

PRINCETON JUNCTION ENGINEERING COMPANY
53 NORTH POST ROAD
P.O. BOX 223
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

Form 1 - General Information

1. Type of Permit Needed (Check applicable categories):
 - ☒ New Construction
 - ☐ Alteration/No Expansion or Change of Use
 - ☐ Alteration/Expansion or Change of Use
 - ☐ Alteration/Malfunctioning System
 - ☐ Deviation from Standards
 - ☐ Repairs to Existing System
2. Location of Project:
Municipality WASHINGTON TWP.
Block 10
Lot 5.02
Street Address PENNY CT. & PATRICIA LN.
3. Name(s) of Applicant(s):
MARLEZZO DEVELOPMENT CORP.
4. Applicant(s) Present Address:
P.O. BOX # 447
YARLLEY, PA. 19067
5. Applicant(s) Phone Number: (215)-752-6950
6. Type of Facility:
 - ☒ Residential Swimming Pool ☐ Yes ☒ No
 - ☐ Commercial/InstitutionalSpecify Type of Establishment: _____
7. Type of Wastes Discharged:
 - ☒ Sanitary Sewage Garbage Disposal ☐ Yes ☒ No
 - ☐ Industrial Wastes
 - ☐ Other - Specify Type _____
8. Other Approvals/Certifications/Waivers/Exemptions (Attach to App.):
 - ☐ Pinelands Commission
 - ☐ U.S. Army Corps of Engineers
 - ☐ N.J.D.E.P. - 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 [Signature] Date 9/16/94
AUTHORIZED MARLEZZO DEVELOPMENT CORP. DEP.

FOR AGENCY USE ONLY

☒ Application Denied - Reason for Denial/Citation of Rules Violated: 9-15-94

☒ Application Approved 9-19-94

☐ Application Approved Subject to Approval by NJDEP

Date of Action 9-19-94

Signature of Authorized Agent [Signature]

Name and Title _____

JILL M. SWANSON
ENVIRONMENTAL HEALTH SPECIALIST

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Marrazzo Development Corporation

Form 2b - Soil Log and Interpretation: Date of Test Jan. 11, 1993

Municipality Washington Twp. Lot 5.02 Block 10

1. Log Number 5.02A Method (Check One): X Profile pit Boring

2. Soil Log:

Depth (inches) Munsell Color Name and Symbol; Estimated Textural
Top-Bottom Class; Estimated Volume % Coarse Fragment, if
present; Structure; Moist or Dry Consistency;
Mottling-Abundance, Size and Contrast, if present.

DEPTH	MUNSELL COLOR	DESCRIPTION
0"- 10"	10YR5/4	Sandy Clay Loam - Weak, fine angular blocky; moist; friable; many fine roots; clear, smooth boundary.
10"- 27"	10YR6/8	Sandy Loam - Weak, medium subangular blocky; moist, friable; common, fine root channels; gradual, smooth, boundary.
27"- 55"	10YR5/8	Silty Clay Loam - 1% rounded gravel; mottles - 2.5Y7/2, 7.5YR5/8 28"-55"; moderate, medium angular blocky; moist; firm; few fine roots; clear, smooth boundary.
55"- 108" K4-108"	10YR5/8	Sandy Clay Loam Grading to Sandy Loam - Mottles - 10YR5/6, few, fine, faint; moist; friable; 30% gravel 55"-60".
108"-154"	7.5YR6/3	Sandy Loam Grading to Sandy Clay Loam - Mottles - 10YR7/2, few fine faint; moist friable. Clay pockets 10YR6/6.

3. Ground Water Observation: None Encountered
___ Seepage - Indicate Depth _____
___ 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 _____
X Hydraulically Restrictive Horizon - Depth Top to Bottom 27"-55"
___ Hydraulically Restrictive Substratum - Depth to Top _____
___ Perched Zone of Saturation - Depth Top to Bottom _____
X Regional Zone of Saturation - Depth to Top 28"

5. Soil Suitability Classification: IIIHr (IIWr)

6. 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.

