



**NOTICE OF PUBLIC HEARING
SUDBURY CONSERVATION COMMISSION
Monday, February 27, 2023 at 6:45 PM
Virtual Meeting**

The Sudbury Conservation Commission will hold a public hearing to review the Notice of Intent filing to replace a septic system within the 100-foot Buffer Zone, pursuant to the Wetlands Protection Act and Sudbury Wetlands Administration Bylaw, at 116 Austin Road, Sudbury, MA. Godfrey & Hellen Zziwa, Applicants. The hearing will be held on Monday, February 27, 2023 at 6:45 pm, via remote participation.

Please see the Conservation Commission web page for further information.

<https://sudbury.ma.us/conservationcommission/meeting/conservation-commission-meeting-monday-february-27-2023/>

SUDBURY CONSERVATION COMMISSION
2/10/23



CONNORSTONE ENGINEERING, INC.

10 SOUTHWEST CUTOFF, SUITE #7
NORTHBOROUGH, MASSACHUSETTS 01532
TEL: (508) 393-9727 • FAX: (508) 393-5242

Sudbury Conservation Commission
275 Old Lancaster Road
Sudbury, MA 01776

January 30, 2023

**Subject: Notice of Intent
116 Austin Road
Sudbury, MA**

Dear Members of the Commission;

On behalf of the applicant, Godfrey & Hellen Zziwa, please find the enclosed Notice of Intent and supporting documentation for the proposed septic system repair at 116 Austin Road, including:

1. The Notice of Intent application package including:
 - Completed NOI Form 3 – Notice of Intent
 - Wetland Delineation Report
 - Locus mapping
 - List of abutters and notification forms;
2. Site Plans “Proposed Sewage Disposal System Plan, of 116 Austin Road, Sudbury, MA”, prepared by Connorstone Engineering, Inc., dated January 20, 2023.
3. Checks in the amount of \$67.50 for the town portion of the NOI fee and \$25 for the local Wetland Bylaw fee. The local bylaw fee was calculated for a single minor project. The State share of the NOI fee has been forward to MassDEP.

Existing Conditions:

The project site consists of a 9.9 acre parcel of land currently developed as a single family home. The existing home is located adjacent to Austin Road including driveway access and lawn/landscaped areas around the house. Areas to the rear of the house are current undeveloped and wooded.

Regulated resources areas have been delineated by Oxbow Associates in January 2023, and a copy of the delineation report has been attached for review. The regulated areas include Bordering Vegetated Wetlands located along the west side lot line and over much of the rear portion of the lot. The associated 100 foot buffer zone extends over most of the lot area.

The existing home is currently serviced by an on-site septic system located in the front yard approximately 15 feet from the wetland areas at its closest point. This system has been determined to be in failure and must be replaced per Title 5 and Local Board of Health Regulations.

Proposed Project:

The proposed work under this Notice of Intent would include replacement of the existing septic system. The propose system would include a new septic tank, pump chamber, and leach field. The septic tank and pump chamber would be located in front of the house in the same general location as the existing system. This location was required to coordinate with the existing plumbing within the home. The leach field would be located in the front westerly corner of the lot in order to provide the maximum practical separation to the wetland areas. The field would provide a minimum 75 foot setback to the edge of wetland. This location would require a pump chamber to gain the required elevation and relocation of an existing underground Fios line. The existing underground electric line is located to the rear of the proposed leach field further limiting the flexibility of the location. Soil testing was performed in the proposed location and suitable soil conditions were encountered including highly permeable sand.

The proposed system would provide an improvement over the existing condition through replacing a failing septic system in close proximity to the wetland areas, increasing the horizontal separation to wetlands from 15 feet to 75 feet, and increasing the vertical separation to groundwater.

Temporary erosion controls include straw wattles with silt fencing have been proposed along the limit of work to avoid erosion issues during construction as well as silt sacks to be placed within the roadway catch basin. The limit of work would be maintained within the existing lawn areas and no new tree clearing would be required within the buffer zone (except for one 2" ornamental tree).

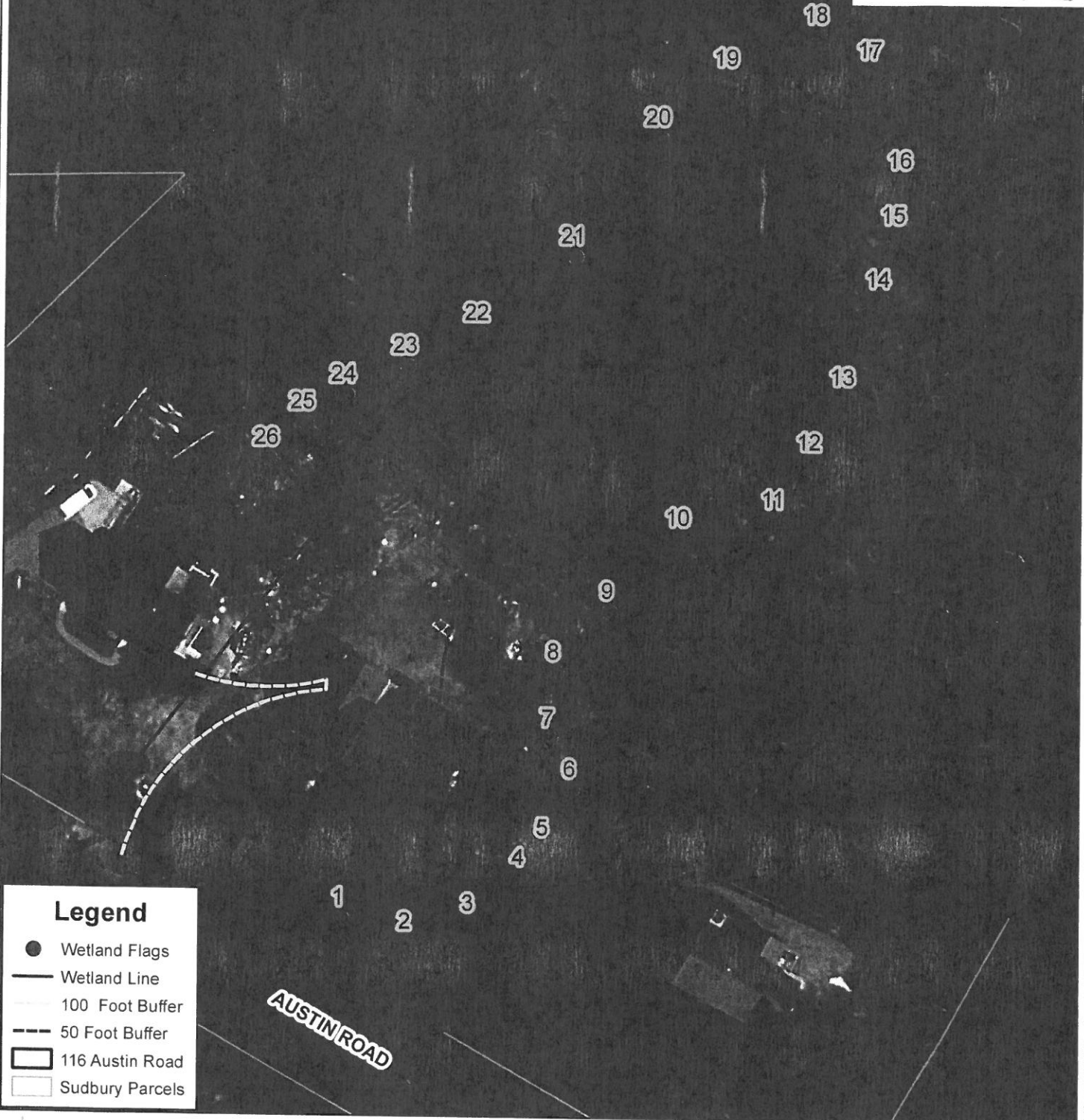
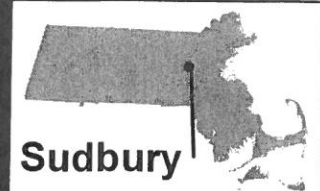
If you have any questions or require any additional information please contact this office at (508) 393-9727.

Sincerely,
Connorstone Engineering, Inc.

A handwritten signature in black ink, appearing to read 'V. Colonna', written in a cursive style.

