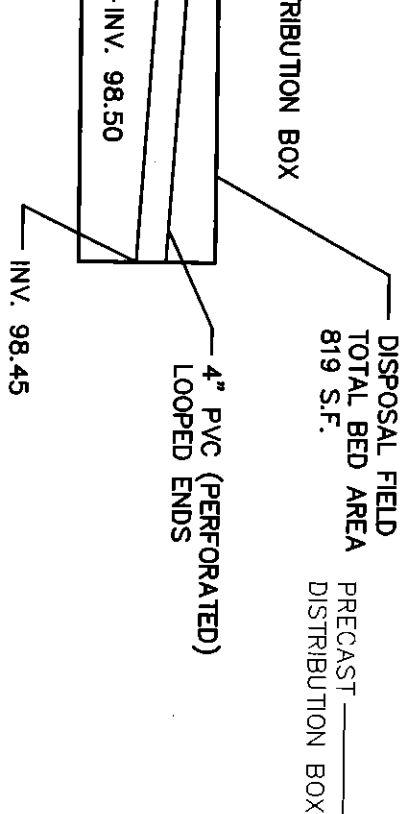


(IN FEET)
NEW BLOCK 1004 NEW LOT 7 1 inch = 30 ft.
OLD BLOCK 130.02 OLD LOT 3
JULY 18, 2022
SITE EVALUATOR: CARA L. SMITH, P.E.
SOIL LOG #1 (ELEV. 97.5)
0-12" TOPSOIL/ORGANIC
12-120" LOAMY SAND/SAND, BROWN YELLOW (10YR 6/6), WITH LIGHT GREY (10YR 7/1), MOTTLES @ 48", SINGLE GRAIN, LOOSE, MOIST
SEASONAL HIGH WATER TABLE AT 48" (ELEV. 93.5)
NO GROUND WATER ENCOUNTERED

SOIL LOG #1 (ELEV. 97.5)
0-12" TOPSOIL/ORGANIC

12-120" LOAMY SAND/SAND, BROWN YELLOW (10YR 6/6), WITH LIGHT GREY (10YR 7/1), MOTTLES @ 48", SINGLE GRAIN, LOOSE, MOIST
SEASONAL HIGH WATER TABLE AT 48" (ELEV. 93.5)
NO GROUND WATER ENCOUNTERED
*SAMPLE #48+ (K-4)

2' FILL ENCLOSURE AROUND PERIMETER OF DISPOSAL FIELD
4" P.V.C. PERFORATED PIPE WITH LOOPED ENDS
PROVIDE 90° ELBOW AT END OF LATERAL TO JOIN PIPES IN A LOOP

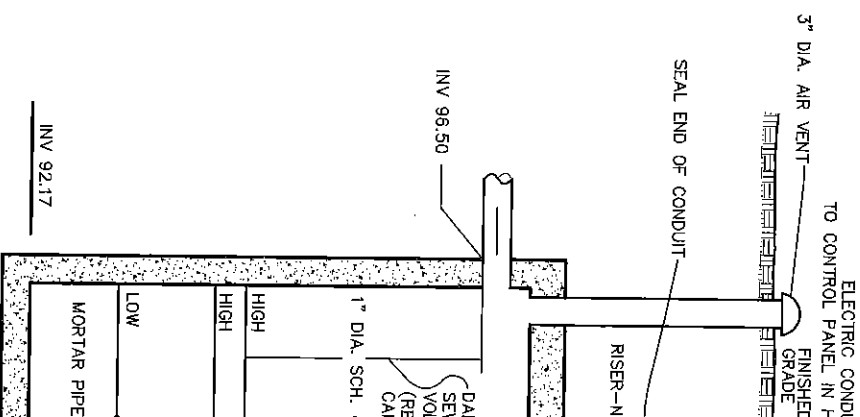


DISPOSAL FIELD

INSPECTION PORTS (TYP.) LOCATED AT EACH CORNER OF BED

N.T.S.

