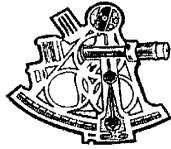


LETTER OF TRANSMITTAL

JC ENGINEERING
2854 Cranberry Highway
East Warcham, MA 02538



Telephone: 508-273-0377
Facsimile: 508-273-0367

TO: Town of Bourne
Board of Health
24 Perry Avenue
Buzzards Bay, MA 02532

DATE: 08/02/22 JOB NO. 6203
RE: LUA and Local Variance
77 Puritan Road
Buzzards Bay, MA 02532

WE ARE SENDING YOU: [X] Enclosed [] Under separate cover via [X] the following:
[X] Report [X] Plans [] Brochures [] Shop Drawings
[] Specifications [] Copy of Letter [] Change Order [] Contract Documents

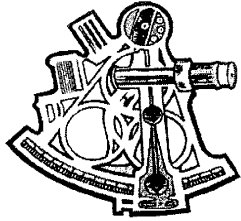
Enclosed, please find 7 copies of a BOH Variance Request application for 77 Puritan Road, including a check in the amount of \$375 for the permit and variance request fees.

THESE ARE TRANSMITTED as checked below:

[X] For Approval [] Resubmit [] Copies for Approval
[] For Your Use [] Approved as Noted [] Copies for Distribution
[X] As Requested [] Returned [] Approved as Submitted
[] Returned [] For Review and Comment [] For Your Information

REMARKS Please feel free to contact the office with any questions.

COPY TO: File SIGNED: Bradley Bertolo
Bradley Bertolo



JC ENGINEERING, Inc.
Civil & Environmental Engineering
2854 Cranberry Highway
East Wareham, Massachusetts 02538
Ph. 508-273-0377 – Fax 508-273-0367

August 2, 2022

Town of Bourne
Board of Health
24 Perry Avenue
Buzzards Bay, MA 02532

RE: Local Upgrade Approvals and Variance Requests At 77 Puritan Road, Buzzards Bay, MA

Dear Members of the Board,

Please find enclosed a sewage disposal design drawing entitled “Proposed Septic System Upgrade at 77 Puritan Road, Buzzards Bay, MA” dated July 18, 2022 for your review and approval. This project involves the installation of a septic system using an innovative/alternative treatment (Microfast Unit) within the buffer zone of a salt marsh and coastal bank. Due to site constraints, we are requesting the following variances from the Town of Bourne Regulations:

1. A 21.2' variance (150.0' - 128.8') for the setback from the leaching facility to the edge of the wetlands.
2. A 88.7' variance (150.0' - 61.3') for the setback from the leaching facility to the top of coastal bank.

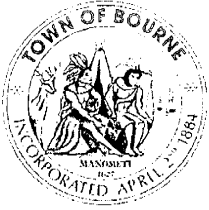
Also, in accordance with 310 CMR 15.401 - 15.405, the following local upgrade approvals are requested from 310 CMR 15.211 & 15.221(7):

1. A 4.5' waiver (10.0' - 5.5') for the setback from the leaching facility to the front property line.
2. A 9.3' waiver (20.0' - 10.7') for the setback from the leaching facility to the foundation wall.
3. A 2.3' waiver (10.0' - 7.7') for the setback from the septic tank to the front property line.
4. A 2.0' waiver (10.0' - 8.0') for the setback from the septic tank to the foundation wall.
5. A 1.0' waiver (4.0' - 3.0') for the maximum depth of cover over the septic system components.

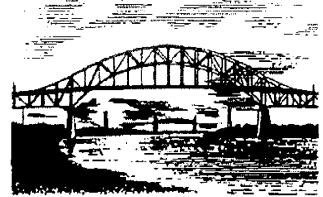
We appreciate your time and consideration on this matter. Please contact me if you have any questions or concerns.

Sincerely,

Bradley M. Bertolo, EIT, CSE
Project Engineer



Bourne Board of Health Application for Local Upgrade Approvals



This application is to be submitted to the office of the Bourne Board of Health for the upgrade of a failed or nonconforming septic system where full compliance, as defined in 310 CMR 15.404(1) and the Bourne Board of Health regulations is not feasible. In accordance with the established procedures of the Bourne Board of Health, this application for local upgrade approval is relevant to requests for relief which have not been approved administratively and require approval at a public meeting.

Please note that local upgrade approvals shall not be granted for an upgrade proposal that includes the addition of a new design flow to a cesspool or privy, or the addition of a new design flow above the existing approved capacity of an on-site system constructed in accordance with either the 1978 Code or 310 CMR 15.000.

If a system upgrade cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the Board of Health Regulations and procedures, a variance will be required. Please visit www.townofbourne.com/health for the full regulations.

1. Facility Name and Address:

Owner's Name	Richard J. Kokoszka and Jeanette C. Kokoszka
Facility's Street Address	77 Puritan Road, Buzzards Bay, MA 02532
Owner's Telephone Number	
Owner's E-mail Address	
Owner's Mailing Address	77 Puritan Road, Buzzards Bay, MA 02532

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

Preparer's Name	BRADLEY M. BERTOLO, EIT, CSE
Company	JC ENGINEERING, INC.
Telephone Number	508-273-0377
E-mail Address	bbertolo@jceng.org
Mailing Address	2854 CRANBERRY HIGHWAY
State/ Zip Code	E. WAREHAM, MA 02538

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

Residential Commercial Institutional School Industrial

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

EXISTING THREE BEDROOM, SINGLE FAMILY DWELLING

5. Type of Existing System (check all that apply): Conventional Title 5 I/A System Privy
 Pressure Dosed Single Cesspool Overflow Cesspool Systems Other

6. Describe Existing System Components: SEPTIC TANK TO LEACHING PIT

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

Design flow of existing system: 330 GPD

Design flow of proposed upgraded system: 330 GPD

Total design flow of facility: 330 GPD

8. The proposed upgrade is (check all that may apply):

- Required following inspection pursuant to 310 CMR 15.301. Date of inspection: _____
- Required by order, letter, for a building permit, etc. (attach copy of correspondence)
- Voluntary

9. Describe the proposed upgrade to the system: PUMP AND FILL EXISTING COMPONENTS.

- INSTALL NEW 1500 GALLONG SEPTIC TANK WITH MICROFAST INSERT, NEW SOIL
- ABSORPTION SYSTEM CONSISTING OF (3) 500 GALLON LEACHING CHAMBERS.
- ALL NEW COMPONENTS TO BE H-20 RATED.

