



Environmental Consulting & Restoration, LLC



## **REVISED SUBMITTAL TRANSMITTAL**

**TO:** Plympton Conservation Commission

**FROM:** Brad Holmes

**DATE:** April 13, 2023

**RE:** 0 Maple Street, Plympton DEP File #SE 266-0229

Please include the following revised submittal with the NOI application under review for 0 Maple Street:

1. Waiver Request Letter
2. Revised Site Plans

We look forward to presenting this to the Commission at the continued hearing. If you have questions or require additional information, please contact us immediately.



Environmental Consulting & Restoration, LLC



April 13, 2023

Town of Plympton  
Conservation Commission  
5 Palmer Road  
Plympton, MA 02367-0239

**RE: Request for a Waiver, 0 Maple Street, Plympton, MA  
DEP File #SE266-0229**

Dear Members of the Conservation Commission:

Please accept this Request for a Waiver regarding the proposed new single-family home project located at 0 Maple Street in Plympton, MA (the site). This request is being filed to accompany the Notice of Intent filed with the Plympton Conservation Commission for the proposed project at the site. The proposed project includes the construction of a new single-family home with associated driveway and other appurtenances. Portions of the proposed project are located within the buffer zone to wetland resource areas as identified in the Plympton Wetland Bylaw and Town of Plympton Wetlands Bylaw Regulations. Specifically, the proposed driveway is located within the 100-foot Buffer Zone to a Potential Vernal Pool and within the 25-foot Buffer Zone to Vegetated Wetlands. These activities will require a Waiver.

In accordance with Article III of the Plympton Wetland Regulations, to the applicant requests a Waiver from the following performance standards:

*§12. C. (2) Notwithstanding §12C(1), no activity or work that will result in altering the vernal pool or land within the one-hundred-foot buffer zone of any vernal pool, whether or not such lands are within or abut an estimated (rare species) habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage & Endangered Species Program, or Core Habitat or Critical Natural Landscape as designated on BioMap2, or Core Habitat or Critical Natural Landscape as designated on BioMap2, shall be permitted by the Conservation Commission. The Commission may grant a waiver of this performance standard as provided in §21.*

*§16. C. (1) No activity or work, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a vegetated wetland, or land within 50 feet of any vegetated wetland (the fifty-foot inner buffer zone), whether or not such lands are within or abut an estimated (rare species) habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage & Endangered Species Program, or Core Habitat or Critical Natural Landscape as designated on BioMap2, shall be permitted by the Conservation Commission.*

*§19. C. (1) (1) Except as authorized by the Commission, no activity subject to regulation under the Bylaw or these regulations shall be permitted within a twenty-five foot (25') "no touch zone" between the buffer zone and any proposed site disturbance. Nothing herein*



*shall preclude the maintenance of an existing structure located within the “no touch zone.”*

*The Commission may allow activities upon an express determination that the applicant has made a clear and convincing showing that the proposed work in the “no touch zone” will not adversely affect the ability of the buffer zone to function to protect the wetland values.*

*§19. C. (4) Vernal pool buffer zone. The Conservation Commission shall not permit any alteration within the entire one-hundred-foot buffer zone of a vernal pool, whether or not such lands are within or abut an estimated (rare species) habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage & Endangered Species Program, or Core Habitat or Critical Natural Landscape as designated on BioMap2, unless the Commission grants a waiver under the provisions of §21, and if granted, such waiver shall have the same conditions and performance standards identified above for the inner fifty-foot no-disturbance zone for undisturbed lands, as provided above.*

As noted above, this waiver is being submitted to allow for the work within the 100-foot Buffer Zone to a Potential Vernal Pool and the 25-foot Buffer Zone to Vegetated Wetlands. The project has been designed in this manner because this is the only route to access the upland within the northern portion of the site. There is an existing cart path from Maple Street that extends into the northern portion of the site. The cart path is well defined and provides a clear path to the northern portion of the property. By utilizing the existing cart path and maintaining a pervious driveway, the design minimizes the overall impact of the project to the site. Additionally, mitigation measures during construction will include erosion controls to prevent any sedimentation into the resource areas as well as prevent any disturbance beyond the established work limits.

In order to satisfy the applicant’s burden of proof to demonstrate compliance with the above performance, the applicant provides below 1) an analysis of the effects on the Plympton Bylaw values as related to the proposed project, 2) a description of alternatives that were considered, and 3) a description of the benefit to the public that is achieved through the proposed project.

## 1. Bylaw Values:

- a. Public or Private Water Supplies – No adverse effect because the proposed project is not located within a public water supply watershed or within the immediate vicinity of any public water wells.
- b. Groundwater Supply – No adverse effect because this is a buffer zone only project and there is no work proposed within the vegetated wetlands that have a direct interaction with the groundwater supply.
- c. Flood Control – No adverse effects because the proposed project will not alter Land Subject to Flooding nor will it alter the vegetated wetlands. Vegetated Wetland flood holding capacities will remain the same.
- d. Erosion and Sedimentation Control – No adverse effect because erosion controls are proposed to be installed prior to work and maintained throughout the duration of the project until the site has been fully stabilized. ECR has provided a



Construction Methodology to ensure no adverse effect and define the limits of work.

- e. Storm Damage Prevention – No adverse effect because the proposed project is not located within Land Subject to Coastal Storm Flowage, nor does it alter the land in a significant way that would lead to impacts from wind or stormwater on abutting properties.
- f. Water Quality - No adverse effect because this is a buffer zone only project and it does not include any proposed discharges into wetlands/waterways.
- g. Prevention and Control of Pollution - No adverse effect because this is a buffer zone only project and it does not include any proposed discharges into wetlands/waterways.
- h. Fisheries, Wildlife Habitat, Rare Species Habitat and Rare Plant and Animal Species - No adverse effects to fisheries because there is no work proposed within or near a freshwater or saltwater fishery. The proposed work will be reviewed by NHESP and the applicant shall abide by any conditions set forth by the program.
- i. Agriculture and Aquaculture values that are important to the community – No adverse impacts because the proposed project does not include agriculture or aquaculture activities, nor does it utilize land that would be suitable for these activities.