Signature of Site Evaluator [Signature] Date 2/12/93

Signature of Professional Engineer [Signature] Date 2-12-93

AFFIX SEAL

MDC502A/Soils/D-1

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Marrazzo Development Corporation

Form 2b - Soil Log and Interpretation: Date of Test Jan. 11, 1993

Municipality Washington Twp. Lot 5.02 Block 10

1. Log Number 5.02B Method (Check One): ☒ Profile pit ☐ Boring

2. Soil Log:

Depth (inches) Top-Bottom Munsell Color Name and Symbol; Estimated Textural Class; Estimated Volume % Coarse Fragment, if present; Structure; Moist or Dry Consistency; Mottling-Abundance, Size and Contrast, if present.

DEPTH	MUNSELL COLOR	DESCRIPTION
0"- 10"	10YR5/4	Silt Loam - Moderate, medium subangular blocky; moist; friable; common fine roots; clear smooth boundary.
10"- 23"	10YR5/8	Sandy Loam - 1% rounded gravel; weak, medium subangular blocky; moist; friable; few, fine roots; gradual, wavy boundary.
23"- 52"	10YR5/8	Silty Clay Loam - 25% Rounded gravel; strong medium angular blocky; firm; few fine roots to 42"; gradual, wavy boundary.
52"- 108"	10YR6/8	Sandy Clay Loam Grading to Sandy Loam - 5% rounded gravel; mottles - 7.5YR6/8, 2.5Y7/6 @ 52", few. fine faint; moderate medium angular blocky; moist; firm; gradual wavy boundary.
K4-108" 108"- 154"	10YR5/8	Sandy Loam Grading To Sandy Clay Loam - Mottles - 7.5YR5/6, 2.5Y7/8, structurless, moist.

3. Ground Water Observation: None Encountered

☐ Seepage - Indicate Depth _____
☐ 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 23"-52"
☐ Hydraulically Restrictive Substratum - Depth to Top _____
☐ Perched Zone of Saturation - Depth Top to Bottom _____
☒ Regional Zone of Saturation - Depth to Top 52"

5. Soil Suitability Classification: IIIHr (IIWr)

6. 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.

Signature of Site Evaluator [Signature] Date 2/12/93

Signature of Professional Engineer [Signature] Date 2-12-93

AFFIX SEAL

MDC502B/SOILS/D-1

FORM 2B - SOIL LOG AND INTERPRETATION

Municipality WASHINGTON TWP. Lot 5.02 Block 10

1. Log Number 5.02 C

Method (Check One): ☒ Profile Pit ☐ Boring

2. Soil Log: 6/9/94

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)

SOIL LOG, 5.02 C		ELEV. = 103.20
DEPTH	MUNSELL COLOR	DESCRIPTION
0-9" 10YR 3/3		SANDY LOAM: 2% GRAVEL; STRUCTURELESS; MOIST, LOOSE; FEW FINE ROOTS; ABRUPT, SMOOTH BOUNDARY
9"-22" 10YR 5/4		SANDY LOAM: 2% GRAVEL; STRUCTURELESS; MOIST, LOOSE; NO ROOTS; CLEAR, SMOOTH BOUNDARY.
22"-42" 10YR 5/6		VERY FINE SANDY LOAM TO VERY FINE SILT LOAM: 2% GRAVEL; (MOTTLES: 10YR 5/4 & 7.5YR 5/4 @ 29"-42"; FEW, FINE, FAINT.) SUBANGULAR, BLOCKY; MOIST, FIRM; FEW FINE ROOTS; NO BOUNDARY NOTATION.
42"-75" 10YR 5/4		SANDY LOAM: 5% GRAVEL; SUBANGULAR, BLOCKY, WEAK; MOIST, FRIABLE; NO ROOTS; CLEAR, SMOOTH BOUNDARY.
75"-125" 10YR 5/8		SANDY LOAM: 5% GRAVEL; STRUCTURELESS; MOIST, LOOSE; NO ROOTS.
		NO WATER ENCOUNTERED
		MOTTLES @ 29"-42"

