

MAIN OFFICE:
49 Herring Pond Road
Buzzards Bay, MA 02532
TEL: (508) 833-0070
FAX: (508) 833-2282



NANTUCKET OFFICE:
19 Old South Road
Nantucket, MA 02554
TEL: (508) 325-0044
www.brackeneng.com

August 16, 2023

Hand Delivery & Email [tguarino@townofbourne.com]

Bourne Board of Health
Terri Guarino, RS, CHO
24 Perry Avenue
Bourne, MA 02532

RECEIVED

By Bourne Health Department at 1:58 pm, Aug 16, 2023

**RE: Bourne Board of Health Variance – Proposed Septic Upgrade
10 Harbor Way (Map 45, Parcel 19) / 0 Lighthouse Lane (Map 45, Parcel 14)**

Dear Members of the Board:

On behalf of the current owners of #10 Harbor Way, Stanley DaVitoria & Ludo Gardini, please accept this letter as a request to reinstate the following variances from the Town of Bourne Health Regulations for the proposed septic installation at the above referenced property. Bracken Engineering, Inc. (BEI) cordially request the following *Local Variances*:

- **A 45' local variance from the BOURNE BOARD OF HEALTH Regulations for a 105' setback from a proposed soil absorption system from a non-eroding Coastal Bank.**
- **A 5' local variance from the BOURNE BOARD OF HEALTH Regulations for a 145' setback from a proposed soil absorption system to Mean High Water.**

The proposed project was before the Board on May 17, 2017, requesting the above variances which were approved with the following conditions:

10 Harbor Way – Notice of Alternative Sewage Disposal System and Grant of Title 5 Nitrogen Loading Restriction and Easement on Facility Land – Recorded BK 29680, Pg 222

0 Lighthouse Lane – Grant of Title 5 Nitrogen Loading Restriction and Easement on Nitrogen Credit Land and a Septic Easement for the benefit of 10 Harbor Way – Recorded BK 29680, Pg 230

1 Lighthouse Lane – 10' Wide Septic Force Main Easement for the benefit of 10 Harbor Way – Recorded BK 30640, Pg 190.

Bracken Engineering, Inc. is requesting that the Bourne Board of Health deviate from the goal of full compliance by allowing the *Local Variances* requested above. The above *Local Variances* requests are being made because of the relatively small lot and its proximity to adjacent resource areas.

Thank you for your time and consideration on this matter. We look forward to reviewing this project with the Board of Health at the August 23rd Public Hearing. Should you have any questions regarding this project or require any further information please contact the undersigned at either 508-833-0070 or zac@brackeneng.com
Sincerely,

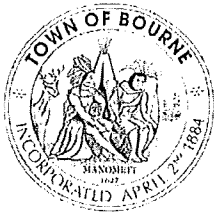
BRACKEN ENGINEERING, INC.

A handwritten signature in black ink, appearing to read 'Zachary L. Basinski', written over a horizontal line.

Zachary L. Basinski, P.E., CFM
Senior Project Manager

A handwritten signature in black ink, appearing to read 'Jason P. Heyer', written over a horizontal line.

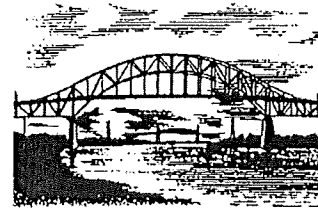
Jason P. Heyer, CFM
Project Designer



Terri A. Guarino
Health Agent

TOWN OF BOURNE BOARD OF HEALTH

24 Perry Avenue
Buzzards Bay, MA 02532
www.townofbourne.com/health
Phone (508) 759-0600 ext. 1513
Fax (508) 759-0679



May 18, 2017

Elizabeth Warden
34 Marisol
Newport Coast, CA 92657

Dear Ms. Warden:

At the duly posted public hearing on May 17, 2017, the Bourne Board of Health discussed and unanimously voted to approve a modified site layout, final floor plans, and a revised drinking water well location for your property at 10 Harbor Way, Bourne, MA (map 45.0, parcel 19). As you are aware, the Board previously approved a Nitrogen Loading Facility Aggregation Plan and a 45 foot variance from the Board of Health 150 Foot Setback Regulation for the proposed septic system on April 13, 2016.

According to the November 30, 2015 Proposed Site Plan, revised on April 25, 2017, the Board granted a 17.5 foot variance from the well to the property line, and also a 8 foot variance from a private way/ common drive. The modified floor plans received by the Board of Health on May 3, 2017 indicate that the proposed dwelling will remain a two-floor, three-bedroom, single-family home. Pursuant to the Board of Health's decision in on April 13, 2016, the maximum allowable daily design flow for the lot shall be restricted to 330 gallons per day with the use of a nitrogen reducing innovative/ alternative treatment system.

This office is in receipt of the MassDEP well completion report, pumping test report, and water quality results from the Barnstable County Health Laboratory for this installed well. Enclosed is a copy of the Water Supply Certificate issued for this address. It is understood that an Aqua-Pure Reverse Osmosis Drinking Water System will be installed to rectify the elevated sodium concentration in the water supply.

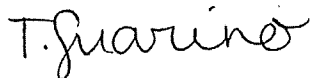
Please be advised that these approvals are valid for two years and any modification to the approved Plans will require another hearing before the Board of Health. The following documents and their exhibits have been previously endorsed and the issuance of a disposal works construction permit shall be contingent upon their recordation at the Barnstable County Registry of Deeds and copies submitted to this office:

- 10 Harbor Way- Notice of Alternative Sewage Disposal System and Grant of Title 5 Nitrogen Loading Restriction and Easement on Facility Land;
- 0 Lighthouse Lane- Grant of Title 5 Nitrogen Loading Restriction and Easement on Nitrogen Credit Land and a Septic Easement for the benefit of 10 Harbor Way; and
- 1 Lighthouse Lane- 10' Wide Septic Force Main Easement for the benefit of 10 Harbor Way

Additionally, it is understood that the owner/ operator has read and agrees to the Bourne Board of Health Alternative Testing and Fine Regulations as a condition of this approval and will maintain a valid Operation

and Maintenance Agreement with a licensed wastewater operator in perpetuity. A copy of this Operation and Maintenance Agreement must be submitted to this office prior to issuance of a Certificate of Compliance for the sewage disposal system. Should you have any questions, please do not hesitate to contact the Board of Health office at 508-759-0600 ext. 1513. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "T. Guarino".

Terri Guarino, RS
Health Agent

C.C. Zachary L. Baskinski, P.E.

Enclosed: Water Supply Certificate, Bourne Board of Health I/A Septic Alternative Testing Regulation



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Terri A. Guarino
Health Agent

April 27, 2016

Elizabeth Warden
34 Marisol
Newport Coast, CA 92657

Dear Ms. Warden:

At the duly posted public hearing on April 13, 2016, the Bourne Board of Health discussed and voted to approve a Nitrogen Loading Facility Aggregation Plan and a 45 foot variance from the Board of Health 150 Foot Setback Regulation for the benefit of your property at 10 Harbor Way, Bourne, MA (map 45.0, parcel 19). The Board determined that the Nitrogen Loading Facility Aggregation Plan received February 25, 2016, prepared by Bracken Engineering, Inc. meets the requirements of the State Environmental Code, Title 5, 310 CMR 15.216. The maximum allowable daily design flow for the lot shall be restricted to 330 gallons per day with the use of a nitrogen reducing innovative/ alternative treatment system as indicated in the November 30, 2015 Proposed Site Plan, revised February 23, 2016.

Please be advised that these approvals are valid for two years and any modification to the approved Plans will require another hearing before the Board of Health. The following documents and their exhibits have been endorsed and the issuance of a disposal works construction permit shall be contingent upon their recordation at the Barnstable County Registry of Deeds:

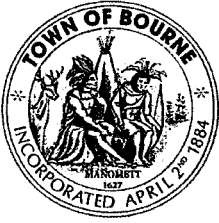
- 10 Harbor Way- Notice of Alternative Sewage Disposal System and Grant of Title 5 Nitrogen Loading Restriction and Easement on Facility Land
- 0 Lighthouse Lane- Grant of Title 5 Nitrogen Loading Restriction and Easement on Nitrogen Credit Land and a Septic Easement for the benefit of 10 Harbor Way
- 1 Lighthouse Lane- 10' Wide Septic Force Main Easement for the benefit of 10 Harbor Way

Additionally, it is understood that the owner/ operator has read and agrees to the Bourne Board of Health Alternative Testing and Fine Regulations as a condition of this approval and will maintain a valid Operation and Maintenance Agreement with a licensed wastewater operator in perpetuity. Should you have any questions, please do not hesitate to contact the Board of Health office at 508-759-0600 ext. 1513. Thank you.

Sincerely,

Terri Guarino, RS
Health Agent

C.C. Zachary L. Baskinski, P.E.



Bourne Board of Health Application for Septic Variance or Waiver Requests



In accordance with the established procedures of the Bourne Board of Health, this application is for septic variances and waivers which have not been approved administratively and require approval at a public meeting. Please use the following application form for guidance on how to apply for variances and waivers which serve new construction, changes in use, increases in flow, or repairs and upgrades to on-site sewage disposal systems with design flows of less than 10,000 gallons/ day.

1. Facility Name and Address:

Owner's Name

Stanley Davitoria & Ludo Gardini

Facility's Street Address

10 Harbor Way (Map 45, Parcel 19) & 0 Lighthouse Lane (Map 45, Parcel 14)

Owner's Telephone Number

617-839-2542

Owner's E-mail Address

davitoria@comcast.net

Owner's Mailing Address

195 Mountain Avenue, Malden, MA 02148 & 296 Newton Street, 2nd Floor, Waltham

2. Applicant or Preparer's Name and Address (if different from above):

Preparer's Name

Zachary L. Basinski, PE, CFM

Company

Bracken Engineering, Inc.

Telephone Number

508-833-0070 Ext 303

E-mail Address

zac@brackeneng.com

Mailing Address

49 Herring Pond Road, Buzzards Bay, MA 02532

3. Type of Facility (check all that apply):

Residential Commercial Institutional School Industrial Mixed Use

4. Describe Facility (i.e. single-family dwelling, 45 seat restaurant): _____

Single-family dwelling, 3 bedrooms

5. Type of System Proposed (check all that apply): Conventional Title 5 I/A System

Pumped System Gravity System Pressure Dosed Tight Tank Other

6. Describe the existing and proposed septic system components: PROPOSED:
1,500 gallon MicroFast 0.5 septic tank, 1,000 gallon pump chamber, blower unit and d-box
SAS of one (1) 2'W x 75'L x 2'D Leaching trench

7. Design Flow per 310 CMR 15.203 (in gallons/ day):

110 GPD	EXISTING	PROPOSED
Design flow of system:	0	330
Total design flow of facility: <i>(if more than one system on subject property)</i>	0	330


8. Enclose a **letter of request for variances/waivers** which makes reference to the specific provisions of Title 5 and/ or the Board Bourne of Health Regulations for which a variance is sought. Please use this opportunity to demonstrate compliance with 310 CMR 15.410, and to justify the relevant facts and circumstances of the individual case. Note that with regard to variances for new construction, enforcement of the provision from which a variance is sought must be shown to deprive the applicant of substantially all beneficial use of the subject property in order to be manifestly unjust. Be sure to explain why full compliance with the applicable regulations is not feasible, and how a level of environmental protection that is at least equivalent to that provided under Title 5 and the Board of Health Regulations can be achieved without strict application of said regulations.

9. In order for this Application to be deemed complete, it must be accompanied by the following:

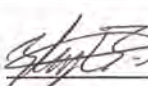
- \$125 filing fee + any other applicable permit application fees paid to the Town of Bourne.
- Application for a Disposal System Construction Permit (may be filled out by installer).
- Six copies of Letter of Request describing nature of variances.
- Six sets of complete engineered plans and specifications, one with original stamp of design engineer; plus, one electronic copy. All variances/ waivers must also be listed on the plans per 310 CMR 15.220(4).
- Six sets of floor plans, existing and proposed.
- Six copies of [Nitrogen Loading Calculation Worksheet](#) *required for all applications.
- If abutter notification is required, one of each of the following must be submitted:
 - A copy of the certified list of abutters from the Assessor's Department.
 - Sample letter for abutter notification postmarked 10 days prior to meeting date.
 - Proof of certified mailing (receipts) meeting requirements of 310 CMR 15.405(2).
- Proposals for installation of Innovative/Alternative septic systems must be accompanied by:
 - A copy of the Certification for Use including technology specific conditions.
 - Draft [disclosure notice for the I/A technology](#) to be recorded in the deed.
- Hydrogeologic data may be required for new leaching facilities proposed within 100ft of a wetland/watercourse.
- Percentage of Increase Worksheet may be required for waivers or increases in flow.

10. Certification:

"I certify under penalty of law that this document and all attachments, to the best of my knowledge and belief, are true, accurate, and complete. I am aware that there may be significant consequences for submitting false information, including, but not limited to, penalties or fine and/or imprisonment for deliberate violations."

Facility Owner's Signature  BRACKEN ENGINEERING, INC Date 8/15/23

Print Name Zachary L. Basinski, PE, CFM | Bracken Engineering, Inc. - as AGENT

Signature of Preparer  BRACKEN ENGINEERING, INC Date 8/15/23

Print Name Zachary L. Basinski, PE, CFM | Bracken Engineering, Inc.

Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf



Project Nitrogen Load	Wastewater	New Construction of Undeveloped Parcels	
1.	Project Title-5 wastewater flows: <input style="width:50px;" type="text" value="0.0"/> gpd	<input style="width:50px;" type="text" value="0.0"/> gpd	(a)
	Actual wastewater flows: <input style="width:50px;" type="text" value="0.0"/> * 175 gpd per dwelling unit		(b)
	Average wastewater flows: <input style="width:50px;" type="text" value="0.0"/> gpd	(a)+(b) +2=	(A)
* Title-5 flows prescribed by TB91-001 for commercial uses			
Place <input checked="" type="checkbox"/> in applicable box:			
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will the project be connected to sewer ?	
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is project Title-5 wastewater flow 10,000 gpd or greater ?	
Place <input checked="" type="checkbox"/> in applicable box and multiply unsewered wastewater flow by applicable conversion factor:			
	<input type="checkbox"/> Standard Title-5 System (35-ppm-N)	x 0.048359	} Type of system: <input style="width:50px;" type="text" value="MicroFast"/>
	<input type="checkbox"/> DEP-approved I/A System (25-ppm-N)	x 0.034542	
	<input type="checkbox"/> DEP-approved I/A System (19-ppm-N)	x 0.026252	
	<input checked="" type="checkbox"/> DEP-approved Enhanced I/A (12-ppm-N)	x 0.016580	
	Wastewater nitrogen load (Title-5 flows) =	<input style="width:50px;" type="text" value="0.00"/> kg-N/yr	(B)
	Wastewater nitrogen load (Actual flows) =	<input style="width:50px;" type="text" value="0.00"/> kg-N/yr	(C)
Stormwater Runoff			
	Town of Bourne	Recharge rate for Bourne (inches; for natural areas from Technical Bulletin 91-001):	<input style="width:50px;" type="text" value="21"/> (RECH)
	Project site area:	<input style="width:50px;" type="text" value="0.180"/> acres	(D)
	Project site wetland area:	<input style="width:50px;" type="text" value="0.000"/> acres	(E)
	Project site upland area:	<input style="width:50px;" type="text" value="0.180"/> acres	(F)
	Pervious unpaved upland:	<input style="width:50px;" type="text" value="0.144"/> acres	(G)
	<input style="width:50px;" type="text" value="0"/> % using LID	Paved area: <input style="width:50px;" type="text" value="353"/> s.f.	(H)
	Factor may be adjusted for employment of LID → LID = low impact development	x 1.4158E-04 = <input style="width:50px;" type="text" value="0.04997915"/> kg-N/yr	(I)
	Roof area:	<input style="width:50px;" type="text" value="1,200"/> s.f.	(J)
		x 7.0792E-05 = <input style="width:50px;" type="text" value="0.0850"/> kg-N/yr	(K)
Fertilizer			
	Previous unpaved upland - roof area =	Managed turf/ lawn area <input style="width:50px;" type="text" value="5,528"/> s.f.	
		x 3.4019E-04	

Facility Address: #10 Harbor Way
 Preparer's Name: Bracken Engineering, Inc.
 Date: 08/14/2023
 Watershed: Pocasset Harbor

= kg-N/yr (L)

Total Nitrogen Load

Total project nitrogen load (Title-5 flows): kg-N/yr (M)= (B)+(I)+(K)+(L)

Total project nitrogen load (Actual flows): kg-N/yr (N)= (C)+(I)+(K)+(L)

Nitrogen load per acre (Average): kg-N/yr/acre (O)= (M)+(N) ÷2 ÷(F)

Nitrogen Loading Concentration

Project nitrogen loading concentration (Title-5 flows): ppm-N (P)= $(a) \div 723.76 + (G) \times (\text{RECH}) \div 9.7286 + (H) \div 10,594 + (K) \div 0.75$

Project nitrogen loading concentration (Actual flows): ppm-N (Q)= $(b) \div 723.76 + (G) \times (\text{RECH}) \div 9.7286 + (H) \div 10,594 + (K) \div 0.75$

Project nitrogen loading concentration (Average): ppm-N (R)= (P)+(Q) ÷2

next page -->

Resource/ Impact Based Criteria

Marine Water Recharge Areas / Coastal Embayments

2. Yes No Is the project located in any of the following watersheds: **Buttermilk Bay Basins, Phinneys Harbor / Back River / Eel Pond, Pocasset River Basin, Pocasset Harbor / Hen Cove / Red Brook Harbor, Megansett / Squeteague Harbors** ?**
(If 'No', then go to line 3.)

Name of Watershed

(from Regional Policy Plan Data Viewer):

Pocasset Harbor

Critical Nitrogen-loading limit** : kg-N/year/acre (S)

Yes No Does project's nitrogen load (O) exceed the critical nitrogen load (S) ?
(If 'No', then go to line 3.)

Excess project nitrogen load to be mitigated: kg-N/yr (T)= LESSER OF (O)-(S) x(F) AND (O)-(O') x(F)

** When a nitrogen-loading limit has been determined through either a Total Maximum Daily Load (TMDL), a Massachusetts Estuaries Project-accepted technical report, or specified by a Commission-approved comprehensive wastewater management plan pursuant to Objective WR3, or if impaired water quality has been documented for the receiving coastal waters, the nitrogen loading limit shall be 0 kg-N/yr per acre pursuant to Objective WR3.

Groundwater Quality

3. Yes No Does the project's nitrogen loading concentration in groundwater (R) exceed the greater of 5 ppm ?
(If 'Yes', the project will need to provide an alternative strategy for meeting these thresholds by using another worksheet)

Potential Public Water Supply Areas

4. Yes No Is project in a Potential Public Water Supply Area (PPWSA) ?

(If 'No', then go to line 5.)

Does the project's nitrogen loading concentration (**R**) exceed the greater of **1 ppm** ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Does the project use, treat, generate, store or dispose of hazardous materials in excess of the greater of a) household quantities or b) existing quantities ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Wellhead Protection Areas

5.

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

 Is project in a Wellhead Protection Area (WHPA): Zone I, Zone II, or IWPA ?

Does the project's nitrogen loading concentration (**R**) exceed the greater of **5 ppm** ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Does the project use, treat, generate, store or dispose of hazardous materials in excess of the greater of a) household quantities or b) existing quantities ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Fresh Water Recharge Areas

6.

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

 Is project wastewater disposed of within 300 feet of a stream or fresh surface water body?
(If 'No', then go to line 7.)

Is the project located in a freshwater recharge area (FWRA) hydraulically upgradient of a stream or fresh surface water body?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR2)

Other Potential Impacts

7.