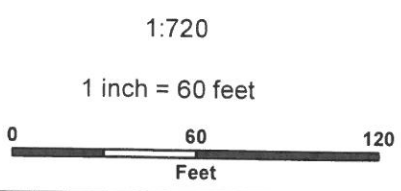
Vito Colonna, P.E.

c. MassDEP Northeast Region



Legend

- Wetland Flags
- Wetland Line
- - - 100 Foot Buffer
- - - 50 Foot Buffer
- ▭ 116 Austin Road
- ▭ Sudbury Parcels



Wetland Figure
116 Austin Road
Sudbury, MA

January 06, 2023



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Sudbury

City/Town

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note:
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

116 Austin Road

a. Street Address

Sudbury

b. City/Town

01776

c. Zip Code

Latitude and Longitude:

42.37283

d. Latitude

-71.44779

e. Longitude

J 05

f. Assessors Map/Plat Number

0378

g. Parcel /Lot Number

2. Applicant:

Godfrey & Hellen

a. First Name

Zziwa

b. Last Name

c. Organization

116 Austin Road

d. Street Address

Sudbury

e. City/Town

Ma

f. State

01776

g. Zip Code

617-840-7702

h. Phone Number

i. Fax Number

gkzziwa@gmail.com

j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

Same as applicant

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Vito

a. First Name

Colonna

b. Last Name

Connorstone Engineering

c. Company

10 Southwest Cutoff, Suite #7

d. Street Address

Northborough

e. City/Town

Ma

f. State

01532

g. Zip Code

508-393-9727

h. Phone Number

i. Fax Number

vc@csei.net

j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$110

a. Total Fee Paid

\$42.50

b. State Fee Paid

\$67.50

c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Sudbury

City/Town

A. General Information (continued)

6. General Project Description:

Repair of existing septic system in failure. The replacement system will be located within the 100' buffer zones.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

- 1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Middlesex

a. County

65750

c. Book

b. Certificate # (if registered land)

330

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- 1. Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- 2. Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number _____

Document Transaction Number _____

Sudbury

City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Bank	1. linear feet _____	2. linear feet _____
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet _____	2. square feet _____
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet _____	2. square feet _____
	3. cubic yards dredged _____	

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet _____	2. square feet _____
	3. cubic feet of flood storage lost _____	4. cubic feet replaced _____
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet _____	
	2. cubic feet of flood storage lost _____	3. cubic feet replaced _____

- f. Riverfront Area
1. Name of Waterway (if available) - **specify coastal or inland** _____
 2. Width of Riverfront Area (check one):
 - 25 ft. - Designated Densely Developed Areas only
 - 100 ft. - New agricultural projects only
 - 200 ft. - All other projects
 3. Total area of Riverfront Area on the site of the proposed project: _____ square feet
 4. Proposed alteration of the Riverfront Area:

a. total square feet _____	b. square feet within 100 ft. _____	c. square feet between 100 ft. and 200 ft. _____
----------------------------	-------------------------------------	--

5. Has an alternatives analysis been done and is it attached to this NOI? Yes No
6. Was the lot where the activity is proposed created prior to August 1, 1996? Yes No

3. Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number _____

Document Transaction Number _____

Sudbury _____

City/Town _____

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
 Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	_____	
	1. square feet	

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	_____
	1. square feet	2. cubic yards dune nourishment

	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	

	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	

	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	

4. Restoration/Enhancement
 If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

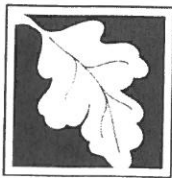
a. square feet of BVW

b. square feet of Salt Marsh

5. Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number _____

Document Transaction Number _____

Sudbury _____

City/Town _____

C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. Yes No

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

08/01/2021

b. Date of map _____

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*
1. Percentage/acreage of property to be altered:
 - (a) within wetland Resource Area _____ percentage/acreage
 - (b) outside Resource Area _____ percentage/acreage
 2. Assessor's Map or right-of-way plan of site
2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **
- (a) Project description (including description of impacts outside of wetland resource area & buffer zone)
 - (b) Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number _____

Document Transaction Number _____

Sudbury _____

City/Town _____

C. Other Applicable Standards and Requirements (cont'd)

(c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

(d) Vegetation cover type map of site

(e) Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. Project is exempt from MESA review.

Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing.

a. NHESP Tracking # _____

b. Date submitted to NHESP _____

3. Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. Not applicable – project is in inland resource area only b. Yes No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

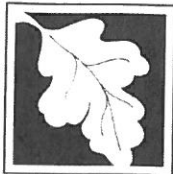
Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. Is this an aquaculture project?

d. Yes No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Sudbury

City/Town

C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a. Yes No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
- a. Yes No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. A portion of the site constitutes redevelopment
 3. Proprietary BMPs are included in the Stormwater Management System.
- b. No. Check why the project is exempt:
1. Single-family house
 2. Emergency road repair
 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Sudbury

City/Town

D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. List the titles and dates for all plans and other materials submitted with this NOI.

Proposed Sewage Disposal System Plan

a. Plan Title

Connorstone Engineering, Inc.

Vito Colonna PE

b. Prepared By

c. Signed and Stamped by

January 13, 2023

1"=20'

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number #197

3. Check date 2/1/23

4. State Check Number #130

5. Check date 2/1/23

6. Payor name on check: First Name GODFREY

7. Payor name on check: Last Name ZZIWA



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Sudbury

City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

<p>1. Signature of Applicant <u>DS Map. Agent for Owner</u> <i>CONSERVATION ENG.</i></p>	<p>2. Date <u>2/2/23</u></p>
<p>3. Signature of Property Owner (if different)</p>	<p>4. Date</p>
<p>5. Signature of Representative (if any) <u>DS Map</u></p>	<p>6. Date <u>2/2/23</u></p>

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

116 Austin Road
 a. Street Address
 # 130
 c. Check number
 Sudbury
 b. City/Town
 \$42.50
 d. Fee amount

2. Applicant Mailing Address:

Godfrey & Hellen
 a. First Name
 Zziwa
 b. Last Name
 c. Organization
 116 Austin Road
 d. Mailing Address
 Sudbury
 e. City/Town
 Ma
 f. State
 01776
 g. Zip Code
 617-840-7702
 h. Phone Number
 i. Fax Number
 gkzziwa@gmail.com
 j. Email Address

3. Property Owner (if different):

a. First Name
 b. Last Name
 c. Organization
 d. Mailing Address
 e. City/Town
 f. State
 g. Zip Code
 h. Phone Number
 i. Fax Number
 j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 1	1	\$110	\$110
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Step 5/Total Project Fee: \$110

Step 6/Fee Payments:

Total Project Fee:	\$110
State share of filing Fee:	\$42.50
City/Town share of filling Fee:	\$67.50
	a. Total Fee from Step 5
	b. 1/2 Total Fee less \$12.50
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

WETLAND DELINEATION REPORT

Oxbow Associates, Inc.
January 24, 2023



January 24, 2023

Ms. Meaghan T. Mayo
Connorstone Engineering, Inc.
10 Southwest Cutoff #7
Northborough, MA 01532

mtm@csei.net
508-393-9727

**Re: Wetland Resource Area Evaluation
116 Austin Road
Sudbury, MA**

Dear Ms. Mayo:

In response to your request, Oxbow Associates, Inc. (OA: specifically, D. Kemmett) reviewed the above referenced site with specific regard to wetland resource areas on January 5th, 2023. This evaluation was conducted in accordance with standard methodology for delineating vegetated wetlands under the Massachusetts Wetlands Protection Act (the "Act"; MGL Ch. 131, §40) and the Sudbury Wetlands Administration Bylaw (Article XXII) and its Regulations.

Existing Conditions and Wetland Resource Areas

The site is located north of Austin Road, south of Tanbark Road, east of Axdell Road, and west of Peakham Road. The parcel contains a single-family home with a paved driveway and attached garage, screened-in back porch, and back deck. The east side of both front and rear yards is fringed by small, planted mulch beds. The north side of the back yard contains a gravel patch with lawn chairs and a fire pit, a wooden shed, a storage area for firewood, and four raised planting beds. The unfenced yard slopes uninterrupted into wooded portions of the property to the north, west and east. The slope into the mixed woodland directly from the yard is gentle, increasing in severity as it approaches the wetland boundary.

A peninsula of wooded uplands defines the wetlands north of the property, creating a slope into the wetland from both the east and west sides of the backyard. It is likely that soils in portions of the adjacent fenced-in backyard lawn at 108 Austin Road, where the field-examined wetland boundary ends, exhibit wetland characteristics. The edge of the wetland to the west and northwest of the dwelling is defined by a shallow man-made ditch. Based on our observations, OA believes that the wetland resource area located on and near the site is Bordering Vegetated Wetland (BVW; 310 CMR 10.55).

OA flagged the edge of the Bordering Vegetated Wetland with blue plastic flags in a series labeled A1-A26. Flags were placed based on topography, hydric soils, predominance of wetland vegetation, and other indicators of hydrology including limit of standing water, silt-stained leaves, and buttressed tree roots.

Vegetation associated with the wetland habitat includes red maple (*Acer rubrum*) highbush blueberry (*Vaccinium corymbosum*), sweet pepperbush (*Clethra alnifolia*) glossy buckthorn (*Frangula alnus*), cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), sedges (*Carex* sp.), rushes (*Juncus* sp.), Sphagnum moss (*Sphagnum* sp.), and Japanese pachysandra (*Pachysandra terminalis*). Vegetation associated with the upland portions of the site consists of eastern white pine (*Pinus strobus*), oaks (*Quercus* spp.), burning bush (*Euonymus alatus*), *Rhododendron* sp., Japanese pachysandra, princess pine (*Lycopodium obscurum*), and eastern teaberry (*Gaultheria procumbens*).

According to the Massachusetts Natural Heritage and Endangered Species Program Atlas (MassGIS 2021), there are no rare wildlife species' habitats or certified vernal pools on the site.

Regulatory Implications and Recommendations

It is OA's opinion that the areas identified on the attached figure are subject to jurisdiction under the Wetlands Protection Act and the Town of Sudbury Wetlands Administration Bylaw as BVW. The delineated boundaries are our professional opinion of the limit of resource areas and must be confirmed by the Sudbury Conservation Commission (SCC) before they are considered a legal boundary.