1000 GAL



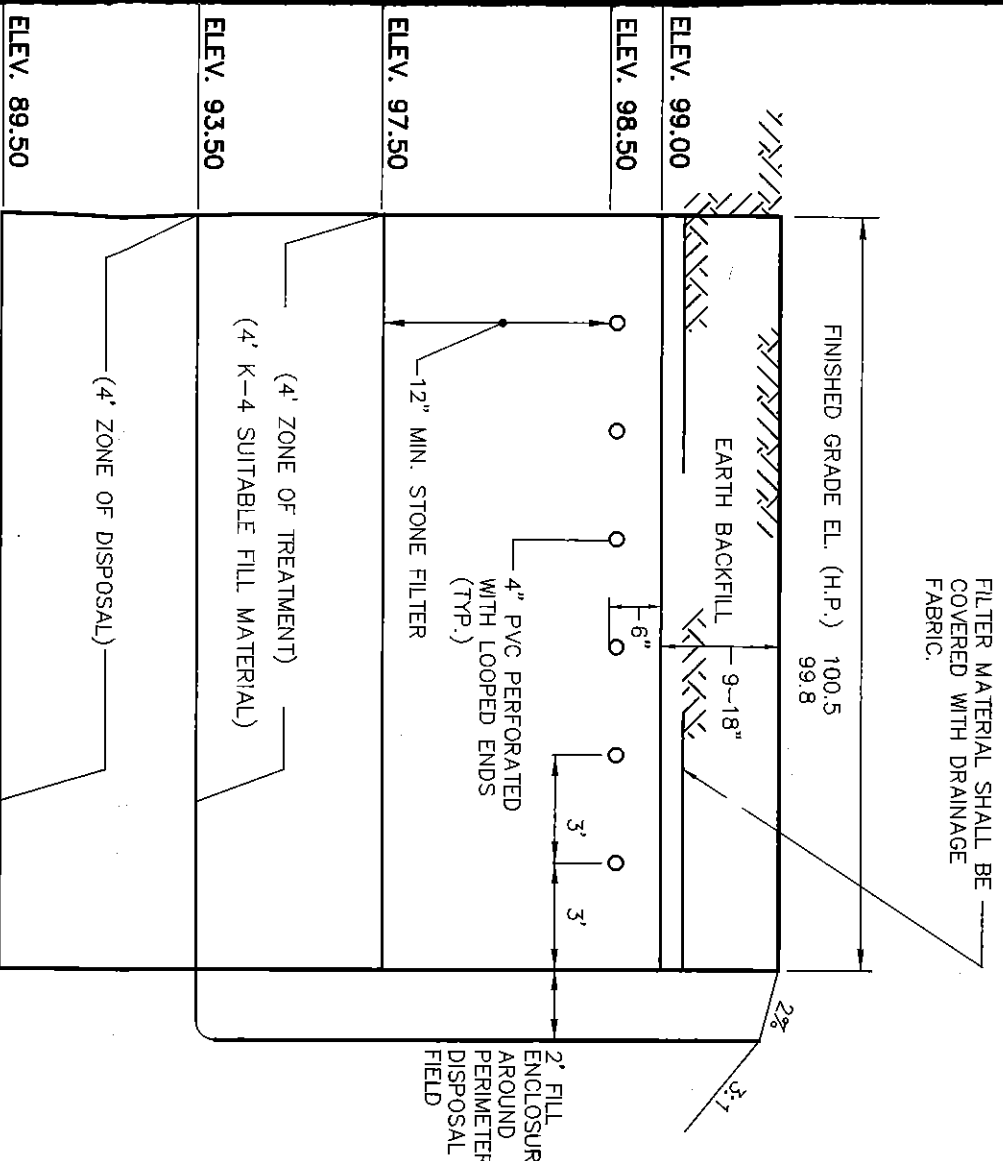
ACCORDING TO N.J.A.C. 17:27, A WAY THAT THOSE CONFORMANCE WITH COMPONENTS PRIOR TO IMPROVE THE EXISTING ARE ASSOCIATED WITH

ELEV. 97.50
ELEV. 93.50
ELEV. 89.50

DISP

DISPOSAL BED AND SOIL EXCAVATION NOTES

1. PER SOIL LOGS 1 AND 2 DESCRIBED ON THIS SHEET, SOILS TO BE REMOVED TO A MINIMUM ELEV. OF 93.5 AND REPLACED WITH K-4 SUITABLE FILL.
2. UNNECESSARY COMPACTION OF THE DISPOSAL FIELD BOTTOM AND SIDEWALLS. HEAVY EQUIPMENT SUCH AS BULLDOZERS OR FRONT END LOADERS SHALL BE NOT DRIVEN OVER THE EXPOSED INFILTRATIVE SURFACE OF THE DISPOSAL FIELD.
3. THE HEALTH OFFICER AND DESIGN ENGINEER SHALL BE NOTIFIED UPON EXCAVATION TO INSURE THAT "UNSUITABLE" MATERIALS HAVE BEEN SUFFICIENTLY REMOVED.
4. THE EXCAVATION SHALL BE MADE TO THE REQUIRED DEPTH EXTENDING THROUGHOUT THE AREA TO BE OCCUPIED BY THE DISPOSAL FIELD.
5. EXCAVATION PRIOR TO THE REPLACEMENT OF FILL MATERIAL SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF NJAC 7:9A-10.3(c) 2 THROUGH 5.
6. EXISTING GROUND SURFACES ARE TO THOROUGHLY ROUGHENED BY PLOWING, DISKING OR ANOTHER METHOD WHICH SERVES TO ADEQUATELY PREPARE EXISTING SURFACES.
7. BACKFILL OF SUITABLE MATERIAL SHALL HAVE A PERMEABILITY RATE OF 6-20 INCHES PER HOUR, AND MEET THE MINIMUM REQUIREMENTS SET FORTH IN THE STANDARDS FOR THE CONSTRUCTION OF INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS (NJAC 7:9A ET. SEQ.).
8. ONCE THE EXCAVATION HAS BEEN COMPLETED, THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IN WRITING APPROXIMATELY 48 HOURS PRIOR TO COMPLETION OF BACKFILL.
9. A PERMEABILITY TEST SHALL BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEER TO INSURE THE BACKFILL MATERIAL WILL HAVE AN ACCEPTABLE PERMEABILITY RATE AND MEET THE MINIMUM STANDARDS OF REPLACEMENT SOILS.