2. Alternatives:

- a. Build a shorter access driveway through a portion of the wetland as opposed to utilizing the existing cart path. This alternative will shorten the overall length of the proposed driveway; however, it will cause significantly more impacts to the wetland resource areas, associated buffer zones and undisturbed portions of the site.
- b. Access the site through a shared driveway/easement from the property to the west. This alternative would be beneficial in the sense that there will be a shorter length of driveway required, however that length of driveway will require more impacts to undisturbed portions of the buffer zone.
- c. Apply for a land donation tax credit, however this will result in a significant financial loss for the property owner.
- d. Apply for the Chapter 40B Housing program, which includes the applicant's ability to override local zoning and wetlands bylaws in order to provide affordable housing to community members. This option is not preferred by the applicant and regarding wetland protection would be less suitable as there would be less oversight than by Plympton Conservation Commission.
- e. There are no practicable alternatives to the proposed project.

- 3. The proposed single-family home construction project will benefit the residents of Plympton by providing additional tax dollars. We expect the Town will collect higher taxes from the property owner on a developed plot. For many cities and towns, property taxes are the largest funding source for teachers, police, firefighters, public works like trash pick-up, and many other local resources and services.



# ECR

Environmental Consulting & Restoration, LLC



The applicant and design team have considered the multiple site constraints while designing this project and have avoided, minimized and mitigated potential impacts to the site as best as possible. It is my professional opinion based on my education, training and familiarity with the site that a Waiver from the performance standards noted above is warranted for this particular project as there are no reasonable conditions or alternatives that would allow the proposed activity to proceed in compliance with the Town of Plympton Wetland Regulations. Additionally, as designed the proposed project protects all wetland resource areas on and near the site and will not adversely affect the ability of the buffer zone to protect the wetland values under the Plympton Wetlands Bylaw and Wetlands Regulations. I enclose a copy of our company resume, which details my professional qualifications. If you have any questions or require additional information, please contact me at (617) 529-3792.

Sincerely,  
Environmental Consulting & Restoration, LLC

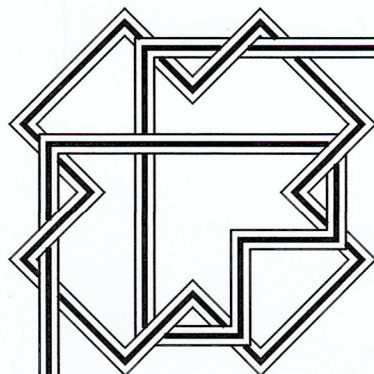
A handwritten signature in blue ink that reads "Brad Holmes". The signature is fluid and cursive.

Brad Holmes, PWS, MCA  
Manager

Enclosure: ECR resume

CC: Webby Engineering Associates, Inc.  
Applicant  
Attorney Adam J. Brodsky





## Underground Septic Tanks & Pump Chambers

- 1.) Tanks shall be structurally sound and to withstand the
- 2.) Tanks shall be watertight and waterproof.
- 3.) Tanks shall be pre cast concrete, or approved equivalents.
- 4.) Manufacturers of septic tanks shall implement a quality control/ quality assurance program in conformity with ASTM standard C-1227-93. Tanks shall be embossed with a seal stating that this ASTM standard has been met. Tanks not embossed with a seal shall be rejected.
- 5.) Tanks shall be accessible for inspection and maintenance. No structures shall be located directly upon, above, or near the tanks which may interfere with performance, access, inspection, and pumping or repair.
- 6.) Inlet and outlet tees shall be of cast iron, schedule 40 pvc, or approved equal.
- 7.) Septic tanks shall be provided with at least three (3) 20" diameter manholes. Manholes shall be at the center and over each inlet and outlet tee. For compartment tanks, the center manhole shall be the access to the compartment connection. System designs in excess of 1,000 GPD, all manholes shall be made accessible. For system designs of 1,000 GPD or less at least one manhole shall be made accessible. If applicable provide watertight access port (riser), precast concrete or equivalent, with steps where appropriate. Manhole covers shall be removable, and of impermeable and durable material. Covers shall be within six inches of finished grade and shall be secured to prevent unauthorized access.
- 8.) **INSTALLATION:**
  - A) Tanks shall be installed true to grade on a level stable base that has been mechanically compacted, and on which six inches of crushed stone has been placed to ensure stability and to prevent settling.
  - B) The inlet and outlet tees shall be installed to the grades shown on the drawings. The tees shall extend a minimum of six inches above the flow line of the septic tank and shall be on the center line of the septic tank and located directly under the access manholes. Cross-sectional flow baffles shall not be used as substitutes for inlet or outlet tees.
  - C) FOR REPAIRS Contractor SHALL when connecting a new septic tank to an existing sewer line. Verify sewer line is Sch. 40 or C.I. in good condition or it shall be replaced. Also that all out flow pipes from building run thru/to septic tank, and invs. are correct prior to any excavating. All work in conformance with Mass. State Plumbing Code.

## DESIGN CRITERIA

- 9.) Unless otherwise noted (UON), the design of this system conforms to the requirements of the Commonwealth Of Massachusetts Environmental Code Title 1, and the requirements of the local board of health.
- 10.) The design of this system did not allow for the use of a garbage disposal.
- 11.) The septic tank shall be inspected and cleaned in accord with 310 CMR 15.300 and applicable local requirements.
- 12.) Grease trap; If applicable, shall be inspected every month, and shall be cleaned every 3 months or when the level of grease is 25% of the effective depth of the trap.
- 13.) The design of this system conforms with the following minimum distances from the proposed sanitary system:
  - A) Surface water supply or gravel packed wells...400 ft.
  - B) Tubular public wells...250 ft.
  - C) Private potable wells...200 ft.
  - D) non potable / irrigation wells...200 ft.
  - E) Other sanitary soil absorption system...10 ft.
  - F) Wetlands...100ft.
- 14.) No structures shall be located upon, above, or within 20' of the leaching facility. The reserve area (100% expansion) is considered to be the same as the leaching facility.
- 15.) The top of all system components, including the septic tank, distribution box or dosing chamber and soil absorption system, shall be installed no more than 36" below finish grade.