10. Local Upgrade Approval is requested for (check all that apply & describe on letter of request):

This information must also be listed on the design plans

Reduction in setback(s) - describe and list all reductions or attach separate sheet: _____
SEE REQUEST FOR VARIANCE LETTER

Reduction in SAS area of up to 25% - describe: _____

Reduction in separation between the SAS and high groundwater - describe in detail: _____

Relocation of water supply well -explain: _____

Reduction of 12-inch separation between inlet and outlet tees and high groundwater

Use of only one deep hole in proposed disposal area

Use of a sieve analysis as a substitute for a perc test (attach copy of sieve results)

Other requirements of 310 CMR 15.000 or Bourne Board of Health Regulations that cannot be met - describe and specify sections of the Code: _____

DUE TO THE LOCATION OF ADJACENT RESOURCE AREAS (COASTAL BANK AND SALT MARSH), THE INSTALLATION OF THE LEACHING FACILITY WILL NEED A WAIVER FROM THE LOCAL WETLAND SETBACK REGULATION WHICH REQUIRES 150 FEET. THE PROPOSED LEACHING FACILITY IS LOCATED 61.3 FEET FROM THE NEAREST COASTAL BANK AND 128.8 FEET FROM THE SALT MARSH.

11. Explain why full compliance, as defined in 310 CMR 15.404(1), is not feasible. (Each section must be completed)

- A. An upgraded system in full compliance with 310 CMR 15.000 is not feasible: _____

- B. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible: _____

- C. Shared system is not feasible: _____
- D. Connection to a public sewer is not feasible: _____

12. In order for this Application for Local Upgrade Approval to be deemed complete, it must be accompanied by the following:

- Any Application or Permit Fees paid to the Town of Bourne.
- Application for Disposal System Construction Permit signed by licensed septic installer.
- Seven sets of complete plans and specifications. One with original stamp of design engineer.
- Cover letter addressed to the Board of Health members describing specific requests.
- 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)
- Approval from Conservation Commission (if applicable)

13. 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 _____ Date _____

Print Name _____

Signature of Preparer Bradley Bertolo Date 8/2/22

Print Name BRADLEY M. BERTOLO, EIT, CSE

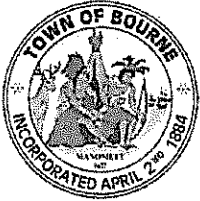
For Office Use Only

Completed Application Received: _____ Reviewed By: _____

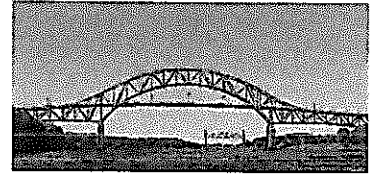
Hearing Date: _____ Permit #: _____

Circle all that apply: Approved Continued Disapproved Other

Notes: _____



TOWN OF BOURNE
Board of Assessors
24 Perry Avenue
Buzzards Bay, MA 02532
(508) 759-0600 Ext. 1510 ♦ Fax (508) 759-8026



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

Rui Pereira, MAA
Director of Assessing

August 2, 2022

Bradley Bertolo
JC Engineering, Inc.
2854 Cranberry Highway
E. Wareham, MA 02538

Re: Abutters List for Map 19.2 Parcel 100
Property address: 77 Puritan Road

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 19.2 Parcels 81, 88, 98, 99, 101 & 135.

Your payment of \$10.00 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*

Report #24: Owner Listing Report
Fiscal Year 2023

Bourne MA

ABUTTERS LIST
LIVE
Key IN 3393,3400,3408,3409,3411,3443

Extract:
Database:
Filter:
Sort:

Key	Parcel ID	Owner	Location	LC/CI	Bk-Pqt(Cert) / DT	Mailing Street	Mailing Ctv	ST	Zip Cd/County
3393	19.2-81-0	DUFFY FINTAN A & CATHERINE TRS DUFFY LIVING TRUST	72 PURITAN RD	Y	218654 2/22/2019	4 UPTON ROAD	WESTBOROUGH	MA	01581
3400	19.2-88-0	GOOD HANNAH L	70 PURITAN RD	Y	230388 6/29/2022	1024 MAGNUSON WAY	BREMERTON	VA	98310
3408	19.2-96-0	TIBBETS DAVID J & MOLLY D TRS TIBBETS REVOCABLE TRUST	1 CRANBERRY RD	Y	225512 3/3/2021	5 MYSTIC COURT	NASHUA	NH	03062
3409	19.2-99-0	FULLER MARY C TRS MARY C FULLER LIVING TRUST	79 PURITAN RD	Y	225678 3/23/2021	79 PURITAN RD	BUZZARDS BAY	MA	02532
3411	19.2-101-0	ONEILL WILLIAM E & TRACY K ONEILL	75 PURITAN RD	Y	229066 2/4/2022	75 PURITAN RD	BUZZARDS BAY	MA	02532
3443	19.2-135-0	TOWN OF BOURNE	0 PURITAN RD	Y	8692	24 PERRY AVE	BUZZARDS BAY	MA	02532

Total Records 6

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Bourne, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

Application for a Permit to Construct () Repair () Upgrade (X) Abandon () - Complete System Individual Components