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

 Will the project withdraw more than 20,000 gallons of water per day ?
(If 'Yes', then the project must provide documentation demonstrating that there will not be significant impacts to water levels, surface waters and wetlands)

8. **The project must demonstrate compliance with Objective WR4, including use of Low Impact Development to mitigate impacts of stormwater runoff and O & M plans for maintaining stormwater infrastructure and landscaping.**

Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf



Project Nitrogen Load	Wastewater	New Construction of Undeveloped Parcels																			
1.	Project Title-5 wastewater flows: <input style="width:50px;" type="text" value="330.0"/> gpd	<input style="width:50px;" type="text" value="330.0"/> gpd	(a)																		
	Actual wastewater flows: <input style="width:50px;" type="text" value="175.0"/> * 175 gpd per dwelling unit	<input style="width:50px;" type="text" value="175.0"/> * 175 gpd per dwelling unit	(b)																		
	Average wastewater flows: <input style="width:50px;" type="text" value="252.5"/> gpd	<input style="width:50px;" type="text" value="252.5"/> gpd	(a)+(b) ÷2= (A)																		
Place <input checked="" type="checkbox"/> in applicable box:		* Title-5 flows prescribed by TB91-001 for commercial uses																			
	<table style="font-size: small;"> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> <td></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Will the project be connected to sewer ?</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Is project Title-5 wastewater flow 10,000 gpd or greater ?</td> </tr> </table>	Yes	No		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will the project be connected to sewer ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is project Title-5 wastewater flow 10,000 gpd or greater ?											
Yes	No																				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will the project be connected to sewer ?																			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is project Title-5 wastewater flow 10,000 gpd or greater ?																			
Place <input checked="" type="checkbox"/> in applicable box and multiply unsewered wastewater flow by applicable conversion factor:																					
	<table style="font-size: small;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Standard Title-5 System (35-ppm-N)</td> <td style="text-align: center;">x</td> <td style="text-align: center;">0.048359</td> <td rowspan="4" style="font-size: 2em; vertical-align: middle;">}</td> <td rowspan="4" style="background-color: yellow;">Type of system: <input type="text" value="MicroFast"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>DEP-approved I/A System (25-ppm-N)</td> <td style="text-align: center;">x</td> <td style="text-align: center;">0.034542</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>DEP-approved I/A System (19-ppm-N)</td> <td style="text-align: center;">x</td> <td style="text-align: center;">0.026252</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>DEP-approved Enhanced I/A (12-ppm-N)</td> <td style="text-align: center;">x</td> <td style="text-align: center;">0.016580</td> </tr> </table>	<input type="checkbox"/>	Standard Title-5 System (35-ppm-N)	x	0.048359	}	Type of system: <input type="text" value="MicroFast"/>	<input type="checkbox"/>	DEP-approved I/A System (25-ppm-N)	x	0.034542	<input type="checkbox"/>	DEP-approved I/A System (19-ppm-N)	x	0.026252	<input checked="" type="checkbox"/>	DEP-approved Enhanced I/A (12-ppm-N)	x	0.016580		
<input type="checkbox"/>	Standard Title-5 System (35-ppm-N)	x	0.048359	}	Type of system: <input type="text" value="MicroFast"/>																
<input type="checkbox"/>	DEP-approved I/A System (25-ppm-N)	x	0.034542																		
<input type="checkbox"/>	DEP-approved I/A System (19-ppm-N)	x	0.026252																		
<input checked="" type="checkbox"/>	DEP-approved Enhanced I/A (12-ppm-N)	x	0.016580																		
	Wastewater nitrogen load (Title-5 flows) = <input style="width:50px;" type="text" value="5.47"/> kg-N/yr	<input style="width:50px;" type="text" value="5.47"/> kg-N/yr	(B)																		
	Wastewater nitrogen load (Actual flows) = <input style="width:50px;" type="text" value="2.90"/> kg-N/yr	<input style="width:50px;" type="text" value="2.90"/> kg-N/yr	(C)																		
Stormwater Runoff																					
	Town of Bourne	Recharge rate for Bourne (inches; for natural areas from Technical Bulletin 91-001): <input style="width:50px;" type="text" value="21"/>	(RECH)																		
	Project site area: <input style="width:50px;" type="text" value="1.431"/> acres	<input style="width:50px;" type="text" value="1.431"/> acres	(D)																		
	Project site wetland area: <input style="width:50px;" type="text" value="0.000"/> acres	<input style="width:50px;" type="text" value="0.000"/> acres	(E)																		
	Project site upland area: <input style="width:50px;" type="text" value="1.431"/> acres	<input style="width:50px;" type="text" value="1.431"/> acres	(F)																		
	Pervious unpaved upland: <input style="width:50px;" type="text" value="1.431"/> acres	<input style="width:50px;" type="text" value="1.431"/> acres	(G)																		
	<input style="width:50px;" type="text" value="0"/> % using LID	Paved area: <input style="width:50px;" type="text" value="0"/> s.f.	(H)																		
	Factor may be adjusted for employment of LID → LID = low impact development	x 1.4158E-04 = <input style="width:50px;" type="text" value="0"/> kg-N/yr	(I)																		
	Roof area: <input style="width:50px;" type="text" value="0"/> s.f.	<input style="width:50px;" type="text" value="0"/> s.f.	(J)																		
	x 7.0792E-05 = <input style="width:50px;" type="text" value="0.0000"/> kg-N/yr	<input style="width:50px;" type="text" value="0.0000"/> kg-N/yr	(K)																		
Fertilizer																					
	Previous unpaved upland - roof area = <input style="width:50px;" type="text" value="2,085"/> s.f.	<input style="width:50px;" type="text" value="2,085"/> s.f.																			
	x 3.4019E-04 = <input style="width:50px;" type="text" value="0.709"/> kg-N/yr	<input style="width:50px;" type="text" value="0.709"/> kg-N/yr	(L)																		

Facility Address: #0 Lighthouse Lane
 Preparer's Name: Bracken Engineering, Inc.
 Date: 08/14/2023
 Watershed: Pocasset Harbor

Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf



Total Nitrogen Load

Total project nitrogen load (Title-5 flows): kg-N/yr (M) = (B)+(I)+(K)+(L)

Total project nitrogen load (Actual flows): kg-N/yr (N) = (C)+(I)+(K)+(L)

Nitrogen load per acre (Average): kg-N/yr/acre (O) = (M)+(N) ÷ 2 ÷ (F)

Nitrogen Loading Concentration

Project nitrogen loading concentration (Title-5 flows): ppm-N (P) = $\frac{(M)}{(a) \div 723.76 + (G) \times (RECH) \div 9.7286 + (H) \div 10,594 + (K) \div 0.75}$

Project nitrogen loading concentration (Actual flows): ppm-N (Q) = $\frac{(N)}{(b) \div 723.76 + (G) \times (RECH) \div 9.7286 + (H) \div 10,594 + (K) \div 0.75}$

Project nitrogen loading concentration (Average): ppm-N (R) = (P)+(Q) ÷ 2

next page -->

Resource/ Impact Based Criteria

Marine Water Recharge Areas / Coastal Embayments

2. Yes No
 Is the project located in any of the following watersheds: **Buttermilk Bay Basins, Phinneys Harbor / Back River / Eel Pond, Pocasset River Basin, Pocasset Harbor / Hen Cove / Red Brook Harbor, Megansett / Squeteague Harbors**** ?
 (If 'No', then go to line 3.)

Name of Watershed

(from Regional Policy Plan Data Viewer):

Pocasset Harbor

Critical Nitrogen-loading limit** : kg-N/year/acre (S)

- Yes No
 Does project's nitrogen load (O) exceed the critical nitrogen load (S) ?
 (If 'No', then go to line 3.)

Excess project nitrogen load to be mitigated: kg-N/yr (T) = LESSER OF (O)-(S) x(F) AND (O)-(O') x(F)

** When a nitrogen-loading limit has been determined through either a Total Maximum Daily Load (TMDL), a Massachusetts Estuaries Project-accepted technical report, or specified by a Commission-approved comprehensive wastewater management plan pursuant to Objective WR3, or if impaired water quality has been documented for the receiving coastal waters, the nitrogen loading limit shall be 0 kg-N/yr per acre pursuant to Objective WR3.

Groundwater Quality

3. Yes No
 Does the project's nitrogen loading concentration in groundwater (R) exceed the greater of 5 ppm ?
 (If 'Yes', the project will need to provide an alternative strategy for meeting these thresholds by using another worksheet)

Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf



Potential Public Water Supply Areas

4. **Yes** **No**
 Is project in a Potential Public Water Supply Area (PPWSA) ?
(If 'No', then go to line 5.)
- Does the project's nitrogen loading concentration (R) exceed the greater of 1 ppm ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)
- Does the project use, treat, generate, store or dispose of hazardous materials in excess of the greater of a) household quantities or b) existing quantities ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Wellhead Protection Areas

5. **Yes** **No**
 Is project in a Wellhead Protection Area (WHPA): Zone I, Zone II, or IWPA ?
- Does the project's nitrogen loading concentration (R) exceed the greater of 5 ppm ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)
- Does the project use, treat, generate, store or dispose of hazardous materials in excess of the greater of a) household quantities or b) existing quantities ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Fresh Water Recharge Areas

6. **Yes** **No**
 Is project wastewater disposed of within 300 feet of a stream or fresh surface water body?
(If 'No', then go to line 7.)
- Is the project located in a freshwater recharge area (FWRA) hydraulically upgradient of a stream or fresh surface water body?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR2)

Other Potential Impacts

7. **Yes** **No**
 Will the project withdraw more than 20,000 gallons of water per day ?
(If 'Yes', then the project must provide documentation demonstrating that there will not be significant impacts to water levels, surface waters and wetlands)
8. **The project must demonstrate compliance with Objective WR4, including use of Low Impact Development to mitigate impacts of stormwater runoff and O & M plans for maintaining stormwater infrastructure and landscaping.**

QUITCLAIM DEED

Elizabeth Gillis Warden, being married to William P. Warden, non-titled spouse, both of 34 Marisol, Newport Coast, CA 92657

For consideration paid of Six Hundred Thirty-Five Thousand and 00/100 (\$635,000.00) Dollars

Hereby grants to Stanley Davitoria, of 195 Mountain Avenue, Malden, MA 02148, and Ludo Gardini, of 296 Newton Street 2nd Floor, Waltham, MA, as tenants in common,

With Quitclaim Covenants

The land situated in Bourne (Pocasset), Barnstable County, Massachusetts, being Lot 13 as shown on a plan of land entitled, "Subdivision Plan of Land in Bourne (Pocasset), Mass. Subdivision of Lot A as shown on a plan by me dated June 2, 1949, and filed in the Barnstable Registry of Deeds, Plan Book 88, Page 3, Scale 1 in = 40 ft., March 14, 1950, Rutherford J. Kelley, Reg. Land Sur. 223 Wren St. W. Roxbury, Mass." Said plan being recorded with the Barnstable County Registry of Deeds in Plan Book 115 Page 95, to which plan reference is made for a more detailed description.

Said Lot 13 contains 8,646 square feet according to said plan.

The above premises are conveyed subject to and with the benefit of all rights, rights of way, easements, restrictions and reservations of record, if any, insofar as the same are in force and applicable.

The undersigned hereby releases any homestead rights in the subject property, and states, under the pains and penalties of perjury, that there are no persons entitled to any homestead rights in the subject premises as set forth in M.G.L. Chapter 188.

For title reference, see Deed recorded with the Barnstable County Registry of Deeds in Book 20251 Page 125.

Property Address: 10 Harbor Way, Bourne (Pocasset), MA 02559

Executed as a sealed instrument this 9th day of December, 2021.

Elizabeth Gillis Warden
Elizabeth Gillis Warden

William P. Warden
William P. Warden, non-titled spouse

STATE OF CALIFORNIA

Orange County, ss.

On this 9th of December, 2021, before me, the undersigned notary public, Elizabeth Gillis Warden, personally appeared, proved to me through satisfactory evidence of identification, which was California Driver License, to be the person whose name is signed above, and acknowledged to me that she signed it voluntarily and for its stated purpose and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of her knowledge and belief.



Sarah Elzahr
Notary Public: Sarah Elzahr
My Commission Expires: 3/11/2022

GRANT OF EASEMENT

Easement, made this 13th day of July, 2017, by and between **CHRISTINA STEVENS, TRUSTEE OF THE LIGHTHOUSE REALTY TRUST**, under Declaration of Trust dated September 9, 2003, recorded with Barnstable County Registry of Deeds in Book 17933, Page 314, having a mailing address of 22 Red Gate Lane in Southboro Massachusetts, 01772, (hereinafter the "Grantor"), and **ELIZABETH GILLIS WARDEN**, of 34 Marisol, Newport Coast California, 92657, (hereinafter, the "Grantee") and her heirs and assigns.

Whereas, the Grantor is the fee simple owner of a parcel of land located at 1 Lighthouse Lane, Bourne, Barnstable County, Massachusetts, and 0 Lighthouse Lane, Bourne, Barnstable County, Massachusetts, shown of the attached plan as "Proposed Easement Plan In Bourne, Massachusetts, Prepared for Elizabeth Gillis Warden & Lighthouse Realty Trust" dated February 22, 2016, Bracken Engineering, Inc., Buzzards Bay, Massachusetts," (hereinafter, "Plan") and the Grantee is the fee simple owner of an adjoining parcel of land located at 10 Harbor Way, Bourne, Barnstable County, Massachusetts, as shown upon the plan hereto annexed and marked Exhibit "A"; and

Whereas, the Grantee intends to install a septic system over and under a portion of the Grantor's property, which installation will be used in connection with a septic system servicing the Grantee's property. Which area is shown on the said plan as "Proposed 10' Wide Septic Force Main Easement for the Benefit of 10 Harbor Way", and "Proposed Septic Easement for the Benefit of 10 Harbor Way;"

Witnesseth, that, in consideration of the sum of \$1.00 paid by the Grantee to the Grantor, the receipt whereof is hereby acknowledged, the Grantor hereby grants to the Grantee, their heirs and assigns forever, an easement over that portion of the Grantor's, land shown and designated above, together with the right to use said area for the passage of sewage water and waste from the land of the Grantee and for that purpose the right to construct and install said system and to make and at all times repair and maintain all such connections with the said sewer or drains as may be reasonable and proper, making good, nevertheless, at their own expense, all damage or disturbance which may be caused to the said land of the Grantor in relation to such connections, repairs or maintenance.

For Grantor's title see Massachusetts Quitclaim Deed to Christina Stevens, Trustee of the Lighthouse Realty Trust, dated May 9, 2008, recorded with the Barnstable County Registry of Deeds in Book 22904, Page 99. For Grantee's title see Massachusetts Quitclaim Deed to Elizabeth Gillis Warden, dated September 1, 2005 recorded

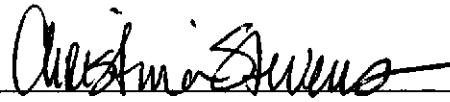
~~dated~~ September 13, 2005, recorded with the Barnstable County Registry of Deeds in Book 20251, Page 125.

PROPERTY LOCATIONS: 1 LIGHHOUSE LANE, BOURNE, MASSACHUSETTS, 02559,

0 LIGHHOUSE LANE, BOURNE, MASSACHUSETTS, 02559, and

10 HARBOR WAY, BOURNE, MASSACHUSETTS, 02559

WITNESS the execution hereof under seal this 13 day of July, 2017.

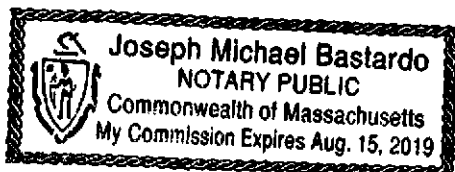

Christina Stevens

Elizabeth Gillis Warden

COMMONWEALTH OF MASSACHUSETTS

Worcester, ss.

On this 13th day of July, 2017, before me, the undersigned notary public, personally appeared **CHRISTINA STEVENS**, who proved to me through satisfactory evidence of identification, which was photographic identification with signature issued by a federal or state governmental agency, oath or affirmation of a credible witness, personal knowledge of the undersigned, to be the person whose name is signed on the preceding or attached document in my presence, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his knowledge and belief.




Notary Public: Joseph Bastardo
My Commission Expires: 8-15-19

dated September 13, 2005, recorded with the Barnstable County Registry of Deeds in Book 20251, Page 125.


PROPERTY LOCATIONS: 1 LIGHTHOUSE LANE, BOURNE, MASSACHUSETTS, 02559,

0 LIGHTHOUSE LANE, BOURNE, MASSACHUSETTS, 02559, and

10 HARBOR WAY, BOURNE, MASSACHUSETTS, 02559

WITNESS the execution hereof under seal this 4th day of April, 2017.

Christina Stevens



Elizabeth Gillis Warden

COMMONWEALTH OF MASSACHUSETTS

_____, ss.

On this _____ day of _____, 2017, before me, the undersigned notary public, personally appeared **CHRISTINA STEVENS**, who proved to me through satisfactory evidence of identification, which was photographic identification with signature issued by a federal or state governmental agency, oath or affirmation of a credible witness, personal knowledge of the undersigned, to be the person whose name is signed on the preceding or attached document in my presence, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his knowledge and belief.

Notary Public:
My Commission Expires:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF Orange

On April 4, 2017, before me, **Cindy Lou Buffa**, Notary Public, personally appeared,

Elizabeth Gillis Warden

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Cindy Lou Buffa (seal)
My Commission Expires: 04-08-2017



Notary Name: Cindy Lou Buffa

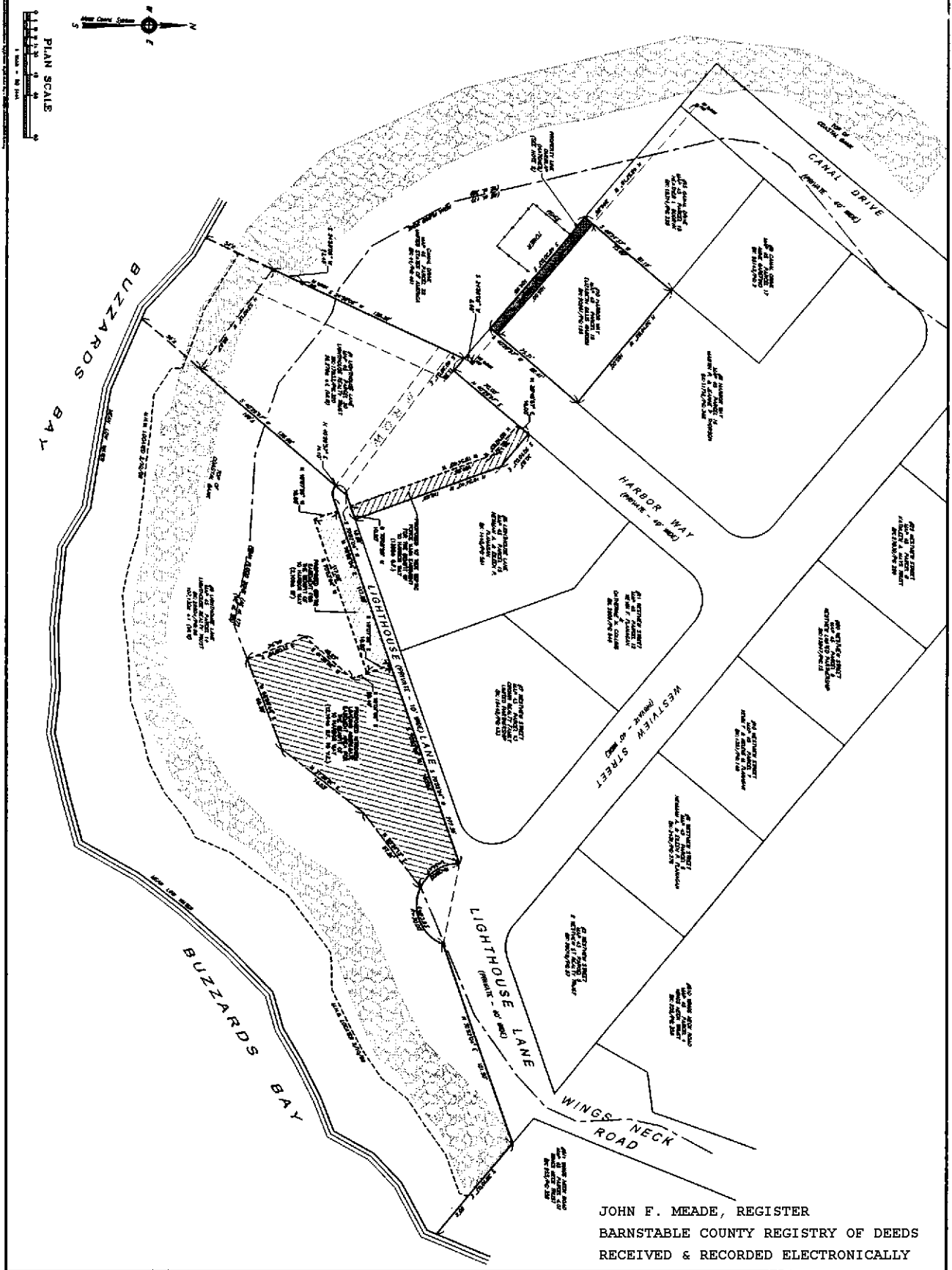
Notary Registration Number: 2018548

Notary Phone: 714-803-2590

County of Principal Place of Business: Orange County

Easement

COPYRIGHT © BY BRACEN ENGINEERING INC. ALL RIGHTS RESERVED.
THIS PLAN IS THE PROPERTY OF BRACEN ENGINEERING INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BRACEN ENGINEERING INC.



