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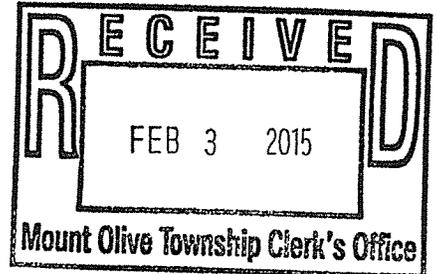
2/4/15 Sec: Admin
See Plan
maps on file
in clerk's office

ATTACHMENT A
Freshwater Wetlands Application Checklist
Model Letter – Notice to Neighboring Landowners
(copy this letter, fill in the blanks, and send to all parties listed on the applicable application checklist)

Date: 1/30/15

Re: Application submitted by:

Vincent Piacente
(Print applicant's name)



Regarding property at:

72 Waterloo Rd Budd Lake NJ 07828
(Street address of property)

2802 / 17, 18
(Block and lot of property)

Mount Olive Twp, Morris County
(Town and county)

Dear Interested Party:

I am sending you this letter to inform you that I am submitting an application for a permit or approval to the New Jersey Department of Environmental Protection (NJDEP) under the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A. The permit or approval will either establish the boundary of freshwater wetlands on the above property, or will authorize me to conduct regulated activities on the property.

I am applying for the following approval(s):

Letter of interpretation (establishes the official boundary line of any regulated freshwater wetlands, open waters, or transition areas on the property, and if freshwater wetlands are present, identifies their resource value)

General permit authorization (authorizes regulated activities, such as construction or development, in wetlands and adjacent transition areas)

Individual transition area waiver (authorizes regulated activities, such as construction or development, in areas adjacent to wetlands)

- Individual freshwater wetlands permit (authorizes regulated activities, such as construction or development, in both wetlands and adjacent transition areas)
- Open water fill permit (authorizes regulated activities, such as construction or development, in open waters)

The activities for which my application requests NJDEP approval are (I have checked all of those that apply):

- No regulated activities, just establishing where regulated wetlands (if any) are found on my property
- Cutting or clearing of trees and/or other vegetation
- Placement of pavement or other impervious surface
- Placement of one or more buildings or other structures
- Expansion of existing pavement, buildings, or other structures
- Other (describe):

Construct new septic system disposal
bed within or near a wetlands
buffer transition area.

If you would like to inspect a copy of my application, it is on file at the Municipal Clerk's Office in the town in which the property is located, or you can call the NJDEP at (609) 777-0454 to make an appointment to see my application at NJDEP offices in Trenton during normal business hours.

The rules governing freshwater wetlands permits and approvals are found in the NJDEP's Freshwater Wetlands Protection Act rules at N.J.A.C. 7:7A. You can view or download these rules on the NJDEP Land Use Regulation Program website at www.state.nj.us/dep/landuse, or you can find a copy of these rules in the county law library in your county courthouse.

As part of the NJDEP's review of my application, NJDEP personnel may visit my property, and the portion of any neighboring property that lies within 150 feet of my property line, to perform a site inspection. This site inspection will involve only a visual inspection and possibly minor soil borings using a 4" diameter hand auger. The inspection will not result in any damage to vegetation or to property improvements.

The NJDEP welcomes any comments you may have on my application. If you wish to comment on my application, comments should be submitted to the NJDEP *in writing* within 30 days after the Department publishes notice of the application in the DEP Bulletin. The Department shall consider all written comments submitted within this time. The Department may, in its discretion, consider comments submitted after this date. Comments cannot be accepted by telephone. Please submit any comments you may have *in writing, along with a copy of this letter*, to:

New Jersey Department of Environmental Protection
Division of Land Use Regulation
Mail Code 501-02A
P.O. Box 420
Trenton, New Jersey 08625
Att: (County in which the property is located) Section Chief

When the NJDEP has decided whether or not my application qualifies for approval under the Freshwater Wetlands Protection Act rules, NJDEP will notify the municipal clerk of the final decision on my application.

If you have questions about my application, you can contact me or my agent, address(es) below.