Location <u>77 Puritan Rd</u>	Owner's Name <u>Richard + Jeanette Kokoszka</u>
Map/Parcel# <u>19.2</u>	Address <u>77 Puritan Rd. Buzzards Bay MA</u>
Lot# <u>100</u>	Telephone# <u>02532</u>
Installer's Name _____	Designer's Name <u>JC Engineering, Inc</u>
Address _____	Address <u>2854 Cranberry Hwy E. Wareham MA</u>
Telephone# _____	Telephone# <u>508-273-0377</u> <u>02538</u>

Type of Building single family dwelling Lot Size 10,056 sq. ft.
 Dwelling - No. of Bedrooms 3 Garbage grinder ()
 Other - Type of Building _____ No. of persons _____ Showers (), Cafeteria ()
 Other Fixtures _____
 Design Flow (min. required) 110/bed gpd Calculated design flow 330 Design flow provided 336.1 gpd
 Plan: Date July 18 2022 Number of sheets _____ Revision Date _____
 Title Proposed Site Plan at 77 Puritan Rd
 Description of Soil(s) see plan
 Soil Evaluator Form No. _____ Name of Soil Evaluator Bradley Bertala Date of Evaluation May 13, 2022

DESCRIPTION OF REPAIRS OR ALTERATIONS Pump + Remove existing components. Install 1500 gallon septic tank w/ Microfast Model 0.5 insert, D-box, and (3) 500 gallon leaching chambers

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed _____ Date _____

Inspections _____

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, _____, MA.

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed (), Repaired (), Upgraded (), Abandoned ()

by: _____
at _____

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. _____, dated _____, Approved Design Flow _____ (gpd)