## Leaching Chambers Area

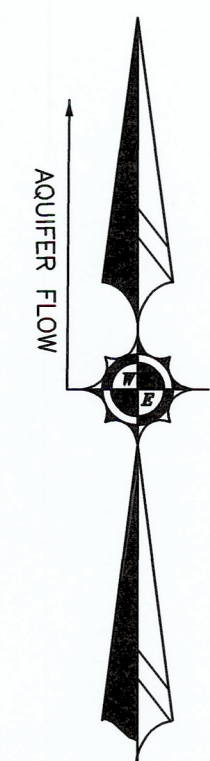
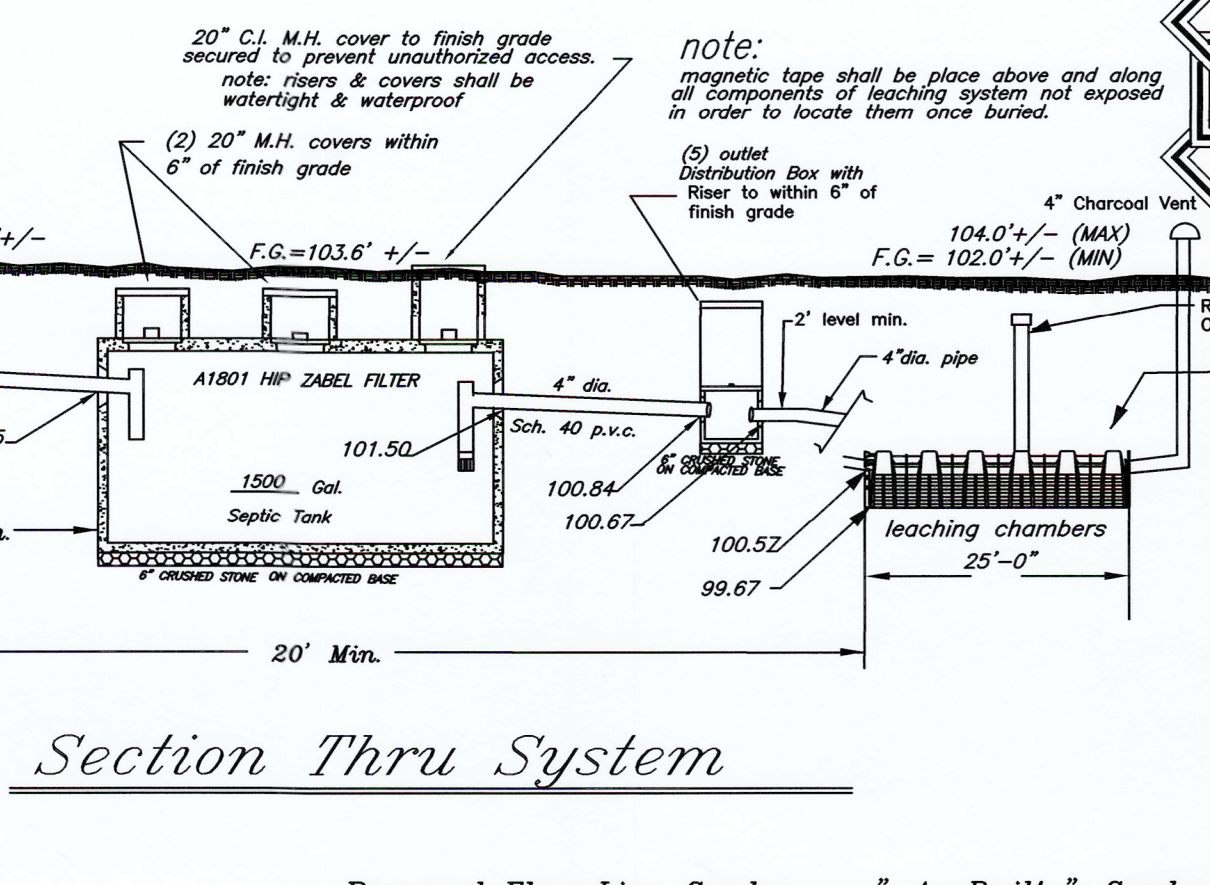
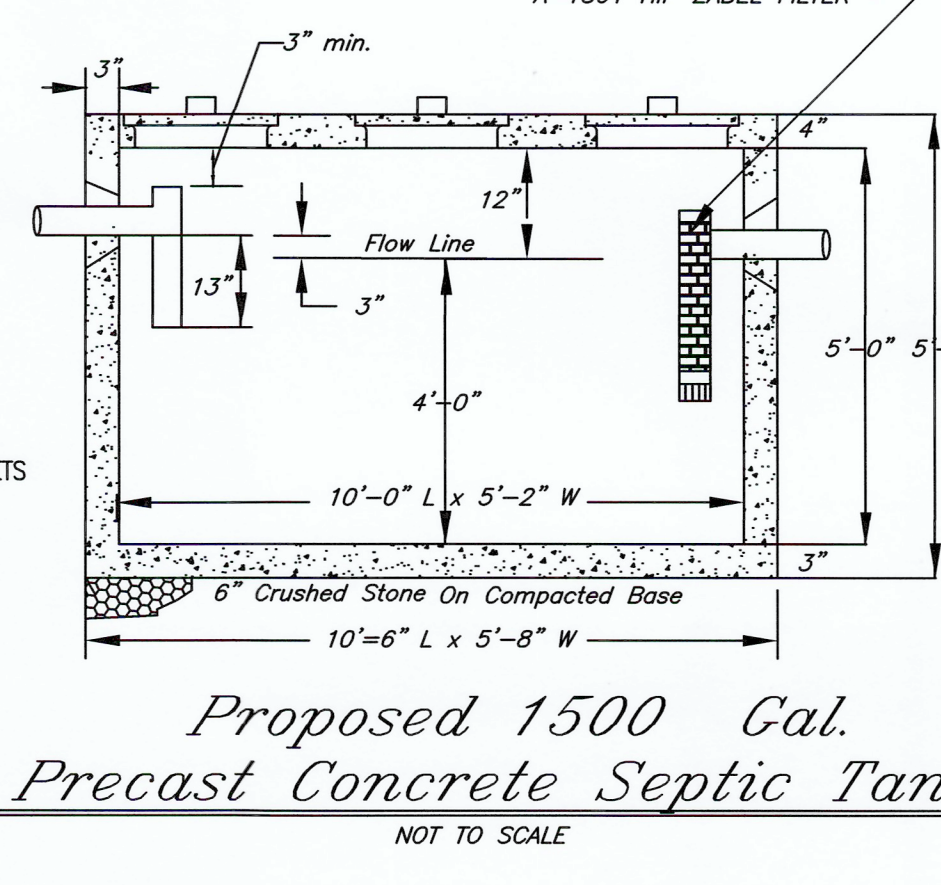
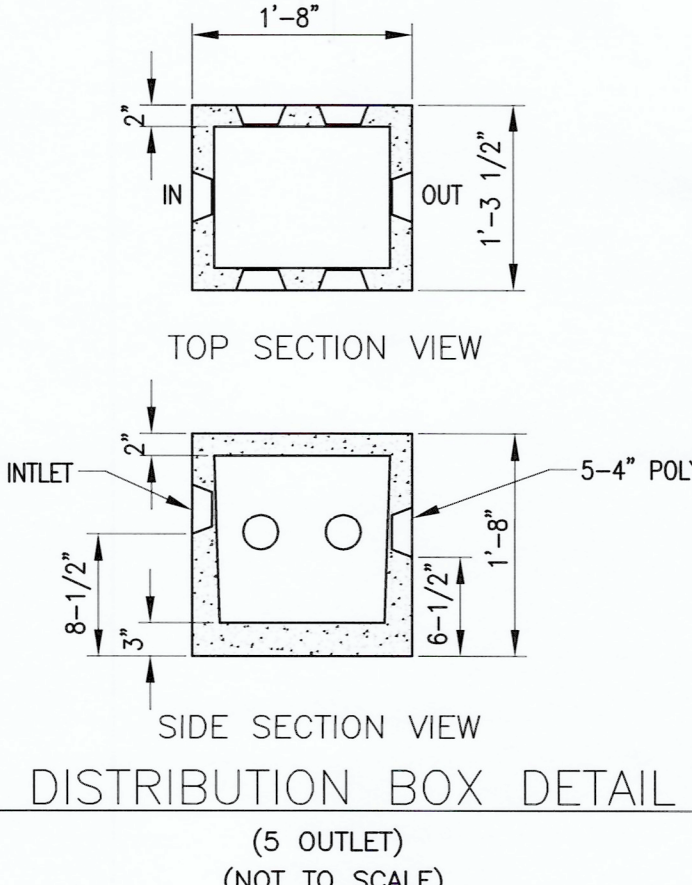
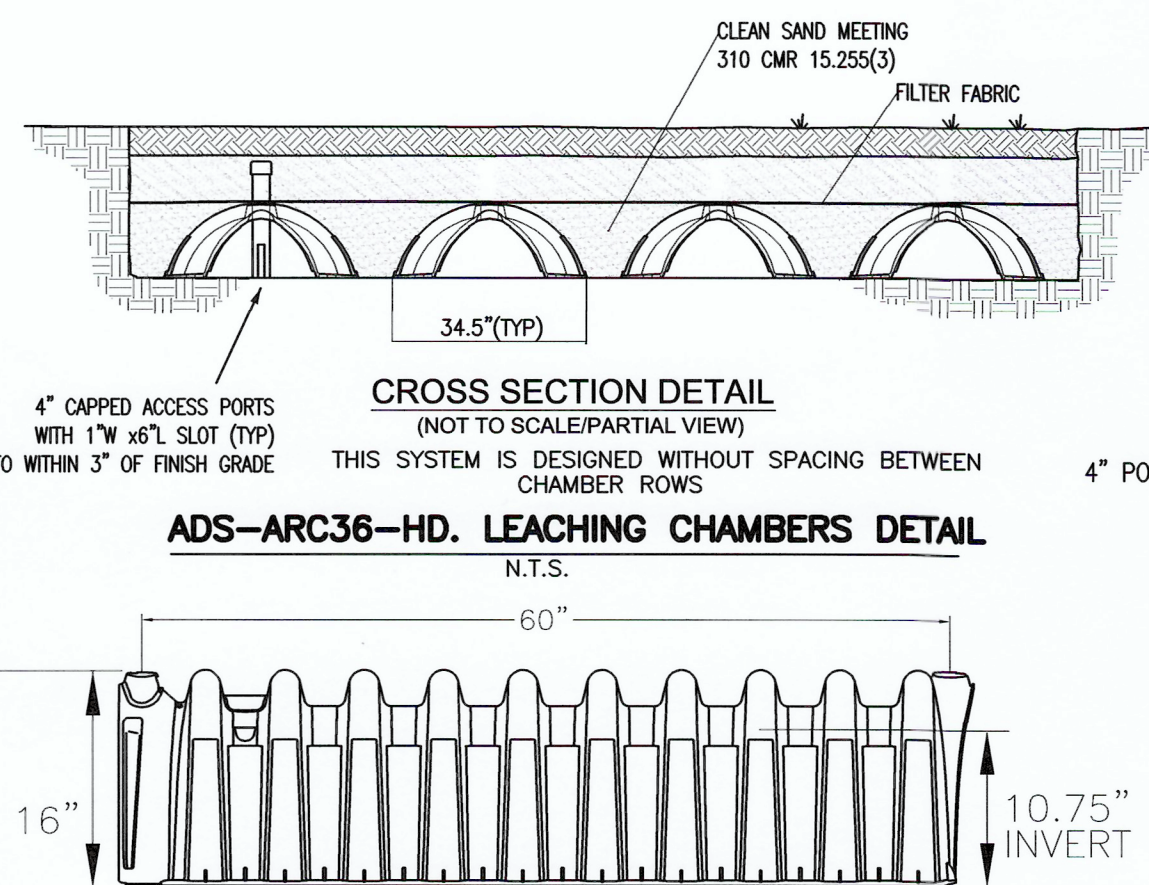
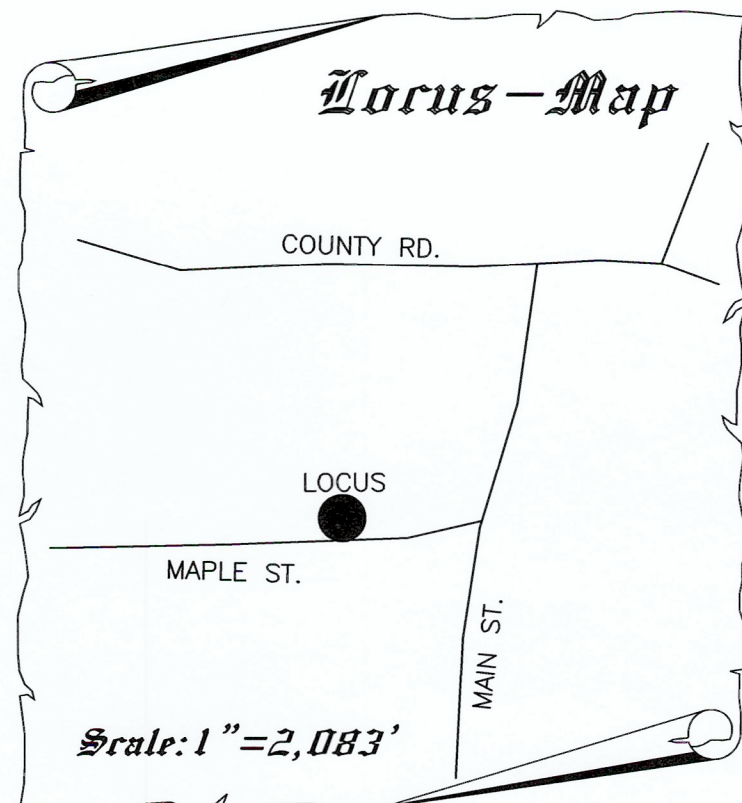
- 16.) Leaching chamber shall be an ARC-36 HC. LEACHING chamber or engineer approved equal.
- 17.) All installations shall be true to line and grade.
- 18.) All piping shall be PVC SCH. 40
- 19.) Distribution pipe(s) shall have a minimum diameter of 4" and a minimum slope of 0.01.
- 20.) All unsuitable material including top soil and sub soil shall be removed as follows:
  - a) Remove soils to elevation \_\_\_\_\_, and a distance of \_\_\_\_\_ ft. in all directions of the designated leaching field area.
  - b) Removed soils shall be replaced with clean sand, meeting the requirements of 310 CMR 15.255(3).

