

PRINCETON JUNCTION ENGINEERING, P.C.
53 NORTH POST ROAD
P.O. Box 610
PRINCETON JUNCTION, NEW JERSEY 08550
ph. (609) 799-1906 fax. (609) 799-1524

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JAN 05 2017

LAWRENCE TOWNSHIP
HEALTH DEPARTMENT

APPLICATION FOR PERMIT TO CONSTRUCT / ALTER / REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

FORM 1 - GENERAL INFORMATION

1. **Type of Permit Needed** (Check Applicable Categories):
☐ New Construction
☒ Alteration/No Expansion or Change of Use
☐ Alteration/Expansion of Change of Use
☐ Alteration/Malfunctioning System
☐ Deviation from Standards
☐ Repairs to Existing System
2. **Location of Project:**
Municipality LawrenceTwp., Mercer Co., New Jersey
Block 7501
Lot 107
Street Address: 84 Carson Road
Princeton NJ, 08540
3. **Names(s) of Applicant(s):** Robert Hunsicker
4. **Applicant(s) Present Address:** 84 Carson Road,
Princeton, NJ 08540
5. **Applicant(s) Phone Number:** (609) 921-1588
6. **Type of Facility:**
☒ Residential Swimming Pool ☒ Yes ☐ No
☒ Commercial/Institutional
Specify Type of Establishment: Office
7. **Type of Wastes Discharged:**
☒ Sanitary Sewage Garbage Disposal ☐ Yes ☒ No
☐ Industrial Wastes
☐ Other - Specify Type _____
8. **Other Approval/Certifications/Waivers/Exemptions**
(Attach to Application):
☐ Pinelands Commission
☐ U.S. Army Corps of Engineers
☐ N.J.D.E.P. & E. - Bureau of Flood Plain Management
☐ Other - Specify: _____
9. I hereby certify that the information furnished on Form 1 of this application is true. I am aware that false swearing is a crime in this state and is subject to prosecution.

Signature of Applicant Robert Hunsicker Date 1/5/17

FOR AGENCY USE ONLY

- ☐ Application Denied - Reason for Denial/Citation of Rules Violated: _____
- ☐ Application Approved
- ☐ Application Approved Subject to Approval by N.J.D.E.P. & E.

Date of Action _____
Signature of Authorized Agent _____
Name and Title _____

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**APPLICATION FOR PERMIT TO CONSTRUCT / ALTER / REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM**

Form 2a - General Site Evaluation Data:

Client/Project: Robert Hunsicker

Municipality: Lawrence Twp., Mercer Co., New Jersey. Lot: 7501 Block: 107

1. Name of Site Evaluator (print): Kevin Brakel
2. Business Address of Site Evaluator:
(See Above Header)
3. Business Phone Number of Site Evaluator: 799-1906
4. Special Site Limitations Identified (check appr. categories)
☐ Flood Plains
☐ Bedrock Outcrops
☐ Wetlands
☐ Excessively Stony
☐ Disturbed Ground
☐ Sink Holes
☐ Sand Dunes
☐ Steep Slopes
☐ Other - Specify _____
5. Soil Logs - Enter on Form 2b (use 1 sheet for each soil log)
*** See attached forms**
6. Considerations Relating to Disturbed Ground: N/A
 - a. Type of Disturbance (check appr. 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. Hydraulic Head Test: N/A
 - a. Hydraulically Restrictive Horizon: Depth top 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:
☒ Site Plan
☒ Key Map showing location of site on U.S.G.S. Quadrangle of other accurate map.
☒ Key Map showing location of site on U.S.D.A. Soils Survey Map.
☒ Other - Specify Details.
9. I hereby certify that the information furnished on Form 1 of this application (and 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 11/14/16.
Soils Evaluator: Kevin Brakel

Signature of Professional Engineer  License# 44194
Kevin M. Brakel: N.J.P.E #44194

AFFIX SEAL
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PRINCETON JUNCTION ENGINEERING, P.C.
PROFESSIONAL ENGINEERS AND LAND SURVEYORS

D. GEOFFREY BROWN, P.E., L.S., & P.P.
FRANK J. FALCONE, L.S. & P.P.
MARTIN D. KATZ, L.S.
KEVIN M. BRAKEL, P.E.

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609.799.1906
FAX: 609.799.1524
EMAIL: PJEPC@PJEPC.COM
NJ & PA LICENSED

