

Permit Number:
283443

Paid & Received
Division of Water
\$ 1210.00 08/17/2026



APPLICATION - PERMIT
ON-SITE WASTEWATER SYSTEM

(Please Type or Print Legibly)

OWNER'S NAME: Edwin Daugherty, Annette Welsh, & Roxana McKay PHONE: 443-299-9476

ADDRESS: 31332 Timber Edge Drive, Dagsboro, DE 19939

PROJECT LOCATION: 30144 Penn Street, Dagsboro, DE 19939

TAX/MAP #: 134-7.00-65.00

APPLICATION

PREPARER: Carlton R. Savage Jr., PE

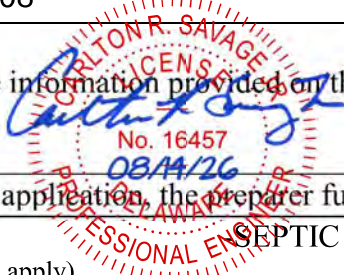
DNREC

LICENSE #: 5904

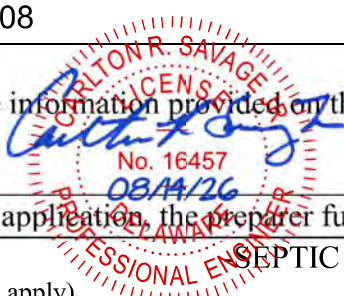
PREPARER'S ADDRESS: 20246 Coastal Highway, Rehoboth Beach, DE 19971

PHONE: 302-227-7808

I hereby affirm that the information provided on this document is accurate and complete.

Preparer's Signature:  Date: 08/14/26

By signing this permit application, the preparer further certifies they were physically present at the site.



SEPTIC DESIGN CRITERIA-

(Please check all boxes that apply)

System Type: (CF = Cap & Fill / FD = Full Depth)

- | | |
|---|--|
| ☐ Gravity (FD) | ☒ Permanent Holding Tank |
| ☐ Gravity (CF) | ☐ Elevated Sand Mound |
| ☐ Pressure Dose (FD) | ☐ Wisconsin At-Grade |
| ☐ Pressure Dose (CF) | ☐ Subsurface Micro Irrigation |
| ☐ Low Pressure Pipe (FD) | ☐ Peat Bio- Filter |
| ☐ Low Pressure Pipe (CF) | ☐ Other _____ |
| ☐ Temporary Holding Tank | |

- ☐ Bed or ☐ Trench **N/A**
- ☐ Gravelless Chamber ☐ Stone/Gravel ☐ Tire Chips **N/A**
- Sand-lined ☐ Yes ☐ No **N/A**

Existing System Malfunctioning ☒ Yes ☐ No ☐ N/A

Pre-Treatment Units

- ☐ Septic Tank
- ☒ Other Permanent Holding Tank

Central Water Available ☐ Yes ☒ No

(If yes, please state Utility Name: N/A)

Type of Construction:

- ☒ Replacement
- ☐ New Construction
- ☐ Component Replacement
- Component: _____
- ☐ Repair to Existing System
- Reason: _____