DISPOSAL BED CROSS-SECTION

N.T.S.
EXCAVATE SOILS TO A MINIMUM ELEVATION OF 93.5
AND REPLACED WITH (K-4) SUITABLE FILL
CONTRACTOR TO NOTIFY HEALTH OFFICER
AND UNDERSIGNED PROFESSIONAL ENGINEER AT
THE TIME OF EXCAVATION SO THE BOTTOM OF
THE BED CAN BE WITNESSED AND APPROVED

ACCORDING TO N.J.A.C. 7:9A-3.3(c)2 "ALTERATIONS ARE MADE IN SUCH A WAY THAT THOSE COMPONENTS OF THE SYSTEM ALTERED ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THIS CHAPTER OR ARE CLOSER TO BEING IN CONFORMANCE WITH THIS CHAPTER THAN ORIGINAL COMPONENTS PRIOR TO THE ALTERATION". IT IS THE INTENT OF THIS PLAN TO IMPROVE THE EXISTING MALFUNCTIONING SYSTEM. NO WARRANTIES OR GUARANTEES ARE ASSOCIATED WITH THIS PLAN.

GENERAL CONSTRUCTION NOTES

1. BOUNDARY INFORMATION TAKEN FROM A PLAN ENTITLED "SURVEY OF PROPERTY PREPARED FOR LEONARD & JANET HARING SITUAT IN THE TOWNSHIP OF JACKSON, OCEAN COUNTY NEW JERSEY", PREPARED BY ROBERT S. YURO., NPLS LIC. NO. 19463, DATED 02/28/96.
2. DO NOT SCALE DRAWINGS. ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC., ARE SCHEMATIC ONLY EXCEPT WHERE DIMENSIONS ARE SHOWN THERE TO.
3. THIS PLAN IS NOT A SURVEY OR PLOT PLAN. IT IS TO BE UTILIZED FOR THE CONSTRUCTION OF THE INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM ONLY.
4. BOTTOM OF THE BED AND DISTRIBUTION LINES SHALL HAVE A RELATIVELY LEVEL GRADE. MAXIMUM SLOPE OF 2" IN 100 FEET.
5. STONE SHALL BE WASHED GRAVEL OR CRUSHED STONE, FREE OF DUST, ASHES OR CLAY. THE FILTER MATERIAL SHALL CONFORM TO NJDOT STANDARD SIZES FOR COARSE AGGREGATES IN SIZE AND GRADATION TO SIZE NO. 24, SIZE NO. 3 OR SIZE NO. 4.
6. UNDER NO CONDITION SHALL MECHANICAL EQUIPMENT BE USED TO BACKFILL THE BED.
7. BED SHOULD BE CONSTRUCTED AFTER ALL DANGER FROM MECHANICAL EQUIPMENT HAS PASSED.
8. CONSTRUCTION OF THIS BED SHALL TAKE PLACE WHEN SOIL IS IN A SUITABLE STATE.
9. MINIMUM DIAMETER OF DISTRIBUTION LINES IS 4 INCHES.
10. SEEPAGE AREA REQUIREMENTS MUST CONFORM TO THE CURRENT JERSEY D.E.P. MANUAL "STANDARDS FOR THE CONSTRUCTION OF INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS."
11. SEPTIC TANK SHALL BE A MINIMUM OF 10 FEET FROM DWELLINGS.
12. DISPOSAL FIELD SHALL BE A MINIMUM OF 25 FEET FROM THE DWELLING AND 10 FEET FROM PROPERTY LINES.
13. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL ENGINEER OF ANY TOPOGRAPHIC OR OTHER FEATURES DIFFER IN THE FIELD THAN WHAT IS SHOWN ON THE PLAN.
14. PERMANENT MARKERS SHALL BE PROVIDED OVER THE DISTRIBUTION LINES.
15. MARK 4 CORNERS OF DISPOSAL FIELD TO PREVENT MACHINERY FROM ENTERING OVER INSTALLED AREAS.
16. CONTRACTOR TO MULCH DISPOSAL FIELD TO PREVENT SOIL EROSION OVER WINTER MONTHS. DISPOSAL FIELD TO BE SEEDED BY OWNERS AFTER SPRING THAW.
17. SOIL LOGS SHOWN HEREON IS BASED UPON ON-SITE FIELD INSPECTION BY CARA L. SMITH, P.E. ON JULY 18, 2022.
18. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL ENGINEER IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE PRESENTED HEREON. THE UNDERSIGNED PROFESSIONAL SHALL BE GRANTED ACCESS TO REVIEW SAID CONDITIONS AND/OR RENDER THE DESIGN SHOWN HEREON TO THE APPROPRIATE MUNICIPAL, COUNTY OR STATE OFFICIALS AND/OR THE UNDERSIGNED PROFESSIONAL'S SATISFACTION.
19. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL ENGINEER IN WRITING APPROXIMATELY 48 HOURS PRIOR TO COMPLETION OF THE DISPOSAL FIELD AND GRANT THE UNDERSIGNED PROFESSIONAL ACCESS TO THE SITE DURING ALL CONSTRUCTION TO VERIFY SITE CONDITIONS AND OBSERVE CONSTRUCTION. THE CONTRACTOR SHALL NOT POSTPONE, ALTER, AND/OR DELAY THE CONSTRUCTION SCHEDULE OF THE DISPOSAL FIELD PENDING SITE VISITATION FROM THE UNDERSIGNED PROFESSIONAL.
20. THIS SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE FLOWS FROM 1 BEDROOM PRIVATE RESIDENTIAL BUILDING WITHOUT AN EXPANSION OF A DOMESTIC GARBAGE GRINDER OR EJECTOR PUMP.
21. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES.
22. THE SEPTIC SYSTEM INSTALLER IS TO BE FULLY AWARE OF ALL REQUIREMENTS AND SPECIFICATIONS WITHIN THE CURRENT STANDARDS FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS (NJAC 7:9A ET. SEQ.).