JOHN F. MEADE, REGISTER
BARNSTABLE COUNTY REGISTRY OF DEEDS
RECEIVED & RECORDED ELECTRONICALLY

Proposed by:
BRACEN
15 Old South Road
Wareham, MA 02561
Tel: 508/895-1111
Fax: 508/895-1112

Proposed for:
ELIZABETH GILLS WARDEN & LIGHTHOUSE REALTY TRUST
11 Lighthouse Lane - Apt 45 Parcel 29
10 Lighthouse Lane - Apt 46 Parcel 14
10 Lighthouse Lane - Apt 48 Parcel 14

Proposed Plan:
PROPOSED EASEMENT PLAN
IN BARNSTABLE COUNTY,
MASSACHUSETTS

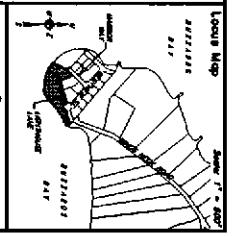
Project No.: 23-000
Date: 01/14/2023

Notes:

1. SEE PLAN FOR A DETAILED DESCRIPTION OF THE PROPERTY AND THE EASEMENT PLAN.
2. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
3. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
4. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
5. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
6. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
7. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
8. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
9. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
10. THE EASEMENT PLAN IS SUBJECT TO THE RECORDS OF THE BARNSTABLE COUNTY REGISTRY OF DEEDS.

Legend:

- Shaded Areas: EASEMENT AREAS
- Lot Numbers: LOT 1, LOT 2, LOT 3, LOT 4, LOT 5, LOT 6, LOT 7, LOT 8, LOT 9, LOT 10, LOT 11, LOT 12, LOT 13, LOT 14, LOT 15, LOT 16, LOT 17, LOT 18, LOT 19, LOT 20, LOT 21, LOT 22, LOT 23, LOT 24, LOT 25, LOT 26, LOT 27, LOT 28, LOT 29, LOT 30, LOT 31, LOT 32, LOT 33, LOT 34, LOT 35, LOT 36, LOT 37, LOT 38, LOT 39, LOT 40, LOT 41, LOT 42, LOT 43, LOT 44, LOT 45, LOT 46, LOT 47, LOT 48, LOT 49, LOT 50, LOT 51, LOT 52, LOT 53, LOT 54, LOT 55, LOT 56, LOT 57, LOT 58, LOT 59, LOT 60, LOT 61, LOT 62, LOT 63, LOT 64, LOT 65, LOT 66, LOT 67, LOT 68, LOT 69, LOT 70, LOT 71, LOT 72, LOT 73, LOT 74, LOT 75, LOT 76, LOT 77, LOT 78, LOT 79, LOT 80, LOT 81, LOT 82, LOT 83, LOT 84, LOT 85, LOT 86, LOT 87, LOT 88, LOT 89, LOT 90, LOT 91, LOT 92, LOT 93, LOT 94, LOT 95, LOT 96, LOT 97, LOT 98, LOT 99, LOT 100



ATTACHMENT 1

Upon recording, mail to:
Bourne Board of Health
Bourne Town Hall
24 Perry Avenue
Buzzards Bay, MA 02532

GRANT OF TITLE 5 NITROGEN LOADING RESTRICTION AND EASEMENT ON FACILITY LAND
(restriction of bedrooms or design flow on Grantor's facility land)
310 CMR 15.216

This GRANT OF TITLE 5 Nitrogen Loading Restriction AND EASEMENT on Facility Land made as of this 26 day of MAY, 2016 by Elizabeth Gills Warden, of 34 Marisol, Newport Coast, California ("Grantor").

Gillis
WITNESSETH

WHEREAS, Grantor being the owner in fee simple of that certain parcel of vacant land located in Bourne, Barnstable County, Massachusetts, with the buildings and improvements thereon, pursuant to a deed from Lighthouse Realty Trust to Grantor, dated September 1, 2005, and recorded with Barnstable County Registry of Deeds in Book 20251, Page 125, said parcel of land being more particularly bounded and described in Exhibit A, attached hereto and made a part hereof, and being shown on a plan entitled, "Subdivision Plan of Land in Bourne (Pocasset) Mass.", dated March 14, 1950, prepared by Ruthford J Kelly, recorded with Barnstable County Registry of Deeds on Page 95, in Plan Book 115 ("Property"); and

WHEREAS, Grantor desires to restrict the number of bedrooms as defined pursuant to 310 CMR 15.002 and/or the wastewater discharge design flow in any improvements located on the Property through the use of this Nitrogen Loading Restriction and Easement on Facility Land; and

WHEREAS, the Facility Land has the benefit of a Nitrogen Loading Restriction and Easement over approximately 0.28 acres, being more particularly bounded and described in Grant of Title 5 Nitrogen Loading Restriction and Easement on Nitrogen Credit Land, recorded with the Barnstable County Registry of Deeds at Book _____, Page _____; and

WHEREAS, the Nitrogen Loading Facility Aggregation Plan has been approved by the Bourne Board of Health in accordance with the Department's "Guidelines for Title 5 Aggregation of Plans and Nitrogen Loading;" said approval being based upon the agreement by Grantor to incur certain obligations regarding the number of bedrooms, as defined in 310 CMR 15.002, and/or the wastewater discharge design flow in any improvements located on the Property and maintenance of the Facility Land Restriction and Easement to ensure protection of the nitrogen loading limitation of 440 gpd/acre discharge standard pursuant to 310 CMR 15.214 in nitrogen-sensitive areas or in areas serving new construction where the residential use of both on-site systems and drinking water supply wells are proposed; and to grant to the municipality acting by and through the Bourne Board of Health a perpetual easement to ensure maintenance of the Property including, but not limited to, removal of any prohibited uses and in connection herewith a perpetual easement to pass and repass over the Property for purposes of inspecting the Property to ensure compliance with and fulfillment of the terms of the Facility Land Restriction/Easement as hereafter set forth;

NOW, THEREFORE, pursuant to the provisions of 310 CMR 15.216, Grantor does hereby GRANT to the Town of Bourne, a Massachusetts municipal corporation situated in Barnstable County, having an address at 24 Perry Avenue, Buzzards Bay, Massachusetts, acting by and through its Board of Health ("Local Approving Authority") for nominal, non-monetary consideration, with QUITCLAIM COVENANTS, a TITLE 5 NITROGEN LOADING RESTRICTION AND EASEMENT ON FACILITY LAND ("Facility Land Restriction/Easement") in, on, upon, through, over and under the Property, the terms and conditions of which are as follows:

PURPOSE:

The purpose of this restriction and easement is to protect and preserve the quality and quantity of ground water resources in the area of the public and private wells in the Town of Bourne, Massachusetts in order to ensure a safe and

M.R. BOOK 29680 PAGE 230

FOR CONSIDERATION OF \$1.00
O LIGHTHOUSE LANE

healthy public and private water supply for the present and future inhabitants of the area. It shall also be for the specific purpose of limiting the introduction of nitrogen and other pollutants into, and maintaining the natural uptake of pollutants and the recharge of the ground water which takes place on the Property for the said water supply.

OBLIGATIONS AND EASEMENT:

1. Prohibitions. Grantor agrees to restrict the number of bedrooms, as defined pursuant to 310 CMR 15.002, in any improvements on the Property to three (3) bedrooms.

2. Easements. In creating this Facility Land Restriction and Easement, Grantor hereby grants to the Local Approving Authority, its agents, contractors, subcontractors and employees a perpetual EASEMENT to enter upon and the right to bring equipment onto the Property to do any and all acts deemed necessary to maintain the Property in a manner which ensures protection of the nitrogen loading limitation of 440 gpd/acre discharge standard pursuant to 310 CMR 15.214 together with a right to pass and repass by foot and by vehicle over the Property for said purposes, and for purposes of inspecting the Property to ensure compliance with and fulfillment of the terms of this Facility Land Restriction/Easement.

3. Severability. If any court or other tribunal determines that any provision of this instrument is invalid or unenforceable, such provision shall be deemed to have been modified automatically to conform to the requirements for validity and enforceability as determined by such court or tribunal. In the event the provision invalidated is of such a nature that it cannot be so modified, the provision shall be deemed deleted from this instrument as though it had never been included herein. In either case, the remaining provisions of this instrument shall remain in full force and effect.

4. Enforcement. Grantor expressly acknowledges that a violation of the terms of this instrument could result in the following:

(i) upon determination by a court of competent jurisdiction, in the issuance of criminal and civil penalties, and/or equitable remedies, including, but not limited to, injunctive relief, such injunctive relief could include the issuance of an order to modify or remove any improvements constructed upon the Property in violation of the terms of this Facility Land Restriction/Easement; and

(ii) in the assessment of penalties and enforcement action by the Local Approving Authority and DEP to enforce the terms of this Facility Land Restriction/Easement, pursuant to Title 5; M.G.L. c.111, §§ 17, 31, 122, 124, 125, 125A, 127A through 127O, and 129; and M.G.L. c.83, §11.

5. Provisions to Run with the Land. This Facility Land Restriction/Easement sets forth the rights, liabilities, agreements and obligations upon and subject to which the Property or any portion thereof, shall be left unimproved or according to which said Property may be improved, held, used, occupied, leased, sold, hypothecated, encumbered, or conveyed. The rights, liabilities, agreements and obligations herein set forth shall run with the Property, as applicable thereto, and any portion thereof and shall inure to the benefit of and be binding upon Grantor and all parties claiming by, through or under the Local Approving Authority or Grantor. The rights hereby granted to the Local Approving Authority and its successors and assigns constitute their perpetual right to enforce this Facility Land Restriction/Easement. Grantor hereby covenants for himself/herself/itself and his/her/its executors, administrators, heirs, successors and assigns, to stand seized and hold title to the Property, as applicable thereto, and any portion thereof, subject to this Facility Land Restriction/Easement, provided, however, that a violation of this Facility Land Restriction/Easement shall not result in a forfeiture or reversion of Grantor's title to the Property, as applicable thereto.

6. Concurrence Presumed. It being agreed that Grantor and all parties claiming by, through or under Grantor shall be deemed to be in accord with the provisions herein set forth and to agree for and among themselves and any party claiming by, through or under them, and their respective agents, contractors, sub-contractors and employees, that the Facility Land Restriction/Easement herein established shall be adhered to and not violated and that their respective interests in the Property and the Facility Land Restriction and Easement, as applicable thereto, shall be subject to the provisions herein set forth.

7. Incorporation into Deeds, Mortgages, leases and Instruments of Transfer. Grantor hereby agrees to incorporate this Facility Land Restriction/Easement, in full or by reference, into all deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer by which an interest in and/or a right to use the Property, or any portion thereof, is conveyed.

8. Recordation. Grantor shall record and/or register this Facility Land Restriction/Easement with the appropriate Registry of Deeds and/or Land Registration Office within 30 days of the latter of: receipt from the Local Approving Authority of the approved Facility Land Restriction/Easement pursuant to 310 CMR 15.216. Grantor shall file with the Local Approving Authority a certified Registry copy of this Facility Land Restriction/Easement as recorded and/or registered within 30 days of its date of recordation and/or registration.

9. Amendment and Release. This Facility Land Restriction/Easement may be amended or released only upon approval by the Local Approving Authority. Release of this Facility Land Restriction/Easement shall be granted by the Local Approving Authority in the event the Property is connected to a municipal sewer system and the septic system serving the Property is abandoned in accordance with 310 CMR 15.354 or the Property is no longer located within a nitrogen sensitive area pursuant to 310 CMR 15.215. Any such amendment or release shall be recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office and a certified Registry copy of said amendment or release shall be filed with the Local Approving Authority within 30 days of its date of recordation and/or registration.

10. Term. This Facility Land Restriction/Easement shall run in perpetuity and is intended to conform to M.G.L. c.184, §26, as amended.

11. Rights Reserved. This Facility Land Restriction/Easement is granted to the Local Approving Authority in connection with the approval of a Nitrogen Loading Facility Aggregation Plan pursuant to 310 CMR 15.216 and the Department's "Guidelines for Title 5 Aggregation of Flows and Nitrogen Loading." It is expressly agreed that acceptance of the Facility Land Restriction/Easement by the Local Approving Authority shall not operate to bar, diminish, or in any way affect any legal or equitable right of the Local Approving Authority to issue any future order with respect to the Property or in any way affect any other claim, action, suit, cause of action, or demand which the Local Approving Authority may have with respect thereto. Nor shall acceptance of the Facility Land Restriction/Easement serve to impose any obligations, liabilities, or any other duties upon the Local Approving Authority.

12. Effective Date. This Facility Land Restriction/Easement shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

WITNESS the execution hereof under seal this 26 day of MAY, 2016


Grantor

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA }

COUNTY OF ORANGE }

On 5.25.2016 before me, MICHAEL CARON Notary
Date Insert Name and Title of the officer

Public, personally appeared ELIZABETH GILUS WARDEN

Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: [Handwritten Signature]



----- OPTIONAL -----

Though this section is optional, completing this information can deter alteration of the document or fraudulent attachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Title 5 Nitrogen Loading Restriction and Easement on Facility Land Document Date: May 25, 2016
Number of Pages: _____ Signer(s) Other Than Named Above: Terri A. Guarino, RS

Capacity(ies) Claimed by Signer(s)

Signers Name: Guarino 5/25/2016

- Corporate Officer - Title(s) _____
- Partner - Limited General
- Individual Attorney in Fact
- Trustee Guardian or Conservator
- Other: Health Agent

Signer is Representing: Town of Bourne Board of Health

Signers Name: _____

- Corporate Officer - Title(s) _____
- Partner - Limited General
- Individual Attorney in Fact
- Trustee Guardian or Conservator
- Other: _____

Signer is Representing: _____

EXHIBIT A

QUITCLAIM DEED

I, Christina Stevens, Trustee of the Lighthouse Realty Trust u/d/t dated September 9, 2003, recorded with the Barnstable County Registry of Deeds in Book 17933, Page 314, of Southboro, Massachusetts,

for consideration paid of ONE AND 00/100THS (\$1.00) DOLLARS,

grant to Elizabeth Gillis Warden, of #34 Marisol, Newport Coast, CA 92657,

with QUITCLAIM COVENANTS,

The land, situated in Bourne (Pocasset), Barnstable County, Massachusetts, being Lot 13 as shown on a plan of land entitled "Subdivision Plan of Land in Bourne (Pocasset), Mass. Subdivision of Lot A as shown on a plan by me dated June 2, 1949, and filed in the Barnstable Registry of Deeds, Plan Book 88, Page 3 Scale: 1 in = 40 ft. March 14, 1950, Ruthford J. Kelly, Reg. Land Sur. 223 Wren St. W. Roxbury, Mass." which said plan is duly recorded with the Barnstable County Registry of Deeds in Plan Book 115, Page 95, to which plan reference is made for a more detailed description.

Said lot contains 8,646 s.f. according to said plan.

Subject to and with the benefit of all rights, privileges, rights of way, easements, layouts and takings, and restrictions and reservations of record which are now in force and applicable to the premises.

Said land is also known and identified as Parcel 19.00 on Bourne Assessors' Map 045.0.

Being a portion of the premises conveyed to me by deed of Elizabeth Flanagan Gillis dated September 9, 2003, recorded with the Barnstable County Registry of Deeds in Book 17933, Page 320, to which deed reference is made for my title.

The undersigned Trustee hereby certifies in accordance with the terms of said Trust:

1. I am the sole incumbent Trustees of the Trust;
2. The Trust has not been terminated or revoked and all amendments hereto, if any, have been duly recorded with said Registry of Deeds;

Property Address:

10 Harbor Way
Pocasset, Mass.

EXHIBIT A

3. Pursuant to the Trust, when specifically authorized and directed by the beneficiaries of the Trust, the Trustee has full right, authority and power to deal with any property owned or held by the Trust with the same force and effect as though such property were individually owned;

4. The Trustee has been authorized in writing by all of the beneficiaries of the Trust to execute, seal and deliver this deed for \$1.00 consideration to the grantee for recording. The Trust's performance of the obligations hereunder does not and will not conflict with, and is not and will not be in violation of, and does not and will not constitute a default under any mortgage or other agreement or instrument of which the Trust is a party or by which it is bound, or the provisions of the Trust instrument and presently in effect or any statute, rule, or regulation, order, writing injunction, or decree of any agency or instrumentality of any government or of any court having jurisdiction over the Trust.

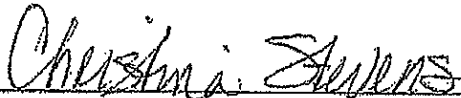
5. There is no litigation pending or threatened restricting or enjoining or in any manner questioning or affecting the validity or enforceability of any one or more of the following: (a) the authority of the Trust and the Trustee to enter into or execute the documents hereunder, or the validity of any term or provision thereof; (b) the legal existence or organization of the Trust and its qualification to do business in the Commonwealth of Massachusetts; or, (c) the title of the Trustee of the Trust to that office.

6. No beneficiary of the Trust is a minor, incompetent, a corporation selling all or substantially all of its Massachusetts assets, a personal representative of an estate subject to possible estate tax liens, or is now deceased or under any legal disability.

7. The Trustee's representations and warranties in the documents regarding this transaction are true and complete as of the date hereof.

Consideration for this deed is less than \$100.00. No deed tax stamps are required.

WITNESS my hand and seal this 1 day of Sept, 2005.



Christina Stevens, Trustee of Lighthouse
Realty Trust

EXHIBIT A

COMMONWEALTH OF MASSACHUSETTS)
) ss:
COUNTY OF Barnstable)

On this 1 day of September, 2005, before me, the undersigned notary public, personally appeared the above-named Christina Stevens, Trustee as aforesaid, proved to me through satisfactory evidence of identification, which were MA. Drivers License & Sovereign Bank Card, to be the person whose name is signed to the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose on behalf of said Trust.