3. Ground Water Observation:

☒ Seepage - Indicate Depth NONE ENCOUNTERED.
☐ 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>0-125"</u>
☐ Excessively Coarse Substratum	- Depth to Top	_____
☒ Hydraulically Restrictive Horizon	- Depth Top to Bottom	<u>22"-42"</u>
☐ Hydraulically Restrictive Substratum	- Depth to Top	_____
☐ Perched Zone of Saturation	- Depth Top to Bottom	_____
☒ Regional Zone of Saturation	- Depth to Top	<u>29"</u>

5. Soil Suitability Classification: IIIH_r, H_c, (IIW_r)

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 FRANK J. FALCON Date 9/16/94

Signature of Prof. Engineer E. GEORGE BROWN JR. License # 24327

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FORM 3A - SOIL PERMEABILITY DATA

Municipality WASHINGTON TWP. Lot 5.02 Block 10

Assign a number for each test and a letter for each test replicate, show test data and calculation 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
PERMEABILITY CLASS	502	A	108"	K4
		B	108"	K4
PERMEABILITY CLASS	502 A	A	108"	K4
		B	108"	K4

- * 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 Test, report results as positive if basins drains completely within twenty-four (24) hours after second filling, negative if otherwise.

2. Design Permeability / Percolation Rate: Specify Test Number
☒ Average of Test Replicates
☐ Single Replicate
☐ Slowest of Replicates
☒ ASSUMED IN PLACE FILL

3. Type of Limiting Zone Identified Test Number

4. Attachments: Number of Sheets
(Check Items Included)
☐ Form 3B - Tube Permeameter Test Data
☒ Form 3C - Soil Permeability Class Rating Test Data 4
☐ Form 3D - Percolation Test Data
☐ Form 3E - Piezometer Test Data
☐ Form 3F - Pit-Bailing Test Data
☐ Form 3G - Basin Flooding Test Data

5. I hereby certify that the information furnished on Form 3A 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.

Signature of Site Evaluator [Signature] Date 8-11-94

Signature of Prof. Engineer [Signature] License # 24927

AFFIX SEAL

6/11

PRINCETON JUNCTION ENGINEERING, P.C.
PROFESSIONAL ENGINEERS/PLANNERS/LAND SURVEYORS
53 NORTH POST ROAD P.O. BOX 223
PRINCETON JUNCTION, NEW JERSEY 08550

DOSING TANK AND PUMP SPECIFICATIONS

MARRAZZO DEVELOPMENT CORP

LOT 5.02, BLOCK 10

WASHINGTON TOWNSHIP MERCER COUNTY NEW JERSEY

1. DOSING TANK SPECIFICATIONS

LENGTH = 134" WIDTH = 49" HEIGHT TO PUMP DISCHARGE = 48"

PUMP TANK VOLUME CALCULATION = $134" \times 49" \times 48" = 315,168$ CUBIC INCHES
 $= 315,168 \text{ CI} \div 1,728 = 182.39$ CUBIC FEET
 $= 182.39 \text{ CF} \div 0.1337 = 1,364.17$ GALLONS

2. TOTAL DYNAMIC HEAD = FRICTION HEAD OF 0.31 FEET
= + ELEVATION HEAD OF 7.74 FEET
= TOTAL DYNAMIC HEAD OF 8.05 FEET

3. OPERATING POINT- FROM PUMP PERFORMANCE SPECIFICATIONS
= 104 GALLONS PER MINUTE AT 8.05 FEET OF TOTAL DYNAMIC HEAD

4. DOSING TIME

DOSING VOLUME = 25% Q = 0.25×650 GALLONS PER DAY = 162.50 GALLONS
OPERATING POINT = 104 GALLONS PER MINUTE

DOSING TIME EQUALS $162.5 \div 104 \text{ GPM} = 1.56$ MINUTES = 1 MINUTE 34 SECONDS

5. PUMP DISPLACEMENT VOLUME

$\pi \times 4.125^2 \times 14.875 = 795.2$ CUBIC INCHES $\div 1,728 = 0.46$ CUBIC FEET
 $0.46 \text{ CUBIC FEET} \div 0.1337 = 3.44$ GALLONS DISPLACEMENT
USE TEN GALLONS

PREPARED BY


D. GEOFFREY BROWN N.J.P.E. & L.S.
NO. 24327