NOTE: PRIOR TO EXCAVATION, CONTRACTOR TO CONTACT OWNER TO VERIFY LOCATION OF ALL UNDERGROUND SPRINKLERS, ELECTRICAL CONDUITS AND PRIVATE UTILITIES.

NOTE: PRIOR TO EXCAVATION, CONTRACTOR TO CALL FOR A UTILITY MARK OUT FOR ALL UNDERGROUND UTILITIES.

NOTE: EFFLUENT FILTERS ARE REQUIRED ON ALL OUTGOING SEPTIC TANK LINES.
NOTE: WATER TIGHTNESS TEST ON ALL NEW SEPTIC TANKS MUST BE DONE AND CERTIFIED

NOTE: ALL MANHOLE COVERS MUST BE AT GRADE WITH LOCKING COVERS. AN INFORMATION MARKER MUST BE PROVIDED INSIDE THE LID WITH THE NAME OF THE LOCAL HEALTH DEPARTMENT, PERMIT NUMBER, DATE OF INSTALLATION, TYPE OF SYSTEM, AND TOTAL DESIGN FLOW IN GPD.

ELEV. 97.50	4" PVC PERFORATED WITH LOOPED ENDS (TYP.)
ELEV. 93.50	(4' ZONE OF TREATMENT) (4' K-4 SUITABLE FILL MATERIAL)
ELEV. 89.50	(4' ZONE OF DISPOSAL)

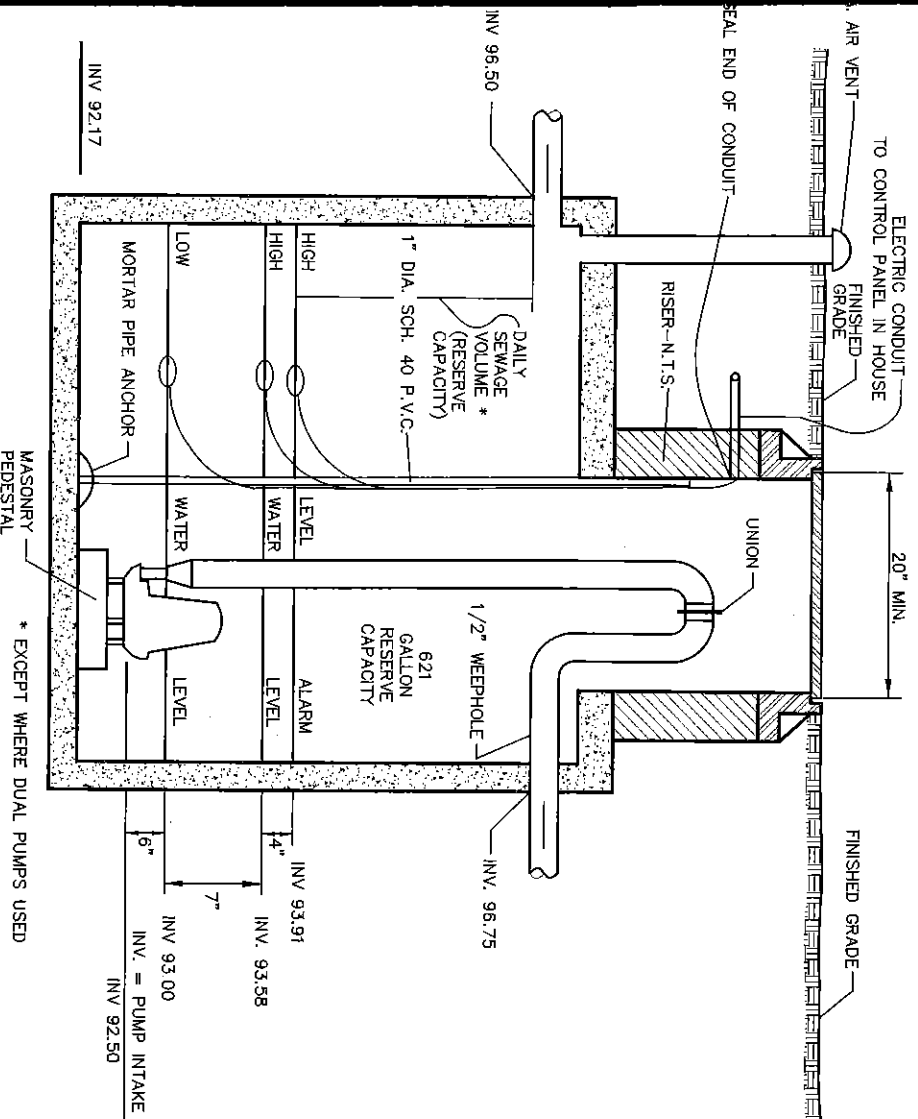
DISPOSAL BED CROSS-SECTION

N.T.S.