Installer: _____

Designer: _____ Inspector: _____ Date: _____

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

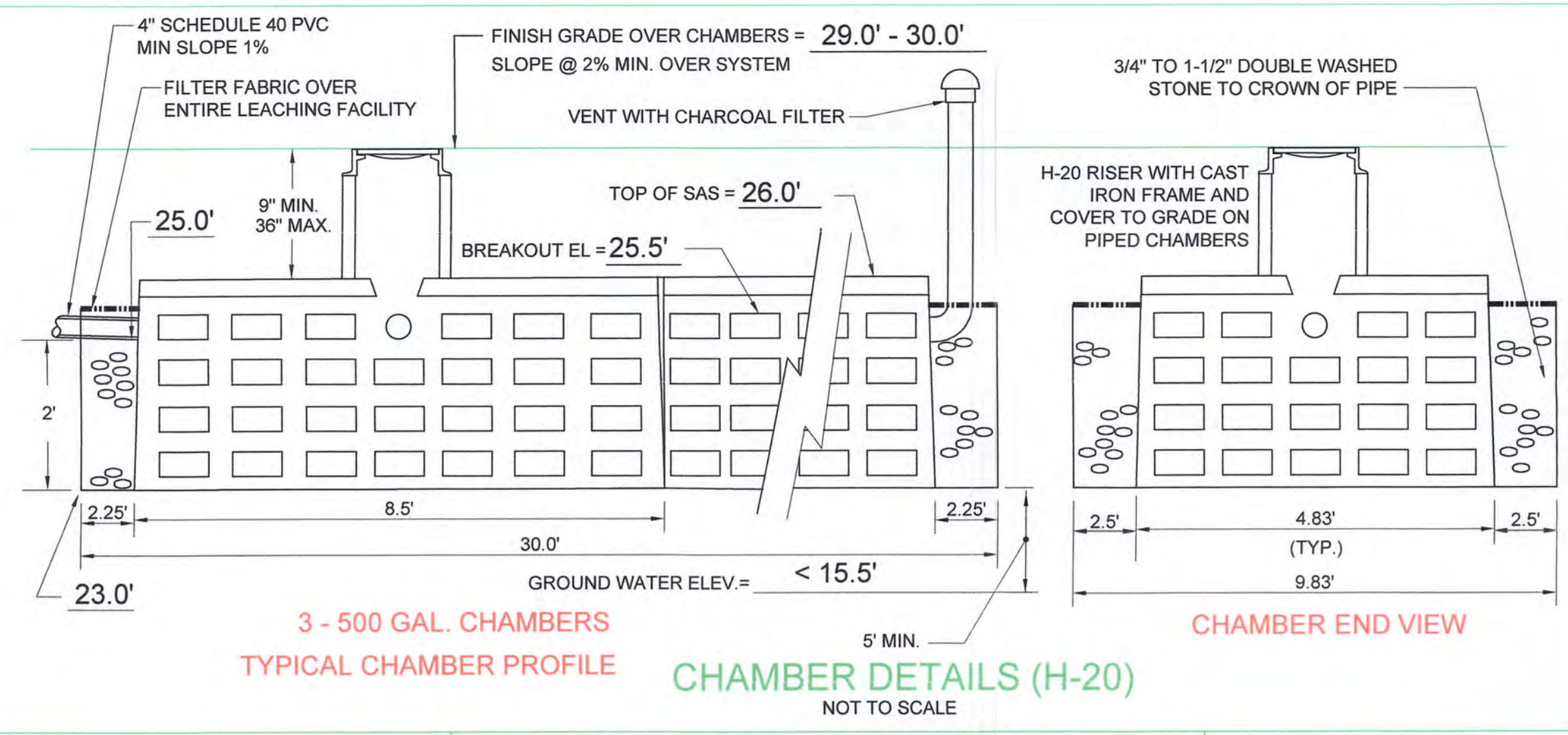
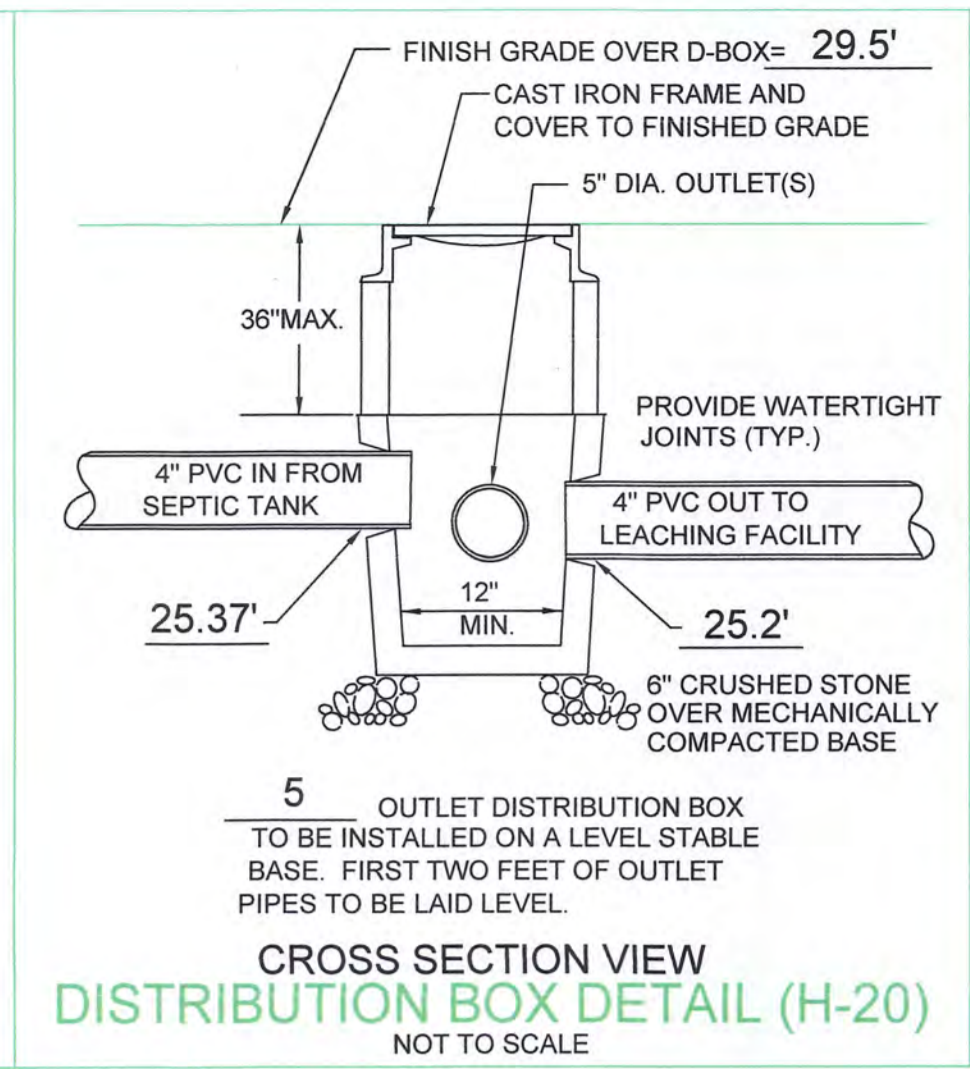
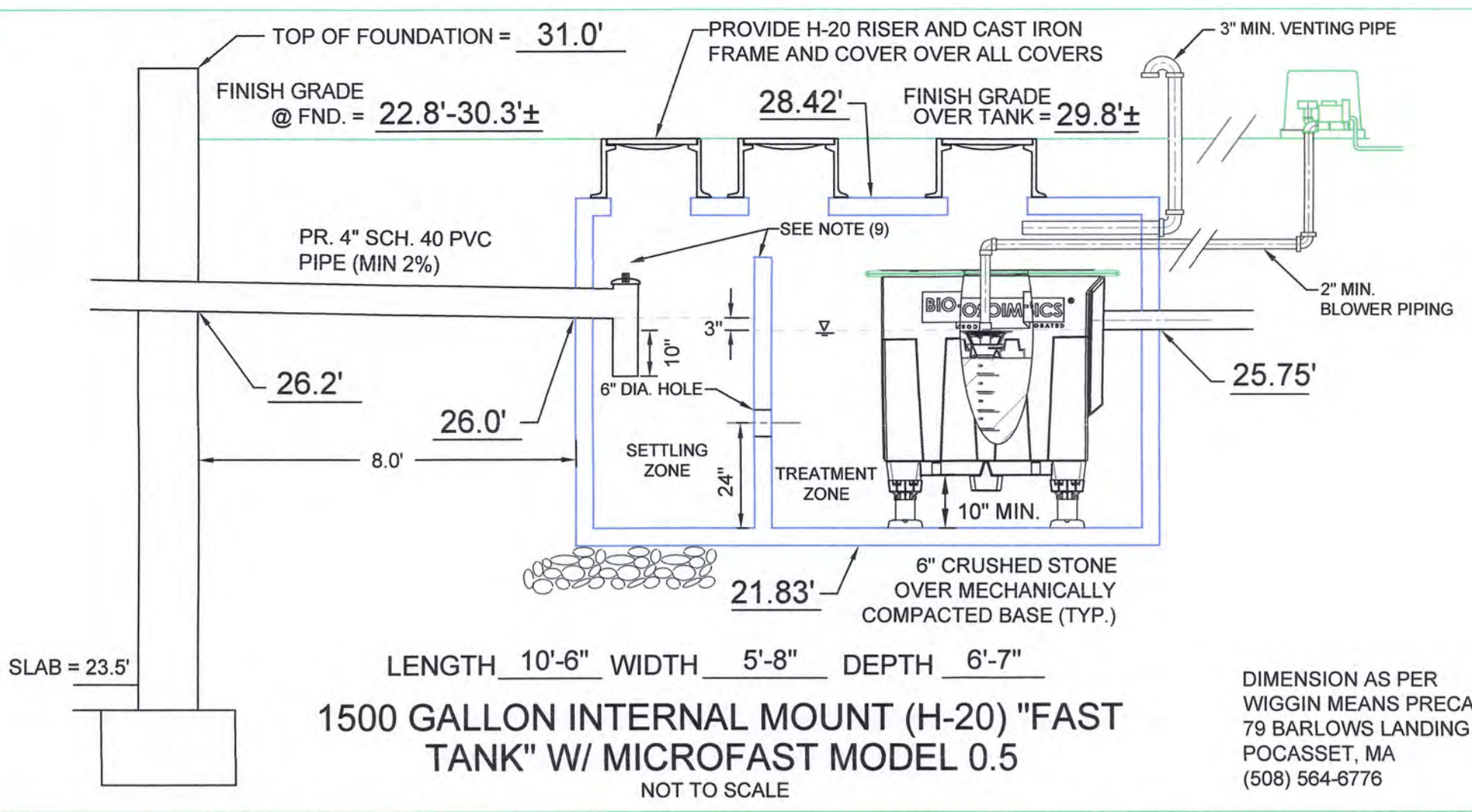
Board of Health, _____, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct () Repair () Upgrade () Abandon () an individual sewage disposal system at _____ as described in the application for