Soil Log Data Sheet

Client: Robert Hunsicker Address: 84 Carson Road, Princeton, NJ 08540
Municipality Lawrence Township Lot 107 Block 7501
1. Log Number SL111416-01
Method (Check One): ☒ Profile Pit ☐ Boring

2. Soil Log:

DEPTH	MUNSELL COLOR	DESCRIPTION
0" - 11"	10YR 4/3	SILT LOAM; moderate/med subangular blocky structure; moist firm to friable consistence; many fine medium roots; clear smooth boundary
11" - 48"	10YR 6/3	SILTY CLAY LOAM; moderate to medium angular blocky structure; moist very firm consistence; few fine roots to 16"; gradual smooth boundary
24" - 48"	7.5YR 5/8 10YR/7/1	MOTTLES: many, medium to coarse, distinct
48"-92"	10YR 6/3	CLAY LOAM; moderate/medium angular structure; moist firm Consistence; gradual wavy boundary
48" - 92"	7.5YR 5/8 10YR/7/1	MOTTLES: many, medium to coarse, distinct
92"-117.5"	2.5YR 5/3	CLAY LOAM; 80% shale cobbles, 1/4-1/2 Fractures, mod. tight; saturated consistence
92" - 117.5"	7.5YR 5/8	MOTTLES: common, fine, distinct PB 111416-01: 1.65 in/hr
96"		SEEPAGE ENCOUNTERED; slow

3. Ground Water Observation:

☒ Seepage - Indicate Depth 96"
☐ Pit / Boring Flooded - Depth After _____ Hours:

4. Soil Limiting Zones (Check Appropriate Categories)

☐ Fractured Rock Substratum	- Depth to Top
☐ Massive Rock Substratum	- Depth to Top
☐ Excessively Coarse Horizon	- Depth Top to Bottom
☐ Excessively Coarse Substratum	- Depth to Top
☒ Hydraulically Restrictive Horizon	- Depth Top to Bottom <u>11"-92"</u>
☐ Hydraulically Restrictive Substratum	- Depth to Top
☐ Perched Zone of Saturation	- Depth Top to Bottom
☒ Regional Zone of Saturation	- Depth to Top <u>24"</u>

5. Soil Suitability Classification: IIH_r, IIW_r, I

6. I hereby certify that the information furnished on Form 2B of this application is true and accurate. I am aware of 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 Site Evaluator

Kevin M. Brakel

Date 11/14/16

Signature of Prof. Engineer

Kevin M. Brakel, PE

License # 44194

AFFIX SEAL

CONFIDENTIAL - SECURITY INFORMATION

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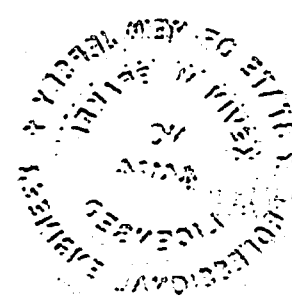
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*NJ & PA LICENSED

Soil Log Data Sheet

Client: Robert Hunsicker Address: 84 Carson Road, Princeton, NJ 08540
Municipality Lawrence Township Lot 107 Block 7501
1. Log Number SL111416-03
Method (Check One): ☒ Profile Pit ☐ Boring
2. Soil Log:
Depth (inches) Munsell Color Name and Symbol; Estimated Textural Class;
Top-Bottom Estimated Volume % Coarse Fragment (if present);
Structure; Moist or Dry Consistency; Mottling-Abundance, Size & Contrast (if present)

DEPTH	MUNSELL COLOR	DESCRIPTION
0" - 10"	10YR 4/3	SILT LOAM; moderate/med subangular blocky structure; moist firm to friable consistence; many fine medium roots; clear smooth boundary
10" - 54"	10YR 6/3	SILTY CLAY LOAM; moderate to medium angular blocky structure; moist very firm consistence; few fine roots to 24" channels; gradual smooth boundary
24" - 54"	7.5YR 5/8 10YR 7/1	MOTTLES: many, medium to coarse, distinct
54" - 90"	10YR 5/3	CLAY LOAM; moderate/medium angular structure; moist firm Consistence; gradual wavy boundary
54" - 90"	7.5YR 5/8 10YR 7/1	MOTTLES: many, medium to coarse, distinct
90" - 104"	2.5YR 5/3	CLAY LOAM; 70% shale cobbles, fractured 1/4"-1/2", mod. tight; saturated consistence
92" - 104"	7.5YR 5/8	MOTTLES: common, fine, distinct Machine Refusal