## Inspection Schedule

- 23.) To obtain the board of health certification, confirmation of the proper installation is required.
  - a.) After Excavation of unsuitable material
  - b.) Placement of the clean back fill Meeting 310 CMR 15.255(3)
  - c.) Installation of the system with all components exposed for inspection and preparation of "As Built" Plan.
  - d.) When existing ground elevations are changed a finished ground elev. "asbuilt" shall be required prior to certificate of compliance being issued.

## Utility Notes

- 24.) The location of utilities are approximate only. Dig-Safe and other appropriate authorities shall be notified to verify actual locations, prior to any excavating. Relocate if / as required.



LOT 7-2-27  
MELISSA TOFFOLONI  
ANDREW MCDERMOTT  
26 MAPLE STREET  
PLYMPTON, MASS. 02367

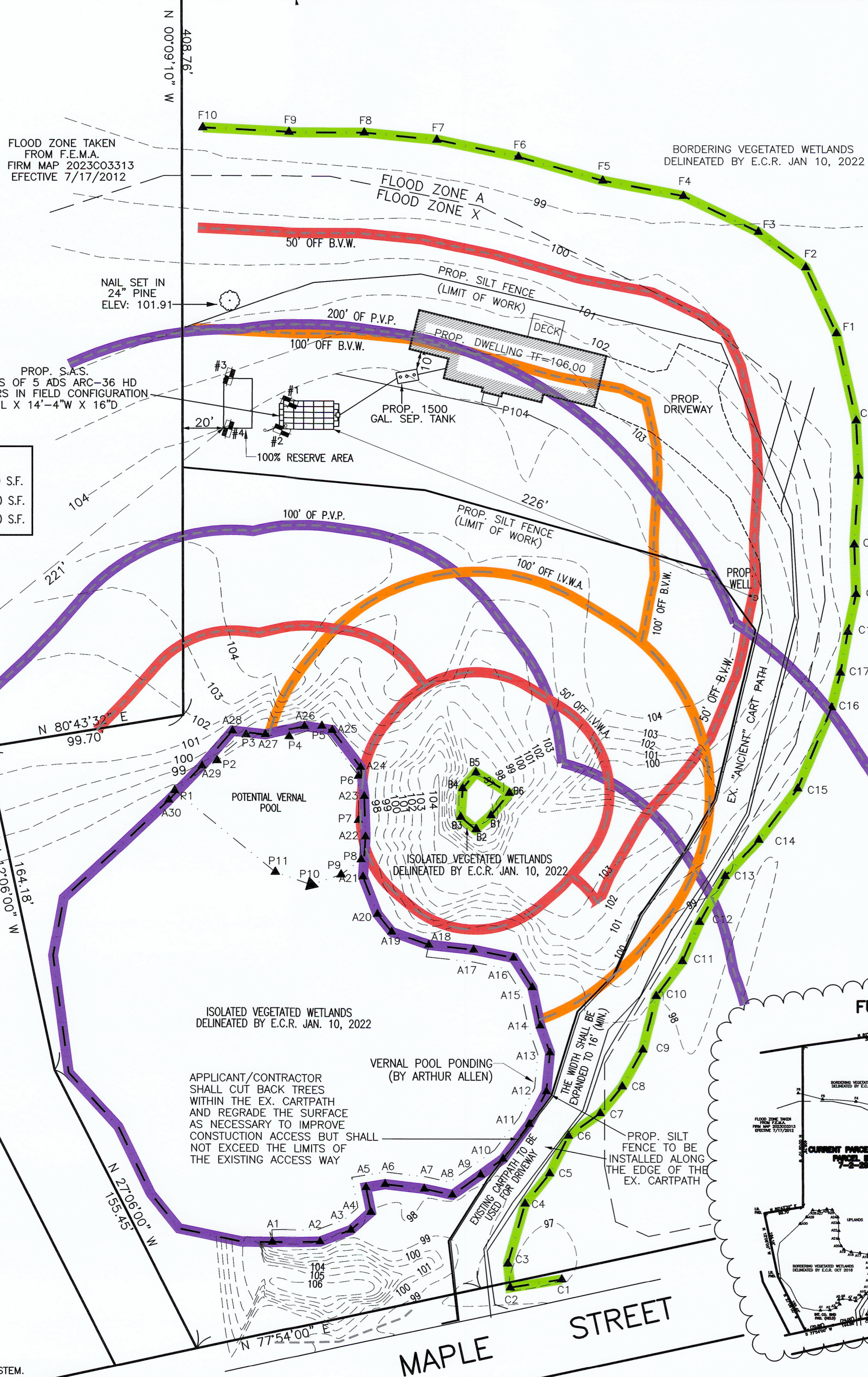
RESOURCE BUFFER ZONE DISTURBANCE AREAS	
PROPOSED WORK WITHIN 25' NO TOUCH ZONE	- 3,970 S.F.
PROPOSED WORK WITHIN 25 NO TOUCH AND 50' NO ALTERATION ZONES	- 4,020 S.F.
PROPOSED WORK WITHIN 50' NO ALTERATION AND 100' OFFSET LINE	- 13,410 S.F.