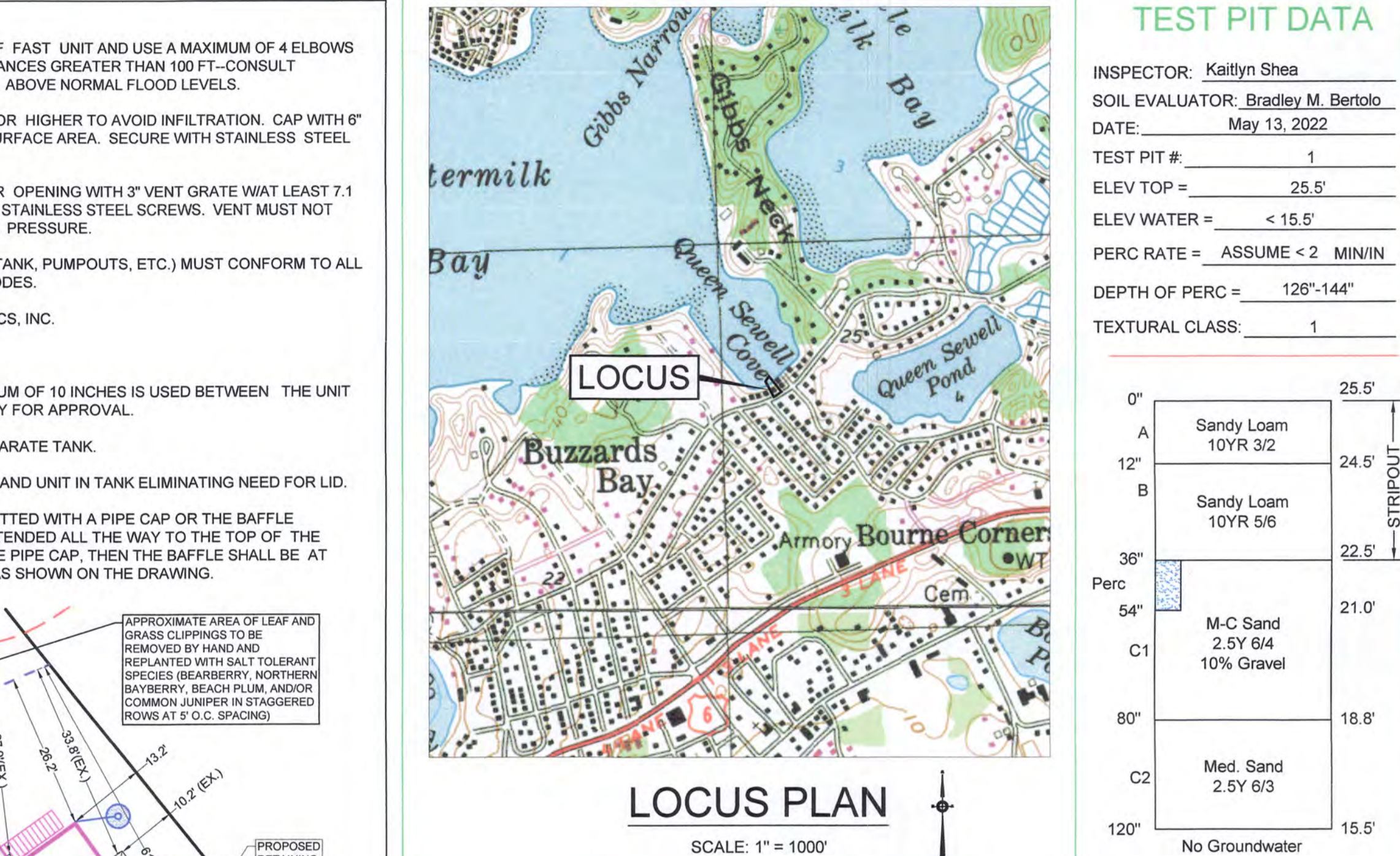
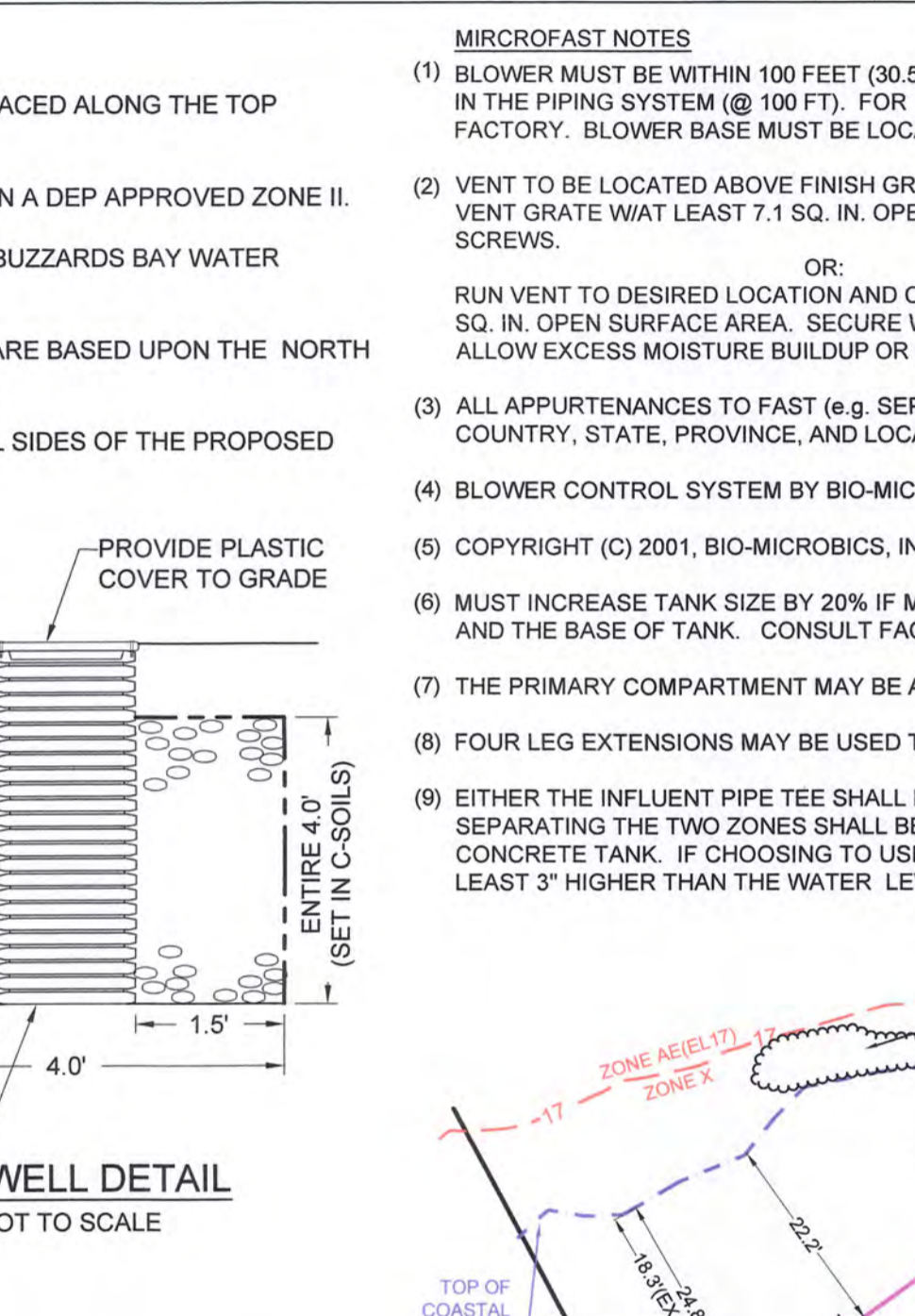
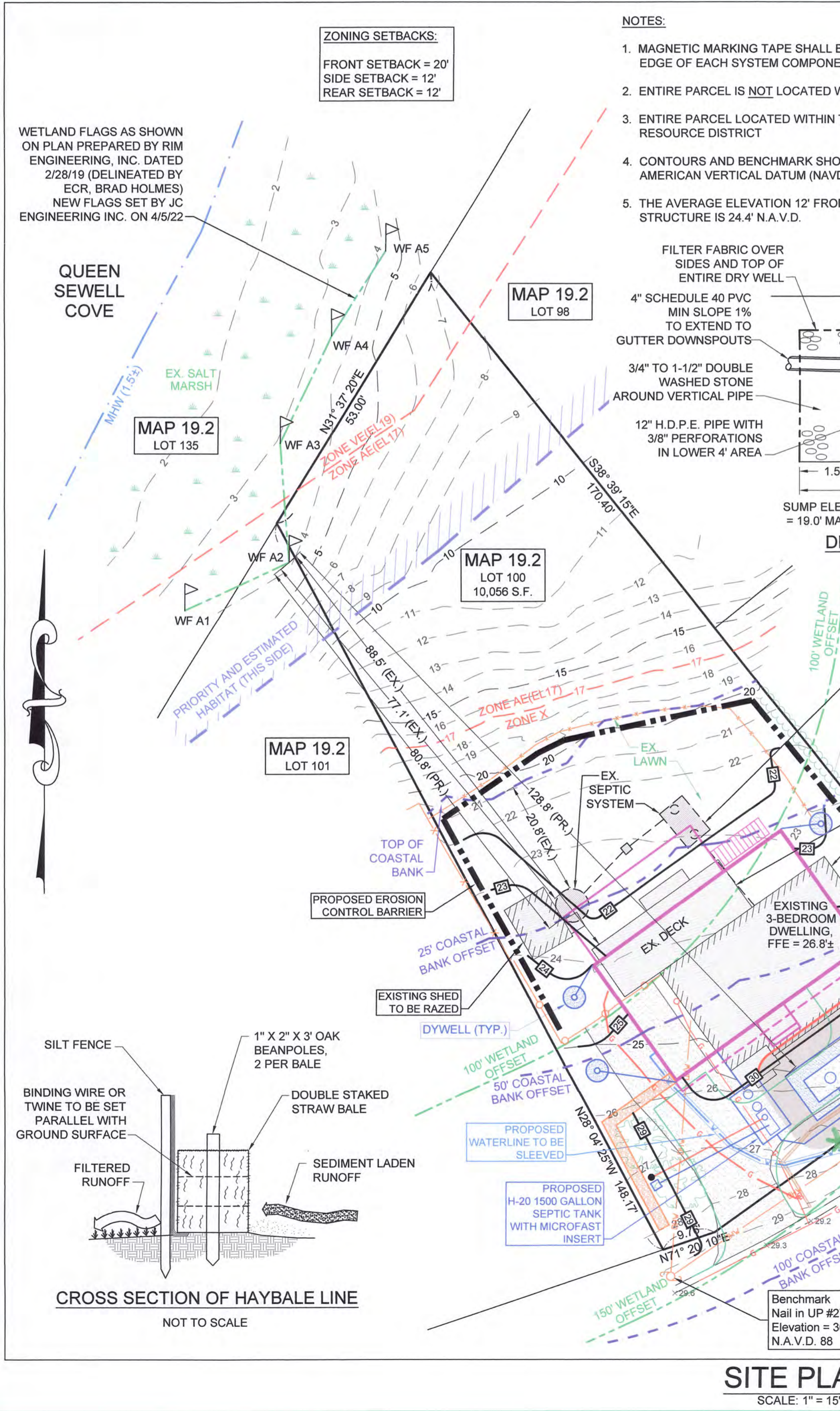
Disposal System Construction Permit No. _____, dated _____.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.