EXCAVATE SOILS TO A MINIMUM ELEVATION OF 93.5 AND REPLACED WITH (K-4) SUITABLE FILL

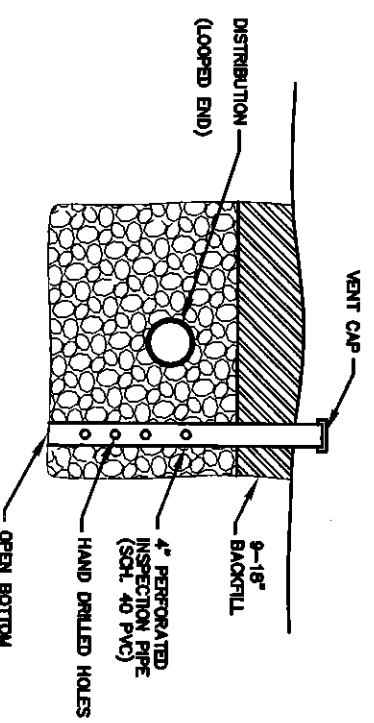
CONTRACTOR TO NOTIFY HEALTH OFFICER AND UNDERSIGNED PROFESSIONAL ENGINEER AT THE TIME OF EXCAVATION SO THE BOTTOM OF THE BED CAN BE WITNESSED AND APPROVED

ACCORDING TO N.J.A.C. 7:9A-3.3(C)2 "ALTERATIONS ARE MADE IN SUCH A WAY THAT THOSE COMPONENTS OF THE SYSTEM ALTERED ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THIS CHAPTER OR ARE CLOSER TO BEING IN CONFORMANCE WITH THIS CHAPTER THAN ORIGINAL COMPONENTS PRIOR TO THE ALTERATION". IT IS THE INTENT OF THIS PLAN TO IMPROVE THE EXISTING MALFUNCTIONING SYSTEM. NO WARRANTIES OR GUARANTEES ARE ASSOCIATED WITH THIS PLAN.



1000 GALLON DOSING TANK WITH PUMP

N.T.S.



DISPOSAL BED INSPECTION PIPE DETAIL

N.T.S.

17. SOIL LOGS SHOWN HEREON IS BASED UPON ON-SITE FIELD INSPECTION BY CARA L SMITH, P.E. ON JULY 18, 2022.

18. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSION IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE PRESENTED HEREON. THE UNDERSIGNED PROFESSIONAL SHALL BE GRANTED ACCESS TO REVIEW SAID CO AND/OR RENDER THE DESIGN SHOWN HEREON TO THE APPROPRIATE MUNICIPAL, COUNTY OR STATE OFFICIAL'S AND/OR THE UNDERSIGNED PROFESSIONAL'S SATISFACTION.

19. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSION WRITING APPROXIMATELY 48 HOURS PRIOR TO COMPLETION OF THE EXCAVATION OF THE DISPOSAL FIELD AND GRANT THE UNDERSIGNED PROFESSIONAL ACCESS TO THE SITE DURING ALL CONSTRUCTION TO VERIFY SITE CONDITIONS AND OBSERVE CONSTRUCTION. THE CONTRACTOR SHALL NOT POSTPONE, ALTER, AND/OR DELAY THE CONSTRUCTION SCHEDULE OF THE DISPOSAL FIELD PENDING SITE VISITATION FROM THE UNDERSIGNED PROFESSIONAL.

20. THIS SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE FLOWS FROM 1 BEDROOM PRIVATE RESIDENTIAL BUILDING WITHOUT AN EXPANSION OF A DOMESTIC GARBAGE GRINDER OR EJECTOR PUMP.

21. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES.

22. THE SEPTIC SYSTEM INSTALLER IS TO BE FULLY AWARE OF ALL REQUIREMENTS AND SPECIFICATIONS WITHIN THE CURRENT STANDARDS FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS (NJAC 7:27, SEC).

NOTE: PRIOR TO EXCAVATION, CONTRACTOR TO CONTACT OWNER TO VERIFY LOCATION OF ALL UNDERGROUND SPRINKLERS, ELECTRICAL CONDUITS AND PRIVATE UTILITIES.

NOTE: PRIOR TO EXCAVATION, CONTRACTOR TO CALL FOR A UTILITY MARK OUT FOR ALL UNDERGROUND UTILITIES.

NOTE: EFFLUENT FILTERS ARE REQUIRED ON ALL OUTGOING SEPTIC TANK 1 AND 2. WATER TIGHTNESS TEST ON ALL NEW SEPTIC TANKS MUST BE DONE AND CERTIFIED

NOTE: ALL MANHOLE COVERS MUST BE AT GRADE WITH LOCKING COVERS. AN INFORMATION MARKER MUST BE PROVIDED INSIDE THE LID WITH THE NAME OF THE LOCAL HEALTH DEPARTMENT, PERMIT NUMBER, DATE OF INSTALLATION, TYPE OF SYSTEM, AND TOTAL DESIGN FLOW IN GPD. MARKER MUST BE ATLEAST 6", SQUARE, AND MADE OF NON-CORROSIVE MATERIAL.