☐ Authorization to Use Existing System

Permit #: _____

Present Condition: _____

Structure to be connected: _____

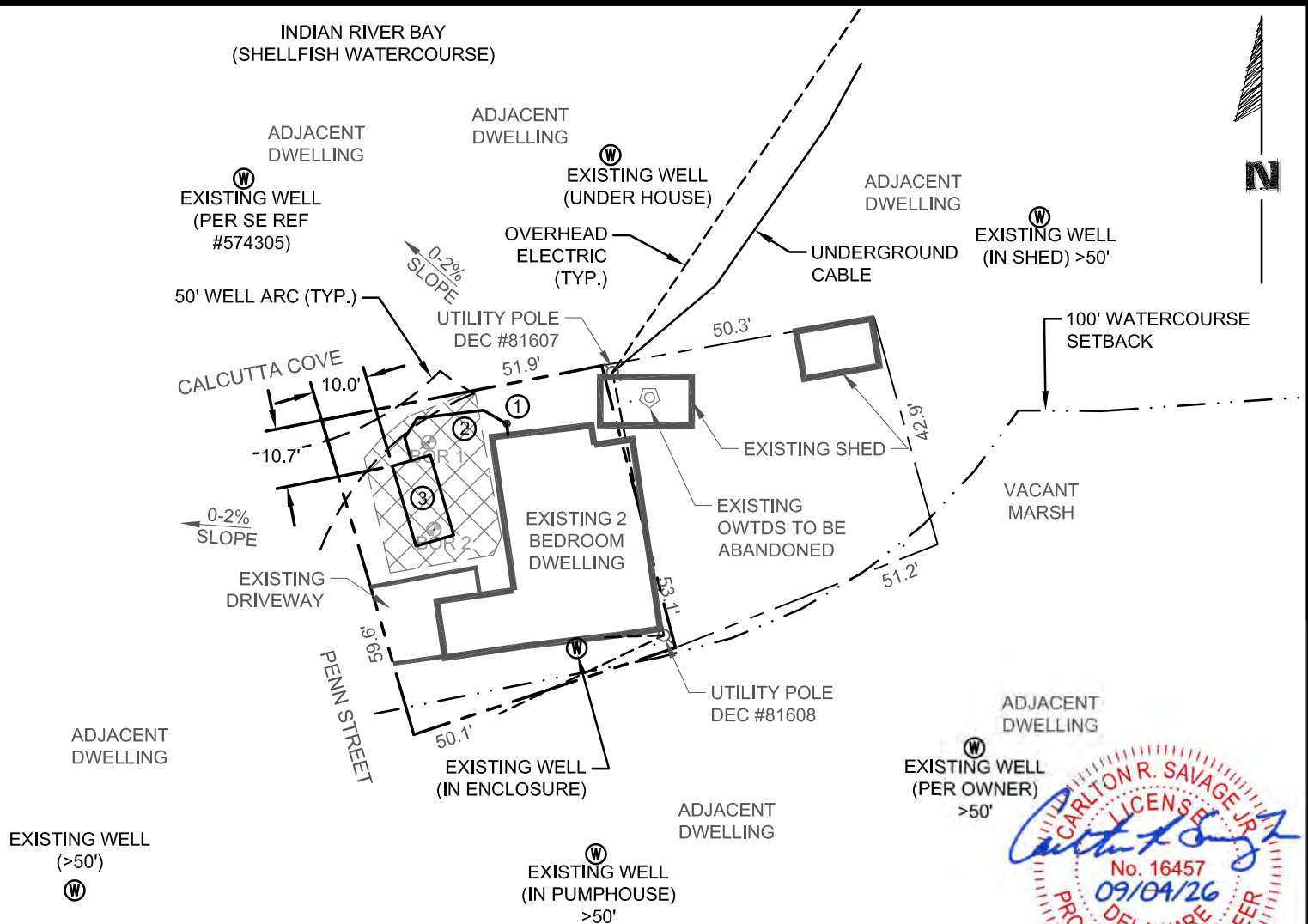
of Bedrooms: 2

Avg. Percolation Rate: N/A

Gallons Per Day Flow: 240 gpd

Minimum Sq. Ft. Rcq'd: N/A

Sq. Ft. Proposed: N/A



ADDITIONAL NOTES:

- DUE TO INSUFFICIENT DEED AND PLOT BOOK INFORMATION, BOUNDARY DEPICTED IS DERIVED FROM SUSSEX COUNTY TAX PARCEL DATA, AND IS APPROXIMATE. SCALED ENGINEERING, INC. HIGHLY RECOMMENDS A FORMAL SURVEY PRIOR TO PROPOSED OWTDS INSTALLATION.
- BUILDING SEWER TO HOLDING TANK SHALL BE EQUIPPED WITH A BACKFLOW VALVE (SEE NOTE 2).
- ALL TANK VENTS, ELECTRICAL EQUIPMENT, AND CONTROL PANELS SHALL BE INSTALLED ABOVE THE BASE FLOOD ELEVATION (10.0').
- DUE TO THE PROXIMITY OF THE INDIAN RIVER BAY, THE SUBJECT PARCEL IS COMPLETELY ENCOMPASSED BY A SHELLFISH WATERS SETBACK.
- A PUMPING CONTRACT IS REQUIRED WITH A LICENSED CLASS F WASTE HAULER.
- AN AFFIDAVIT OF OWNERSHIP IS REQUIRED TO BE RECORDED WITH THE SUSSEX COUNTY RECORDER OF DEEDS OFFICE.
- A WATER METER SHALL BE INSTALLED TO MEASURE IN-FLOW TO THE BUILDING OR OUT-FLOW TO THE TANK.