Sincerely,

Vincent Piacente
(Print applicant's name)

72 Waterloo Rd
(Applicant's address - **required**)
Budd Lake NJ 07828

(Applicant's phone or e-mail - optional)

ERICA BUSCH, P.E.
PO BOX 486
HAMPTON, NJ 08827

908-202-4477
(Applicant's agent's address, phone, and/or e-mail - optional)

septicengineer@gmail.com

(1/10)



TOWNSHIP OF MOUNT OLIVE
Board of Health
PO Box 450
Budd Lake, New Jersey 07828

No. 2502
Receipt # _____
Date: _____
Amt. Rec'd _____

INDIVIDUAL SEWAGE DISPOSAL SYSTEM APPLICATION

New Construction _____ Alteration X Date Submitted 12-5-14
Location of Property: Block 2802 Lot 17, 18 Size of Lot 35207 sf = 0.808 ac
Street 72 Waterloo Rd Tax Map No. 28
Name of Owner Vincent Piacente Phone No. 973-479-7875
Address 72 Waterloo Rd Budd Lake NJ 07828
Street Town State Zip Code

Installer's Name (print) _____ Signature _____ Mt. Olive Lic. # _____
INSTRUCTIONS

This application for a Permit to Locate and Construct shall comply to N.J.D.E.P. "Standards for the Construction of Individual Sub-Surface Sewage Disposal Systems" and to Mt. Olive Township Ordinances and must be accompanied by the following:

- A soil log and soil permeability test report form supplied by the Board of Health. *Submitted 11/19/14*
- A complete check list form supplied by the Board of Health.
- A scale drawing (1" to 50' minimum) of the lot showing the location and size of all existing and proposed buildings, driveways, streams, ponds, wells, drains, ditches, easements, permeability tests, soil logs, topography, distances to sewage system, future expansion area, interceptor drains if needed, wooded and open areas (designated wetlands, flood zone area).
- Detailed plans of the disposal system including cross sections and profiles.
- TWA or N.J.P.D.E.S. approval from the D.E.P., if applicable.

DESIGN DATA

Type of Building: Commercial _____ Single Family Dwelling X No. of Bedrooms 3
Building other than Single Family Dwelling: Type and Use _____
Occupancy: Persons per Day - Estimated Quantity of Sewage 500
gallons per day

SEPTIC TANKS (Minimum requirement-two (2) septic tanks for each system)

No. of Tanks 1 Capacity of Each 1250 gal 2 compartment 4 Bedrooms or less: 1,000 gals,
Material concrete (METAL TANKS NOT PERMITTED)

GARBAGE DISPOSAL: Yes _____ No X If yes, state septic tank capacity increase _____

DISPOSAL BEDS/TRENCHES

Required size 805 sq. ft.
Proposed size: 810 sq. ft.
Length 45 Width 18 sq. ft.
Fill Material: C-33
Permeability and/or class rate at bottom of bed or trench 14 (6-20 IN/HR)
Depth of permeability test 76-120 IN

SEEPAGE PITS

(If permitted by special approval of the Board of Health)
Number of Pits _____
Proposed Size _____ sq. ft.
Percolation Rate _____
Depth of Percolation Test _____

WATER SUPPLY FOR THIS PROPERTY

Public _____ Private well Spring _____ Other _____

If private water supply is to be constructed, complete a Mt. Olive Township Individual Well Water Supply Application Form. An approved well permit from the Department of Environmental Protection is also required.

CERTIFICATE OF QUALIFIED PERSON

I hereby certify that the information furnished on this application 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 seq.) and the Mount Olive Township Ordinance and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature Eric Busch P.E. License No. 32145 Date 12-5-14
Firm Eric Busch Engineering Telephone No. 908 202 4477
Address PO Box 1146 Mount Olive NJ

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

Municipality Mt. Olive Block 2802 Lot 17,18

Form 3c - Soil Permeability Class Rating Data

1. Test # 2A Replicate (letter) 2B Date Collected 11-19-14
2. Sample Depth (inches) 76-120" Soil Pit / Boring # 2
3. Coarse Fragment Content:
Total Weight of Sample (grams), W.T. 271.3
Weight of Material Retained on 2mm Sieve (grams), W.C.F. 94.1
Weight % Coarse Fragments = $W.C.F. / W.T. \times 100 =$ 34.6
4. Oven Dry Weight (24 hours, 105°C) of 40 gram air dry sample (grams), Wt 39.7
5. Hydrometer Calibration, R_c 4.0
6. Hydrometer Reading - 40 seconds (grams), R₁ 13.0
Temperature of Suspension (°F) 68
7. Corrected Hydrometer Reading (grams), R₁' 9.0
8. Hydrometer Reading - 2 hours (grams), R₂ 5.5
Temperature of Suspension (°F) 70
9. Corrected Hydrometer Reading (grams), R₂' 1.9
10. % sand = $(Wt - R_1') / Wt \times 100 =$ $(39.7 - 9.0) / 39.7 \times 100 =$ 77.3
11. % clay = $R_2' / Wt \times 100 =$ $1.9 / 39.7 \times 100 =$ 4.7
12. Sieve Analysis:
 - a. Oven Dry Wt. (2 hrs, 105°C) Total Sand Fraction
(Soil Retained in 0.047 mm Sieve), (grams) 34.4
 - b. Wt. Of Fine Plus Very Fine Sand Fraction
(Sand Passing 0.25 mm Sieve), (grams) 11.8
 - c. % Fine Plus Very Fine Sand (b / a) 34.3
13. Soil Morphology (Natural Soil Samples Only):
Structure of Soil Horizon Tested Granular
Consistence of Soil Horizon Tested: Dry _____ Moist Loose
14. Soil Permeability Class Rating
(Based upon average textural analysis of this replicate and other replicate samples) K4
15. I hereby certify that the information furnished on Form 3c 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.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 Eric Bush Date 11/27/14