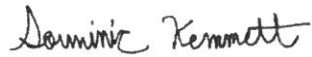
The A-series BVW has a 100-foot buffer zone extending horizontally from the delineated flags under the Act, and under the Bylaw, which protects "Adjacent Upland Resource Areas" to wetlands. Any activity proposed within 100 feet of the BVW boundary (A-series flags) would be subject to review by the SCC and the Massachusetts Department of Environmental Protection (DEP). In addition, the Bylaw gives wide latitude to the SCC to determine "No Disturbance, Temporary, Limited, and Permanent Disturbance" Areas on the property. In certain zones, work may be prohibited or curtailed to protect resource area values. A minimum of 25 feet of natural vegetation is typically desirable between the edge of wetland resources and proposed activities and/or disturbance. The amount of work allowable under the Bylaw in the remaining zones may increase the further it is from a resource or ecologically sensitive area.

It is our understanding that you are proposing to replace an existing sewage system on the property. As described, most or all of this project will only alter areas already within the maintained yard. Almost all of the property is located within the "Adjacent Upland Resource Area" (100-foot Buffer Zone to BVW), including the backyard. We recommend filing a Notice of Intent (NOI) with the SCC before the start of any site work. If work occurs outside of the 100-ft buffer zone, a Request for Determination of Applicability (RDA) should be filed to confirm this. Individual sewage treatment systems must be offset from surface wetlands as required by the Sudbury Board of Health Regulations and Massachusetts Title V.

The GIS/GPS map we have provided can be used as a planning tool, however, a Professional Land Surveyor or Engineer will need to complete a survey and plan of the existing and proposed conditions. Any SCC filing must include a site plan illustrating the proposed installation design and limit of work.

If you have any questions, please do not hesitate to contact us.

Sincerely,



Dominic Kemmett
Environmental Scientist

Encl.

Wetland Delineation Figure, Representative Site Photographs

Representative Site Photographs

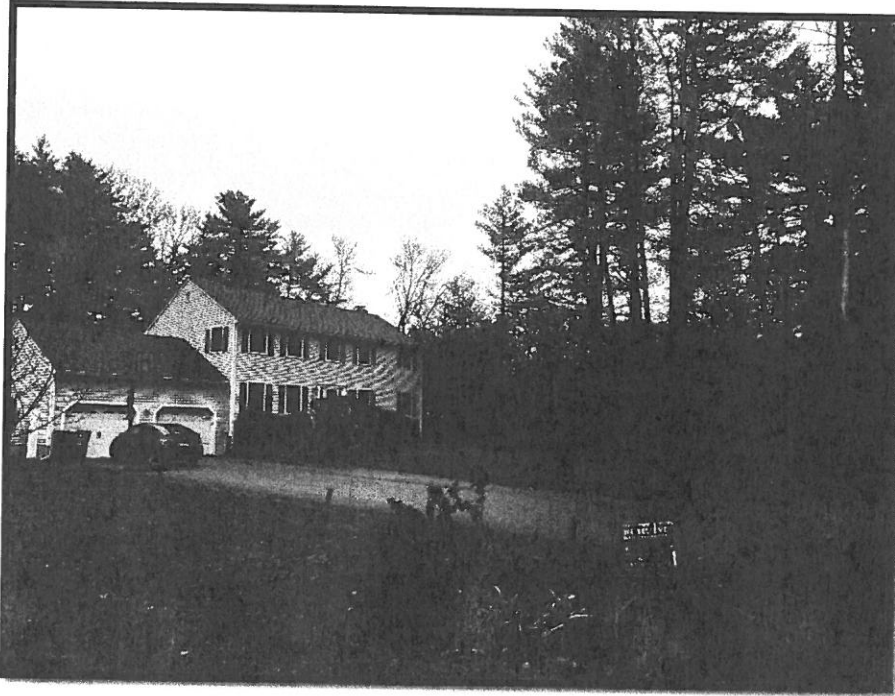


Photo 1. Front of the dwelling, looking northeast.



Photo 2. Rear of the dwelling, looking southwest.



Photo 3. Fire pit area and edge of woods. Looking west.



Photo 4. Wetlands east of the dwelling, near flag A23. The backyard fence at 108 Austin Road is visible at left. Looking southwest.



Photo 5. Wetlands north of the dwelling, near flag A18. Looking north.

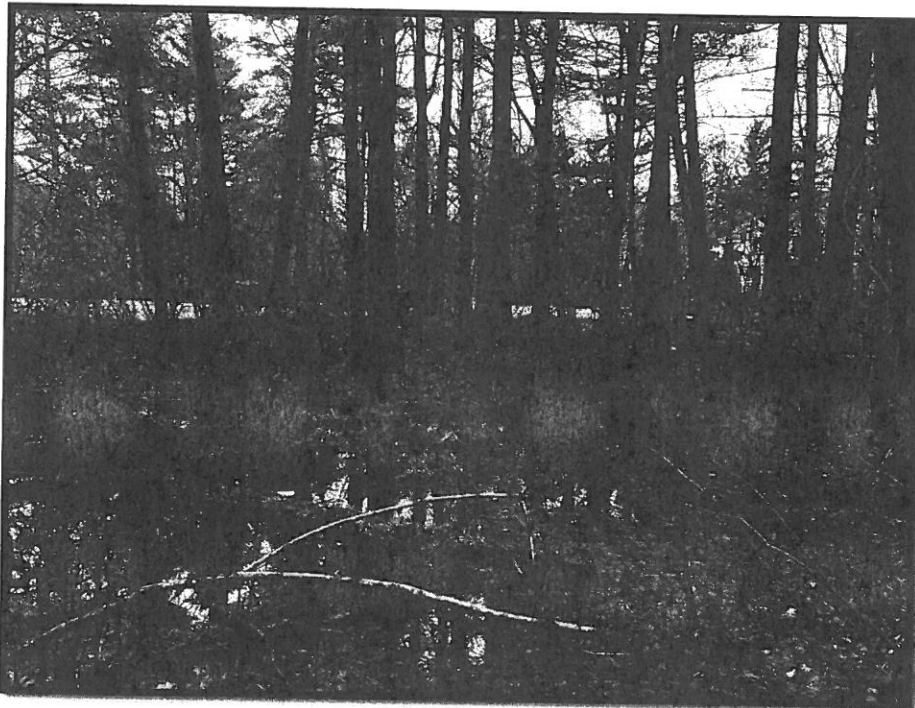


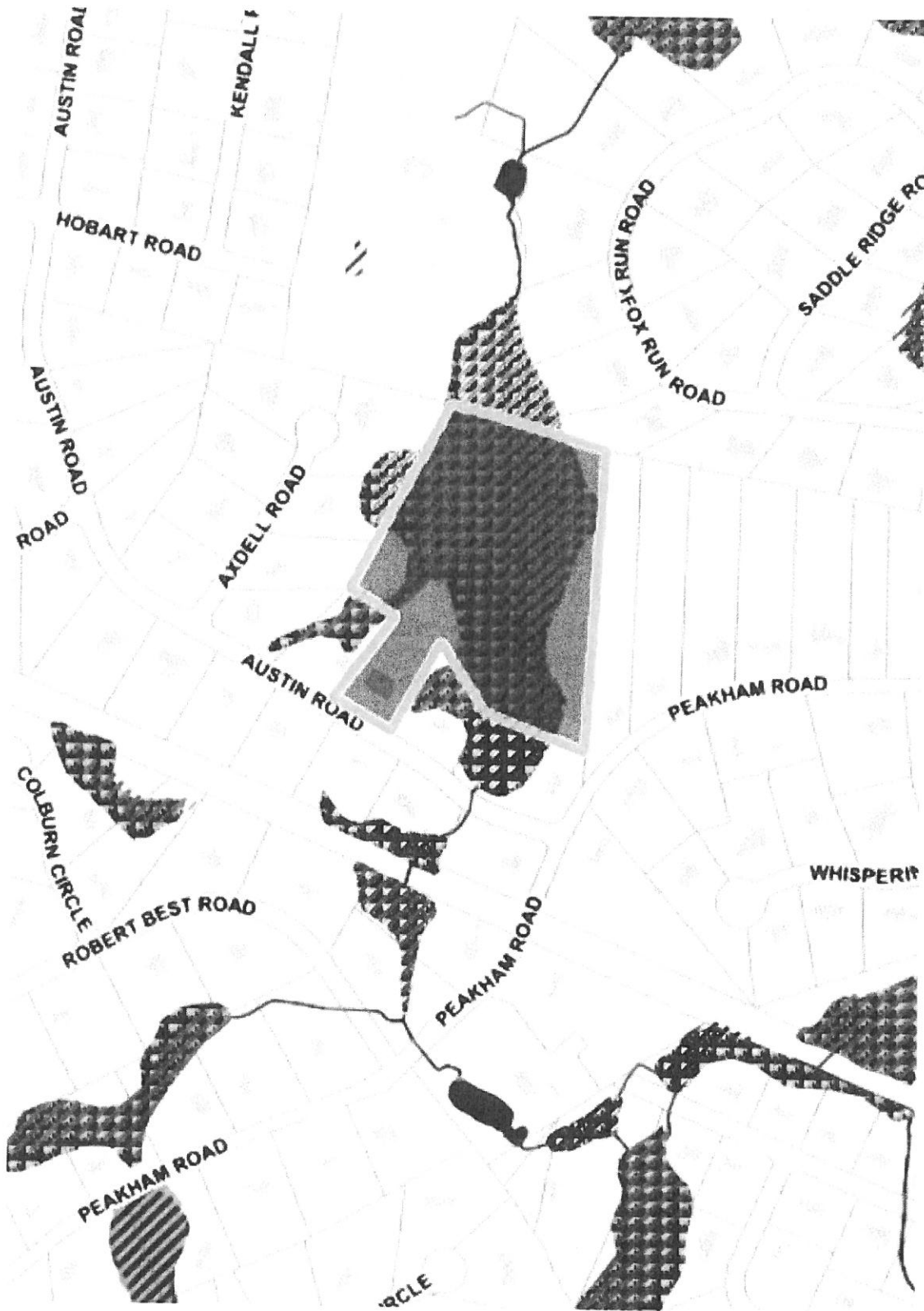
Photo 6. Wetlands east of the property, near flag A3. Dwelling and front yard are visible at rear. Looking west.