CONSTRUCTION PLAN

EDWIN DAUGHERTY, ANNETTE WELSH, ROXANA MCKAY
 LOT 2
 30144 PENN STREET
 DAGSBORO, DE, 19939
 TM: 134-7.00-65.00

OWNER/AUTHORIZED AGENT SIGNATURE: _____

Edwin Daugherty

NOTES:

- SANITARY CLEANOUT
- 4" Ø SOLID SCH 40 PVC EQUIPPED WITH SCH 40 PVC BACKWATER VALVE
- 2800 GAL GILLESPIE PERMANENT HOLDING TANK W/ RHOMBUS TANK ALERT XT INDOOR/OUTDOOR ALARM SET TO ALERT AT 75% CAPACITY. (SET FLOAT AT 35.89")
- SEE GENERAL NOTES TO CONTRACTOR (COPY ATTACHED)

0' 15' 30'

DATE: 07/20/2026
 DRAWN: WSAP/BMR
 APPROVED: CRS

SCALE: 1" = 30'
 PROJECT: DGTY001
 SHEET: 1 OF 1



Scaled Engineering Inc.
 20246 Coastal Highway
 Rehoboth Beach, DE 19971
 Phone: (302) 227-7808

PARID: 134-7.00-65.00
DAUGHERTY EDWIN G

30144 PENN ST

Property Information

Property Location:	30144 PENN ST
Unit:	
City:	DAGSBORO
State:	DE
Zip:	19939
Class:	R-Residential
Use Code (LUC):	101-Single Family Dwelling
Town	00-None
Tax District:	134 – BALTIMORE
School District:	1 - INDIAN RIVER
Fire District:	84-Millville
Calc'd Acres:	.0574
Frontage:	50
Depth:	50.000
Irr Lot:	
Plot Book Page:	/PB
100% Land Value:	\$131,600
100% Improvement Value	\$193,400
100% Total Value	\$325,000