LOT 7-2-24  
JOHN & PAMELA WOODS  
30 MAPLE STREET  
PLYMPTON, MASS. 02367

CONVENTIONAL SYSTEM LAYOUT 20'X30' LEACHING FIELD = 600 S.F.	
PRIMARY S.A.S.	RESERVE AREA

## NOTES:

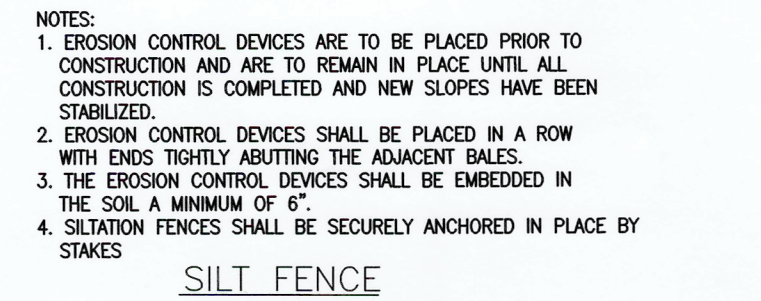
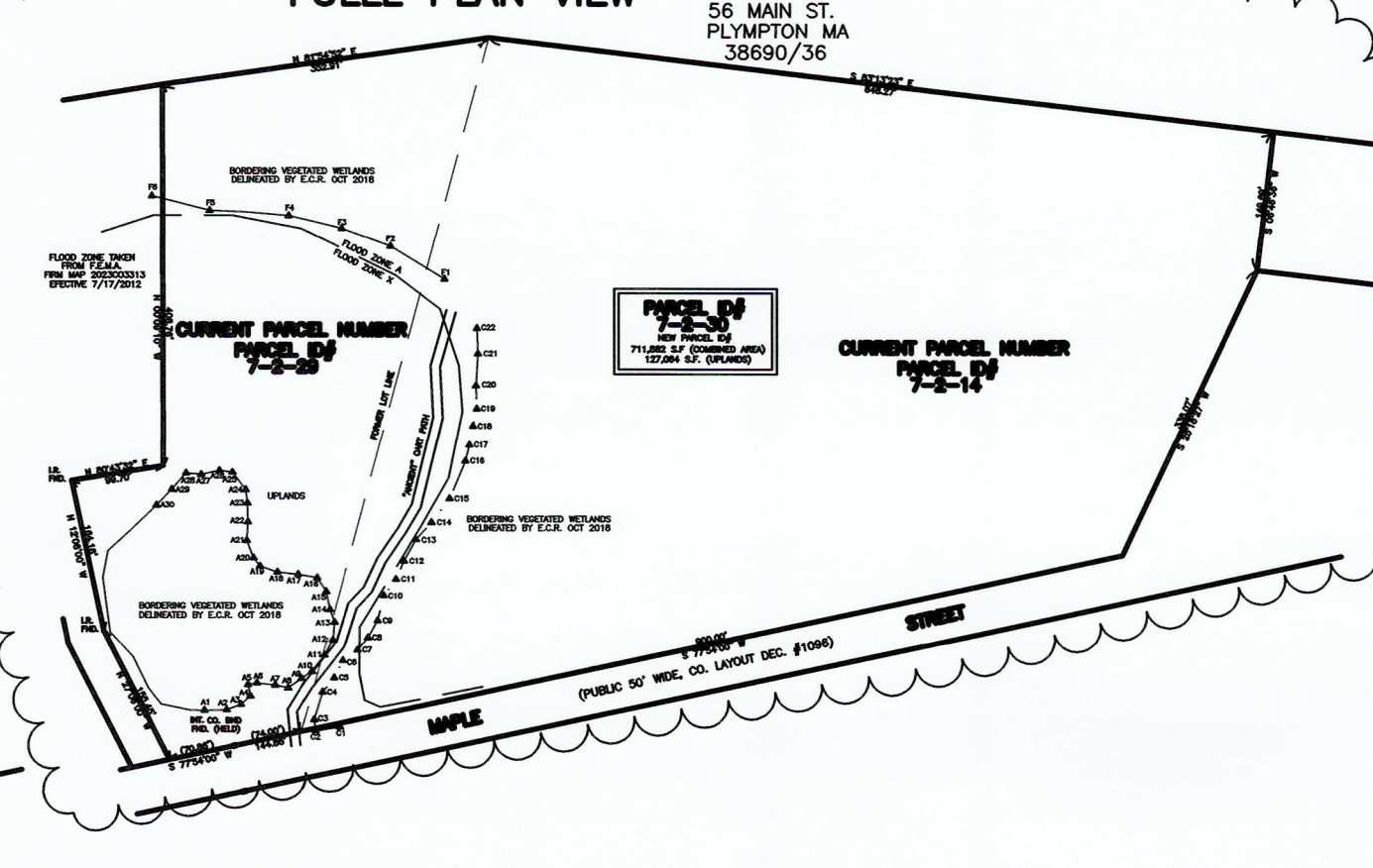
- 1) LOCUS DOES NOT LIE IN A ZONE II WELL PROTECTION ZONE, BUT IS SERVICED BY A PRIVATE WELL.
- 2) LOCUS DOES NOT LIE IN A FLOOD HAZARD ZONE AS DETERMINED BY THE FIRM MAPS OR THE TOWN OF PLYMPTON ZONING MAP
- 3) THERE ARE NO WETLANDS, STREAMS, SURFACE OR SUBSURFACE DRAINS WITHIN 100' OF THE PROPOSED SYSTEM.
- 4) THERE ARE NO KNOWN POTABLE WELLS WITHIN 200 FEET OF THE SOILS ABSORPTION SYSTEM, EXCEPT AS SHOWN.
- 5) THERE ARE NO ABUTTING FOUNDATIONS WITHIN 25' OF THE PROPOSED SOILS ABSORPTION SYSTEM.
- 6) THERE ARE NO KNOWN EASEMENTS WITHIN PROXIMITY OF THE SOILS ABSORPTION SYSTEM.