3. Ground Water Observation:
☒ Seepage - Indicate Depth 96"
☐ Pit / Boring Flooded - Depth After _____ Hours:
4. Soil Limiting Zones (Check Appropriate Categories)
- | | |
|---|---------------------------------------|
| ☐ Fractured Rock Substratum | - Depth to Top |
| ☐ Massive Rock Substratum | - Depth to Top |
| ☒ Excessively Coarse Horizon | - Depth Top to Bottom <u>90"-104"</u> |
| ☐ Excessively Coarse Substratum | - Depth to Top |
| ☒ Hydraulically Restrictive Horizon | - Depth Top to Bottom <u>10"-90"</u> |
| ☐ Hydraulically Restrictive Substratum | - Depth to Top |
| ☐ Perched Zone of Saturation | - Depth Top to Bottom |
| ☒ Regional Zone of Saturation | - Depth to Top <u>24+"</u> |
5. Soil Suitability Classification: IIH_r, IIW_r, I
6. I hereby certify that the information furnished on Form 2B of this application is true and accurate. I am aware of 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 Site Evaluator

Kevin M Brakel

Date 11/14/16

Signature of Prof. Engineer

Kevin M. Brakel, PE

License # 44194

AFFIX SEAL

[Faint, mostly illegible text covering the majority of the page, appearing to be a letter or document.]



PRINCETON JUNCTION, NEW JERSEY 08550
ph.(609) 799-1906 fax.(609) 799-1524

APPLICATION FOR PERMIT TO CONSTRUCT / ALTER / REPAIR **AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM**

Client/Project: Robert Hunsicker

Municipality Lawrence Twp., Mercer Co., New Jersey **Lot** 107 **Block** 7501

Assign a number for each test and a letter for each test replicate, show test data and calculations on Forms 3b, 3c, 3d, 3e, 3f, or 3g. Use one sheet for separate tests or test replicates.

1. **Summary of Data - Enter data for each test replicate on a separate line.**

Type of Test	Test #	Replicate #	Depth(in.)	* Result
Pit Bail	PB111416-01		117.5	1.65 in/hr

* For tube permeameter, pit-bailing and piezometer tests, report results in inches per hour. For soil permeability class rating, give soil permeability class number. For percolation tests, report results in minutes per inch. For basin flooding tests, report results as positive if basin drains completely within 24 hours after second filling, negative if otherwise.

2. Design Permeability/Percolation Rate: 3-15 min/in Specify Test Number _____.
- ___ Average of test replicates
- ___ Single replicate
- ___ Slowest of replicates
- ☒ Assumed in place select fill material

- | 3. Type of Limiting Zone Identified | Test Number |
|-------------------------------------|--------------------------------|
| <u>Excessively Coarse</u> | <u>SL/PB111416-01 & 03</u> |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

4. Attachments: (check items included)
- ☐ Form 3b - Tube Permeameter Test Data - Number of sheets _____
- ☐ Form 3c - Soil Permeability Class Rating Test Data - sheets _____
- ☐ Form 3d - Percolation Test Data - Number of sheets _____
- ☐ Form 3e - Piezometer Test Data - Number of sheets _____
- ☒ Form 3f - Pit-Bailing Test Data - Number of sheets 1
- ☐ Form 3g - Basin Flooding Test Data - Number of sheets _____

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

Soils Evaluator: Kevin Brakel

Date 11/14/16

Kevin M. Braker: N.J.P.E.