LOCUS MAPPING

USGS MAPPING



Locus Map



CERTIFIED LIST OF ABUTTER & NOTIFICATION FORMS

AFFIDAVIT OF SERVICE
Under the Massachusetts Wetlands Protection Act
&
Sudbury Wetlands Administration Bylaw

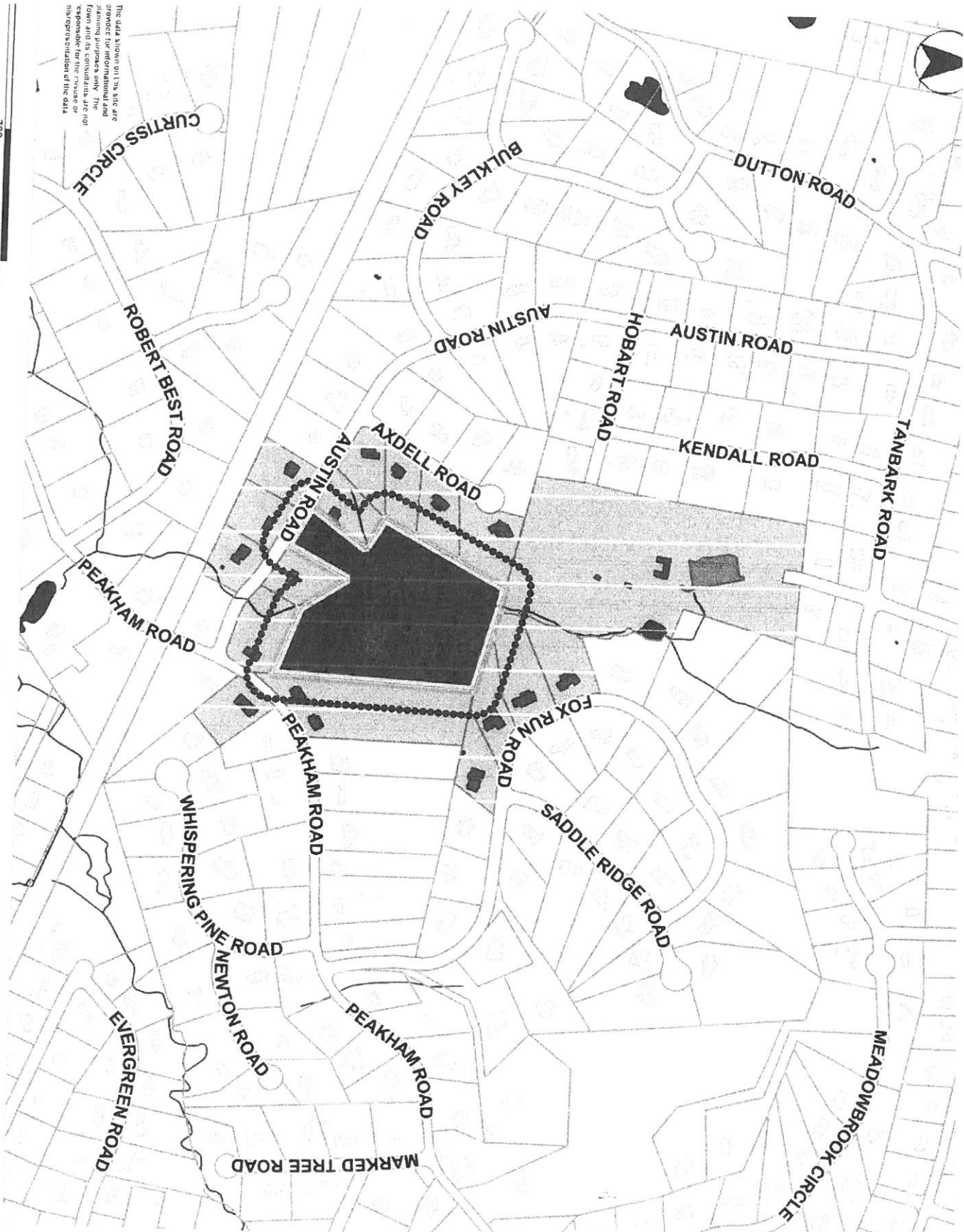
I, D.S. Mayo of Connorstone Engineering, Inc., hereby certify under the pains and penalties of perjury that on 2/2/23, 2023 I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Sudbury Wetlands Administration Bylaw and Massachusetts Wetlands Protection Act by Godfrey & Hellen Zziwa with the Sudbury Conservation Commission on 2/2/23 2023 for property located at 116 Austin Road in Sudbury Ma.

The form of the notification, and a list of the abutters to whom it was given and their addresses are attached to this Affidavit of Service.

D.S. Mayo
Name CONNORSTONE ENG. INC.

2/2/23
Date



700
1400 ft

Printed on 01/24/2023 at 04:31 PM

Zziwa 116 Austin Rd. Sudbury, MA

The data shown on this site are provided for informational and planning purposes only. The responsible consultants are not liable for any errors or omissions or misrepresentation of the data.

- Bridges
- Driveways
- Parking Lots
- Medians
- Sidewalks
- Curbs
- Roads
- Paved Roaces
- Unpaved Roads
- Buildings
- Parcels
- Streams Ortho
- Streams CIR
- Lake/Reservoir
- MA Highways
- MA State
- US Highway
- Numbered Routes
- Town Boundary
- Streets



Abutters List

Date: January 24, 2023

[print this list](#)

Subject Property Address: 116 AUSTIN RD Sudbury, MA
Subject Property ID: J05-0378

Search Distance: 100 Feet

Owner: SUDBURY SWIM & TENNIS CLUB INC
Co-Owner:
Prop ID: H05-0029
Prop Location: 60 HEMLOCK RD Sudbury, MA
Mailing Address:

P O BOX 19
SUDBURY, MA 01776

Owner: GRAZIANO CHANCEY L &
Co-Owner: JACQUELINE R
Prop ID: H05-0606
Prop Location: 65 FOX RUN Sudbury, MA
Mailing Address:
65 FOX RUN RD
SUDBURY, MA 01776

Owner: GUO JIAN & LIU JING GE
Co-Owner:
Prop ID: H05-0607
Prop Location: 71 FOX RUN Sudbury, MA
Mailing Address:
71 FOX RUN RD
SUDBURY, MA 01776

Owner: SHNAPIR BORIS & SINITSKAYA INNA
Co-Owner:
Prop ID: J05-0005
Prop Location: 250 PEAKHAM RD Sudbury, MA
Mailing Address:
250 PEAKHAM RD
SUDBURY, MA 01776

Owner: MORGAN SETH D & SUSAN M
Co-Owner:
Prop ID: J05-0009
Prop Location: 247 PEAKHAM RD Sudbury, MA
Mailing Address:
247 PEAKHAM RD
SUDBURY, MA 01776

Owner: SHERMAN JOAN P
Co-Owner:
Prop ID: J05-0010
Prop Location: 255 PEAKHAM RD Sudbury, MA
Mailing Address:
255 PEAKHAM RD
SUDBURY, MA 01776

Owner: ROYDS KEVIN F & BARBARA A
Co-Owner:
Prop ID: J05-0011
Prop Location: 259 PEAKHAM RD Sudbury, MA
Mailing Address:
259 PEAKHAM RD
SUDBURY, MA 01776

Owner: PATEL-MATHEW SONALI R &
Co-Owner: MATHEW MATHEW BIJOY
Prop ID: J05-0373
Prop Location: 26 AXDELL RD Sudbury, MA
Mailing Address:
26 AXDELL RD
SUDBURY, MA 01776

Owner: PENDERGAST MARK & HEATHER
Co-Owner:
Prop ID: J05-0374
Prop Location: 20 AXDELL RD Sudbury, MA
Mailing Address:
20 AXDELL RD
SUDBURY, MA 01776

CG

Owner: RODER PAUL J & TERRY L TOUGHIL L
Co-Owner:
Prop ID: J05-0375
Prop Location: 8 AXDELL RD Sudbury, MA
Mailing Address:
8 AXDELL RD
SUDBURY, MA 01776

Owner: ROMAN HENRY A &
Co-Owner: COILE COURTNEY C
Prop ID: J05-0376
Prop Location: 4 AXDELL RD Sudbury, MA
Mailing Address:
4 AXDELL RD
SUDBURY, MA 01776

Owner: LOPEZ FELICE
Co-Owner:
Prop ID: J05-0377
Prop Location: 108 AUSTIN RD Sudbury, MA
Mailing Address:
108 AUSTIN RD
SUDBURY, MA 01776

Owner: PLATH JAMES T & BETHANY BOWLES
Co-Owner:
Prop ID: J05-0379
Prop Location: 123 AUSTIN RD Sudbury, MA
Mailing Address:
123 AUSTIN RD
SUDBURY, MA 01776

Owner: GIBBS DAVID D
Co-Owner:
Prop ID: J05-0380
Prop Location: 115 AUSTIN RD Sudbury, MA
Mailing Address:

CC-



Certificate of Mailing — Firm

Name and Address of Sender
 CONNORSTONE ENGINEERING
 121 BOSTON POST RD.
 SUDBURY, MA 01776

TOTAL NO. of Pieces Listed by Sender: 14

TOTAL NO. of Pieces Received at Post Office™: 6

Postmaster, per (name of receiving employee): *Carly*

U.S. POSTAGE PAID
 WAYLAND, MA
 01778
 FEB 02, 23
 AMOUNT
\$3.24
 R2304H109755-12

UNITED STATES POSTAL SERVICE®
 0000

Affix Stamp Here
 Postmark with Date of Receipt.