Janet T. Crowell
Janet T. Crowell, Notary Public

My Commission expires:
3-10-11



BARNSTABLE REGISTRY OF DEEDS

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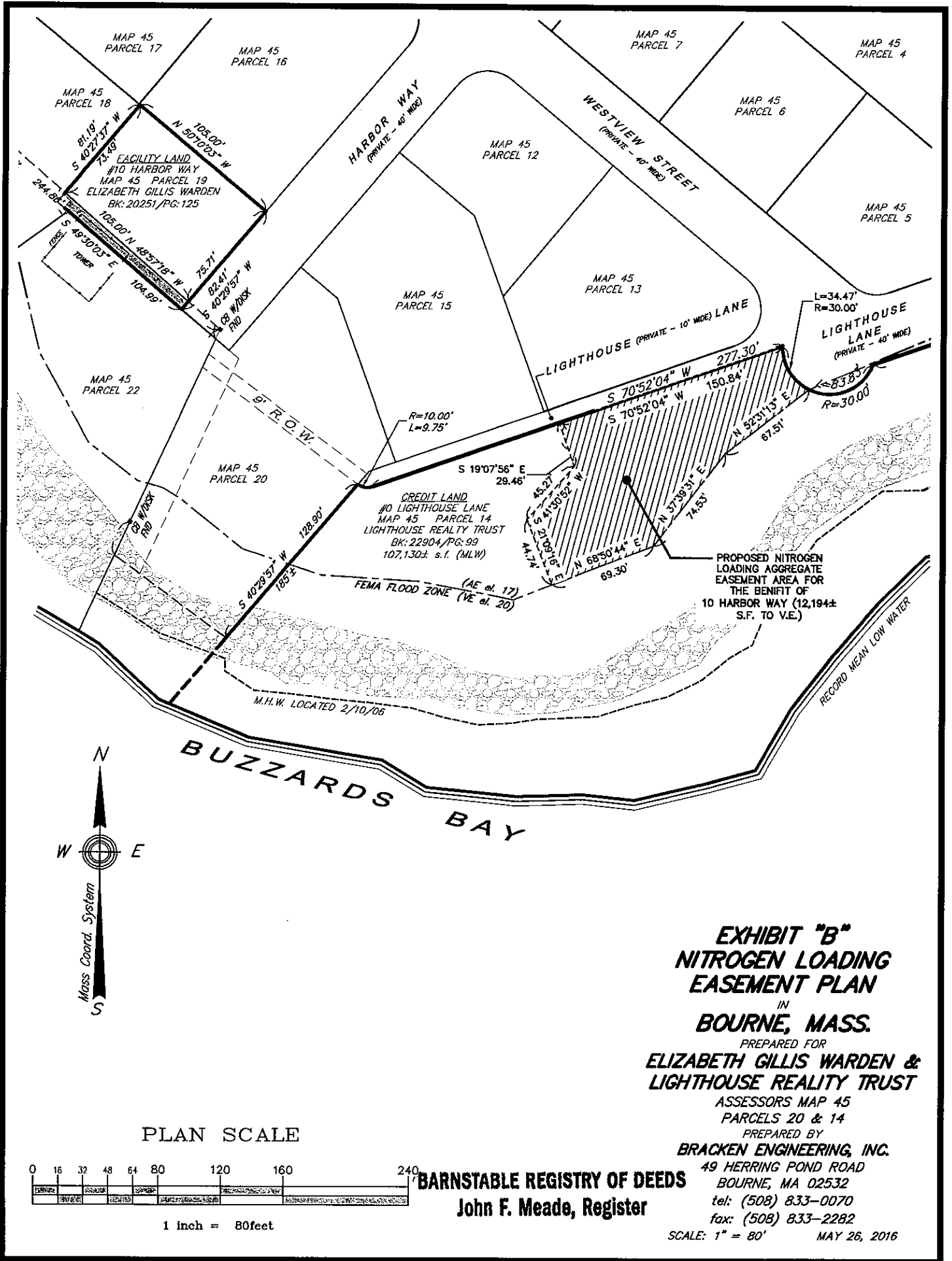


EXHIBIT "B"
NITROGEN LOADING
EASEMENT PLAN
IN
BOURNE, MASS.

PREPARED FOR
ELIZABETH GILLIS WARDEN &
LIGHTHOUSE REALTY TRUST

ASSESSORS MAP 45
PARCELS 20 & 14

PREPARED BY
BRACKEN ENGINEERING, INC.

49 HERRING POND ROAD
BOURNE, MA 02532

tel: (508) 833-0070

fax: (508) 833-2282

SCALE: 1" = 80' MAY 26, 2016

BARNSTABLE REGISTRY OF DEEDS
John F. Meade, Register

ATTACHMENT 2

Upon recording, mail to:
Bourne Board of Health
Bourne Town Hall
24 Perry Avenue
Buzzards Bay, MA 02532

GRANT OF TITLE 5 NITROGEN LOADING RESTRICTION AND EASEMENT
ON NITROGEN CREDIT LAND
(where Grantee seeks nitrogen credit land from third party Grantor)
310 CMR 15.216

This GRANT OF TITLE 5 Nitrogen Loading Restriction AND EASEMENT on Nitrogen Credit Land made as of this 24 day of May, 2016, by Lighthouse Realty Trust, of Southborough, Worcester County, Massachusetts ("Grantor").

WITNESSETH

WHEREAS, Grantor being the owner in fee simple of that certain parcel of vacant land located in Bourne, Barnstable County, Massachusetts, with the buildings and improvements thereon, pursuant to a deed from Elizabeth Flanagan Gillis to Grantor, dated May 9th, 2008, and recorded with Barnstable County Registry of Deeds in Book 22904, Page 99, said parcel of land being more particularly bounded and described in Exhibit A, attached hereto and made a part hereof, and being shown on a plan entitled, "Plan of Land in Bourne, Massachusetts owned by Lighthouse Realty Trust", dated November 11, 2004, prepared by Bracken Engineering, Inc., recorded with Barnstable County Registry of Deeds on Page 29, in Plan Book 597 ("Property"); and

WHEREAS, Elizabeth Gills Warden, of 34 Marisol, Newport Coast, California, ("Grantee of the Benefited Property") being the owner in fee simple of that certain parcel of vacant land located in Bourne, Barnstable County, Massachusetts, with the buildings and improvements thereon, pursuant to a deed from Lighthouse Realty Trust to Grantee of the Benefited Property, dated September 1, 2005, and recorded with Barnstable County Registry of Deeds in Book 20251 Page 125, said parcel of land being more particularly bounded and described in Exhibit B, attached hereto and made a part hereof, and being shown on a plan entitled, "Subdivision Plan of Land in Bourne (Pocasset) Mass.", dated March 14, 1950, prepared by Ruthford J Kelly, recorded with Barnstable County Registry of deeds on Page 95, in Plan Book 115 ("Benefited Property"); and

WHEREAS, the Benefited Property has the benefit of a Nitrogen Loading Restriction and Easement, being more particularly bounded and described in, a Grant of Title 5 Nitrogen Loading Restriction and Easement on Facility Land, recorded with the Barnstable County Registry of Deeds at Book _____, Page _____ ("Facility Land Restriction and Easement"); and

WHEREAS, the Nitrogen Loading Facility Aggregation Plan has been approved by the Bourne Board of Health in accordance with the Department's "Guidelines for Title 5 Aggregation of Plans and Nitrogen Loading;" said approval being based upon the agreement by Grantor to incur certain obligations regarding the number of bedrooms, as the term bedroom is defined at 310 CMR 15.002 ("Bedroom") and the Board of Health regulation dated effective April 24, 1992 regarding bedroom definition, and/or the wastewater discharge design flow in any improvements located on the Property and maintenance of the Facility Land Restriction and Easement to ensure protection of the nitrogen loading limitation of 440 gpd/acre discharge standard pursuant to 310 CMR 15.214 in nitrogen-sensitive areas or in areas serving new construction where the residential use of both on-site systems and drinking water supply wells are proposed; and to grant to the Grantee of the Benefited Property and to the municipality acting by and through the Bourne Board of Health a perpetual easement to ensure maintenance of the Property as nitrogen credit land including, but not limited to, removal of any prohibited uses and in connection herewith a perpetual easement to pass and repass over the Property for purposes of inspection to ensure compliance with and fulfillment of the terms of this Nitrogen Credit Land Restriction/Easement as hereafter set forth;

NOW, THEREFORE, pursuant to the provisions of 310 CMR 15.216, Grantor does hereby GRANT to the Grantee of the Benefited Property and to the Town of Bourne, a Massachusetts municipal corporation situated in Barnstable County, having an address at 24 Perry Avenue, Buzzards Bay, Massachusetts, acting by and through its Board of Health ("Local Approving Authority") for nominal, non-monetary consideration, with QUITCLAIM COVENANTS, a TITLE 5 NITROGEN LOADING RESTRICTION AND EASEMENT on NITROGEN CREDIT LAND ("Nitrogen

M.R. BOOK 29680 PAGE 232

FOR CONSIDERATION OF \$1.00 #0 LIGHTHOUSE LAKE

9

Credit Land Restriction/Easement") consisting of approximately 0.28 acres in, on, upon, through, over and under the Property, the terms and conditions of which are as follows:

PURPOSE:

The purpose of this restriction and easement is to protect and preserve the quality and quantity of ground water resources in the area of the public and private wells in the Town of Bourne, Massachusetts in order to ensure a safe and healthy public and private water supply for the present and future inhabitants of the area. It shall also be for the specific purpose of limiting the introduction of nitrogen and other pollutants into, and maintaining the natural uptake of pollutants and the recharge of the ground water which takes place on the Property for the said water supply and for the specific benefit of the above referenced Benefited Property.

OBLIGATIONS AND EASEMENT:

1. Prohibitions. Grantor agrees to maintain the Property as nitrogen credit land by prohibiting activities which have a detrimental effect on nitrogen loading on the Property, including but not limited to wastewater discharges, the use of nitrogen fertilizer, placement of any temporary/ portable structures, commercial/ recreational usage, the introduction of artificial impervious surfaces, the raising, breeding or keeping of animals, livestock or poultry for commercial purposes, and the creation or introduction of land under water. A change in the condition of the Property which results in the Property or a portion thereof being within a Velocity Zone or a Regulatory Floodway will render the Property or said portion thereof ineligible for nitrogen credit pursuant to 310 CMR 15.216.

2. Easements. In creating this Nitrogen Credit Land Restriction and Easement, Grantor hereby grants to the Grantee of the Benefited Property and to the Bourne Board of Health, its agents, contractors, subcontractors and employees a perpetual EASEMENT to enter upon and the right to bring equipment onto the Property to do any and all acts deemed necessary to maintain the Property as nitrogen credit land, together with a right to pass and repass by foot and by vehicle over Property for said purposes, and for purposes of inspecting the Property to ensure compliance with and fulfillment of the terms of this Nitrogen Credit Land Restriction/Easement.

3. Severability. If any court or other tribunal determines that any provision of this instrument is invalid or unenforceable, such provision shall be deemed to have been modified automatically to conform to the requirements for validity and enforceability as determined by such court or tribunal. In the event the provision invalidated is of such a nature that it cannot be so modified, the provision shall be deemed deleted from this instrument as though it had never been included herein. In either case, the remaining provisions of this instrument shall remain in full force and effect.

4. Enforcement. Grantor expressly acknowledges that a violation of the terms of this instrument could result in the following:

(i) upon determination by a court of competent jurisdiction, in the issuance of criminal and civil penalties, and/or equitable remedies, including, but not limited to, injunctive relief, such injunctive relief could include the issuance of an order to modify or remove any improvements constructed upon the Property in violation of the terms of this Nitrogen Credit Land Restriction/Easement; and

(ii) in the assessment of penalties and enforcement action by the Bourne Board of Health and DEP to enforce the terms of this Nitrogen Credit Land Restriction/Easement, pursuant to Title 5; M.G.L. c.111, §§ 17, 31, 122, 124, 125, 125A, 127A through 127O, and 129; and M.G.L. c.83, §11.

5. Provisions to Run with the Land. This Nitrogen Credit Land Restriction/Easement sets forth the rights, liabilities, agreements and obligations upon and subject to which the Property or any portion thereof, shall be left unimproved or according to which said Property may be improved, held, used, occupied, leased, sold, hypothecated, encumbered, or conveyed. The rights, liabilities, agreements and obligations herein set forth shall run with the Property and the Benefited Property, as applicable thereto, and any portion thereof and shall inure to the benefit of and be binding upon Grantor, Grantee of the Benefited Property, and all parties claiming by, through or under the Bourne Board of Health or Grantor. The rights hereby granted to the Grantee of the Benefited Property, the Bourne Board of Health, and their respective successors and assigns, constitute their perpetual right to enforce this Nitrogen Credit Land Restriction/Easement. Grantor hereby covenants for himself/herself/itself and his/her/its executors, administrators, heirs, successors and assigns, to stand seized and hold title to the Property, as applicable thereto, and any portion thereof, subject to this Nitrogen Credit Land

Restriction/Easement, provided, however, that a violation of this Nitrogen Credit Land Restriction/Easement shall not result in a forfeiture or reversion of Grantor's title to the Property, as applicable thereto.

6. Concurrence Presumed. It being agreed that Grantor and all parties claiming by, through or under Grantor shall be deemed to be in accord with the provisions herein set forth and to agree for and among themselves and any party claiming by, through or under them, and their respective agents, contractors, sub-contractors and employees, that the Nitrogen Credit Land Restriction/Easement herein established shall be adhered to and not violated and that their respective interests in the Property and the Nitrogen Credit Land Restriction and Easement, as applicable thereto, shall be subject to the provisions herein set forth.

7. Incorporation into Deeds, Mortgages, leases and Instruments of Transfer. Grantor hereby agrees to incorporate this Nitrogen Credit Land Restriction/Easement, in full or by reference, into all deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer by which an interest in and/or a right to use the Property, or any portion thereof, is conveyed.

8. Recordation. Grantor shall record and/or register this Nitrogen Credit Land Restriction/Easement with the appropriate Registry of Deeds and/or Land Registration Office within 30 days of the latter of: receipt from the Bourne Board of Health of the approved Restriction/Easement pursuant to 310 CMR 15.216. Grantor shall file with the Bourne Board of Health a certified Registry copy of this Nitrogen Credit Land Restriction/Easement as recorded and/or registered within 30 days of its date of recordation and/or registration.


9. Amendment and Release. This Nitrogen Credit Land Restriction/Easement may be amended or released only upon approval by the Bourne Board of Health. Release of this Nitrogen Credit Land Restriction/Easement shall be granted by the Bourne Board of Health in the event the Benefited Property is connected to a municipal sewer system and the septic system serving the Benefited Property is abandoned in accordance with 310 CMR 15.354 or the Benefited Property is no longer located within a nitrogen sensitive area pursuant to 310 CMR 15.215. Any such amendment or release shall be recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office and a certified Registry copy of said amendment or release shall be filed with the Bourne Board of Health within 30 days of its date of recordation and/or registration.

10. Term. This Nitrogen Credit Land Restriction/Easement shall run in perpetuity and is intended to conform to M.G.L. c.184, §26, as amended.

11. Rights Reserved. This Nitrogen Credit Land Restriction/Easement is granted to the Grantee of the Benefited Property and the Bourne Board of Health in connection with the approval of a Nitrogen Loading Facility Aggregation Plan pursuant to 310 CMR 15.216 and the Department's "Guidelines for Title 5 Aggregation of Flows and Nitrogen Loading." It is expressly agreed that acceptance of the Nitrogen Credit Land Restriction/Easement by the Bourne Board of Health shall not operate to bar, diminish, or in any way affect any legal or equitable right of the Bourne Board of Health to issue any future order with respect to the Property and the Benefited Property, as applicable thereto, or in any way affect any other claim, action, suit, cause of action, or demand which the Bourne Board of Health may have with respect thereto. Nor shall acceptance of Nitrogen Credit Land Restriction/Easement serve to impose any obligations, liabilities, or any other duties upon the Bourne Board of Health.

12. Effective Date. This Nitrogen Credit Land Restriction/Easement shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

WITNESS the execution hereof under seal this 24 day of May, 2016.


Grantor

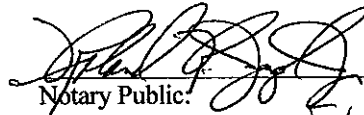
COMMONWEALTH OF MASSACHUSETTS

Hampden Cty, §§

May 24, 2016

Christina Stevens

Then personally appeared the above-named _____ and acknowledged the foregoing instrument to be _____ free act and deed before me.



Notary Public:

My commission expires: February 3, 2023

The Bourne Board of Health hereby approves and accepts this Grant of Title 5 Nitrogen Loading Restriction and Easement on Nitrogen Credit Land.

T. Guarino

Terri A. Guarino, R.S.
Health Director
Town of Bourne

Date: May 26, 2016

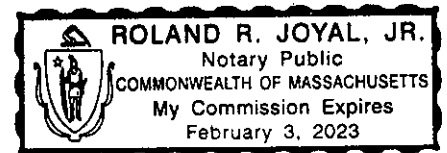


EXHIBIT A

Property Address: 0 Lighthouse Ln. Wings Neck (Bourne) MA 02532

QUITCLAIM DEED

I, Elizabeth Flanagan Gillis, of 774 Sanddollar Drive, Sanibel Island, Florida 33957

For nominal consideration paid

Grant to Christina Stevens, Trustee of the Lighthouse Realty Trust, under Declaration of Trust dated September 9, 2003, recorded with Barnstable County Registry of Deeds in Book 17933, Page 314, having a mailing address of P.O. Box 694, South Chatham, MA 02659

with QUITCLAIM COVENANTS

A parcel of land shown as Parcel 14 on a certain plan of land, entitled "Plan of Land in Bourne, Massachusetts, Owned by: Lighthouse Realty Trust, prepared by Bracken Engineering, Inc., Scale: 1"=40', Dated: November 16, 2004", said plan recorded in Plan Book 597, Page 29.

Said parcel is conveyed subject to and with the benefit of all rights, rights of way, easements, appurtenances, reservations and restrictions of record, insofar as the same are in force and applicable.

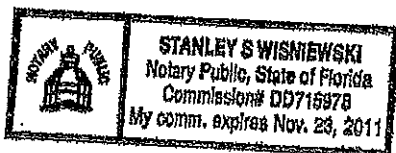
For title reference see Deed dated December 29, 2004 and recorded with the Barnstable County Registry of Deeds at Book 19522, Page 171.

Witness my hand and seal this 9 day of May, 2008.

Elizabeth Flanagan Gillis
Elizabeth Flanagan Gillis

STATE OF FLORIDA

On this 9 day of May, 2008, before me, the undersigned notary public, personally appeared Elizabeth Flanagan Gillis, proved to me through satisfactory evidence of identification, which was photographic identification with signature issued by a federal or state governmental agency, oath or affirmation of a credible witness, personal knowledge of the undersigned, to be the person whose name is signed on the preceding or attached document(s), and acknowledged to me that he/she/they signed it voluntarily for its stated purpose.



[Signature]
Notary Public:
My Commission Expires: Nov 23, 2011

EXHIBIT B

QUITCLAIM DEED

I, Christina Stevens, Trustee of the Lighthouse Realty Trust u/d/t dated September 9, 2003, recorded with the Barnstable County Registry of Deeds in Book 17933, Page 314, of Southboro, Massachusetts,

for consideration paid of ONE AND 00/100THS (\$1.00) DOLLARS,

grant to Elizabeth Gillis Warden, of #34 Marisol, Newport Coast, CA 92657,

with QUITCLAIM COVENANTS,

The land, situated in Bourne (Pocasset), Barnstable County, Massachusetts, being Lot 13 as shown on a plan of land entitled "Subdivision Plan of Land in Bourne (Pocasset), Mass. Subdivision of Lot A as shown on a plan by me dated June 2, 1949, and filed in the Barnstable Registry of Deeds, Plan Book 88, Page 3 Scale: 1 in = 40 ft. March 14, 1950, Ruthford J. Kelly, Reg. Land Sur. 223 Wren St. W. Roxbury, Mass." which said plan is duly recorded with the Barnstable County Registry of Deeds in Plan Book 115, Page 95, to which plan reference is made for a more detailed description.

Said lot contains 8,646 s.f. according to said plan.

Subject to and with the benefit of all rights, privileges, rights of way, easements, layouts and takings, and restrictions and reservations of record which are now in force and applicable to the premises.

Said land is also known and identified as Parcel 19.00 on Bourne Assessors' Map 045.0.

Being a portion of the premises conveyed to me by deed of Elizabeth Flanagan Gillis dated September 9, 2003, recorded with the Barnstable County Registry of Deeds in Book 17933, Page 320, to which deed reference is made for my title.

The undersigned Trustee hereby certifies in accordance with the terms of said Trust:

1. I am the sole incumbent Trustees of the Trust;
2. The Trust has not been terminated or revoked and all amendments hereto, if any, have been duly recorded with said Registry of Deeds;

Property Address:

10 Harbor Way
Pocasset, Mass.

EXHIBIT B

3. Pursuant to the Trust, when specifically authorized and directed by the beneficiaries of the Trust, the Trustee has full right, authority and power to deal with any property owned or held by the Trust with the same force and effect as though such property were individually owned;

4. The Trustee has been authorized in writing by all of the beneficiaries of the Trust to execute, seal and deliver this deed for \$1.00 consideration to the grantee for recording. The Trust's performance of the obligations hereunder does not and will not conflict with, and is not and will not be in violation of, and does not and will not constitute a default under any mortgage or other agreement or instrument of which the Trust is a party or by which it is bound, or the provisions of the Trust instrument and presently in effect or any statute, rule, or regulation, order, writing injunction, or decree of any agency or instrumentality of any government or of any court having jurisdiction over the Trust.