Lic. No. 44194

AFFIX SEAL
C:\SOILS\FORM.3A

Princeton Junction Engineering, P.C., PO#610 Princeton Jct., N.J. 08550 Ph#609-799-1906

Project/Client Name: Robert Hunsicker		Date of Test (Field): 11/14/2016	
Lot: 107	Block: 7501	Pit Bail #	PB111416-01
Municipality: Lawrence Township		Date of Run (Office): 11/16/2016	

Distance Reference Line (String) to Ground (In.) =
 Distance Reference Line (String) to Bottom of Pit (In.) =
 Distance Reference Line (String) to Static Water Level (In.) =
 Depth to bottom of Pit / Impermeable Stratum, (ft.) Dstratum =
 Height of Static Water Level above Btm. Of Pit / Impermeable Stratum (ft.) H=

0.00
117.50
99.50
9.79
1.50

[illegible]

$$K_a = \frac{\ln(r_{\text{hrise}}/t_n) \times [A_{\text{av}}/2.27(H^2 - h^2)] \times 60 \text{ min/hr.}}{K_a = 5/645 \times [10.74/2.27(1.5^2 - 0.96^2)] \times 60 \text{ min/hr} = 1.65}$$

I hereby certify that the information furnished on Form 3F of this application is true & 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.


Kevin M Brakel

11/14/2016
Date

11/14/2016
Date

File Name: Hunsicker PB111416-01

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APPLICATION FOR PERMIT TO CONSTRUCT / ALTER / REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

Form 4 - General Design Data:

Client/Project: Robert Hunsicker

Municipality: LawrenceTwp., Mercer Co., New Jersey. Lot: 107 Block: 7501

1. Volume of Sanitary Sewage 975 "Q" gals.

☒ Residential:

Number of Dwelling Units

Total Number of Bedrooms 3

☒ Commercial/Institutional - Indicate Type of Establishment and 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
3800 SF Office: 0.125 sf/gpd x 3800 sf= 475 gpd

2. Alterations or Repairs

a. Reason for Alteration or Repair (check appr. categories):

☐ Expansion or Change in Use

☐ Upgrade Existing Facilities

☒ Correct Malfunctioning System

☐ Other - Specify

b. Describe Nature of Alteration or Repairs: CONSTRUCT NEW SYSTEM INCLUDING BED, ADVANCE PRETREATMENT UNIT, DOSING TANK, CONNECTING PIPES ETC.

3. Components

a. Grease Trap Capacity gals.

b. Septic Tank Capacities:

First Compartment (single) 1,000 gals PRETREATMENT CHAMBER.

Second Compartment gals. ADVANCE WASTEWATER PRETREATMENT UNIT: NORWECO

Third Compartment gals.

c. Effluent Distribution Method:

☐ Gravity Flow

☐ Gravity Dosing

☒ Pressure Dosing

Dosing Device: ☒ Pump, ☐ Siphon

d. Dosing Tank Capacities:

Total Capacity 1,750 gals.

Dose Volume 243.75 gals.

Reserve Capacity 1234 gals.

e. Laterals: Number 12 Length 210 FT.

Pipe Size 1" Spacing 3.75 Ft.

f. Connecting Pipe: Size 4" PVC Length 298 FT. Delivery Pipe: Size 2" Length 21 FT.

g. Manifold: Size 3" Length 18.75 FT.

h. Disposal Field: Type of Installation MSR Design Permeability (percolation rate) 3-15 min/in.

Trenches: Width Total Length

Bed: Area 940.5 ft²

i. Seepage Pits: Design Permeability (percolation rate) Number of Pits

Total Percolation Area Provided

4. Attachments (check items included):

☒ General Plan showing location of all system components.

☒ X-Section of each system component, including Grease Trap, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drain.

☒ Pump Performance Curve.

☒ Other - Specify General System Details., Advance Wastewater Pretreatment Unit.

5. I hereby certify that the information furnished on Form 4 of this application (and 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 Design Engineer



Kevin M. Braker, P.E.