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1. ZZ1WA 116 1	SUDBURY SWIM & TENNIS CLUB P.O. BOX 19 SUDBURY, MA 01776	.60			
2. ZZ1WA 116 2	C.L. & J.R. GRAZIANO 65 FOX RUN RD. SUDBURY, MA 01776	.60			
3. ZZ1WA 116 3	J. GUO & LIU JING GE 71 FOX RUN RD. SUDBURY, MA 01776	.60			
4. ZZ1WA 116 4	B SHNAPIR & I. SINITSKAYA 250 PEAKHAM RD. SUDBURY, MA 01776	.60			
5. ZZ1WA 116 5	S. D. & S. M. MORGAN 247 PEAKHAM RD. SUDBURY, MA 01776	.60			
6. ZZ1WA 116 6	J.P. SHERMAN 255 PEAKHAM RD. SUDBURY MA 01776	.60			

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here Postmark with Date of Receipt.	Postage	Fee	Special Handling	Parcel Airlift
USPS® Tracking Number Firm-specific Identifier 1. ZZIWA 116 7	K.F. & B.A. ROYDS 259 PEAKHAM RD. SUDBURY, MA 01776	6 Postmaster, per (name of receiving employee) <i>Carla</i>		.60			
2. ZZIWA 116 8	PATEL-MATHEW SONALI R & MATHEW MATHEW BIJOY 26 AXDELL RD. SUDBURY, MA 01776			.60			
3. ZZIWA 116 9	M. & H. PENDERGAST 210 AXDELL RD. SUDBURY, MA 01776			.60			
4. ZZIWA 116 10	J. R. RODER & T.L. TOUGHIL 8 AXDELL RD. SUDBURY, MA 01776			.60			
5. ZZIWA 116 11	C.C. COILE 4 AXDELL RD. SUDBURY, MA 01776			.60			
6. ZZIWA 116 12	F. LOPEZ 108 AUSTIN RD. SUDBURY, MA 01776			.60			



Name and Address of Sender		TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here Postmark with Date of Receipt.	Postage	Fee	Special Handling	Parcel Airlift
<p>USPS Tracking Number Firm-specific Identifier</p>		<p>Postmaster, per (name of receiving employee)</p> <p><i>Carol</i></p> <p>0000</p>		<p>U.S. POSTAGE PAID WAYLAND, MA 01778 FEB 02, 23 AMOUNT \$1.62 R2304H109755-12</p>				
<p>1. ZZIWA 116 13</p>		<p>J.T. PLATH & B. BOWLES 123 AUSTIN RD. SUDBURY, MA 01776</p>		<p>.60</p>				
<p>2. ZZIWA 116 14</p>		<p>D.D. GIBBS 115 AUSTIN RD. SUDBURY, MA 01776</p>		<p>.60</p>				
<p>3.</p>								
<p>4.</p>								
<p>5.</p>								
<p>6.</p>								





Certificate of Mailing — Firm

Name and Address of Sender

CONNORSTONE ENGINEERING, INC.
121 BOSTON POST ROAD
SUDBURY, MA 01776

TOTAL NO.
of Pieces Listed by Sender

1

TOTAL NO.
of Pieces Received at Post Office™



Postmaster, per (name of receiving employee)

Carla J.

U.S. POSTAGE PAID
WAYLAND, MA
01776
FEB 09 23
AMOUNT
\$1.85
R2304H109755-12



0000

Affix Stamp Here
Postmark with Date of Receipt.

USPS® Tracking Number
Firm-specific Identifier

1. ZZIWA 9-Z

Address
(Name, Street, City, State, and ZIP Code™)

M. + H. PENDERGAST
20 AXDELL RD.
SUDBURY, MA 01776

Postage

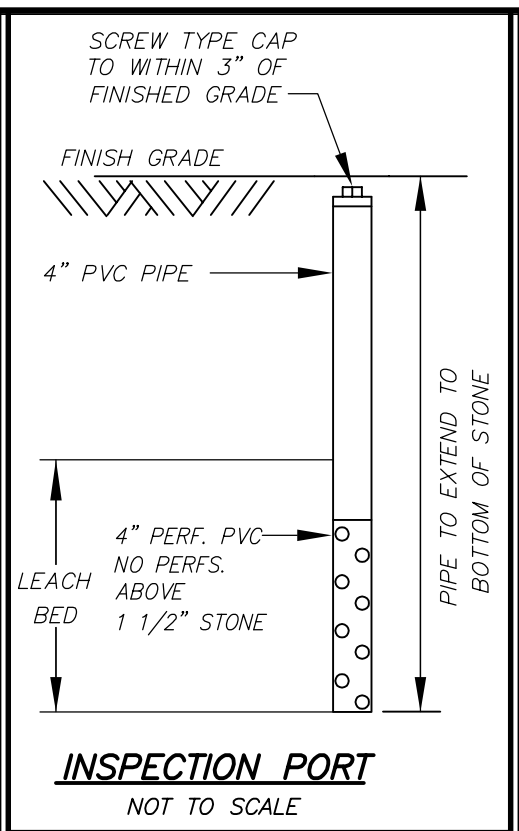
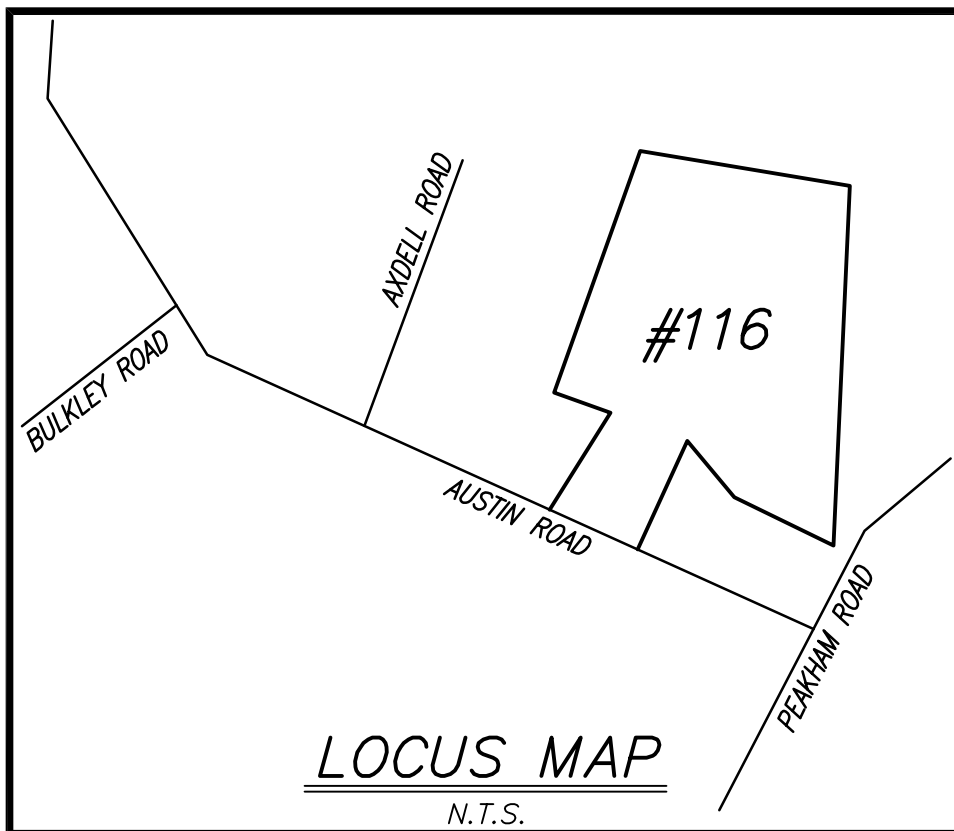
.60