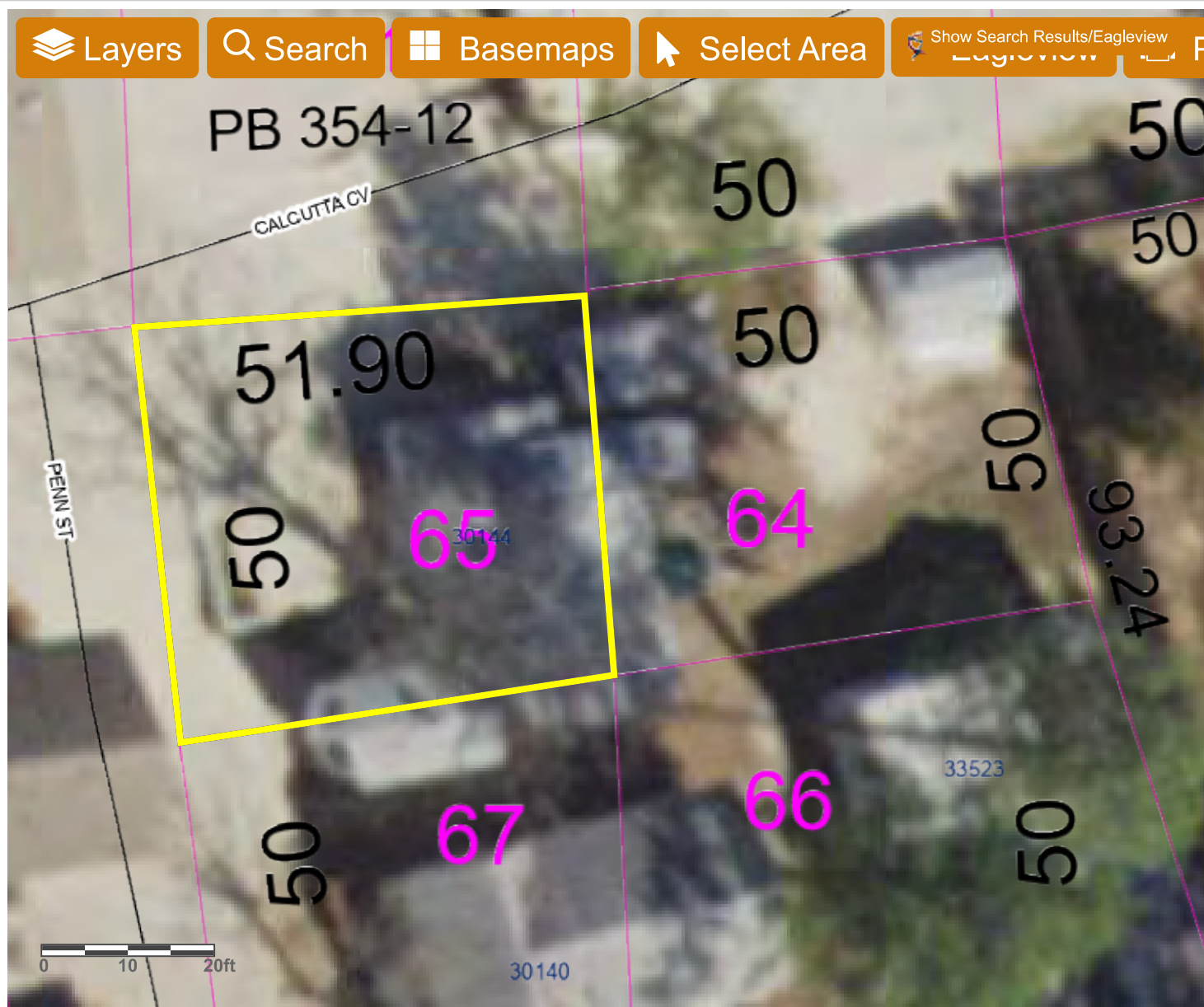
Legal

Legal Description	ON INDIAN RIVER LOT 2 WITH IMP.
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Owners

Owner	Co-owner	Address	City	State	Zip
DAUGHERTY EDWIN G	ANNETTE L WELSH ROXANA I MCKAY	31332 TIMBER EDGE DR	DAGSBORO	DE	19939

Layers Search Basemaps Select Area Show Search Results/Eagleview Eagleview Full Screen



X: -8367519.222035 Y: 4661051.383020



GENERAL NOTES TO CONTRACTOR:

1. Contractor shall field-verify existing conditions and all site features (isolation distances, slope direction/percentage, measurements, etc.) prior to installation. If discrepancies are found in the field, Contractor shall immediately contact the designer at 302-227-7808.
2. The system shall be installed per the approved Permit and all applicable regulations set forth by the Department of Natural Resources and Environmental Control (DNREC)
3. Any changes to the Permit shall be approved by the designer prior to installation. Any changes to the approved Permit without prior approval of the designer or DNREC shall be the responsibility of the contractor.
4. System installation shall occur during proper soil moisture conditions.
5. Final grading shall prevent surface water ponding over OWTDS drainfield area.
6. Contractor shall provide adequate drainage between OWTDS drainfield and existing/proposed structures.
7. All tanks shall have watertight risers and shall extend above grade per DNREC Regulations.
8. Septic tanks shall be equipped with a DNREC approved effluent filter (where applicable).
9. Contractor shall remove all trees within 10 feet of OWTDS drainfield per DNREC Guidelines.
10. No construction traffic is to occur within the proposed OWTDS area. Scaled Engineering Inc recommends installing a barrier around proposed disposal area prior to lot development.
11. No boundary or placement survey was performed nor provided. Scaled Engineering Inc is not responsible for dwelling placement or actual location of boundary lines.
12. Low Pressure Pipe disposal systems shall be installed with a trencher per DNREC Regulations.
13. Gravity disposal systems may require a DNREC approved lift station package to overcome elevation differences from the septic tank to the drainfield.
14. Distribution boxes associated with gravity disposal systems shall maintain minimum 5-foot separation from trench/bed drainfields.
15. All piping and fittings shall be pressure rated schedule 40 PVC.
16. Changes to the OWTDS location shall require a Pre-Construction As-Built approved by DNREC prior to installation. Pre-Construction As-Built will be billed as an extra expense to the contractor or other responsible party.
17. All systems shall be inspected in accordance with DNREC Regulations. Equipment necessary for inspections (generator, hoses, water, pressure gauges, etc.) shall be provided by the contractor. Contractor or his/her representative shall be present during the inspection. Contractor shall notify designer minimum 72 hours in advance to schedule all inspections. Inspections requested less than 72 hours in advance may require additional fees, billed to the contractor. Additional fees shall be paid by the contractor prior to completion of the inspection report.
18. Any additional site visits required for designer approval will be billed as an extra to the contractor and shall be paid prior to completion of the inspection report.
19. Contractor shall review the DNREC approved Site Evaluation prior to installation.
20. Construction plans and details are for the purpose of septic design and permitting only. Actual construction methods including site safety, operations, and ensuring site suitability shall be the responsibility of the contractor. Specific designs may require additional effort to ensure safe practices and/or no damage occurs to property or structures.
21. Any proposed well shown in the septic design is for reference only, and does not confirm, nor imply conformance to the regulations regarding on-site well installation. A licensed well driller is responsible for verifying the well is installed in accordance with all applicable regulatory setbacks.

Telephone 215-855-8713

Fax 215-855-8714

GARY K. MUNKELT & ASSOCIATES, LLCConsulting Engineers
Precast Concrete, Structural, Civil

1180 Welsh Rd. Suite 190 North Wales, PA 19454

PROJECT: BUOYANCY CALCULATION FOR PRECAST CONCRETE SEPTIC TANK
7'-2" x 15'-2" x 5'-6" O.D. (2,800 GALLON)**CLIENT:** GILLESPIE PRECAST, LLC
CHESTERTOWN, MD

Handwritten signature and date:
3/24/2021

TABLE OF CONTENTS

<u>Title</u>	<u>Sheet</u>
General Specifications	2
Description of Product	3
Calculations	4

GENERAL SPECIFICATIONS

1. Weight of Concrete = 150 pcf
2. Weight of Dry Soil = 120 pcf
3. Weight of Saturated Soil = 57.6 pcf
4. Groundwater table assumed at grade
5. Top of structure is 0 ft min – 2 ft max below grade
6. Typical minimum safety factor against flotation = 1.25

Sheet 3 of 4

1. Concrete 5,000 psi @ 28 days.
2. Repair ASTM A-615 GR. 60
3. WWR ASTM A-185
4. All joints to be sealed with Consol Seal CS-102.
5. Poly-Lok Poly IV open end boot
6. Effluent filter (optional) Polylok #PL-122
7. 24" O-risers & cover Polylok #3008 & #3009
8. Tank designed for 0-2' of cover.
9. Weight:

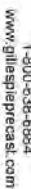
Top Section:	11,640 lbs.
Base Section:	14,200 lbs.