Date 1/2/17

AFFIX SEAL
C:\SOILS\FORM.4

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**APPLICATION FOR PERMIT TO CONSTRUCT / ALTER / REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM**

Form 5 - Design of Pressure Dosing System

Client/Project: **Robert Hunsicker.**

Municipality **Lawrence Twp., Mercer Co., New Jersey.** Lot **107** Block **7501**

1. Configuration of Distribution Network:

Type of Manifolds: End X Central

Distribution Laterals: Number **6 per Side/12 Total** Length, ft. **17.5 LF ea./210 LF Total**

Hole Diameter, ins. 1/4" Hole Spacing, ins. **36" O.C.**

Diameter of Laterals, ins. 1"

2. Lateral Discharge Rate:

Design Pressure Head at Supply End of Laterals, H_p , ft. **2.50 Ft.**

Hole Discharge Rate, Q , gpm **1.18 GPM**

Number of Holes per Lateral, n 6

Lateral Discharge Rate, ($Q \times n$) gpm **7.08 GPM**

3. Manifold Length, ft. **18.75 LF** Manifold Diameter, ins. 3"

4. System Discharge Rate, gpm **84.96 GPM**

5a. Pump Selection:

Diameter of Delivery Pipe 2" Length of Delivery Pipe **21 LF**

Friction Loss in Delivery Pipe, H_f , ft. **3.59 Ft.**

Elevation of Dosing Tank Low Water Level **183.67**

Elevation of Lateral Invert **192.80**

Elevation Head, H_e , ft. **9.13 Ft.**

Total Operation Head, H_t , ($H_p + H_f + H_e$), ft. **15.22 Ft.**

Pump Model **Hydromatic Model SP50** Rated Horsepower **0.5 HP**

Pump Discharge Rate at Total Operation Head, gpm **101.8**

5b. Siphon Elevation:

Diameter of Delivery Pipe Length of Delivery Pipe

Friction Loss in Delivery Pipe, H_f , ft.

Velocity Head, H_v , ft.

Total Operation Head, H_t , ($H_p + H_f + H_v$), ft.

Elevation of Lateral Invert

Elevation of Siphon Invert

6. Dose Volume:

Design Volume of Sewage, gal/day **975 GPD "Q"**

Design Permeability, in/hr or Percolation Rate, min/in **3-15 MPI**

Internal Volume of Distribution Network **18.88 Gal.**

Dose Volume **243.75 Gal. (25%Q)**

7. I hereby certify that the information furnished on Form 5 of this application (and 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 Professional Engineer


Kevin M. Braker: N.J.P.E. & L.S.#44194

Date 1/2/17

AFFIX SEAL
C:\SOILS\FORM.5

Typical Distribution Laterals: (6 Lats per side/12 total)
17.5 LF ea. 1"Ø ASTM D-2662 Perforated as specified,
PVC Pipe, Set Level. Each lateral to be End Capped.
Typical Distribution Orifices: 1/4"Ø Holes, 6 Holes per lateral,
spaced 36" O.C., stagger spacing from lateral to lateral by 1/2
as shown. Direct holes downward towards level of infiltration.
Center Distribution Manifold: 18.75 LF 3"Ø ASTM D-2662 PVC
Pipe, Set Level Elev. 192.81'.