Fee

1.85

Special Handling

Parcel Airlift



SCHEDULE OF ELEVATIONS

TOP OF FOUNDATION T.C. =	204.04
CONTRACTOR TO CONFIRM INVERTS PRIOR TO CONSTRUCTION	
INVERT OF PIPE AT FOUNDATION = 200± (CONFIRM)	
INVERT AT SEPTIC TANK INLET =	196.6
INVERT AT SEPTIC TANK OUTLET =	196.4
INVERT AT PUMP TANK INLET =	196.2
INVERT AT PUMP TANK OUTLET =	196.0
INVERT AT DISTRIBUTION BOX INLET =	198.7
INVERT AT DISTRIBUTION BOX OUTLET =	198.5
INVERT AT LEACHING LINES (BEGINNING) =	198.3
INVERT AT LEACHING LINES (END) =	198.15
ELEVATION OF BED BOTTOM =	197.6
FINISH GRADE OVER LEACHING AREA =	200±

DESIGN CRITERIA

- ESTIMATED FLOW = 4 BDRMS X 110 GPD/BR=440 GPD
- DESIGN PERCOLATION RATE = <2 MPI
- LEACHING AREA CALCULATION =

BED AREA = 25' x 24' = 600 SF(0.74 GPD/SF)=444 GPD

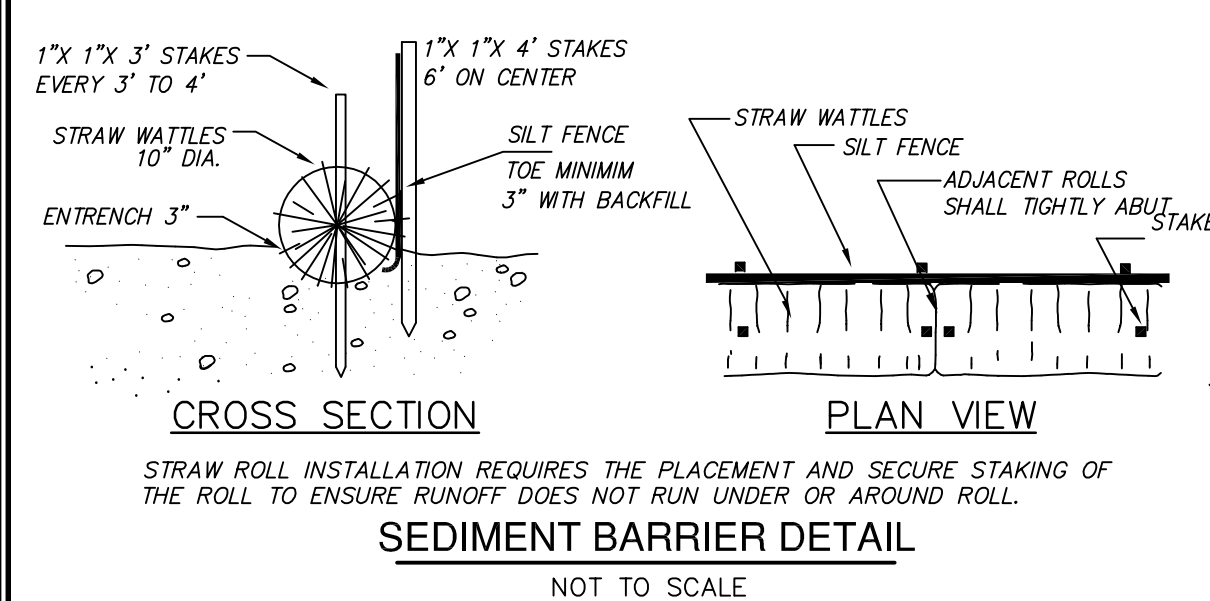
- PUMP NOTES:**
- THE PUMP CHAMBER SHALL BE A 1,000 GALLON SEPTIC TANK AS PRODUCED BY: E.F. SHEA INC. OR ITS APPROVED EQUAL. ALL JOINTS SHALL BE MORTARED, AND THE TANK WATER TIGHT.
 - THE PUMP SHALL BE A MYERS 4/10 HP PUMP OR EQUAL WITH A 2" INCH DISCHARGE LINE AND SHALL BE EQUIPPED WITH 115 VOLT SINGLE PHASE POWER, SM 1500 FLOATS, AND A CE 115 CONTROL PANEL THAT IS EQUIPPED WITH AN AUDIBLE ALARM.
 - HIGH WATER ALARM TO CONSIST OF A MERCURY FLOAT SWITCH (CE 115 ALARM CONTROL) WITH A POWER CIRCUIT SEPARATE OF THE PUMP POWER CIRCUIT, SET TO ACTIVATE ALARM IN THE HOUSE WHEN WATER REACHES THE ELEVATION OF 194.1
 - ALL WIRING TO BE PLACED OUTSIDE OF HOUSE TO BE WATERPROOF AND INSTALLED ACCORDING TO APPLICABLE CODES.
 - THE DISTRIBUTION BOX SHALL BE EQUIPPED WITH A TEE.
 - ANY BAFFLE OR TEE THAT OBSTRUCTS THE DISCHARGE LINE SHALL BE REMOVED.
 - THE ALARM IS TO HAVE AN ALTERNATIVE SUPPLY IN CASE OF POWER FAILURE.
 - WEEPHOLE MUST BE IN 2" INCH FORCE MAIN, THE HOLE SHOULD BE LOCATED BETWEEN THE CHECK VALVE AND INSIDE OF TANK.
 - CONTROL PANEL TO BE EQUIPPED WITH ON-OFF AND MANUAL SWITCHING POSITIONS.
 - CHECK VALVE SHALL BE OF BALL TYPE, INSTALLED VERTICALLY WITH A 3/8" WEEP LOCATED ON THE DISCHARGE SIDE OF THE CHECK VALVE BETWEEN VALVE AND INSIDE WALL OF TANK.
 - ALL PRESSURE PIPING SHALL BE SECURED AND SHIELDED FROM ABRASION, AND SHALL BE COUPLED WITH HIGH PRESSURE PVC COUPLINGS.

TOTAL DYNAMIC HEAD CALCULATION:

LINEAL FEET OF 2 INCH PIPE =	56
EQUIVALENT FEET OF PIPE FOR FITTINGS =	38
TOTAL LINEAL FEET OF PIPE =	94
FRICITION HEAD LOSS PER 100' AT 55 GPM =	4.81
STATIC HEAD =	5.9
EQUIVALENT HEAD = 98 / 100 x 4.81 =	4.7
TOTAL DYNAMIC HEAD =	10.6

PUMP DISCHARGE CALCULATIONS

DOSE(S) PER DAY = 2 DOSES
 1000 GAL. TANK = 4.7 x 7.5 x 0.8 x 7.48 GAL./C.F. = 210.9 GAL./DOSE
 PUMP CAPACITY AT 10.6 FT. OF HEAD = 55 GAL. / MIN.
 DOSE TIME = 210.9 / 55 = 3.8 MIN. / DOSE