5. There is no litigation pending or threatened restricting or enjoining or in any manner questioning or affecting the validity or enforceability of any one or more of the following: (a) the authority of the Trust and the Trustee to enter into or execute the documents hereunder, or the validity of any term or provision thereof; (b) the legal existence or organization of the Trust and its qualification to do business in the Commonwealth of Massachusetts; or, (c) the title of the Trustee of the Trust to that office.

6. No beneficiary of the Trust is a minor, incompetent, a corporation selling all or substantially all of its Massachusetts assets, a personal representative of an estate subject to possible estate tax liens, or is now deceased or under any legal disability.

7. The Trustee's representations and warranties in the documents regarding this transaction are true and complete as of the date hereof.

Consideration for this deed is less than \$100.00. No deed tax stamps are required.

WITNESS my hand and seal this 1 day of Sept, 2005.

Christina Stevens
Christina Stevens, Trustee of Lighthouse
Realty Trust

EXHIBIT B

COMMONWEALTH OF MASSACHUSETTS)
) SS:
COUNTY OF Barnstable)

On this 1 day of September, 2005, before me, the undersigned notary public, personally appeared the above-named Christina Stevens, Trustee as aforesaid, proved to me through satisfactory evidence of identification, which were MA Drivers License & Sovereign Bank Card, to be the person whose name is signed to the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose on behalf of said Trust.

J. Crowell
Janet T. Crowell, Notary Public

My Commission expires:
3-10-11



BARNSTABLE REGISTRY OF DEEDS

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NOTICE OF ALTERNATIVE SEWAGE DISPOSAL SYSTEM
M.G.L. c. 21A, § 13 and 310 CMR 15.287(10)

ADDRESS OF PROPERTY SERVED BY ALTERNATIVE SYSTEM:

10 Harbor Way, Bourne, MA

TITLE REFERENCE FOR PROPERTY SERVED BY ALTERNATIVE SYSTEM

Deed recorded with the **Barnstable County** Registry of Deeds in **Book 34788, Page 41**

NAME(S) OF OWNER OF PROPERTY SERVED BY ALTERNATIVE SYSTEM:

Stanley Davitoria and Ludo Gardini

OWNER(S) MAILING ADDRESS: 195 Mountain Avenue Malden, MA 02148

WHEREAS, Section 15.280 of Title 5 of the State Environmental Code (“Approval of Alternative Systems”), provides for the Massachusetts Department of Environmental Protection (the “Department”) to approve or certify, as appropriate, all proposals to construct, upgrade or replace on-site sewage disposal systems using alternative systems;

WHEREAS, owners and/or operators of approved or certified alternative systems are subject to general conditions, as specified in Section 15.287 of Title 5 of the State Environmental Code, 310 CMR 15.287, and may be subject to special conditions, as specified in the Department’s approvals or certifications; such general and special conditions potentially including, without limitation, requirements relating to the use of trained operators, periodic inspections, maintenance, sampling, reporting and/or recordkeeping;

WHEREAS, the owners and/or operators this alternative system acknowledges and agrees to comply with the provisions of all of the **BOURNE** Board of Health Alternative Septic System Regulations and any other conditions for the existence of the system;

WHEREAS, Section 15.287(10) of Title 5 of the State Environmental Code, 310 CMR 15.287(10), requires that “prior to obtaining a Certificate of Compliance for installation of a new or upgraded system, the system owner shall record in the chain of title for the property served by the alternative system in the Registry of Deeds and/or Land Registration Office, as applicable, a Notice disclosing both the existence of the alternative on-site system and the Department’s approval of the system. The system owner shall also provide evidence of such recording to the **BOURNE** Board of Health; and

WHEREAS, the Property is served by an alternative sewage disposal system.

NOW, THEREFORE, Notice of an alternative sewage disposal system is hereby given for the above- referenced Property, as follows:

1. Existence System #1. An alternative system has been installed as a new or upgraded alternative sewage disposal system, on or adjacent to the Property, and serves the Property. The trade name and model number(s) of the alternative system are as follows:

Trade name of technology:	<i>MicroFAST®</i>
Manufacturer Name:	Bio-Microbics, Inc.
Model number(s):	MicroFAST 0.5 Unit

2. Approval/Certification. On 12/29/2010, revised 3/20/2015, the Department, pursuant to its authority under the section of Title 5 as specified below, approved or certified the technology used in the above referenced alternative system, under MassDEP Transmittal Number X232831.

- Certified for general use under 310 CMR 15.288

A copy of the Department of Environmental Protection's Approval/Certification is available online at the Department's website:

<https://www.mass.gov/guides/approved-title-5-innovativealternative-technologies>

This Notice of Alternative Sewage Disposal System must be submitted to the **BOURNE** Board of Health

WITNESS the execution hereof under seal this ____ day of _____, 2023, made by the above-named Alternative System Owner.

Stanley Davitoria

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

On this _____ day of _____, 2023, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

(official signature and seal of notary)

WITNESS the execution hereof under seal this ____ day of _____, 2023, made by the above-named Alternative System Owner.

Ludo Gardini

COMMONWEALTH OF MASSACHUSETTS

_____, SS

On this _____ day of _____, 2023, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

(official signature and seal of notary)

Approved and Accepted By:

Agent of the Board of Health
Health Department
Town of Bourne



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

CERTIFICATION FOR GENERAL USE

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Bio-Microbics, Inc.
8450 Cole Parkway
Shawnee, KS 66227

Trade name of technology and models:

FAST Treatment Systems with Nitrogen Reduction including models *MicroFAST® 0.5, 0.75, 0.9, 1.5, 3.0, 4.5, 9.0*, *HighStrengthFAST® 1.0, 1.5, 3.0, 4.5, 9.0* and *NitriFAST® 0.5, 0.75, 1.0, 1.5, 3.0, 4.5, 9.0* (all hereinafter the "System") for facilities with design flows less than 2,000 gallons per day (GPD). Schematic drawings illustrating the models and an Inspection Checklist are part of this Certification.

Transmittal Number: X232831

Date of Issuance: December 29, 2010, revised March 20, 2015

Authority for Issuance:

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection (hereinafter "the Department") hereby issues this General Use Approval to: Bio-Microbics, Inc., 8450 Cole Parkway, Shawnee, KS 66227 (hereinafter "the Company"), approving the above referenced FAST technology (hereinafter "the Technology" or "System") for use in the Commonwealth of Massachusetts subject to the conditions herein. Sale and use of the Technology are subject to compliance by the Company, the Designer, the System Installer, the Operator, and the System Owner with the terms and conditions herein. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

David Ferris, Director
Wastewater Management Program
Bureau of Water Resources

March 20, 2015

Date

I. Purpose

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

1. Subject to the conditions of this Approval and any other local requirements, the purpose of this Approval is to allow the use of the System in Massachusetts on a General Use basis. With the necessary permits and approvals required by 310 CMR 15.000, this Certification authorizes the installation and use of the System in Massachusetts.
2. The System may be installed for residential facilities with design flow less than 2,000 GPD where a system in compliance with 310 CMR 15.000 exists on-site or could be built and for which a site evaluation in compliance with 310 CMR 15.000 has been approved by the local approving authority; or by the Department if Department approval is required by 310 CMR 15.000. This Approval allows for the use of the System as an equivalent alternative technology in accordance with 310 CMR 15.202 on facilities for nitrogen reduction in a Department designated nitrogen sensitive or limited area as defined in 310 CMR 15.214 and 15.215.

Non-residential facilities are not allowed under this approval. Non-residential facilities include properties with businesses and/or commercial establishments.

3. The technology shall meet or exceed the following effluent discharge requirements:
 - Effluent Total Nitrogen (TN) concentration of 19 mg/L (for 660 gallons per day per acre -gpda- loading) or 25 mg/L (for 550 gpda loading).
 - Effluent pH range shall be 6.0 to 9.0.
 - The System is approved for use at facilities with a maximum design flow less than 2,000 GPD.
4. The System Owner or the designated System Operator (or 'Operator') has responsibility for oversight and sampling of the System if the property served was allowed to increase the discharge rate per acre above 440 gpda in an area subject to Nitrogen Loading Limitations.

The System Owner will be required to repair, replace, modify or take any other action as required by the Department or the local approving authority, if the Department or the local approving authority determines that the System is not capable of meeting the required reduction in nitrogen in the effluent.

The Company is responsible for the approved technology as described below.

II. General Description of the Technology and Design Standards

1. The tank containing the FAST® insert is installed between the building sewer and the soil absorption system (SAS). The SAS shall be designed and constructed in accordance with 310 CMR 15.100 - 15.279 and subject to the provisions of this Certification.
2. Technology Description - The FAST® system is an aerobic wastewater treatment system that utilizes a completely submerged fixed film process to treat organics and nitrify, and a passive recycle system for denitrification. Each model contains submerged media specific to the application. Microorganisms grow on the media and remove soluble contaminants from the wastewater, utilizing them as a source of energy for growth and production of new microorganisms. The FAST® system insert consists of a liner around the media and an airlift to provide aeration and mixing within the confines of the liner. The area outside the liner in the septic tank remains anoxic for denitrification and a passive recirculation system

moves the aerated wastewater to the outside of the liner to obtain denitrification. The aeration and circulation inside the liner are provided by a blower that pumps air into a draft tube that extends down the center of the media. Treated effluent passes out of the aerobic zone of the treatment plant through a pipe connected directly to a baffled quiescent area in the liner. Final effluent is discharged to a soil absorption system. Specific model considerations are as follows:

- The MicroFAST® 0.5, 0.75 and 0.9, HighStrengthFAST® 1.0 and NitriFAST® 0.5, 0.75 and 0.9 are installed in the second compartment of a two-compartment tank with a total liquid capacity of at least 1,500 gallons constructed in accordance with 310 CMR 15.226.
 - The MicroFAST®, HighStrengthFAST® and NitriFAST® 1.5 are installed in the second compartment of a two compartment 3000-gallon tank constructed in accordance with 310 CMR 15.226.
 - The MicroFAST®, HighStrengthFAST® and NitriFAST® 3.0 is installed in a separate tank constructed in accordance with 310 CMR 15.226 and located between a standard Title 5 septic tank, designed in accordance with 310 CMR 15.223 and 15.224, and the soil adsorption system (SAS). In this larger system, an additional recycle pump may be needed to send nitrified effluent back to the septic tank for added denitrification. Consult the Company for proper layout.
 - The NitriFAST® models can also be used for additional nitrification in series after the MicroFAST® models or HighStrengthFAST® models. In this configuration the tanks used for the NitriFAST® shall be constructed in accordance with 310 CMR 15.226 and meet the minimum dimensions and volumes required by the Company.
 - Flow equalization may also be employed prior to the FAST® system depending on the type of facility. Consult Company for proper layout.
3. All access ports and manhole covers shall be readily removable, of durable material and installed and maintained at grade to allow for maintenance of the System. No structures shall be located directly upon or above the access locations which could interfere with performance, access, inspection, pumping, or repair. Sufficient access for infrequent maintenance of the System treatment media and all other treatment works shall be evaluated, and addressed in the System design if necessary, by the designer. System control panel(s) including alarms shall be mounted in a location accessible to the operator of the System.

4. Wastewater Loading and Effluent Concentration Design Standards

For new residential construction in an area subject to the Nitrogen Loading Limitations of 310 CMR 15.214, and the facility does not meet with the Nitrogen Loading Limitations pursuant to the aggregation provisions of 310 CMR 15.216, an increase in calculated nitrogen loading per acre is allowed for facilities with design flow less than 2000 gpd with limitations as follows:

- The design flow shall not exceed 660 gallons per day per acre (gpda) and the total nitrogen (TN) concentration in the effluent shall not exceed 19 milligrams per liter (mg/L); or

- The design flow shall not exceed 550 gallons per day per acre (gpda) and the total nitrogen (TN) concentration in the effluent shall not exceed 25 milligrams per liter (mg/L).
- TN is measured as the total of TKN (Total Kjeldhal Nitrogen), NO₃-N (Nitrate nitrogen) and NO₂-N (Nitrite nitrogen).

III. General Conditions

1. The provisions of 310 CMR 15.000 is applicable to the use and operation of this System, the System owner and the Company, except those that specifically have been varied by the terms of this Certification.
2. Any required operation and maintenance, monitoring and testing shall be performed in accordance with a Department approved plan. Any required sample analysis shall be conducted by an independent U.S. EPA or DEP approved testing laboratory, or a DEP approved independent university laboratory, unless otherwise provided in the Department's written approval. It shall be a violation of this Certification to falsify any data collected pursuant to an approved testing plan, to omit any required data or to fail to submit any report required by such plan.
3. The facility served by the System and the System itself, shall be open to inspection and sampling by the Department and the local approving authority at all reasonable times.
4. In accordance with applicable law, the Department and the local approving authority may require the System owner to cease operation of the system and/or to take any other action as it deems necessary to protect public health, safety, welfare or the environment.
5. The Department has not determined that the performance of the System will provide a level of protection to public health and safety and the environment that is at least equivalent to that of a sanitary sewer system. Accordingly, no System shall be upgraded or expanded, if it is feasible to connect the facility to a sanitary sewer, unless as allowed by 310 CMR 15.004.
6. Design, installation, and use of the System shall be in strict conformance with the Company's DEP approved plans and specifications and 310 CMR 15.000, subject to this Certification.

IV. Conditions Applicable to the System Owner

1. The System owner shall at all times have the System properly operated and maintained by a Company approved Operator in accordance with this Certification, the designer's operation and maintenance requirements and the Company's approved procedures.
2. The System is certified only in connection with the discharge of sanitary wastewater from facilities with a design flow of less than 2000 gpd. Any non-sanitary wastewater generated and/or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed of.

3. The System Owner shall provide access to the site for the System Operator to perform inspections, maintenance, repairs, responding to alarm events, field testing, and sampling as may be required by the Approval.

Operation and Monitoring Requirements

4. System effluent total nitrogen (TN) concentrations shall not exceed 19 or 25 mg/L and effluent pH shall not be less than 6.0 or more than 9.0. Field test observations of dissolved oxygen (DO) shall equal or exceed 2 mg/L and for Turbidity shall be equal or less than 40 NTU.
5. All samples shall be taken at a flowing discharge point, i.e. distribution box, pipe entering a pump chamber or other Department approved location from the treatment unit.
6. Inspection, operation and maintenance (O&M), sampling, and field testing of the System required by the Approval shall be performed by a Company approved Operator who has been certified at a minimum of Grade Level 4 (four) by the Board of Registration of Operators of Wastewater Treatment Facilities, in accordance with Massachusetts regulations 257 CMR 2.00, and is an approved Title 5 System Inspector in accordance with 310 CMR 15.340.
7. Prior to commencement of construction of the System, the System Owner shall provide to the local approving authority a copy of a signed O&M Agreement that meets the requirements of paragraph IV (8).
8. The System Owner shall maintain, at all times, an O&M Agreement with a qualified System Operator approved by the Company. The Agreement shall be at least for one year and include the following provisions:
 - a) The name of a System Operator who is an approved System Inspector in accordance with 310 CMR 15.340 and who meets any additional qualification requirements specified in the Approval;
 - b) The System Operator must inspect the Alternative System as required by paragraph IV (9) and (12);
 - c) The System Operator shall be responsible for submitting the monitoring results to the System Owner in accordance with paragraph IV (13) and to the local approving authority in accordance with paragraph IV (14); and
 - d) In the case of a System failure, an equipment failure, alarm event, components not functioning as designed, or violations of the Approval, procedures and responsibilities of the System Operator and System Owner shall be clearly defined for corrective measures to be taken immediately. The System Operator shall agree to provide written notification within five days, describing corrective measures taken, to the System Owner and the local board of health.
9. The System Owner shall comply with the following monitoring requirements if the System is subject to a TN concentration limit in accordance with paragraph II (4):

- a) Year-round installations shall be inspected and have effluent sampled for at least the TN parameter quarterly for the first year, then a minimum of twice/year thereafter, at least 5 months apart and with at least one sample taken between December 1 and March 1 of each year. Field testing shall be completed per paragraph IV (11) below, and as determined necessary by the System Operator. See DEP Field Testing Protocol at <http://www.mass.gov/dep/water/laws/policies.htm#t5pols>. Wastewater flow shall be recorded at each inspection, see 'Flow Metering' paragraph IV (10).
- b) Seasonal installations shall be inspected and have effluent sampled for at least the TN parameter a minimum of twice/year. At least one sample must be taken 30 to 60 days after each seasonal occupancy begins. A second sample must be taken no less than 2 months after the first sample. Field testing shall be completed per paragraph IV (11) below, and as determined necessary by the System Operator. Wastewater flow shall be recorded at each inspection, see 'Flow Metering' paragraph IV (10).
- c) Systems in operation prior to issuance of this Approval, which have received approval of sampling reduction from the Department may continue with that System monitoring frequency.

Properties occupied at least 6 months per year are considered year-round properties. Properties occupied less than 6 months per year are considered seasonal properties.

TN is measured as the total of TKN (Total Kjeldhal Nitrogen), NO₃-N (Nitrate nitrogen) and NO₂-N (Nitrite nitrogen).

10. Flow Metering: Reporting of residential System water use is not required, however it is recommended the Operator record water meter readings if available at all inspections, or otherwise estimate System flow, to assist in addressing possible operational problems or issues. Flow measurement when recorded shall be based on:
 - a) actual metering data of wastewater flow to the System or actual water meter data of flow to fixtures that discharge to the wastewater system; or
 - b) actual water meter data for the total facility with either actual meter data or estimated flows for non-wastewater usage subtracted from the total facility water usage. If estimating the wastewater portion of metered water usage, the System Operator shall provide a best estimate of wastewater discharged to the System with the method of estimating, such as pump run times, occupancy rates, adjustment due to seasonal outdoor watering use, etc.; or
 - c) for Systems installed under a prior Approval that did not include a wastewater flow data reporting requirement, if no flow meters are available, the System Operator shall provide a best estimate of wastewater discharged to the System with the method of estimating, such pump run times, occupancy rate, etc.
11. Field Testing: Temperature, turbidity, pH and DO shall be measured and recorded in the field whenever the effluent is sampled for TN. See applicable sections of the Department's Field Testing Protocol at <http://www.mass.gov/dep/water/laws/policies.htm#t5pols>.

12. At a minimum, the System Operator shall inspect the System:
 - a) quarterly for the first year then two times per year thereafter;
 - b) in accordance with the approved O&M manual, the Designer's operation and maintenance requirements, and the requirements of the local approving authority; and
 - c) any time there is an alarm event, equipment failure, or system failure.

Recordkeeping and Reporting

13. Within 60 days of any site visit, the System Operator shall submit an O&M report and inspection checklist to the System Owner and the Company. It is recommended the System Owner and Company maintain copies of these items for possible Department audit. The O&M report shall include, at a minimum:
 - a) for a System failing, any corrective actions taken;
 - b) wastewater analyses, wastewater flow data, field testing results and inspection checklists;
 - c) any violations of the Approval;
 - d) any determinations that the System or its components are not functioning as designed or in accordance with the Company specifications; and
 - e) any other corrective actions taken or recommended.
14. By February 15th of each year the System Owner or the System Operator if designated by the owner, shall submit to the local approving authority all monitoring results with all O&M reports and inspection checklists completed by the System Operator during the previous 12 months.
15. Upon determining that the System has failed, as defined in 310 CMR 15.303, the System Operator shall notify the System Owner immediately.
16. Upon determining that the System has failed, as defined in 310 CMR 15.303, the System Owner and the System Operator shall be responsible for the notification of the local approving authority within 24 hours of such determination.
17. The System Owner shall notify the Approving Authority and the Company in writing within seven days of any cancellation, expiration or any other change in the terms and/or conditions of the O&M Agreement required by Paragraph IV (8).
18. Violations of the TN concentration in the System effluent shall not constitute a failure of the System for the purposes of 24-hour notification or 5-day written reporting as required in Paragraphs IV (16) and (8).
19. The System owner shall provide a copy of this Approval, prior to the signing of a purchase and sale agreement for the facility served by the System or any portion thereof, to the proposed new owner.