Martin D Katz

N.J. Professional Land Surveyor No 36249

Date 2/6

Kevin M Brakel

N.J. Professional Engineer No 44194

Date 2/6

Disposal System Alteration Plan

of Lot 107, Block 7501, for

Robert Hunsicker

Lawrence Township * Mercer County * New Jersey

Date: 1/2/2017
Scale: 1"=20'
Drawn: kmb
Check: KMB

Job#: B161114
Dwg: DISPOSAL SYSTEM
PLAN
View: LAYOUT

Sheet 1 of 2

39. The following requirements are applicable for system start-up of an Advanced Wastewater Pretreatment Device per 7:9A-8.3(d)1-2:
- The authorized service provider shall inspect the system following installation.
 - The authorized service provider shall complete a manufacturer's system start-up checklist; and
 - The authorized service provider shall provide the completed start-up checklist to the administrative authority
 - The authorized installer that installed the Advanced Wastewater Pretreatment Device shall present at the time of start-up.
40. Aerobic treatment system shall be inspected by an Authorized Service Provider on the following schedule, at a minimum;
- Once within 30 days following start-up
 - Twice per year for the first year of system operation (excluding (a) above, twice per year thereafter.
 - Additionally as required by manufacturer
41. The disposal system contractor is responsible for confirmation that all materials utilized in the construction of the disposal system are in accordance with N.J.A.C. 7:9a
42. When placement of the disposal field is proposed in an area of disturbed ground as defined at 7:9a - 5.10, an acceptable state of compaction of the soil or fill material shall be verified by laboratory tests, and the design engineer shall certify a minimum compaction of 90 percent of the standard procter density.
43. All regraded areas shall comply with 7:9a-10.3.
44. Storm sewers within 50 ft. of the disposal system shall be constructed with watertight joints.
45. There shall be no existing or proposed wells within 100 ft. of the proposed disposal field.
46. A permanent, non-corrosive marker a minimum of 6 square inches in size containing the following information shall be attached to the manhole cover or riser immediately below the cover:
- The administrative authority name and permit number under which the system was installed.
 - The date of installation.
 - The type of installation.
 - The total design criteria in gallons per day.
47. All tanks, including risers and inspection ports to the highest joint, shall be tested for watertightness after installation using hydrostatic or vacuum tests in accordance with N.J.A.C. 7:9A-8.2(j) 3m.
48. THE SEWAGE DISCHARGE WILL BE ONLY DOMESTIC SANITARY SEWAGE
49. THIS PLAN IS FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT ONLY.