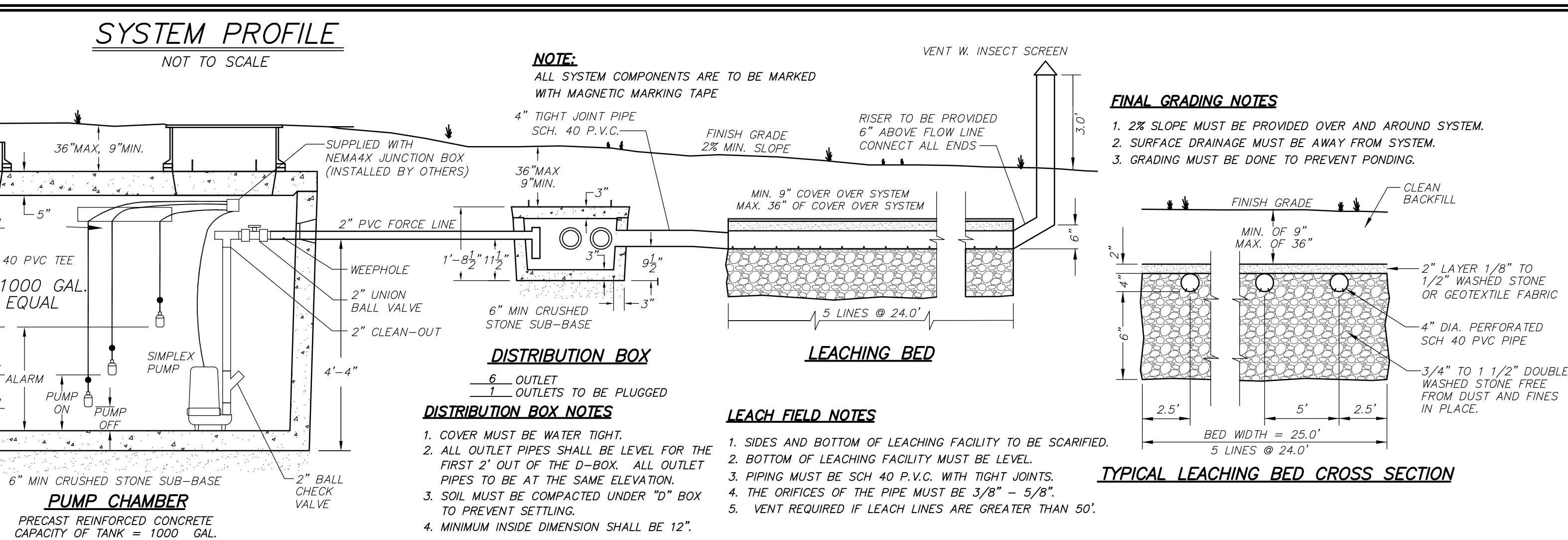
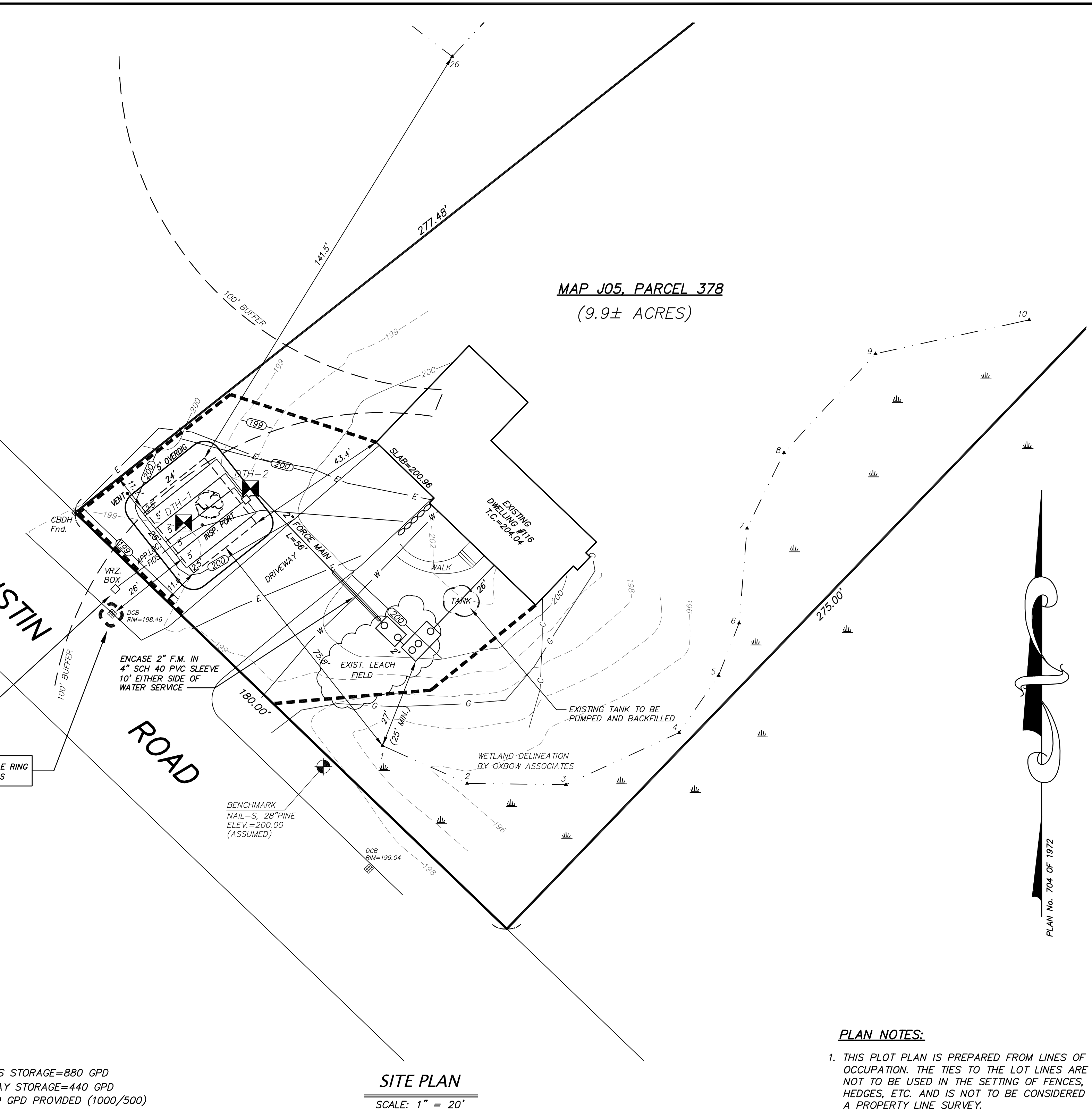
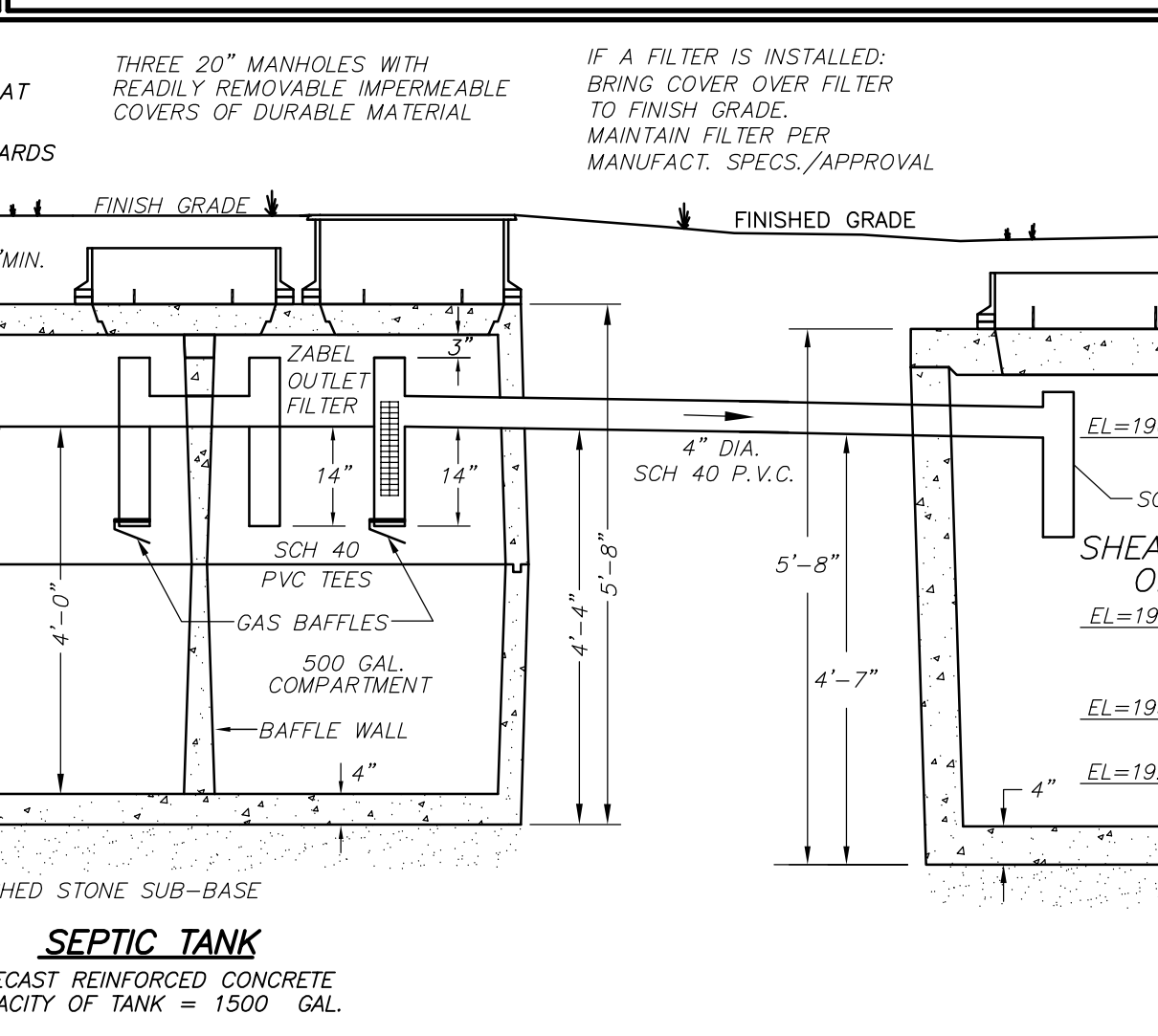
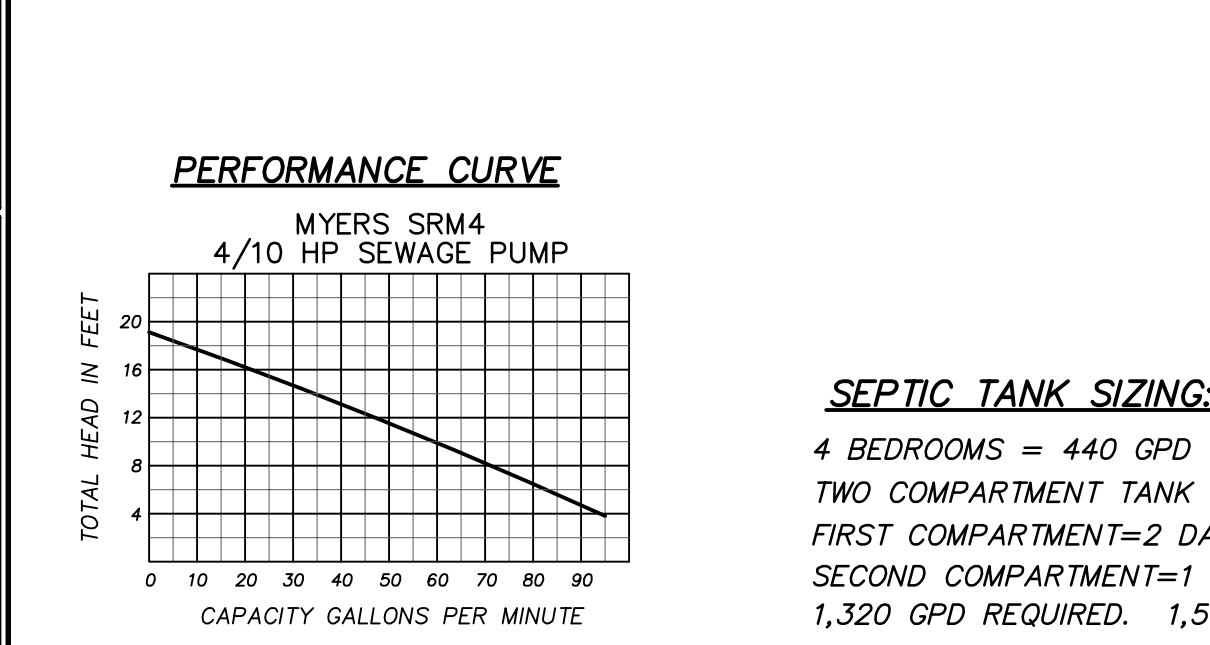