PLAN VIEW



SECTION B-B



1-800-638-6884
M.GillespiePrecast

DRAWN BY: JHP

SCALE: 3/8"

3/8" = 1'-0"

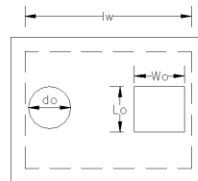
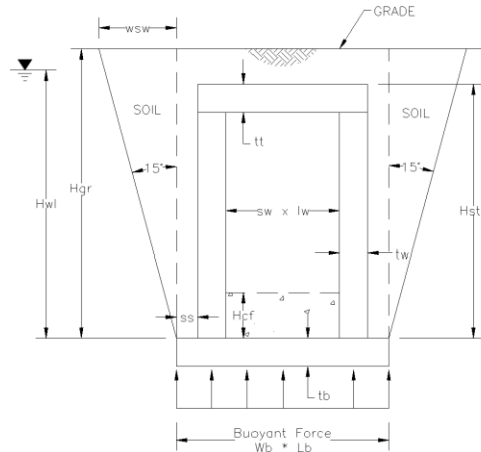
DWG.: 1 of 1
DATE: 3/23/21

3/21

2800 Gallon
Septic Tank - Shallow Cover

Determine Resistance to Flotation of Rectangular Structure 6.42 ft. × 14.42 ft.

Note: 0-2 ft of soil cover on structure; 0 ft soil cover load case will control flotation calculation



s_w = short wall (avg.)	=	6.42 ft
l_w = long wall (avg.)	=	14.42 ft
A_{o1} = area, top slab openings	=	6.25 ft ²
A_{o2} = area, wall openings	=	0.50 ft ²
t_t = top slab thickness	=	4 in
t_w = wall thickness (avg.)	=	4.5 in
t_b = base slab thickness	=	4 in
s_s = shelf size	=	12 in
L_b = length of base	=	17.17 ft
W_b = width of base	=	9.17 ft
H_{str} = height of structure	=	5.17 ft
Top of Slab to Grade	=	0.00 ft
H_{gr} = height of soil above base	=	5.17 ft
Grade to Water Table	=	0.00 ft
H_{wl} = height to water level	=	5.17 ft
H_{cf} = height of concrete fill	=	0.00 ft
soil wedge angle	=	15°
w_{sw} = width of soil wedge	=	1.38 ft
		($\tan 15^\circ \times H_{gr}$)

Weight of Concrete (γ_{conc}) =	150 pcf
Weight of Soil (γ_{soil}) =	120 pcf
Weight of Water (γ_{water}) =	62.4 pcf
Weight of Saturated Soil ($\gamma_{soil,sat}$) =	57.6 pcf

Desired Factor of Safety = 1.25

Buoyant Force (F_B):

$$F_B = [(s_w + 2t_w)(l_w + 2t_w)\text{MIN}(H_{str}, H_{wl}) + (L_b)(W_b)(t_b)] \times \gamma_{water} = 38,316 \text{ lb}$$

Resisting Forces (F_R):

$$W_1 = \text{Weight of Top Slab} = [(s_w + 2t_w)(l_w + 2t_w) - A_{o1}](t_t) \times \gamma_{conc} = 5,122 \text{ lb}$$

$$W_2 = \text{Weight of Walls} = \{[(s_w + 2t_w)(l_w + 2t_w) - (s_w l_w)] \times (H_{str} - t_t) - A_{o2} t_w\} \times \gamma_{conc} = 11,708 \text{ lb}$$

$$W_3 = \text{Weight of Bottom Slab} = (L_b)(W_b)(t_b) \times \gamma_{conc} = 7,868 \text{ lb}$$

$$W_4 = \text{Weight of Soil over Shelf} = \{[2 s_s (L_b + W_b - 2s_s)] + [w_{sw} (L_b + W_b + \pi/3 \times w_{sw})]\} (H_{gr}) \times \gamma_{soil,sat} = 25,930 \text{ lb}$$

$$W_5 = \text{Weight of Soil over Top Slab} = [(s_w + 2t_w)(l_w + 2t_w)] (H_{gr} - H_{str}) \times \gamma_{soil,sat} = 0 \text{ lb}$$

$$W_6 = \text{Weight of Concrete Fill} = (s_w l_w H_{cf}) \times \gamma_{conc} = 0 \text{ lb}$$

$$W_7 = \text{Weight of interior walls} = (4.83' \text{ tall}) (6.42' \text{ wide avg.}) (3" \text{ thick avg.}/12) (150 \text{ pcf})$$

$$F_R = \frac{1,163 \text{ lb}}{51,791 \text{ lb}}$$

Factor of Safety Against Flotation = $F_R / F_B = 1.35$ OK

Prepared by: Scaled
Engineering, Inc.
20246 Coastal Highway,
Rehoboth Beach, DE 19971