PARCEL ID#  
7-2-14  
7-2-29

710,310 S.F. (COMBINED TOTAL)  
129,075 S.F. (TOTAL UPLANDS)

## FULL PLAN VIEW



## Proposed Flow Line Grades "As Built" Grades

INV. AT FOUNDATION	102.00	
INV. INTO SEPTIC TANK	101.75	
INV. OUT OF SEPTIC TANK	101.75	
INV. INTO DISTRIBUTION BOX	101.50	
INV. OUT OF DISTRIBUTION BOX	100.67	
INV. INTO CHAMBER BED	100.57	
BOTTOM OF CHAMBER BED	99.67	
WATER TABLE	94.33	

T.P. 1	T.P. 2	T.P. 3	T.P. 4
104.00 A SANDY LOAM 100% S.S. 103.50 B LOAMY SAND 100% S.S. 102.00 C MED. SAND 2.9% S.S.	104.00 A SANDY LOAM 100% S.S. 103.33 B LOAMY SAND 100% S.S. 102.17 C MED. SAND 2.9% S.S.	102.00 A SANDY LOAM 100% S.S. 101.75 B LOAMY SAND 100% S.S. 100.33 C MED. SAND 2.9% S.S.	104.00 A SANDY LOAM 100% S.S. 103.17 B LOAMY SAND 100% S.S. 102.33 C MED. SAND 2.9% S.S.

## SOIL LOGS

PERC. RESULTS <2 MIN./INCH  
Present During Tests On 11/27/18  
Agent: ROBERT TINKHAM  
Soil Evaluator: JOE WEBBY JR.

DESIGN CALCULATIONS		SEPTIC TANK SIZING CALCULATIONS	
NUMBER OF BEDROOMS = 4 ea.		440 x 2 = 880 GAL. USE 1500 GAL.	
GALLONS/ BEDROOM = 110 gal.		MINIMUM SEPTIC TANK	
REQUIRED GPD = 440 gpd			
REQUIRED LEACHING AREA = 440 / 0.74 (@ <2 MIN./INCH) = 595 s.f.			
LEACHING AREA PROVIDED = 600 s.f. > 595 s.f.			
LEACHING CAPACITY = 444 gpd. > 440 gpd.			

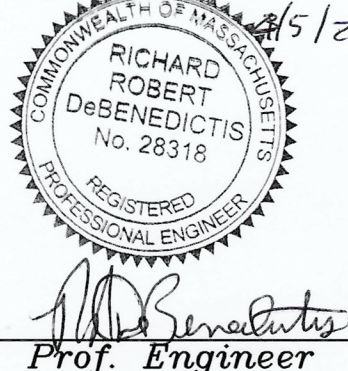
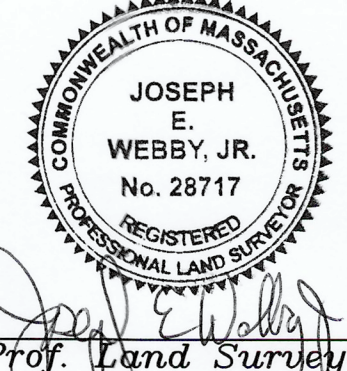
PROPOSED SOIL ABSORPTION SYSTEM SIZING CALCULATIONS  
25 (CHAMBERS) x 5' L X 4.80 (EFFECTIVE LEACHING AREA SF/LF, PER MAN. SPEC) = 600 SF

Issue	Date	Description	Drawn	Design	Check	Resp. Eng.
#1	6/23/21	PROPOSED SANITARY SYSTEM				
#2	2/15/22	REVISE WETLANDS FLAGS				
#3	4/26/22	REVISE FOR CON. COM. REVIEW				
#4	11/28/22	RELOCATE HOUSE, WELL, & DRIVEWAY, FOR CON. COM.				
#5	4/4/23	REVISE PROPOSED ACCESS DRIVEWAY WIDTH ON PLAN				

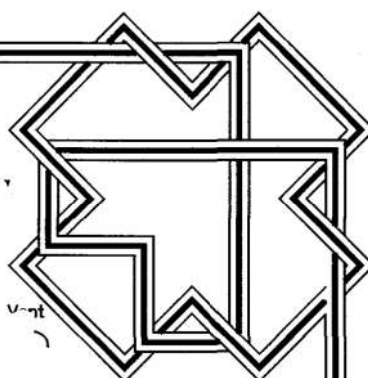
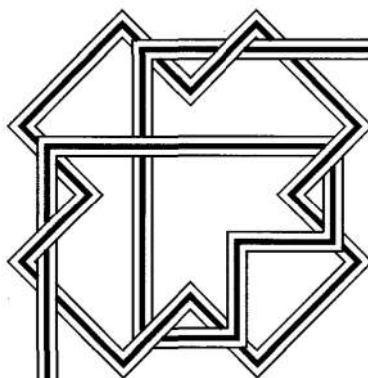
## PROPOSED Sanitary System

TOWN: PLYMPTON PARCEL ID# 7-2-29 & 7-2-14  
LOCATION: MAPLE STREET  
PREPARED FOR: PAUL D'ANGELO  
SCALE: 1" = 40' DATE: JUNE 23, 2021

WEBBY ENGINEERING ASSOCIATES, INC.  
Civil Engineers & Land Surveyors  
180 County Road - Plympton, MA.  
(781) 585-4164