20. The System owner shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.
21. Prior to issuance of a Certificate of Compliance of the System, and after recording and/or registering the Notice required by 310 CMR15.287(10), the System Owner shall provide to the Local Approving Authority a copy of: (i) a certified Registry copy of the Notice bearing the book and page/or document number; and (ii) if the property is unregistered land, a Registry copy of the System Owner's deed to the property, bearing a marginal reference on the System Owner's deed to the property. The Notice to be recorded shall be in the form of the Notice provided by the Department.
22. Prior to signing any agreement to transfer any or all interest in the property served by the System, or any portion of the property, including any possessory interest, the System Owner shall provide written notice of all conditions contained in the Approval to the transferee(s). Any and all instruments of transfer and any leases or rental agreements shall include as an exhibit attached thereto and made a part of thereof a copy of the Approval for the System. The System Owner shall send a copy of such written notification(s) to the Local Approving Authority within 10 days of giving such notice to the transferee(s).

V. Conditions Applicable to the Company

1. The Company shall notify the Director of the Wastewater Management Program at least 30 days in advance of the proposed transfer of ownership of the technology for which this Certification is issued. Said notification shall include the name and address of the proposed new owner and a written agreement between the existing and proposed new owner containing a specific date for transfer of ownership, responsibility, coverage and liability between them. All provisions of this Certification applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.
2. The Company shall develop maintain and update as necessary the following: minimum installation requirements; an operating manual, including information on substances that should not be discharged to the System; a maintenance checklist; and a recommended schedule for maintenance of the System consistent with the Department's requirements essential to consistent successful performance of the installed Systems.
3. The Company shall institute and maintain a program of operator training and continuing education. The Company shall maintain and annually update, and make available the list of qualified operators by February 15th and make the list known to local approving authorities, the Department and to users of the technology.
4. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.
5. The Company shall include copies of this Certification and the procedures described in Section V (3) with each System that is sold. In any contract executed by the Company for distribution or re-sale of the System, the Company shall require the distributor or re-seller to provide each purchaser of the System with copies of this Certification and the procedures described in Section V (3).

6. A copy of the wastewater analyses, wastewater flow data, field testing results, and System Operator O&M reports and inspection checklists from each installed System shall be maintained by the Company or its designee for possible Department audit.
7. If the Company wishes to continue this Certification after its expiration date, the Company shall apply for and obtain a renewal of this Certification. The Company shall submit a renewal application at least 180 days before the expiration date of this Certification, unless written permission for a later date has been granted in writing by the Department. This Certification shall continue in force until the Department has acted on the renewal application.

VI. Conditions Applicable to the System Designer

1. Upon submission of an application for a DSCP, the Designer shall provide to the local approving authority:
 - a) a certification, signed by the owner of record for the property to be served by the System, stating that the property owner:
 - i) has been provided a copy of the Approval, the Owner's Manual, and the Operation and Maintenance Manual, if applicable, and the Owner agrees to comply with all terms and conditions;
 - ii) has been informed of all the owner's costs associated with the operation including, when applicable: power consumption, maintenance, sampling, recordkeeping, reporting, and equipment replacement;
 - iii) understands the requirement for a service contract;
 - iv) agrees to fulfill his responsibilities to provide a Deed Notice as required by 310 CMR 15.287(10) and the Approval;
 - v) agrees to fulfill his responsibilities to provide written notification of the Approval to any new owner, as required by 310 CMR 15.287(5);
 - vi) if the design does not provide for the use of garbage grinders, the restriction is understood and accepted;
 - vii) if the design is for an upgrade of failed or nonconforming system, the System Owner has been provided a copy of the evaluation of the existing system;
 - viii) whether or not covered by a warranty, the System Owner understands the requirement to repair, replace, modify or take any other action as required by the Department or the local approving authority, if the Department or the local approving authority determines that the Alternative System is not capable of meeting the performance standards; and
 - b) a certification, signed by the Designer that the design conforms to the Approval with Conditions and 310 CMR 15.000.

VII. Reporting

1. All notices and documents required to be submitted to the Department by this Certification shall be submitted to:

Director
Wastewater Management Program
Department of Environmental Protection,
One Winter Street - 5th floor
Boston, Massachusetts 02108

VIII. Rights of the Department

1. The Department may suspend, modify or revoke this Certification for cause, including, but not limited to, non-compliance with the terms of this Certification, non-payment of the annual compliance assurance fee, for obtaining the Certification by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Certification, or as necessary for the protection of public health, safety, welfare or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Certification and/or the System against the owner or operator of the System and/or the Company.

Transmittal: X232831 (formerly W101238)

MAIN OFFICE:
49 Herring Pond Road
Buzzards Bay, MA 02532
TEL: (508) 833-0070
FAX: (508) 833-2282



NANTUCKET OFFICE:
19 Old South Road
Nantucket, MA 02554
TEL: (508) 325-0044
www.brackeneng.com

August 10, 2023

CERTIFIED MAIL

RE : Notice of Public Hearing

Dear Abutter:

In accordance with the Bourne Board of Health Regulations you are hereby notified that **Stanley DaVitoria & Ludo Gardini** have requested a hearing before the Bourne Board of Health for relief from the Bourne Board of Health Regulations for the installation of an upgraded septic system utilizing Innovative/Alternative technologies. The locations for which approval is sought is **10 Harbor Way (Map 45, Parcel 19), and 0 Lighthouse Lane (Map 45, Parcel 14), Wings Neck** where you are listed as an abutter. At said hearing the Board will discuss and possibly vote on the following *Local Variances*:

- **A 45' local variance from the BOURNE BOARD OF HEALTH Regulations for a 105' setback from a proposed soil absorption system from a non-eroding Coastal Bank.**
- **A 5' local variance from the BOURNE BOARD OF HEALTH Regulations for a 145' setback from a proposed soil absorption system to Mean High Water.**

This hearing is **tentatively** scheduled for Wednesday, August 23rd at **5:30 p.m.** in Conference Room #2 at the Bourne Veteran's Memorial Community Building, 239 Main Street, Buzzards Bay. ***Please confirm the date, time and location of the meeting with the Town, in case of any changes.*** Information regarding the hearing may be available for your review one week prior to the meeting by contacting the Bourne Health Department at 508-759-0600, Ext. 1513, Monday through Friday from 8:30 a.m. until 4:30 p.m.

Meeting agendas are posted on the Town of Bourne website, www.townofbourne.com/health no less than 48 hours in advance of the hearing. Should you have any questions or concerns, please do not hesitate to contact the undersigned at zac@brackeneng.com or the Bourne Health Department at 508-759-0600, Ext. 1513.

Sincerely,

BRACKEN ENGINEERING INC.

A handwritten signature in black ink, appearing to read 'Zachary L. Basinski', written over a horizontal line.

Zachary L. Basinski, PE, CFM
Senior Project Manager
Agent for the Applicant



TOWN OF BOURNE
Board of Assessors
24 Perry Avenue
Buzzards Bay, MA 02532
(508) 759-0600 Ext. 1510



Michael Leitzel, Chairperson
Ellen Doyle Sullivan, Clerk
Donna Barakauskas, Member

Rui Pereira, MAA
Director of Assessing

August 4, 2023

Stanley A. DaVitoria
c/o Bracken Engineering, Inc.
49 Herring Pond Rd
Buzzards Bay, MA 02532

Re: Abutters List for Map 45 Parcel 19
Property address: 10 Harbor Way

As required by the Bourne Board of Health, pursuant with section 310 CMR 15.411(1), this is to certify that the attached list of names and addresses constitutes all of the parties in interest as shown on the most recent tax list of the Town of Bourne.

Abutting properties are: Map 45 Parcels 15, 16, 17, 18, 20 & 22.

Your filing fee of \$25.00 has been received by the Bourne Assessor's Office.

Please be advised that this abutters list is only good for 30 days from the date on this letter. Expired abutters list can be recertified for an additional filing fee.

See enclosed for abutters mailing addresses.

Board of Assessors

*Ellen Doyle Sullivan -
Donna Barakauskas
Michael Leitzel*

Extract: ABUTTERS LIST
 Database: LIVE
 Filter: Key IN 10074,10075,10076,10077,10079,10081
 Sort:

Report #24: Owner Listing Report
 Fiscal Year 2024

Bourne MA

Key	Parcel ID	Owner	Location	LC/CI	Bk-Pg(Cert) /Dt	Mailing Street	Mailing City	ST	Zip Cd/County
10074	45.0-15-0	FLANAGAN NEWMAN A & EILEEN P FLANAGAN	5 LIGHTHOUSE LN	N 1010	01440/0581	P O BOX 1315	POCASSET	MA	02559-1315
10075	45.0-16-0	STEIN ANDREW B & SUSAN STEIN	6 HARBOR WAY	N 1090	34458/162 9/10/2021	102 LINCOLN LANE	SUDBURY	MA	01776
10076	45.0-17-0	GAREFINO ANNE TRUSTEE THE ANNE GAREFINO TRUST	9 CANAL DR	N 1010	32496/325 11/25/2019	449 28TH AVENUE	VENICE	CA	90201
10077	45.0-18-0	BUDRYK HEATHER L	15 CANAL DR	N 1010	19314/225 12/6/2004	PO BOX 571	POCASSET	MA	02559
10079	45.0-20-0	STEVENS CHRISTINA TR OF THE LIGHTHOUSE REALTY TRUST	1 LIGHTHOUSE LN	N 1090	17933/320 11/17/2003	PO BOX 221	SOUTH CHATHAM	MA	02659
10081	45.0-22-0	UNITED STATES OF AMERICA COAST GUARD	0 CANAL DR	N 9000	00044/0491	PO BOX 1555	BUZZARDS BAY	MA	02532

Total Records 6



TOWN OF BOURNE
Board of Assessors
24 Perry Avenue
Buzzards Bay, MA 02532
(508) 759-0600 Ext. 1510



Michael Leitzel, Chairperson
Ellen Doyle Sullivan, Clerk
Donna Barakauskas, Member

Rui Pereira, MAA
Director of Assessing

August 10, 2023

Stanley A. DaVitoria
c/o Bracken Engineering, Inc.
49 Herring Pond Rd.
Buzzards Bay, MA 02532

Re: Abutters List for Map 45 Parcel 14
Property address: 0 Lighthouse Lane

As required by the Bourne Board of Health, pursuant with section 310 CMR 15.411(1), this is to certify that the attached list of names and addresses constitutes all of the parties in interest as shown on the most recent tax list of the Town of Bourne.

Abutting properties are: Map 45 Parcels 5, 13, 15 & 20.

Your filing fee of \$25.00 has been received by the Bourne Assessor's Office.

Please be advised that this abutters list is only good for 30 days from the date on this letter. Expired abutters list can be recertified for an additional filing fee.

See enclosed for abutters mailing addresses.

Board of Assessors

*Ellen Doyle Sullivan -
Donna Barakauskas
Michael Leitzel*

Extract: ABUTTERS LIST
 Database: LIVE
 Filter: Key IN 10065,10072,10074,10079
 Sort:

Report #24: Owner Listing Report
 Fiscal Year 2024

Bourne MA

Key	Parcel ID	Owner	Location	LC/CJ	Bk-Pq(Cert) /DI	Mailing Street	Mailing City	ST	Zip Cd/County
10065	45.0-5-0	MOLLOY JAMES F TR 2 WESTVIEW ST REALTY TRUST	2 WESTVIEW ST	N 1010	26019/57 1/20/2012	16 TABOR PLACE	BROOKLINE	MA	02445
10072	45.0-13-0	GRONIN REALTY FAMILY LIMITED PARTNERSHIP	7 WESTVIEW ST	N 1010	15442/133 8/6/2002	PO BOX 802	POCASSET	MA	02559
10074	45.0-15-0	FLANAGAN NEWMAN A & EILEEN P FLANAGAN	5 LIGHTHOUSE LN	N 1010	01440/0581	P O BOX 1315	POCASSET	MA	02559-1315
10079	45.0-20-0	STEVENS CHRISTINA TR OF THE LIGHTHOUSE REALTY TRUST	1 LIGHTHOUSE LN	N 1090	17933/320 11/17/2003	PO BOX 221	SOUTH CHATHAM	MA	02659

Duplicate w/10 Harbor Wy

Duplicate w/10 Harbor Wy

Total Records 4

7022 2410 0003 3888 9498

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OFFICIAL USE

Postage: \$.63
Certified Fee: \$ 4.35
Return Receipt Fee: \$ 3.55
Total Postage & Fees: \$ 8.53



CHRISTINA STEVENS TR
THE LIGHTHOUSE REALTY TRUST
PO BOX 571
SOUTH CHATHAM, MA 02659
10 Harbor Way, Bourne - BOH

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

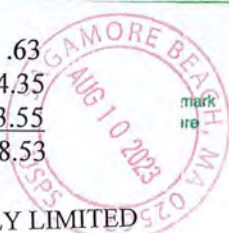
7022 2410 0003 3888 9542

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OFFICIAL USE

Postage: \$.63
Certified Fee: \$ 4.35
Return Receipt Fee: \$ 3.55
Total Postage & Fees: \$ 8.53



CRONIN REALTY FAMILY LIMITED
PARTNERSHIP
P.O. BOX 802
POCASSET, MA 02559
10 Harbor Way, Bourne - BOH

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7022 2410 0003 3888 9450

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage: \$.63
Certified Fee: \$ 4.35
Return Receipt Fee: \$ 3.55
Total Postage & Fees: \$ 8.53



NEWMAN & EILEEN FLANAGAN
PO BOX 1315
POCASSET, MA 02559-1315
10 Harbor Way, Bourne - BOH

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7022 2410 0003 3888 9467

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage: \$.63
Certified Fee: \$ 4.35
Return Receipt Fee: \$ 3.55
Total Postage & Fees: \$ 8.53



ANDREW D. & SUSAN STEIN
102 LINCOLN LANE
SUDBURY, MA 01776
10 Harbor Way, Bourne - BOH

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7022 2410 0003 3888 9528

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage: \$.63
Certified Fee: \$ 4.35
Return Receipt Fee: \$ 3.55
Total Postage & Fees: \$ 8.53



JAMES F. MOLLOY, TR
2 WESTVIEW ST REALTY TRUST
16 TABOR PLACE
BROOKLINE, MA 02445
10 Harbor Way, Bourne - BOH

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UNITED STATES OF AMERICA
COAST GUARD
PO BOX 1555
BUZZARDS BAY, MA 02532
10 Harbor Way, Bourne - BOH

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HEATHER L BUDRYK
PO BOX 571
POCASSET, MA 02559
10 Harbor Way, Bourne - BOH

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ANNE GAREFINO, TRS
THE ANNE GAREFINO TRUST
449 28TH AVE
VENICE, CA 90201

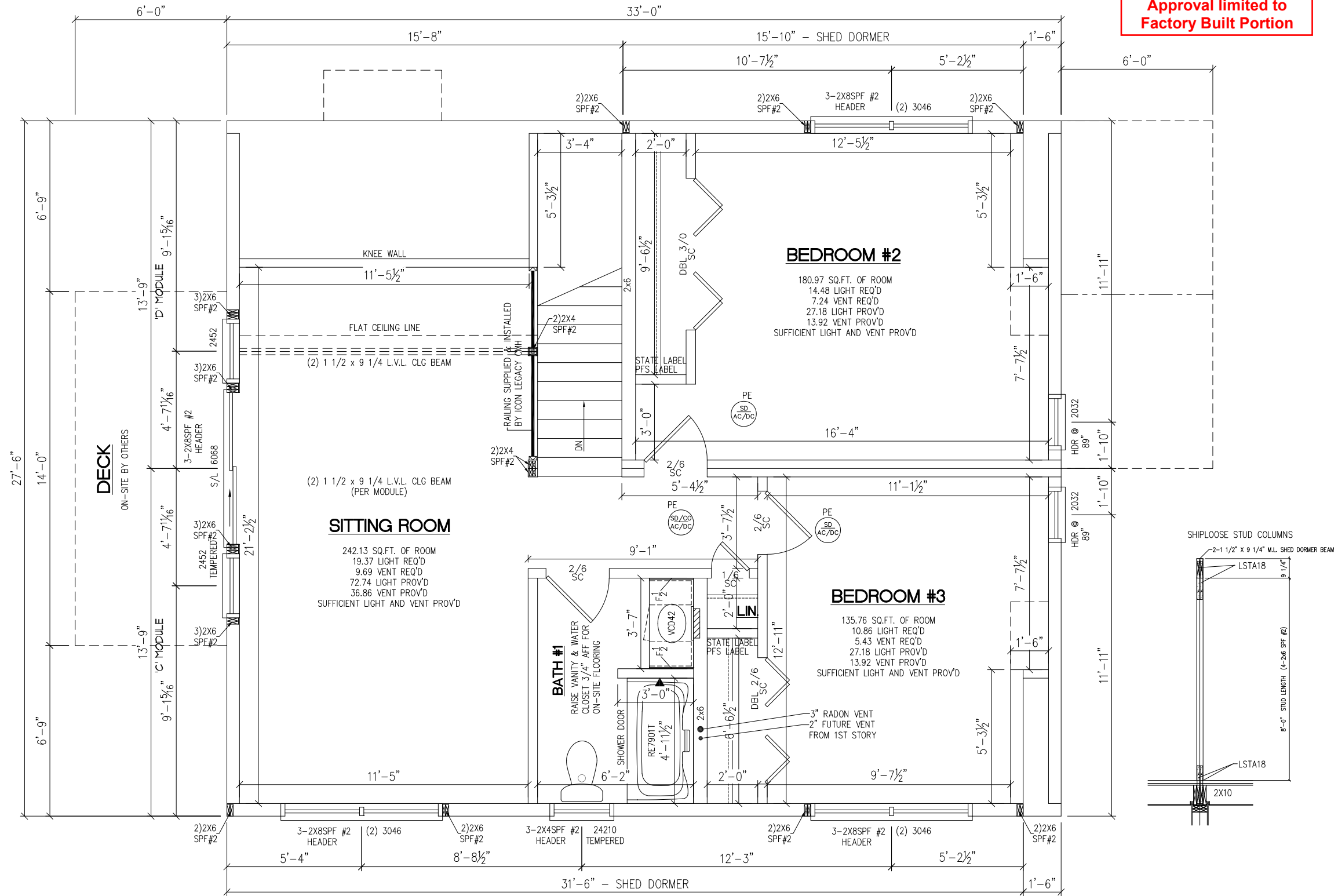
10 Harbor Way, Bourne - BOH

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

RAISE ALL INTERIOR DOORS 3/4" TO ALLOW FOR ON-SITE FLOOR COVERING

PFS Corporation
 Northeast Region
APPROVED
 H Raup - 3
 7/20/17
 Approval limited to
 Factory Built Portion