2. BASED UPON A FINAL INSPECTION, A PROFESSIONAL ENGINEER SHALL CERTIFY BY SIGNATURE AND SEAL THAT COMPACTION OF THE FILL HAS BEEN PERFORMED ADEQUATELY TO PREVENT FAILURE OF ANY COMPONENT OF THE SYSTEM DUE TO EXCESSIVE SETTLEMENT OR DIFFERENTIAL SETTLEMENT.

3. FILL MATERIAL SHALL BE SPREAD AND COMPACTED IN LAYERS ONE FOOT OR LESS IN THICKNESS.

4. COMPACTION MAY BE ACCOMPLISHED MANUALLY OR MECHANICALLY, BY TAMPING OR ROLLING, OR BY DRIVING OVER THE FILLED AREA IN A CONTROLLED PATTERN USING TRACKED OR RUBBER-TIRED VEHICLES. COMPACTION MAY ALSO BE ACCOMPLISHED BY PUDDLING.

5. WHEN HEAVY EXCAVATING EQUIPMENT IS OPERATED WITHIN THE EXCAVATION FOR THE PURPOSE OF PLACEMENT OR COMPACTION OF THE FILL MATERIAL, THIS EQUIPMENT SHALL NOT BE DRIVEN DIRECTLY ON THE EXPOSED BOTTOM OF THE EXCAVATION. A MINIMUM OF ONE FOOT OF FILL MATERIAL SHALL BE MAINTAINED BELOW THE VEHICLE TRACKS OR WHEELS AT ALL TIMES.

LOGS SHOWN HEREON IS BASED UPON ON-SITE FIELD SECTION BY CARA L. SMITH, P.E. ON JULY 18, 2022.

CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFERENTIALLY FROM THOSE PRESENTED HEREON. THE UNDERSIGNED PROFESSIONAL SHALL BE GRANTED ACCESS TO REVIEW SAID CONDITION, OR RENDER THE DESIGN SHOWN HEREON TO THE APPROPRIATE MUNICIPAL, COUNTY OR STATE OFFICIAL'S AND/OR THE UNDERSIGNED PROFESSIONAL'S SATISFACTION.

CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IN WRITING APPROXIMATELY 48 HOURS PRIOR TO COMPLETION OF THE INSTALLATION OF THE DISPOSAL FIELD AND GRANT THE UNDERSIGNED PROFESSIONAL ACCESS TO THE SITE DURING ALL CONSTRUCTION PHASES TO VERIFY SITE CONDITIONS AND OBSERVE CONSTRUCTION. THE CONTRACTOR SHALL NOT POSTPONE, ALTER, AND/OR DELAY THE CONSTRUCTION SCHEDULE OF THE DISPOSAL FIELD PENDING SITE VERIFICATION FROM THE UNDERSIGNED PROFESSIONAL.

THE SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE FLOWS FROM A RESIDENTIAL PRIVATE RESIDENTIAL BUILDING WITHOUT AN EXPANSION ROOM, DOMESTIC GARBAGE GRINDER OR EJECTOR PUMP.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF UNDERGROUND UTILITIES.

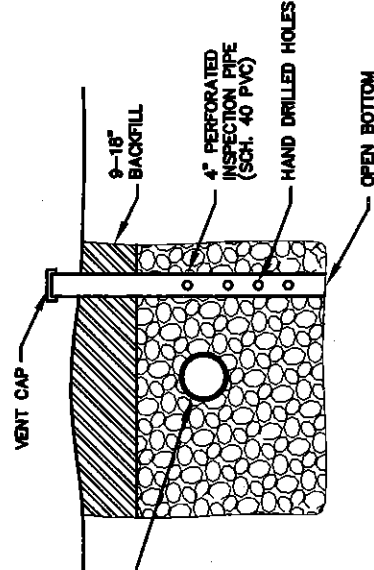
SEPTIC SYSTEM INSTALLER IS TO BE FULLY AWARE OF ALL REQUIREMENTS AND SPECIFICATIONS WITHIN THE CURRENT STANDARDS FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS (NJAC 7:9A-1.1 EQ).

PRIOR TO EXCAVATION, CONTRACTOR TO CONTACT OWNER TO VERIFY LOCATION OF ALL UNDERGROUND SPRINKLERS, ELECTRICAL UTILITIES AND PRIVATE UTILITIES.

PRIOR TO EXCAVATION, CONTRACTOR TO CALL FOR A UTILITY LOCATING SERVICE FOR ALL UNDERGROUND UTILITIES.

EFFLUENT FILTERS ARE REQUIRED ON ALL OUTGOING SEPTIC TANK LINES. WATER TIGHTNESS TEST ON ALL NEW SEPTIC TANKS MUST BE DONE AND CERTIFIED.

ALL MANHOLE COVERS MUST BE AT GRADE WITH LOCKING COVERS. INFORMATION MARKER MUST BE PROVIDED INSIDE THE LID WITH THE NAME OF THE LOCAL HEALTH DEPARTMENT, PERMIT NUMBER, DATE OF INSTALLATION, TYPE OF SYSTEM, AND TOTAL DESIGN FLOW IN GPD. COVER MUST BE AT LEAST 6" SQUARE, AND MADE OF NON-CORROSIVE MATERIAL.



12 INCH BED INSPECTION PIPE DETAIL

N.T.S.