Signature and Seal of Professional Engineer Eric Bush

License # 32145 Date 11/27/14

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Signature of Site Evaluator Eric Bush Date 11/27/14
Signature and Seal of Professional Engineer Eric Bush
License # 32145 Date 11/27/14

Block 8208 Lot 17,18

Township of Mt Olive

PUMP CALCULATIONS

Dose volume Q=Daily sewage volume =500 gallons per day
V=Internal volume of distribution network

Force main $207' \pi [(2'')/12]^2 /4 (7.48\text{gal/ft}) = 33.7$
Laterals $5(39') \pi [(4'')/12]^2 /4 (7.48\text{gal/ft}) = 127.3$
V=Total =160.9

Calculate required dose volume

MIN = 10 V = 10(160.9) = 1609.0
MAX= .25 Q = .25(500) = 125.0

USE 125.0

Calculate pump pit size

Reserve capacity = Q= 500

Area of 1000 gallon Pump pit = 36.1 sf

Volume below Apump off float = (36.1 sf)(11/12)7.48= 247

Volume above Apump on float and alarm on float switch = (36.1 sf)(4/12)7.48 = 90

Pump pit required = Dose vol. + Reserve + Vol below Apump off + Vol above alarm on

125.0 + 500 + 247 + 90 = 962 USE 1000 gallon pump pit

Calculate Pump on height - d

$d = (\text{Dose Vol.} + \text{Vol of Force main} + \text{Vol. of pump})(1.6) / \text{Area of pump pit}$
 $d = (125 + 33.7 + 2)1.6 / (36.1) = 7.12''$

USE 7''

Calculate pump size

Total operating head, H total = H elev + H friction

H elevation = Dist box inv. in – lowest elev.in force main = 951.2– 949.2 = 2.0' = He

H friction minor losses for <u>2''</u> force main	5 90 elbows @ 5.5 each	27.5
	1 pitless adapter	12.0
	1 check valve	13.0
	Pipe length	<u>207.0</u>
	TOTAL	259.5

At 55 gpm friction factor = 4.75 ft/100 ft

H friction = (total minor losses) (friction factor) = (259.5)(4.75/100) = 12.3'=Hf

H total = He + Hf = 2.0 + 12.3 = 14.3'=H total

Therefore use **GOULDS 3887 WS03BF 1/3 HP SINGLE PHASE PUMP**
capable of 55 GPM at 14.3' TDH (OR EQUIVALENT EQUAL)

GOULDS PUMPS



Submersible Sewage Pump

MODEL 3887BF

WS_BF Series

Prosurance available for residential applications.

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Sewage systems
- Dewatering/Effluent
- Water transfer
- Light industrial
- Commercial applications

Anywhere waste or drainage must be disposed of quickly, quietly and efficiently.

SPECIFICATIONS

Pump

- Solids handling capabilities: 2" maximum.
- Capacities: up to 185 GPM.
- Total heads: up to 38 feet TDH.
- Discharge size: 2" NPT threaded companion flange extra space as standard. 3" option available but must be ordered separately. (Order no. A1-3)
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPMs available.

FEATURES

- **Impeller:** Cast iron, semi-open, non-dog, dynamically balanced with pump out vanes for mechanical seal protection. Optional silicon bronze impeller available.
- **Casing:** Cast iron flanged volute type for maximum efficiency. Designed for easy installation on A10-20 slide rail.
- **Mechanical Seals:** SILICON CARBIDE VS. SILICON CARBIDE sealing faces for superior

abrasive resistance, stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion resistant, 300 series 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.

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):

- 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 and 1/2 HP models have NEMA three prong grounding plugs.
- 3/4 HP and larger units have bare lead cord ends.

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.
- **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated

continuously without damage when fully submerged.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

■ **Power Cables:** 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.