Document # 2026000029474 BK. 6553 PG. 242
On 7/31/2026 at 1:28:46 PM
RECORDER OF DEEDS Alexandra Reed Baker
Sussex County
Consideration: \$0.00
Doc Surcharge Paid

Return to: Edwin Daugherty
31332 Timber Edge Drive
Georgetown, DE 19939

AFFIDAVIT OF OWNERSHIP

STATE OF _____)
COUNTY OF _____) SS.

The undersigned, Edwin Daugherty and
Annette Welsh & Roxana Mckay, being duly sworn, declare and say under
penalty of perjury the following:

1. They are the present owners of Lot 2,
N/A Subdivision, Baltimore Hundred,
having acquired said lot by Deed dated February 20th, 2012, from
Nancy Daugherty to them of record in the Office of the Recorder of
Deeds in and for Sussex County, Delaware, in Deed Book 3976,
Page 346. This lot is shown on the Sussex County tax
map as No. 134-7.00-65.00.
2. Pursuant to the Delaware Department of Natural Resources and
Environmental Control, Regulations Governing the Design, Installation,
and Operation of On-Site Wastewater Treatment and Disposal Systems
effective March 11, 2002, Section 5.13030(d), this affidavit is made and
recorded to notify all prospective purchasers that the above stated lot is
served by a permanent holding tank.

IN WITNESS WHEREOF, the affiants hereto have set their Hands and Seals this
31 day of July, 2026.

[Signature]
(witness)

[Signature] (SEAL)
(owner's signature)

[Signature]
(witness)

[Signature] (SEAL)
(owner's signature)

Sworn to and subscribed before me, a Notary Public, this 31 day
of July, 2026.

[Signature]
witness

[Signature]
Notary Public

THOMAS OWEN ROBINSON
NOTARY PUBLIC
STATE OF DELAWARE
My Commission Expires 04-23-2028

[Signature]
(owner's signature)

McMullen Septic Service, Inc.

22593 Bridgeville Highway, Seaford, DE 19973

Phone: 302-629-6221 • Fax: 302-629-6928 • Email: office@mcmullenseptic.com

SEWAGE HOLDING TANK MAINTENANCE CONTRACT

Waste Hauler: McMullen Septic Service, Inc.

Address: 22593 Bridgeville Hwy, Seaford, DE 19973 Telephone: 302-629-6221

License #: WH50 License Expiration Date: 5/16/2026

This is an agreement between the above and Edwin Daugherty

The licensed hauler will routinely empty a 2,800 gallon sewage holding tank located at:

30144 Penn Street, Dagsboro, DE 19939

Telephone: 443-299-9476

Tax Map Parcel # 134-7.00-65.00

Permit #: _____

County: Sussex

Following are the terms of the Contract:

1. Pumping frequency will be such that the waste level is maintained to prevent any additional discharge. Pumping is to occur: ____ weekly ____ bi-weekly ____ monthly X as needed.
2. Property owner will notify waste hauler when holding tank is 75% full and request that the tank be pumped within 2 calendar days.
3. This contract is for a period of one (1) year.
Contract Start Date: 8/15/2026 Contract End Date: 8/15/2027
4. Equipment availability: six (6) trucks
5. Emergency response will be within 24 hours
6. The tank contents will be disposed of at Kent County S.S., Sussex County S.S., City of Seaford W.T.P., Town of Laurel W.T.P., or Clean DE Inc.
7. Price: \$595 for up to 2,800 gallons, & \$20 for each additional 100 gallons.

Additional Comments:

Signed: _____

McMullen

Date: _____

8/15/26

Licensed Class F Waste Hauler

Signed: _____

Edwin Daugherty

Date: _____

8/3/26

Property Owner