This sheet needs to be submitted w/ distances prior to issuance of a cert. of compliance by this office

2. BASED UPON A FINAL INSPECTION, A PROFESSIONAL ENGINEER SHALL CERTIFY BY SIGNATURE AND SEAL THAT COMPACTION OF THE FILL HAS BEEN PERFORMED ADEQUATELY TO PREVENT FAILURE OF ANY COMPONENT OF THE SYSTEM DUE TO EXCESSIVE SETTLEMENT OR DIFFERENTIAL SETTLEMENT.

3. FILL MATERIAL SHALL BE SPREAD AND COMPACTED IN LAYERS ONE FOOT OR LESS IN THICKNESS.

4. COMPACTION MAY BE ACCOMPLISHED MANUALLY OR MECHANICALLY, BY TAMPING OR ROLLING, OR BY DRIVING OVER THE FILLED AREA IN A CONTROLLED PATTERN USING TRACKED OR RUBBER-TIRED VEHICLES. COMPACTION MAY ALSO BE ACCOMPLISHED BY PUDDLING.

5. WHEN HEAVY EXCAVATING EQUIPMENT IS OPERATED WITHIN THE EXCAVATION FOR THE PURPOSE OF PLACEMENT OR COMPACTION OF THE FILL MATERIAL, THIS EQUIPMENT SHALL NOT BE DRIVEN DIRECTLY ON THE EXPOSED BOTTOM OF THE EXCAVATION. A MINIMUM OF ONE FOOT OF FILL MATERIAL SHALL BE MAINTAINED BELOW THE VEHICLE TRACKS OR WHEELS AT ALL TIMES.

DISPOSAL BED CALCULATIONS

NO. OF BEDROOMS = 1 BEDROOM IN EXISTING HOUSE

DESIGN PERMEABILITY K-4 (6-20 IN./HR.)

FIRST BEDROOM 200 GALS./DAY
ADDITIONAL VOLUME 300 GALS./DAY
TOTAL VOLUME 500 GALS./DAY

500 GALS./DAY x 1.61 SQ. FT./GAL/DAY = 805 SQ. FT.
TOTAL BED SIZE REQUIRED - 805 SQUARE FEET
TOTAL BED SIZE PROVIDED - 819 SQUARE FEET (21' x 39')
W/ 2' FILL ENCLOSURE

NOTE:

CALCULATIONS ARE BASED ON A 1 BEDROOM DWELLING WITH NO PROVISIONS FOR ADDITIONAL BEDROOMS AND NO GARBAGE GRINDER OR EJECTOR PUMP.

SEPTIC TANK CALCULATIONS

NO. OF BEDROOMS = 1
250 GALS. PER BEDROOM
1 X 250 = 250 GALLONS

* USE PROPOSED 1000 GALLON SEPTIC TANK

PLAN PREPARED FOR:

LEONARD & JANET HARING
811 FARMINGDALE ROAD
JACKSON, NJ 08527

PHONE: 732-886-5867

EMAIL: JANHARING@VERIZON.NET

ALTERNATE EMAIL:

LENHARING@GMAIL.COM

Conditionally approved 9/1/2022

REV.	DATE	DESCRIPTION
TRE TWO RIVER ENGINEERING www.tworivereng.com Civil Engineers Forensic Experts Environmental Consultants P.O. Box 155 Colts Neck, N.J. 07722 Tel: 732.866.0111 Fax: 732.866.4348		
PROJECT NO.: 22106 DATE: JULY, 27 2022 DRAWING NO.: 22106SP DRAWN BY: ERI CLIENT: HARING SCALE: AS SHOWN		SEPTIC DESIGN PLAN FOR NEW BLOCK 1004 NEW LOT 7 OLD BLOCK 130.02 OLD LOT 3 TOWNSHIP OF JACKSON OCEAN COUNTY NEW JERSEY
CARA L. SMITH 07-27-2022 DATE N.J. Professional Engineer License No. 24GE03792900		PROJECT NO.: 22106 DATE: JULY, 27 2022 DRAWING NO.: 22106SP DRAWN BY: ERI CLIENT: HARING SCALE: AS SHOWN
SHEET NO. 1 OF 1		

GENERAL CONSTRUCTION NOTES

ALL INFORMATION TAKEN FROM A PLAN ENTITLED "SURVEY OF PROPERTY PREPARED FOR LEONARD & JANET HARING SITUATED IN TOWNSHIP OF JACKSON, OCEAN COUNTY NEW JERSEY", PREPARED BY ROBERT S. YURO., NJPLS LIC. NO. 19463, DATED 1/96.

ALL SCALE DRAWINGS. ADJACENT AND SURROUNDING PHYSICAL FEATURES, BUILDINGS, STRUCTURES, ETC., ARE SCHEMATIC ONLY AND WHERE DIMENSIONS ARE SHOWN THERE TO.

THIS PLAN IS NOT A SURVEY OR PLOT PLAN. IT IS TO BE UTILIZED FOR THE CONSTRUCTION OF THE INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM ONLY.

A MINIMUM OF THE BED AND DISTRIBUTION LINES SHALL HAVE A MINIMUM LEVEL GRADE. MAXIMUM SLOPE OF 2" IN 100 FEET.