SEDIMENT BARRIER DETAIL
NOT TO SCALE

STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL TO ENSURE RUNOFF DOES NOT RUN UNDER OR AROUND ROLL.

NOTE:
GARBAGE GRINDER TO BE REMOVED IF PRESENT

- LOCAL UPGRADE APPROVALS REQUIRED:**
- LEACH BED SEPARATION TO E.S.H.G.W. (MOTTLES) LESS THAN 5' (4' PROPOSED).
 - USE OF A BED LEACHING SYSTEM.
 - USE OF A PUMP TANK.



- GENERAL NOTES:**
- Contractor shall call Digsafe at (888) 344-7233 a minimum of 72 hours prior to commencing any construction activities on site.
 - Inspections by Design Engineer and Board of Health are as required by the Board of Health.
 - This plan was prepared for the design of the subsurface sewage disposal system only and is based on the subsurface explorations and percolation tests listed below.
 - System was designed only to accommodate sanitary sewage associated with normal domestic usage, consisting of water carried putrescible waste, and for flows indicated in the design criteria.
 - The system must be vented through the buildings plumbing in accordance with the state building code.
 - Plans show only features that were visually apparent on the date of the topographic survey, and the absence of subsurface structures, utilities, etc. is not guaranteed.
 - Contractor to determine if site conditions are suitable for construction of proposed system, and must promptly notify the Design Engineer and Owner, in writing, of any plan deficiencies, unforeseen subsurface conditions, or required changes.
 - There are no wells located within 100 feet of the proposed leaching area or within 300 feet of the proposed septic tank (except as shown).
 - The subject property is not located within a Zone II of a public drinking water supply well.
 - All construction is to conform to the requirements of the Massachusetts Environmental Code, Title V, and the town of SUDBURY Board of Health regulations.
 - There are no bordering vegetated wetlands, inland banks, or surface waters within 100' of the proposed system.
 - There are no surface or subsurface drains which are used to lower the ground water.
 - All elevations refer to TBM NAIL-S, 28" PINE ELEV=200.
 - For proper performance, septic tank should be pumped annually.
 - System cannot be backfilled or concealed until design firm and board of health have inspected the system and permission to backfill has been given.
 - Design firm must prepare and submit "As-Built" plan to Board of Health. This plan must certify that the system was installed in accordance with state and local regulations and that it complies with the proposed plan.
 - Property lines are approximate and are not to be used for boundary survey purposes. Surface features and topography outside of work area are approximate.
 - System is not designed to accommodate a garbage grinder.

- TECHNICAL NOTES:**
- Building sewer shall be in accordance with state plumbing code and have a minimum of 4" of cover in landscaped areas. A minimum of 12" of cover and/or appropriate sleeving shall be used in areas subject to vehicular traffic.
 - All tanks, including septic tanks, distribution boxes, dosing chambers, and grease traps shall be either watertight through manufacturer's specification and warranty, or made watertight by the manufacturer or other individual by means and persons as approved in 310 CMR 15.221. Septic tank shall be constructed and placed in accordance with 310 CMR 15.223 through 310 CMR 15.228.
 - Septic tanks shall have at least three (3) 20" manholes with at least one (1) of these manholes located no more than 6" below finish grade. (Systems over 1,000 gpd shall have access ports at both the inlet and outlet tees.)
 - Distribution box ("d-box") shall be of watertight construction, installed level on a firm base, and installed in accordance with 310 CMR 15.232.
 - Septic tank covers and d-box are to be brought within 6" and 9" of finish grade respectively by the use of riser sections.
 - When the soil absorption system (SAS) is to be dosed or the slope of the inlet pipe exceeds 0.08 feet per foot, an inlet tee, baffle or splash plate extending to one inch above the outlet invert elevation shall be provided to dissipate velocity of the influent.
 - When the SAS is installed within the top and subsoil layers or above natural grade, all topsoil and subsoil shall be removed below and laterally a minimum of 5 feet surrounding the SAS. Removed material shall be replaced with clean granular material in accordance with 310 CMR 15.25(3).
 - All disturbed areas shall be loamed, seeded, and maintained so as to prevent erosion.
 - All native soil interfaces which will contact the SAS shall be scarified prior to placement of stone.

PERCOLATION TESTS

HOLE NO. & DATE	TOP ELEVATION	DEPTH (in.)	SATURATION (Min.)	12"-9" DROP (Min.)	9"-6" DROP (Min.)	PERC. RATE (Min./In.)
PT-A 01/12/23	199.0	36"				<2 MIN/IN

DEEP OBSERVATION HOLE LOG

NO., DATE & ELEV.	DEPTH (in.)	SOIL HORIZON	TEXTURE (USDA)	COLOR (MUNSELL)	SOIL MOTTLING	OTHER
DTH-1	0-14"	Ap	SANDY LOAM	10YR3/2		
	14-30"	Bw	LOAMY SAND	10YR6/6		
	30-108"	C	MED-SAND	10YR5/4	65°	

TESTS CONDUCTED BY: MIKE SULLIVAN
 TESTS OBSERVED BY: ROB LAZZO
 DATE: 01/12/2023

I certify that I have passed the examination approved by the department of Environmental Protection and that the above analysis has been performed by me consistent with the required training, expertise, and experience described in 310 CMR 15.018(2).

Certified:

- SEPTIC TANK NOTES**
- MUST BE WATER TIGHT AND SET ON A LEVEL BASE THAT HAS BEEN COMPACTED TO PREVENT SETTLING.
 - TANK MUST HAVE A SEAL STATING THAT ASTM STANDARDS HAVE BEEN MET.
- BUILDING SEWER NOTES**
- SEWER LINE MUST BE LAID ON A FIRM COMPACTED BASE.
 - PIPE MUST BE SLOPED AT A MIN. OF 1% (2% PREFERRED).
 - PIPE MUST BE LAID ON A CONTINUOUS UNIFORM GRADIENT.

- SEPTIC TANK**
PRECAST REINFORCED CONCRETE
CAPACITY OF TANK = 1500 GAL.
- PUMP CHAMBER**
PRECAST REINFORCED CONCRETE
CAPACITY OF TANK = 1000 GAL.

- FINAL GRADING NOTES**
- 2% SLOPE MUST BE PROVIDED OVER AND AROUND SYSTEM.
 - SURFACE DRAINAGE MUST BE AWAY FROM SYSTEM.
 - GRADING MUST BE DONE TO PREVENT PONDING.
- DISTRIBUTION BOX NOTES**
- COVER MUST BE WATER TIGHT.
 - ALL OUTLET PIPES SHALL BE LEVEL FOR THE FIRST 2' OUT OF THE D-BOX. ALL OUTLET PIPES TO BE AT THE SAME ELEVATION.
 - SOIL MUST BE COMPACTED UNDER "D" BOX TO PREVENT SETTLING.
 - MINIMUM INSIDE DIMENSION SHALL BE 12".
- LEACH FIELD NOTES**
- SIDES AND BOTTOM OF LEACHING FACILITY TO BE SCARIFIED.
 - BOTTOM OF LEACHING FACILITY MUST BE LEVEL.
 - PIPING MUST BE SCH 40 P.V.C. WITH TIGHT JOINTS.
 - THE ORIFICES OF THE PIPE MUST BE 3/8" - 5/8".
 - VENT REQUIRED IF LEACH LINES ARE GREATER THAN 50'.

APPLICANT
GODFREY & HELLEN ZZIWA

LOCATION
116 AUSTIN ROAD
SUDBURY, MA
ASSESSORS MAP J05 & PARCEL 378

PROPOSED SEWAGE DISPOSAL SYSTEM

CONNORSTONE ENGINEERING
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
10 SOUTHWEST CUTOFF, SUITE 7
NORTHBOROUGH, MASSACHUSETTS 01532
PHONE: 508-393-9727 WWW.CSEI.NET
121 BOSTON POST RD. SUDBURY, MA. 01776
PHONE: 978-443-9566 WWW.SULLIVANCONNORS.COM

DATE: 01/20/23 SHEET 1 OF 1