246 SAND HILL ROAD
 SELINS GROVE, PA 17870
 PHONE: (570) 374-3280
 FAX: (570) 374-1122
 WWW.ICONLEGACY.COM



REVISION	DATE	BY
PRELIM	11/15/16	PIF
REV. PRELIM	02/15/17	TLM
FINAL	6/2/17	HLB

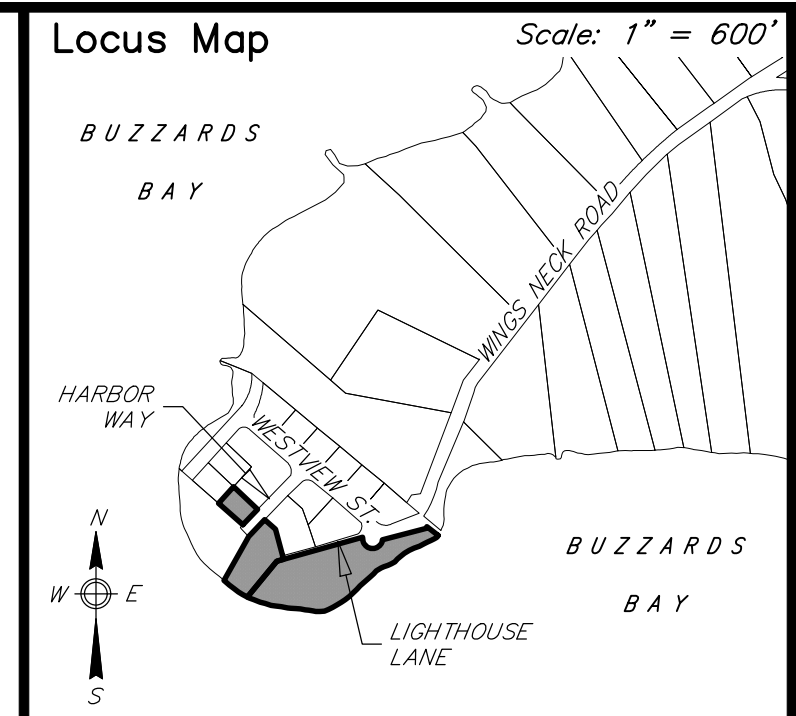
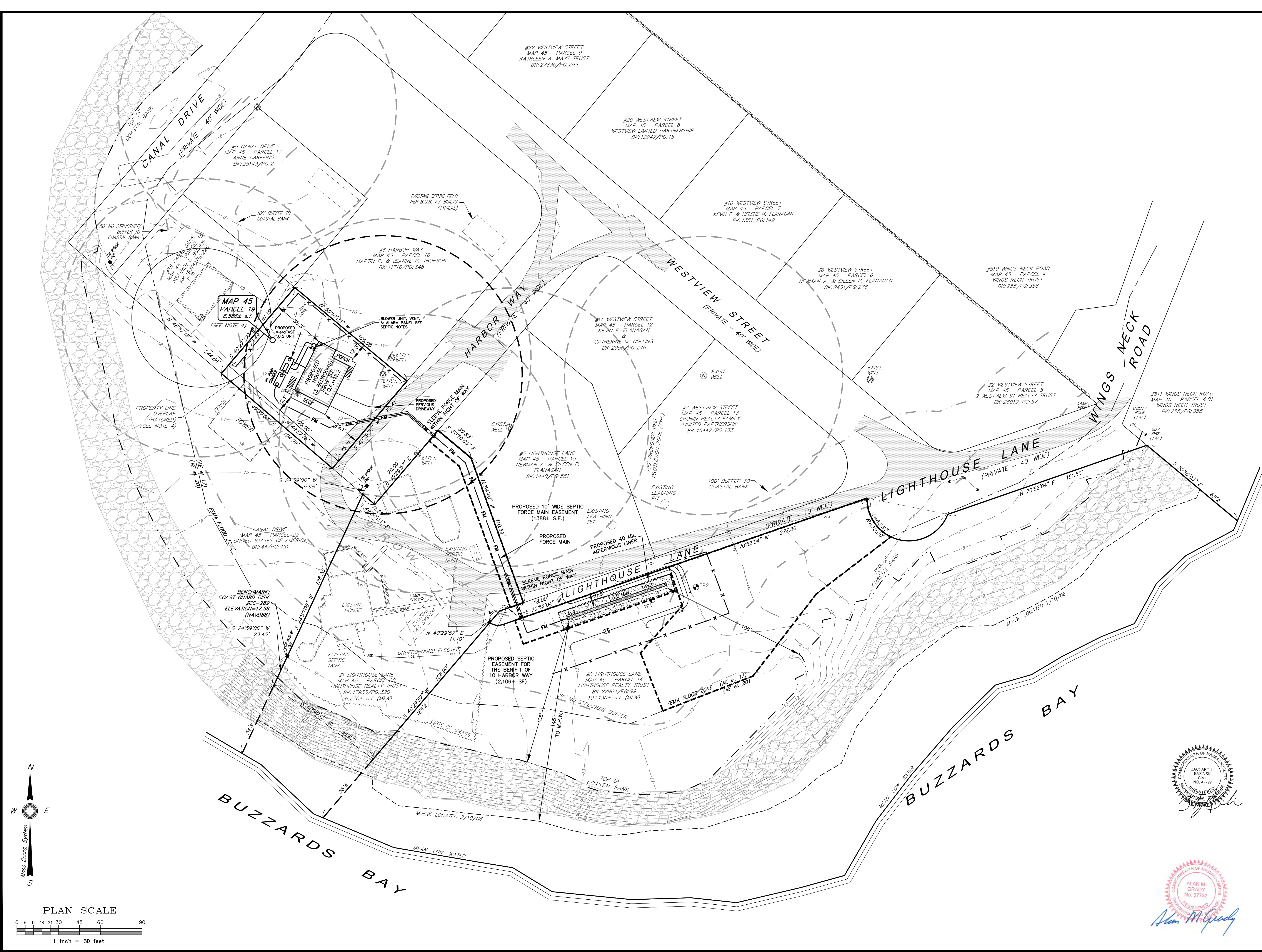
BUILDER	PLEASANT BAY HOMES
HOMEBUYER/PROJECT	ELIZABETH GILLIS 2
ADDRESS	10 HARBOR WAY
CITY	POCASSET
COUNTY	BARNSTABLE
ORDER NO.	6861
FILE NAME	O#6861
STATE	MA
ZIP	02559
SNOW LOAD (LBS)	30
WIND SPEED (MPH)	110
TYPE	CAPE
SERIAL NO.	1,980

2ND STORY FLOOR PLAN

THIS BUILDING HAS BEEN EXTRACTED FROM AN APPROVED SYSTEMS OR PER MODEL APPROVAL

SERIAL # / ORDER #
O#6861

PAGE #
FP2



Benchmark
 COAST GUARD DISK #CC-289
 ELEVATION = 17.96 (NAVD88)

Owners

LOCUS: #10 HARBOR WAY
 MAP 45 PARCEL 19
 OWNER: STANLEY DAVITORIA
 #95 MOUNTAIN AVENUE
 WALDEN, MA 02148
 LUDO GARDINI
 #298 NEWTON STREET 2nd FLR.
 WALTHAM, MA 02453
 DEED REF: Bk: 20251, Pg: 125

PLAN REF: Pl. Bk: 115, Pg: 95 (LOT 13)

LOCUS: #1 LIGHTHOUSE LANE
 MAP 45 PARCEL 20
 OWNER: THE LIGHTHOUSE REALTY TRUST
 c/o CHRISTINA STEVENS
 P.O. Box 221
 SOUTH CHATHAM, MA. 02659
 DEED REF: Bk: 17933, Pg: 320

LOCUS: #0 LIGHTHOUSE LANE
 MAP 45 PARCEL 14
 OWNER: THE LIGHTHOUSE REALTY TRUST
 c/o CHRISTINA STEVENS
 22 RED GATE LANE
 SOUTHBORO, MA. 01772
 DEED REF: Bk: 22904, Pg: 99

PLAN REF: Pl. Bk: 597, Pg: 29 (PARCEL 14)

Notes

- LOCI FALL WITHIN A SPECIAL FLOOD HAZARD ZONE AE17 AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25001C0491J dated 07/16/2014.
- LOCI DO NOT FALL WITHIN THE NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM (NHESP) AREAS OF ESTIMATED HABITATS OF RARE WILDLIFE AND PRIORITY HABITATS OF RARE SPECIES.
- PROVIDE REQUIRED FLOOD VENTS IN ACCORDANCE WITH MASSACHUSETTS BUILDING CODE & NFIP REQUIREMENTS.
- LOT AREA PER RECORD PLAN (8,586 s.f.), EFFECTIVE LOT AREA (7,832 s.f.) EXCLUDING IDENTIFIED PROPERTY LINE OVERLAP AREA.

VARIANCE REQUEST

TO ALLOW 104.8 FEET FROM S.A.S. TO COASTAL BANK A 45.2 FOOT VARIANCE FROM 150 FEET REQUIRED.

ZONING SUMMARY
 REFER TO BYLAW SECTION 2450

	REQUIRED	PROPOSED
LOT AREA:	80,000	7,832± S.F. (6)
FRONT YARD:	20'	29.1'
SIDE YARD:	12'	12.1'
REAR YARD:	12'	43.6'
LOT COVERAGE:	25% (5) (MAX)	17.0% (7,832 S.F.) (1,325 S.F.)
GROSS FLR AREA:	24% (5) (MAX)	23.0% (1,802 S.F.) (2,805± S.F.)
BUILDING HEIGHT:	27' (5)	31.2' (5) (c)

(5) SEE TABLE 2456 FOR NON-CONFORMING LOTS IN BOURNE ZONING BY LAWS.
 (6) BUILDING HEIGHT UP TO 5' EXTRA PER ZONING BY-LAW SECTION 8 2500(c).
 (c) HEIGHT BASED ON AN EXISTING AVERAGE GRADE CALCULATION OF 12.0'.
 (d) EFFECTIVE LOT AREA OF #10 HARBOR WAY (SEE NOTE 4 ABOVE)

Prepared By:

BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD BUZZARDS BAY, MA 02532
 (tel) 508.833.0070 (fax) 508.833.2282

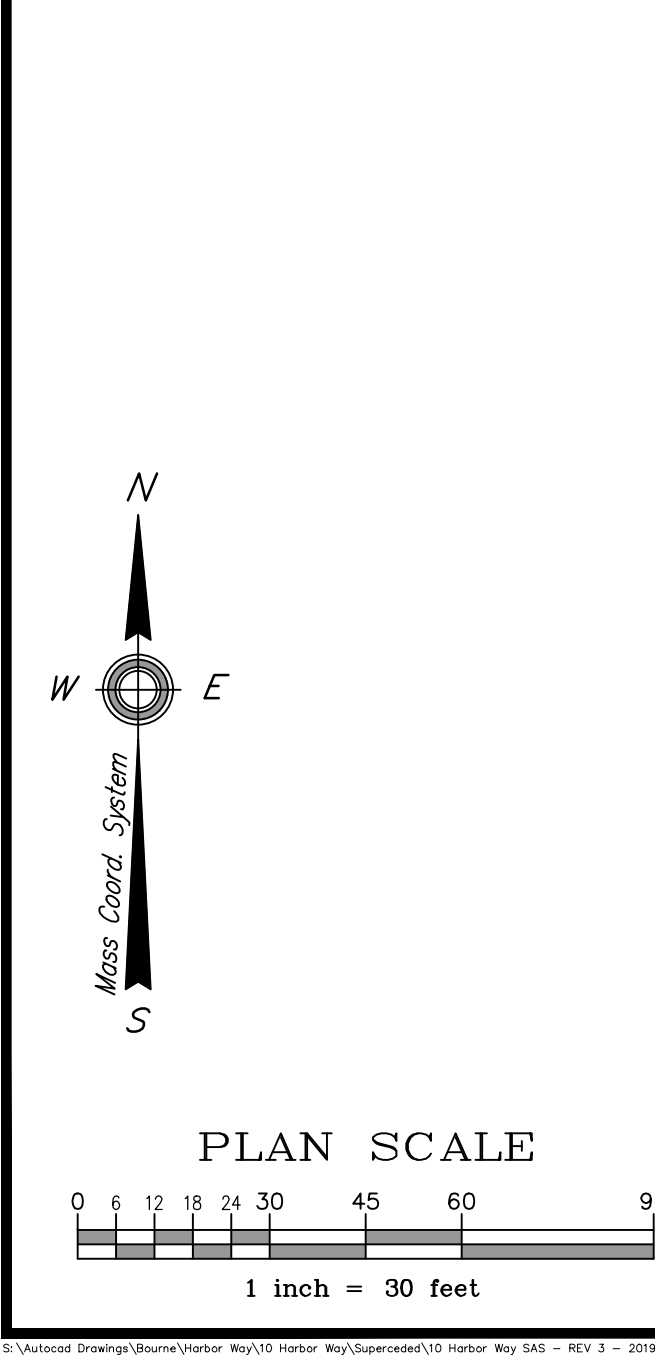
19 OLD SOUTH ROAD NANTUCKET, MA 02554
 (tel) 508.325.0044 (fax) www.brackeneng.com

PROPOSED SITE PLAN IN BOURNE, MASSACHUSETTS

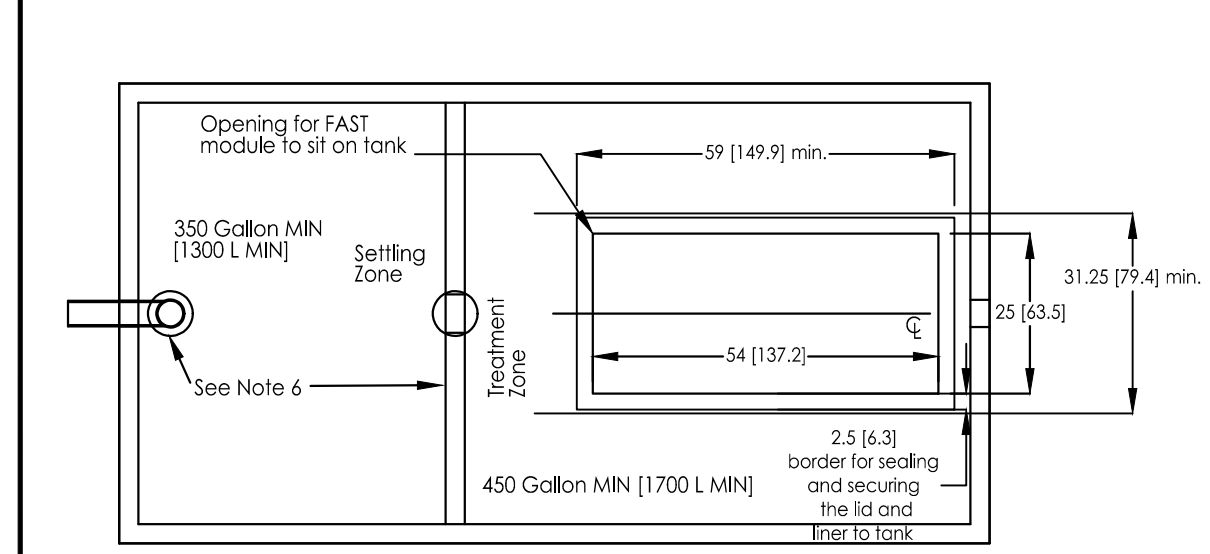
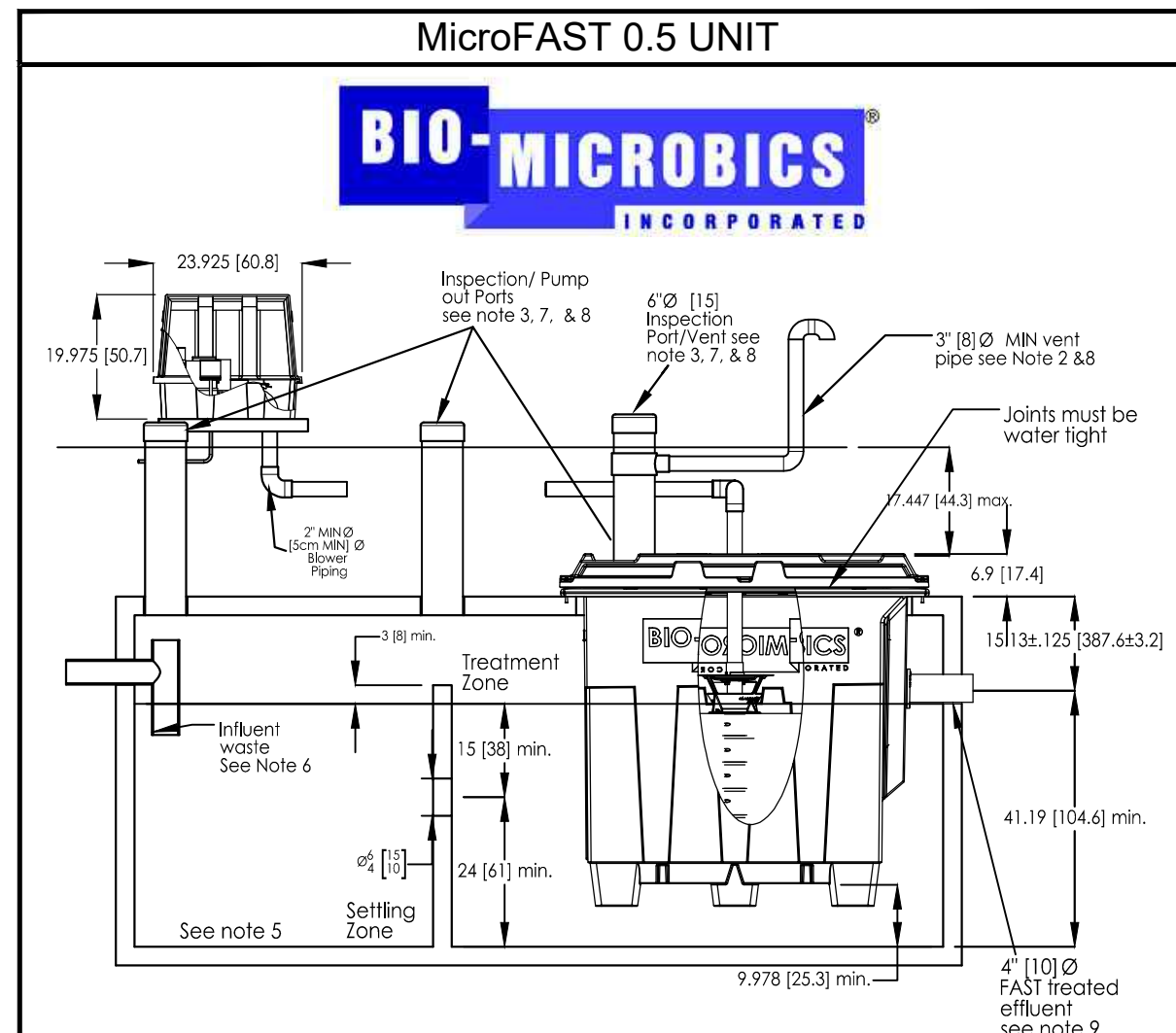
Prepared For:
STANLEY DAVITORIA & LIGHTHOUSE REALTY TRUST
 #10 HARBOR WAY - MAP 45 PARCEL 19
 #1 LIGHTHOUSE LANE - MAP 45 PARCEL 20
 #0 LIGHTHOUSE LANE - MAP 45 PARCEL 14

No.	Date	Revision Description	By
4	08/15/23	UPDATE OWNERSHIP	BEI
3	04/25/17	REVISED WELL AND SEPTIC LOCATIONS	BEI
2	10/25/16	REVISED PROPOSED HOUSE	BEI
1	2/23/16	REVISED EASEMENT - ELIMINATE PROPOSED WALL	BEI