- ### GENERAL NOTES
- UNLESS OTHERWISE NOTED, ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND ANY APPLICABLE LOCAL RULES.
 - ANY CHANGES TO THIS PLAN MUST BE APPROVED BY THE BOARD OF HEALTH AND THE DESIGN ENGINEER.
 - 4" SCHEDULE 40 PVC PIPE WITH WATER TIGHT JOINTS SHALL BE USED IN DISPOSAL SYSTEM UNLESS OTHERWISE NOTED.
 - TO PREVENT BREAKOUT, THE PROPOSED FINISH GRADE SHALL NOT BE LESS THAN ELEVATION = 24.5' FOR A DISTANCE OF 15' AROUND THE PERIMETER OF THE SAS. UNLESS A 40 MIL GEOMEMBRANE LINER IS PLACED AT LEAST FIVE FEET FROM S.A.S. AND THE TOP OF THE LINER IS NOT LESS THAN THE BREAKOUT ELEVATION.
 - SLOPE ALL SOLID PIPE AT 1.0% MINIMUM.
 - THIS SYSTEM IS NOT DESIGNED FOR A GARBAGE DISPOSAL.
 - LOCAL BOARD OF HEALTH AND DESIGN ENGINEER TO BE NOTIFIED PRIOR TO BACK FILLING WHEN SYSTEM IS NEARLY COMPLETE AND READY FOR INSPECTION. SYSTEM IS NOT TO BE BACK FILLED WITHOUT FIRST OBTAINING APPROVAL FROM BOARD OF HEALTH AND DESIGN ENGINEER.
 - ELEVATIONS BASED ON ACTUAL DATUM OF 30.0' N.A.V.D. 88 OBTAINED FROM A NAIL SET IN THE UTILITY POLE AS SHOWN ON PLAN.
 - CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION THROUGH DIG-SAFE AT LEAST 72 HOURS PRIOR TO COMMENCING WORK ON SITE AT 1-888-DIG-SAFE AND ANY OTHER APPLICABLE AGENCIES. REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER.
 - ALL JOINTS WHERE PIPE ENTERS AND EXITS CONCRETE STRUCTURES SHALL BE MADE WATER TIGHT.
 - NO DETERMINATION HAS BEEN MADE AS TO COMPLIANCE WITH DEEDED OR ZONING REGULATIONS. OWNER/APPLICANT IS TO OBTAIN SUCH DETERMINATION FROM APPROPRIATE AUTHORITY.
 - ALL SEPTIC SYSTEM COMPONENTS SHALL WITHSTAND H-10 LOADING UNLESS LOCATED UNDER PAVEMENT, DRIVES OR TRAVELED WAYS IN WHICH CASE THEY SHALL WITHSTAND H-20 LOADING.
 - DOUBLE WASHED CRUSHED STONE SHALL BE FREE OF ALL DIRT, DUST AND FINES.
 - WHERE REQUIRED, CONTRACTOR SHALL REMOVE ALL LOAM, SUBSOIL AND UNSUITABLE MATERIAL IN AREA BENEATH AND FOR 5 FT. ON ALL SIDES OF LEACHING FACILITY. REPLACE ALL UNSUITABLE MATERIAL WITH CLEAN COARSE SAND FREE FROM CLAY, FINES OR OTHER UNSUITABLE MATERIAL IN ACCORDANCE WITH 310 CMR 15.255(3).
 - CONTRACTOR SHALL NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES FOUND IN SITE CONDITIONS FROM THOSE SHOWN PRIOR TO CONTINUATION OF WORK.
 - PROPOSED PROJECT IS LOCATED WITHIN:

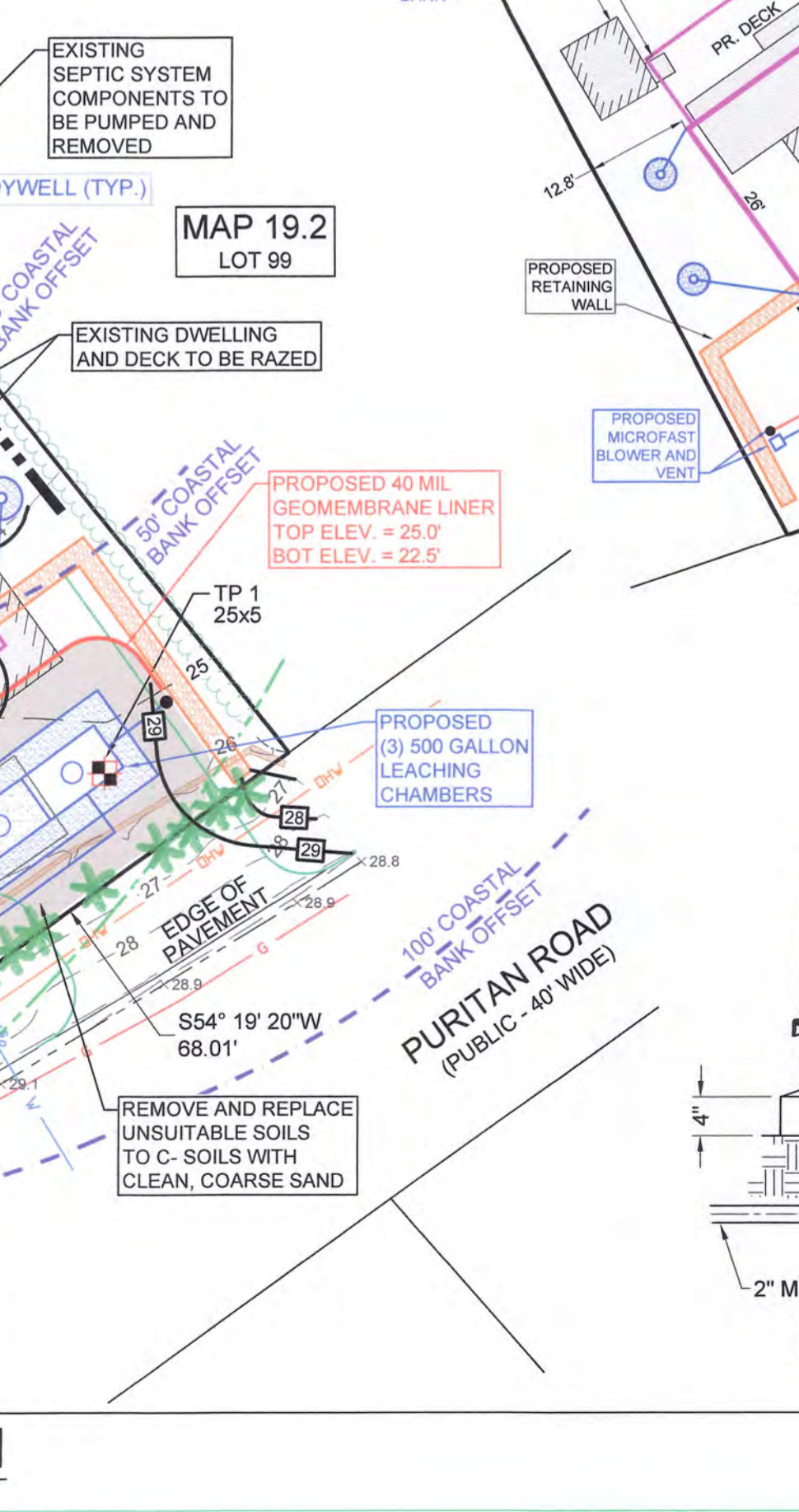
ASSESSORS MAP #	19.2	LOT #	100
FLOOD ZONE	X	AS SHOWN ON PANEL #	25001C0313K



TEST PIT DATA

INSPECTOR: Kaitlyn Shea
 SOIL EVALUATOR: Bradley M. Bertolo
 DATE: May 13, 2022
 TEST PIT #: 1
 ELEV TOP = 25.5'
 ELEV WATER = < 15.5'
 PERC RATE = ASSUME < 2 MIN/IN
 DEPTH OF PERC = 126\"/>

0\"/>



DESIGN DATA

INSTALL 3 - 500 GAL. CHAMBERS

NUMBER OF BEDROOMS 3
 DESIGN FLOW 110 GAL/DAY/BED
 TOTAL DESIGN FLOW 330 GAL/DAY
 DESIGN FLOW x 200% = 660 GAL/DAY

USE PROPOSED 1500 - GALLON SEPTIC TANK WITH MICROFAST INSERT

LEGEND

- 50 --- EXISTING CONTOURS
- 50 --- PROPOSED CONTOURS
- W --- PROPOSED WATERLINE
- HW --- PROPOSED OVERHEAD UTILITIES
- G --- PROPOSED GASLINE
- TEST PIT LOCATION
- PROPOSED 1500 GALLON SEPTIC TANK WITH MICROFAST INSERT (H-20)
- 4\"/>

LOCAL UPGRADE APPROVAL REQUEST

IN ACCORDANCE WITH 310 CMR 15.401-15.405, THE FOLLOWING LOCAL UPGRADE APPROVALS ARE REQUESTED FROM 310 CMR 15.221(1):

- A 4.5' WAIVER (10.0' - 5.5') FOR THE SETBACK FROM THE LEACHING FACILITY TO THE FRONT PROPERTY LINE.
- A 9.3' WAIVER (20.0' - 10.7') FOR THE SETBACK FROM THE LEACHING FACILITY TO THE FOUNDATION WALL.
- A 2.3' WAIVER (10.0' - 7.7') FOR THE SETBACK FROM THE SEPTIC TANK TO THE FRONT PROPERTY LINE.
- A 2.0' WAIVER (10.0' - 8.0') FOR THE SETBACK FROM THE SEPTIC TANK TO THE FOUNDATION WALL.
- A 1.0' WAIVER (4.0' - 3.0') FOR THE MAXIMUM DEPTH OF COVER OVER THE SEPTIC SYSTEM COMPONENTS.

LOCAL VARIANCE REQUEST

THE FOLLOWING LOCAL VARIANCE IS REQUESTED FROM THE TOWN OF BOURNE BOARD OF HEALTH 150 FOOT SETBACK REGULATION:

- A 21.2' VARIANCE (150.0' - 128.8') FOR THE SETBACK FROM THE LEACHING FACILITY TO THE EDGE OF THE WETLANDS.
- A 88.7' VARIANCE (150.0' - 61.3') FOR THE SETBACK FROM THE LEACHING FACILITY TO THE TOP OF COASTAL BANK.

PROPOSED SITE PLAN

PREPARED FOR:
LINDA KOKOSZKA

LOCATED AT
**77 PURITAN ROAD
 BUZZARDS BAY, MA 02532**

SCALE: 1 INCH = 15 FT. DATE: JULY 18, 2022

PREPARED BY:
**JC ENGINEERING, INC.
 2854 CRANBERRY HIGHWAY
 EAST WAREHAM, MA 02538
 508.273.0377**

Drawn By: BMB | Designed By: BMB | Checked By: JLC | JOB No: 6203