RECEIVED

MAR 07 2017

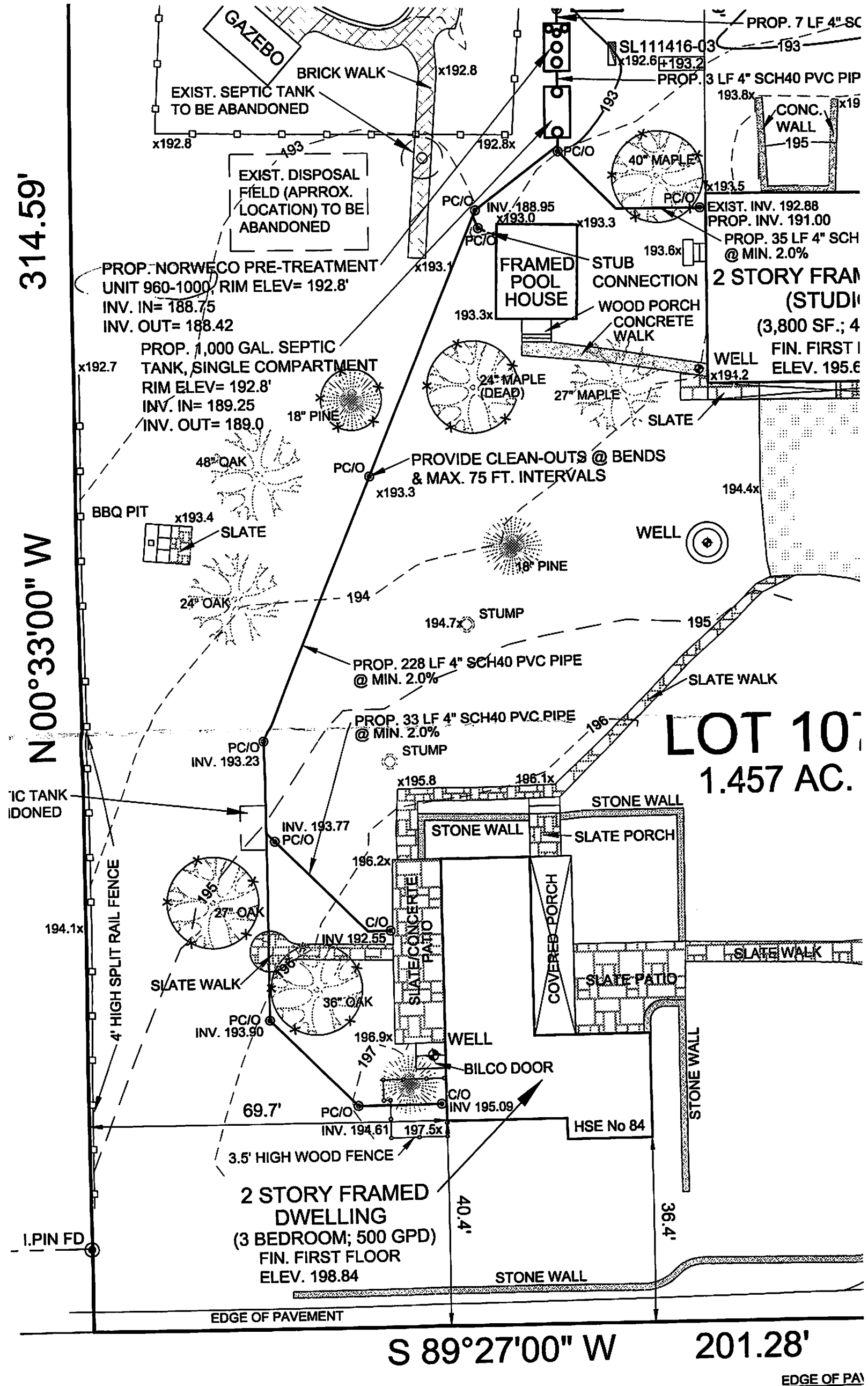
LAWRENCE TOWNSHIP
HEALTH DEPARTMENT

2/6/17 Per Township Review from the Engineer and Health Department

Date Description

REVISIONS

N 00° 33' 00" W



PROPOSED DISPOSAL FIELD
24.75' x 38.0' STONE BED
28.75' x 42.0' TOTAL EXCAVATION

N 89°27'00" E

LOT

20'

I.PIN FD

SILT FENCE (TYP)

4' HIGH CHAIN LINK FENCE

PROP. 1750 GAL. DOSING TANK
INV. IN= 188.0
BRICK WALK

BRICK PATIO

INGROUND
POOL

EXIST. SEPTIC TANK
TO BE ABANDONED

EXIST. DISPOSAL
FIELD (APPROX.
LOCATION) TO BE
ABANDONED

PROP. NORWECO PRE-TREATMENT
UNIT 960-1000, RIM ELEV= 192.8'
INV. IN= 188.75
INV. OUT= 188.42

PROP. 1,000 GAL. SEPTIC
TANK, SINGLE COMPARTMENT
RIM ELEV= 192.8'
INV. IN= 189.25
INV. OUT= 189.0

BBQ PIT

SLATE

24" OAK

48" OAK

18" PINE

PROVIDE CLEAN-OUTS @ BENDS
& MAX. 75 FT. INTERVALS

PC/O

FRAMED
POOL HOUSE

STUB
CONNECTION

WOOD PORCH
CONCRETE
WALK

SLATE

WELL

STUMP

PROP. 228 LF 4" SCH40 PVC PIPE
@ MIN. 2.0%

PROP. 33 LF 4" SCH40 PVC PIPE
@ MIN. 2.0%

STUMP

PC/O

INV. 193.23

PC/O

INV. 193.77

196.2x

195.8

196.1x

STONE WALL

STONE WALL

SLATE PORCH

27" OAK

194.1x

RAIL FENCE

314.59'

N00°33'00" W

LOT 108, BLOCK 7501

LO

1.4'

shall not be tied to the trees during construction. All work shall be performed under the immediate supervision of a licensed arborist.