ALL SHALL BE WASHED GRAVEL OR CRUSHED STONE, FREE OF FINES, ASHES OR CLAY. THE FILTER MATERIAL SHALL CONFORM TO ALL STANDARD SIZES FOR COARSE AGGREGATES IN ALL SIZES AND DISTRIBUTION TO SIZE NO. 24, SIZE NO. 3 OR SIZE NO. 4.

NO CONDITION SHALL MECHANICAL EQUIPMENT BE USED TO FILL THE BED.

THE BED SHOULD BE CONSTRUCTED AFTER ALL DANGER FROM MECHANICAL EQUIPMENT HAS PASSED.

THE CONSTRUCTION OF THIS BED SHALL TAKE PLACE WHEN SOIL IS DRY.

THE MINIMUM DIAMETER OF DISTRIBUTION LINES IS 4 INCHES.

ALL LARGE AREA REQUIREMENTS MUST CONFORM TO THE CURRENT NEW JERSEY D.E.P. MANUAL "STANDARDS FOR THE CONSTRUCTION OF INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS."

THE TANK SHALL BE A MINIMUM OF 10 FEET FROM DWELLINGS.

THE DISPOSAL FIELD SHALL BE A MINIMUM OF 25 FEET FROM THE PROPERTY LINE AND 10 FEET FROM PROPERTY LINES.

THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IF ANY TOPOGRAPHIC OR OTHER FEATURES DIFFER IN THE FIELD THAN SHOWN ON THE PLAN.

PERMANENT MARKERS SHALL BE PROVIDED OVER THE DISTRIBUTION BOX.

ALL 4 CORNERS OF DISPOSAL FIELD TO PREVENT MACHINERY RUNNING IN UNDESIGNED AREAS.

THE CONTRACTOR TO MULCH DISPOSAL FIELD TO PREVENT SOIL EROSION IN WINTER MONTHS. DISPOSAL FIELD TO BE SEED BY OWNER IN SPRING THAW.

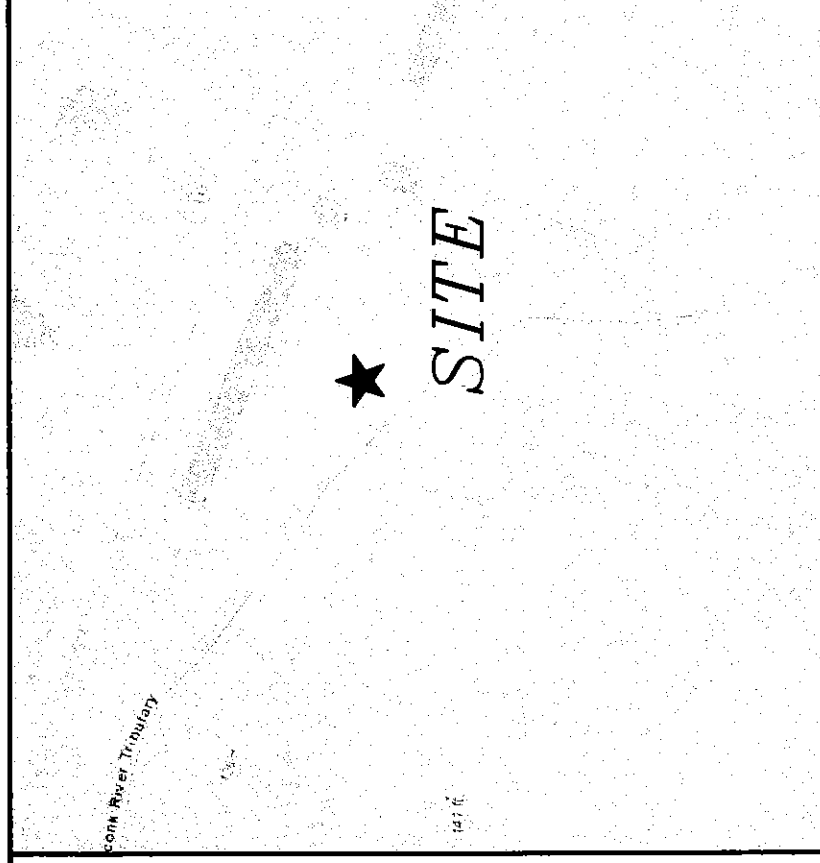
ALL LOGS SHOWN HEREON IS BASED UPON ON-SITE FIELD SURVEY CONDUCTED BY CARA L. SMITH, P.E. ON JULY 18, 2022.

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THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES.



KEY MAP

COMPACTION NOTES

COMPACTION OF FILL MATERIAL SHALL BE REQUIRED WHENEVER FILL MATERIAL IS USED BELOW THE DISPOSAL FIELD AND SHALL BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

1. COMPACTION OF FILL SHALL BE CARRIED OUT AS DIRECTED BY A PROFESSIONAL ENGINEER AND AS INDICATED ON THE APPROVED ENGINEERING DESIGN.
2. BASED UPON A FINAL INSPECTION, A PROFESSIONAL ENGINEER SHALL CERTIFY BY SIGNATURE AND SEAL THAT COMPACTION OF THE FILL HAS BEEN PERFORMED ADEQUATELY TO PREVENT FAILURE OF ANY COMPONENT OF THE SYSTEM DUE TO EXCESSIVE SETTLEMENT OR DIFFERENTIAL SETTLEMENT.
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