Date: NOVEMBER 30, 2015 Drawn: RMM/ERC/DLH Checked: DFB/AMG Sheet: 1 of 2

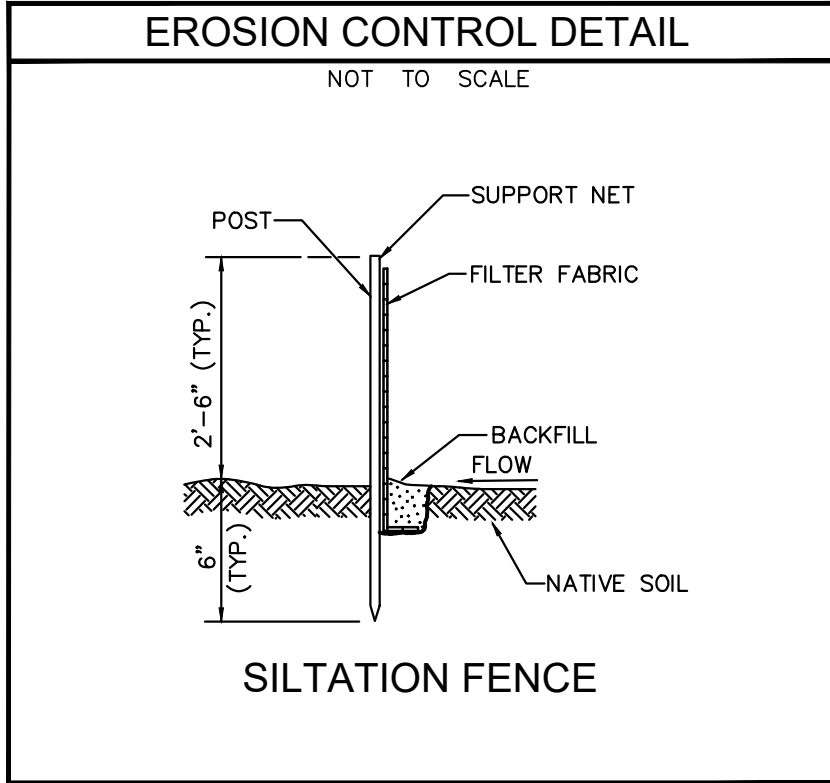
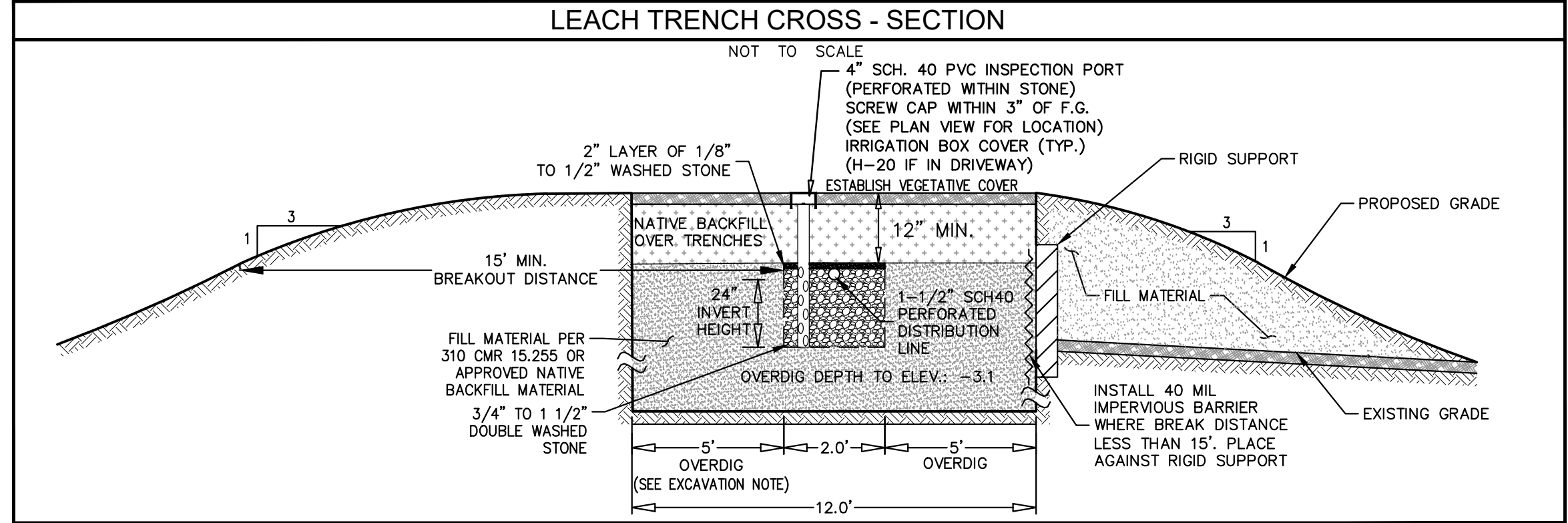
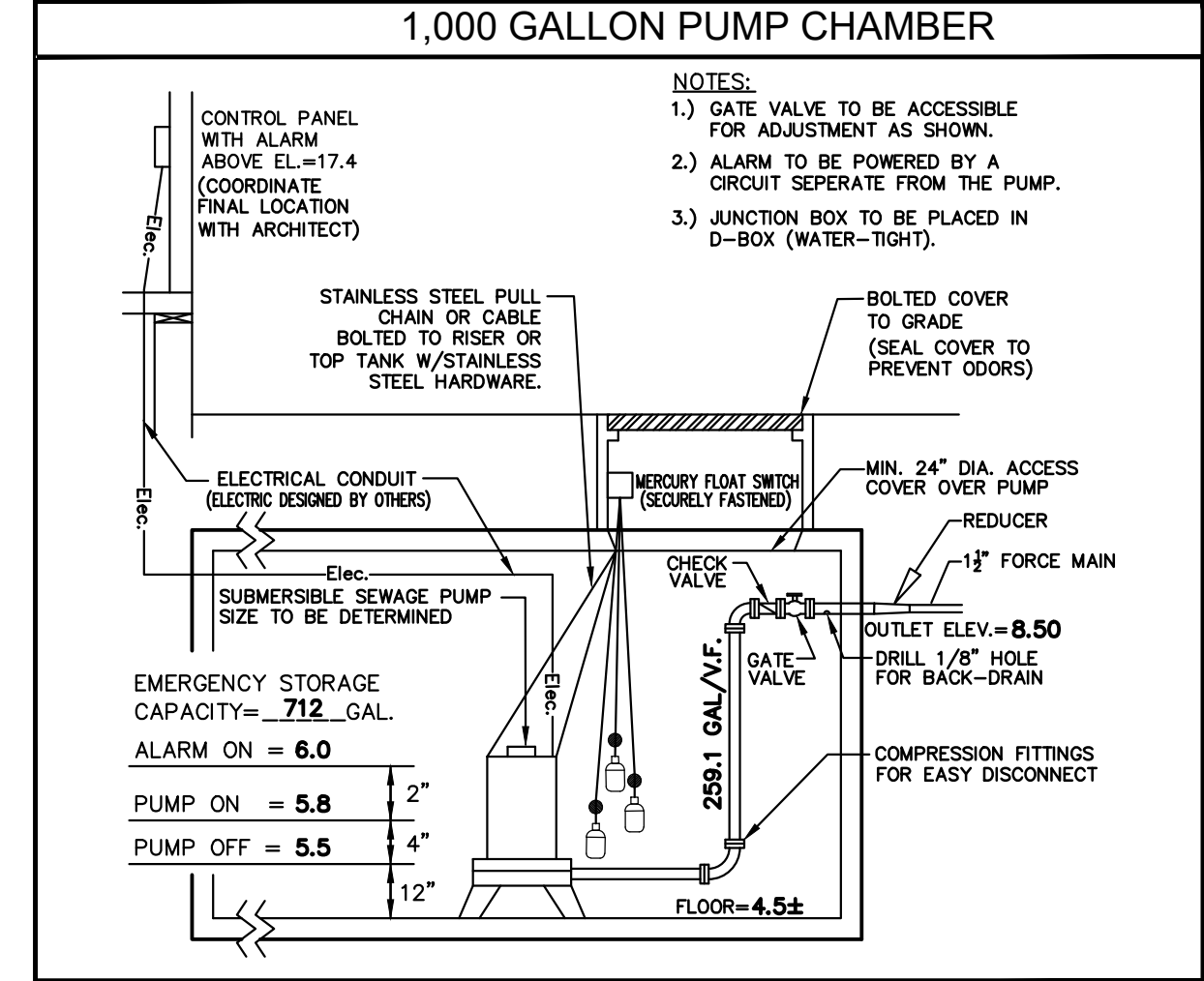


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- MicroFAST Notes:**
- Blower piping to FAST® may not exceed 100FT [30.5m] total length and use a maximum of 4 elbows. For distances greater than 100FT [30.5m] - consult factory. Blower must be located above flood/standing water levels on a concrete base 24" x 18" x 2" [61x45.7x5cm] minimum.
 - Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate w/at least 71 sq in. [45.8 sq. cm] open surface area. Secure with stainless steel screws or Run vent to desired location and cover opening with vent grate w/at least 71sq in. [45.8 sq. cm] of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
 - All appurtenances to FAST® (Log tank pump outs, etc.) must conform to all country, state, province, and local plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
 - Either the influent pipe tee shall be fitted with a pipe cap or the baffle separating the two zones shall be extended to the top of the tank, if choosing to use the pipe cap, then the baffle shall be at least 3"(8cm) higher than the water level as shown on the drawing.
 - All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
 - Tank, anchors, piping, conduits, blower housing and vents are provided by others.
 - All piping and ancillary equipment installed after FAST® must not impede or restrict free flow of effluent.
 - No more than 4 FT [1.2 m] of fill may be placed over unit lid. Unit may stand inside tank MicroFAST® 1.0 with feet. Refer to installation manual for more details.

- PROPOSED SEPTIC NOTES**
- ALL CONSTRUCTION METHODS AND MATERIALS TO CONFORM TO TITLE V AND THE TOWN OF BOURNE BOARD OF HEALTH REGULATIONS.
 - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
 - NO FIELD MODIFICATION TO THE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND BOARD OF HEALTH.
 - ALL JOINTS AND COVERS TO BE WATERTIGHT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES.
 - A CERTIFICATE OF COMPLIANCE MUST BE OBTAINED PRIOR TO BACKFILLING SYSTEM.
 - CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF SOIL OR SITE CONDITIONS DIFFER FROM THOSE SHOWN.
 - THE DESIGN IS INTENDED TO MEET TITLE V AND OTHER APPLICABLE REQUIREMENTS. THIS PLAN DOES NOT GUARANTEE THAT THE SYSTEM WILL BE INSTALLED AS DESIGNED, NOR DOES THIS PLAN GUARANTEE THE OPERATION OF THE SYSTEM.
 - THIS SYSTEM IS NOT DESIGNED NOR INTENDED FOR USE WITH A GARBAGE GRINDER.
 - REFER TO THE REQUIRED OPERATION & MAINTENANCE PLANS, TO BE SUPPLIED BY THE MANUFACTURER FOR REQUIRED MAINTENANCE PROCEDURES OF THE MICROFAST SYSTEM.
 - THE SEPTIC SYSTEM IS TO BE STAKED OUT BY A PROFESSIONAL LAND SURVEYOR PRIOR TO CONSTRUCTION.
 - THE RECORD PROPERTY OWNER IS TO FILE A NOTICE OF DEED RESTRICTION AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS PRIOR TO THE INSTALLATION OF THE SYSTEM, INDICATING THE USE OF AN INNOVATIVE/ALTERNATIVE SEPTIC SYSTEM OF THE OPERATION.
 - HOMEOWNER IS TO ESTABLISH AN OPERATION & MAINTENANCE PLAN WITH A COMPANY CERTIFIED SYSTEM OPERATOR FOR THE MICROFAST. ALL SYSTEM TESTING, MONITORING & REPORTING IS TO BE CONDUCTED IN ACCORDANCE TO THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) GENERAL USE PERMIT.
 - CONTRACTOR TO COORDINATE PLACEMENT OF ALL ALARM PANELS WITH THE ARCHITECT, HOMEOWNER & SYSTEM MANUFACTURER PRIOR TO INSTALLATION.
 - ALL PANELS, ALARMS, AND BLOWER UNITS ARE TO BE INSTALLED ABOVE FLOOD ZONE ELEVATION 17.4.
 - THE SYSTEM OWNER SHALL BE RESPONSIBLE TO PUMP THE SEPTIC TANK AT LEAST ONCE EVERY THREE YEARS.
 - PROPOSED SEPTIC FORCEMAIN EASEMENT (1,388± s.f.) TO BE ESTABLISHED ON #1 LIGHTHOUSE LANE FOR THE BENEFIT OF #10 HARBOR WAY.
 - PROPOSED NITROGEN LOADING AGGREGATE EASEMENT (12,227± s.f.) AND DEED RESTRICTIONS TO BE ESTABLISHED ON #1 LIGHTHOUSE LANE FOR THE BENEFIT OF #10 HARBOR WAY.
 - APPROVAL OF NITROGEN LOADING AGGREGATE PLAN IN ACCORDANCE WITH §216 OF 310 CMR 15.00 (TITLE 5) IS REQUIRED.



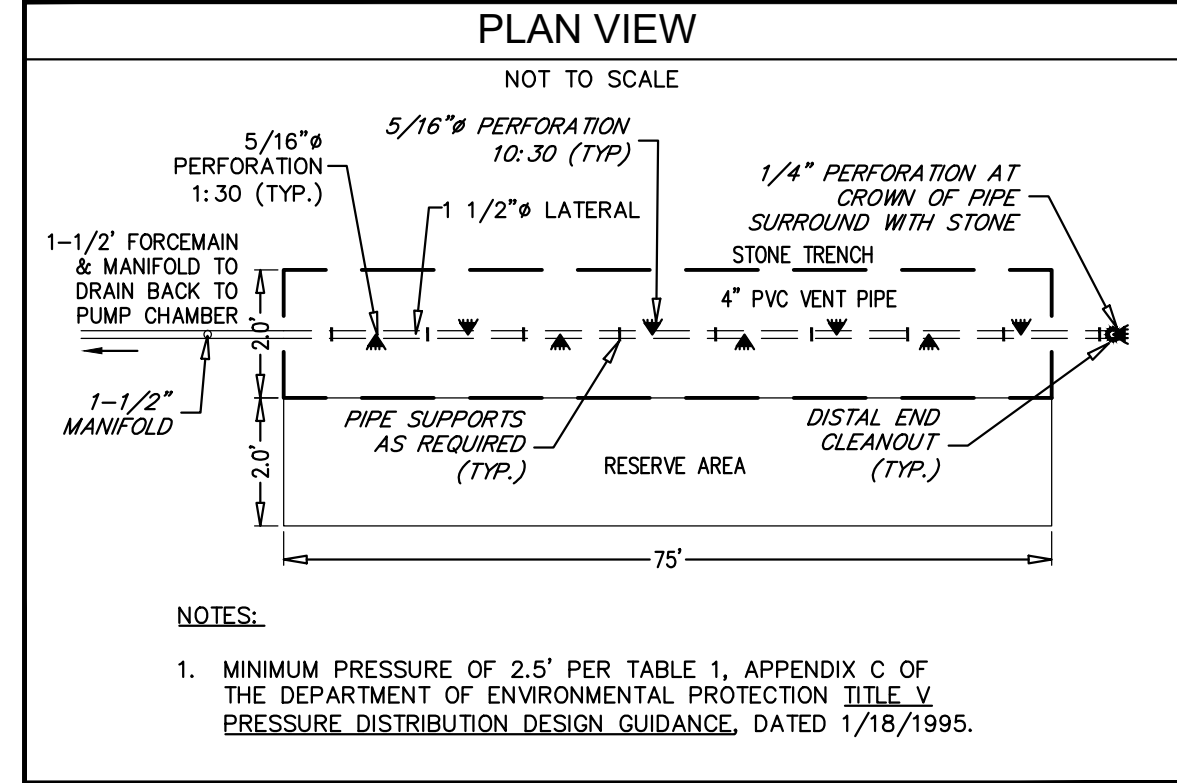
DESIGN CALCULATIONS

SOIL TEXTURAL CLASS: CLASS I
 PERC. RATE: < 5 MINUTES/INCH
 NO. OF BEDROOMS: 3
 DESIGN FLOW REQUIRED: 330 GPD
 SEPTIC TANK REQUIRED: 1,500 GALLONS
 SEPTIC TANK PROVIDED: 1,500 GALLONS

LEACHING SYSTEM:
 (1) PROPOSED 2' W x 75' L x 2' D LEACHING TRENCH

EFFECTIVE LEACHING:
 PROPOSED TRENCH 1 x 75 L.F. x 6 S.F./L.F. = 450 S.F.
 LOADING RATE = 0.74 GPD/SF
 FLOW PROVIDED: 333 GPD > 330 GPD REQUIRED

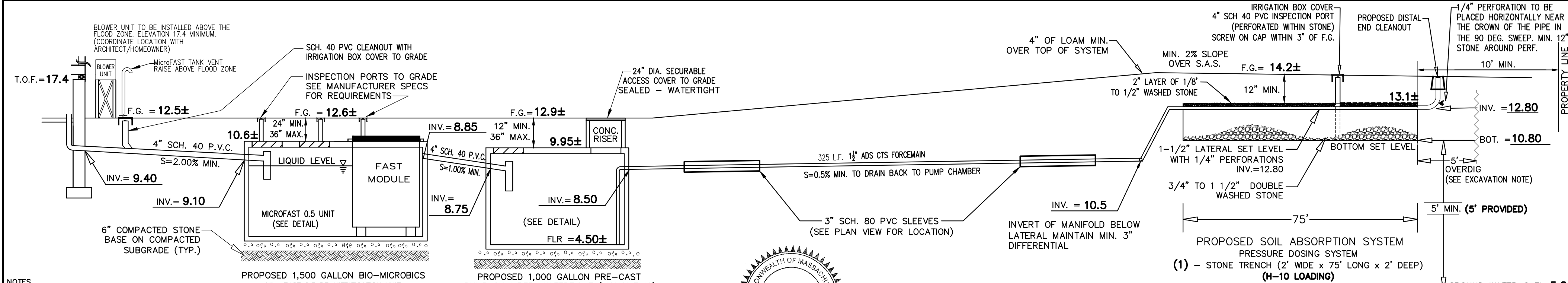
MAXIMUM NITROGEN LOADING OF 660 GPD PER 40,000 S.F. (0.0165 GPD/S.F.) PROVIDED WITH THE USE OF A MICROFAST 0.5 1/A TREATMENT UNIT IN ACCORDANCE WITH DEP GENERAL USE APPROVAL X232831. (12,227 + 7,832) = 20,059 S.F. 20,059 S.F. x 0.0165 GPD/S.F. = 330 GPD



SOIL LOGS

TP NO.	1	2
GRD. EL.	11.8	10.9
GW. EL.	5.8	0.0
0'	A LOAMY SAND	A LOAMY SAND
16'	A LOAMY SAND FRAGILE	B LOAMY SAND
36'	C1 SANDY LOAM WITH POCKETS LOAMY SAND	C1 SANDY LOAM WITH POCKETS LOAMY SAND
WEEPING @ 72"		
WATER @ 152"		
168"	C2 MEDIUM-COARSE SAND LOOSE	C2 MEDIUM-COARSE SAND LOOSE
220"	WATER @ 152"	NO MOTTLES

INVERT PRIMARY: 12.80 INVERT RESERVE: 12.80
 BOTTOM PRIMARY: 10.80 BOTTOM RESERVE: 10.80



- EXCAVATION NOTE**
- THE SYSTEM WILL REQUIRE THE EXCAVATION OF UNSUITABLE SOIL WITHIN 5' OF THE SOIL ABSORPTION SYSTEM DOWN TO THE C2 SAND LAYER, APPROXIMATELY 168" DEPTH MINIMUM (DEEPER EXCAVATION MAY BE REQUIRED). THE EXCAVATION SHALL BE INSPECTED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION. SOIL IS TO BE REPLACED WITH SAND CONFORMING TO 310 CMR SECTION 15.255, CONSTRUCTION IN FILL.
- NOTES:**
- ALL SYSTEM COMPONENTS TO BE MARKED WITH MAGNETIC MARKING TAPE.
 - ALL SYSTEM COMPONENTS TO BE WITHIN 36" OF FINISHED GRADE.
 - ALL PLUMBING WITHIN 10' OF BUILDINGS TO BE PERFORMED BY A LICENSED PLUMBER.
 - ALL ACCESS HATCHES AND INSPECTION PORTS TO BE MADE WATER-TIGHT TO PREVENT INTRUSION OF FLOOD WATERS.

Prepared By: **BRACKEN ENGINEERING, INC.**

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 (tel) 508.833.0070 (fax) 508.833.2282

19 OLD SOUTH ROAD NANTUCKET, MA 02554
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PROPOSED SITE PLAN IN BOURNE, MASSACHUSETTS

Prepared For: **STANLEY DAVITORIA & LIGHTHOUSE REALTY TRUST**

#10 HARBOR WAY - MAP 45 PARCEL 19
 #1 LIGHTHOUSE LANE - MAP 45 PARCEL 20
 #1 LIGHTHOUSE LANE - MAP 45 PARCEL 14

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Date: NOVEMBER 30, 2015 Drawn: RMM/ERC/DLH Checked: DFB/AMG Sheet: 2 of 2