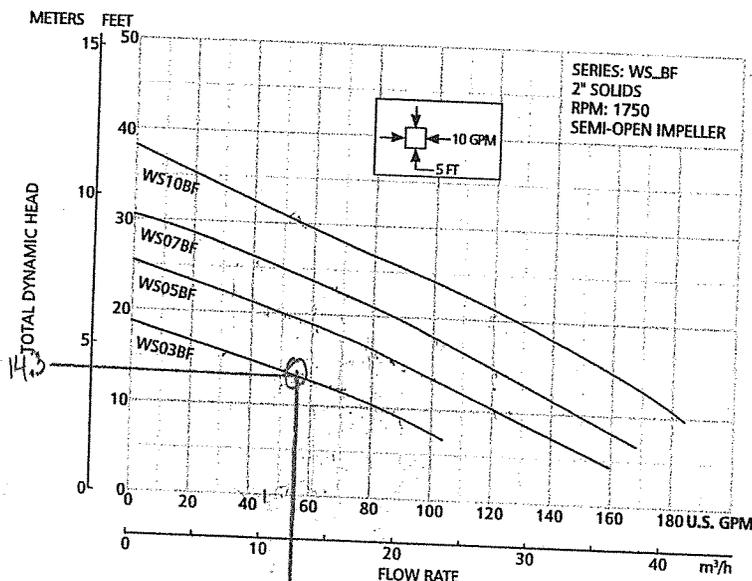
■ **Motor Cover O-ring:** Assures positive sealing against contaminant and oil leakage.

AGENCY LISTINGS

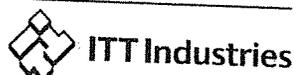


Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



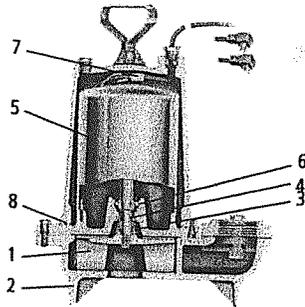
Goulds Pumps



GOULDS PUMPS

COMPONENTS

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



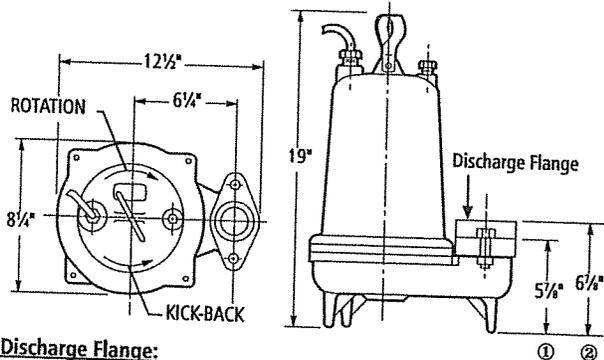
Submersible Sewage Pump

MODEL 3887BF

WS_BF Series

DIMENSIONS

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



Discharge Flange:

① 2" NPT standard ② 3" NPT optional (order an A1-3)

MODELS

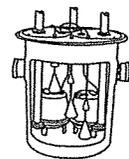
Flanged Discharge Sewage Pumps, 2" Solids						
Order No.	HP	PH	Volts	Max. Amps.	RPM	Wt. (lbs.)
WS0311BF	1/2	1	115	10.7	1750	63
WS0318BF			208	6.8		
WS0312BF			230	4.9		
WS0511BF	1/2	1	115	14.5		65
WS0518BF			208	8.0		
WS0512BF			230	7.3		
WS0538BF		3	200	3.8		
WS0532BF			230	3.3		
WS0534BF			460	1.7		
WS0537BF			575	1.4		
WS0718BF	3/4	1	208	11.0		85
WS0712BF			230	9.4		
WS0738BF			200	4.1		
WS0732BF		3	230	3.6		
WS0734BF			460	1.8		
WS0737BF			575	1.5		
WS1018BF	1	1	208	14.0		
WS1012BF			230	12.3		
WS1038BF			200	6.0		
WS1032BF		3	230	5.8		
WS1034BF			460	2.9		
WS1037BF			575	2.4		

SIMPLEX AND DUPLEX SYSTEMS

Simplex Ejector Systems: are used where drain facilities are below existing sewer lines. Also can be used for septic tank applications where wastewater must be pumped away from tank for treatment or disposal.



Duplex Ejector Systems: offer the necessary safety required by institutions which cannot afford an interruption in their sewage disposal systems.



PERFORMANCE RATINGS (gallons per minute)

Order No.	WS03BF	WS05BF	WS07BF	WS10BF
HP ▶	1/2	1/2	3/4	1
RPM ▶	1750	1750	1750	1750
Total Head Feet of Water	10 ▶	80	122	145
	15	36	90	116
	20	—	50	86
	25	—	—	48
	30	—	—	—
	35	—	—	—

Goulds Pumps is a brand of ITT Water Technology, Inc. — a subsidiary of ITT Industries, Inc.

Goulds Pumps and the ITT Engineered Blocks Symbol are registered trademarks and tradenames of ITT Industries.

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SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Goulds Pumps