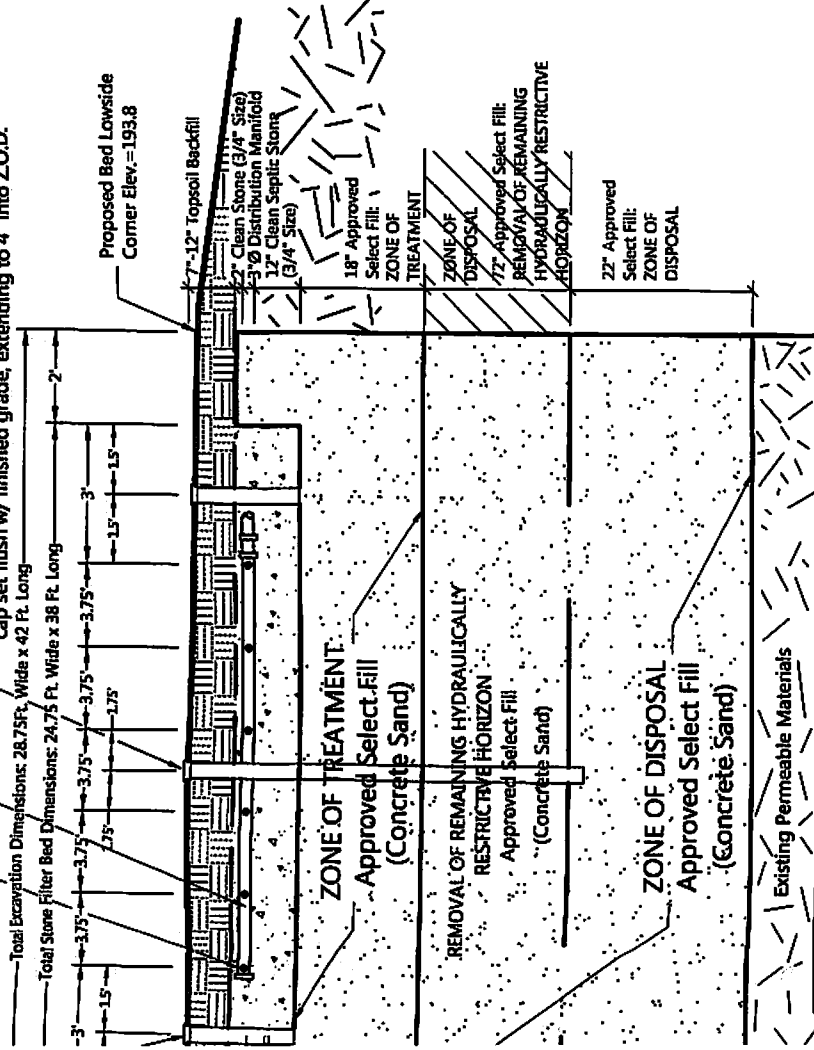
PROTECTION DETAIL

NOT TO SCALE

Typical Distribution Laterals: (6 per side/12 total) 17.5 LF 1" Ø ASTM-D 2662 PVC Pipe, Perforated as specified on "Distribution Network Detail," Set Level. Each Lateral to be End Capped.

Center Distribution Manifold: 18.75 LF 3" Ø Solid ASTM-D 2662 PVC Pipe, Set Level @ Elev. = 192.80'

Monitor Port: (1 req.) 4" Ø Solid Sched. 40 PVC pipe, w/ screw cap set flush w/ finished grade, extending to 4" into Z.O.D.



NOTE: The Lawrence Township Health Dept. requires a Soil Permeability Class Rating Test on the stockpiled select fill. The contractor shall notify the Design Engineer 24 hours in advance of the said stockpiling in order to obtain samples of the fill for testing. The select fill shall not be placed until a passing soil analysis has been obtained.

The distribution network shall not be constructed until a passing percolation test or tube permeability test has been performed on the emplaced select fill, to insure proper compaction. The contractor shall notify the Design Engineer 24 hours in advance in order to perform said test.

500 GPD
= 475 GPD
= 975 GPD
3PD Req'd min. Pressure Dosing Per Table 10.2(e)
Bed Length/USE 38'
12 Ft. Long (≈ 1,207.5 SF)
Long (≈ 940.5 SF)

Total Excavation Length: 42.0 Ft.
Total Stone Filter Bed Length: 38.0 Ft.
Typical Distribution Laterals: 17.50 Ft.
Typical Distribution Laterals: 17.50 Ft.

Typical Limits of Proposed Excavation.

1.5'

End Cap: Solid
(No Vent Hole)

Monitor Port: (1 req.)
(See Bed Section View
Detail)

Typical Distribution Lateral
End Cap:

End Caps shall have 1/8" Ø
vent hole drilled @ pipe crown
for venting.

3" to 2" Adapter

2" PVC Force Main

Typical Inspection Ports: (4 req.)
(See General System Details Sheet.)

Typical Edge of Stone Filter Bed.

NOTE: All pipe joints shall appropriately sealed & water tight.

Typical Distribution Laterals: (6 Lats per side/12
17.5 LF ea. 1" Ø ASTM D-2662 Perforated as spe
PVC Pipe, Set Level. Each lateral to be End Cap
Typical Distribution Orifices: 1/4" Ø Holes, 6 Holes p
spaced 36" O.C., stagger spacing from lateral to latte
as shown. Direct holes downward towards level of i
Center Distribution Manifold: 18.75 LF 3" Ø ASTM D-
Pipe, Set Level Elev. 192.81'.