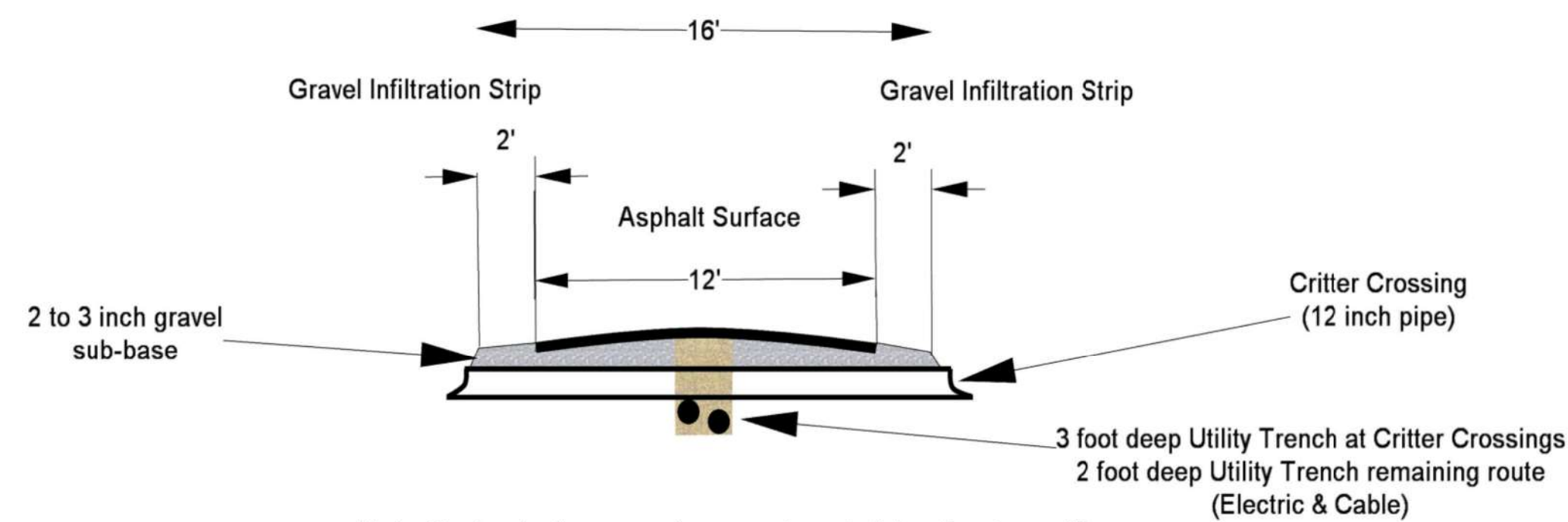
PHOTOGRAPH #2 - VIEW OF THE EARTH BERM PROPOSED TO BE REMOVED TO PROVIDE SAFE AND ADEQUATE SITE ACCESS.



PHOTOGRAPH #1 - VIEW NORTH ALONG THE EXISTING CART PATH THAT IS PROPOSED TO BE UTILIZED FOR PERMANENT SITE ACCESS. NOTICE THE DEAD WHITE PINE TO BE REMOVED.

Plant Legend				
Symbol	Qty	Common	Botanical	Size
	2	American Beech Tree	Fagus Grandfolia	5-6 ft.
	2	Eastern White Pine	Pinus Strubus	5-6 ft.

### PROPOSED DRIVEWAY CROSS SECTION DETAIL (not to scale)



Note: Contractor to remove top organic material and replace with 12 inch of compacted bank gravel

#### NOTES:

1. THE PROPOSED DRIVEWAY SHALL UTILIZE THE EXISTING CART PATH TO 16 FEET WIDE.
2. THE PROPOSED DRIVEWAY SHALL MEANDER SLIGHTLY TO MINIMIZE IMPACTS TO EXISTING VEGETATION ALONG THE SHOULDER OF THE CART PATH.
3. THE EARTH BERM LOCATED LANDWARD OF WETLAND FLAGS #C3 TO #C5 IS PROPOSED TO BE REMOVED TO PROVIDE A 16-FOOT-WIDE DRIVEWAY. THIS INCLUDES THE REMOVAL OF TWO WHITE PINE TREES (26" AND 28" D.B.H.) AND TWO AMERICAN BEACH TREES (8" AND 14" D.B.H.) LOCATED WITHIN THE BERM.
4. THE REMOVED TREES WILL BE MITIGATED AT A 1:1 RATIO WITHIN A CLEARING LOCATED LANDWARD OF WETLAND FLAGS #A5 TO #A8.
5. SAPLINGS LESS THAN 5 INCHES IN DIAMETER AT BREAST HEIGHT WILL BE REMOVED ONLY WHERE NECESSARY. OVERHANGING LIMBS WILL BE PRUNED BACK WHERE NECESSARY TO PROVIDE ADEQUATE CLEARANCE.

#### PROPOSED CONSTRUCTION METHODOLOGY

1. Coordinate with survey crew to stake out project limits and proposed erosion control lines.
2. Install erosion control barriers to establish the limit of work as shown on the plan. Contact Conservation Agent for an inspection of the erosion controls before the start of site activities.
3. Construct temporary construction exit at the proposed driveway location. This task will include ongoing maintenance of the access apron to include sweeping the adjacent roadway abutting the access apron at the end of each workday.
4. Discharges from dewatering of excavations shall not be directly diverted into any wetlands or existing storm drains without pretreatment via settling basins. Provide temporary containment areas of strawbales and washed crush stone, to contain and settle silt from dewatering operations, if necessary. Standard construction practices shall be followed.
5. Clear the vegetation from the proposed project footprints. Included in this task is grubbing of the stumps within the limit of work.
6. Rough grade the project area to include excavation for the foundation. Rough grade the access driveway as shown on the site plan.
7. Install the forms and pour the concrete foundation.
8. Install the septic system components and utility connections.
9. Finalize the construction of the driveway as shown on the plan to include the critter crossings. Please note that the overseeing wetland specialist will provide direction to the construction crew during the installation of the critter crossings.
10. Upon completion of the foundation and septic system installation, remove soil stockpiles from the site and finish grading around the house, yard area, etc. If the timing allows, loam and seed all exposed surfaces, minus the driveway and parking area, to stabilize soils.
11. Finalize yard construction to include landscape plantings using native plant materials, installation of a post & rail fence, etc.
12. Prepare and submit a Request for Partial Certificate of Compliance with asbuilt plan to the Conservation Commission. A Request for a full Certificate of Compliance will be submitted after confirmation of at least 2 full growing seasons following completion of restoration or mitigation plantings, if necessary.
13. Remove erosion control devices after confirmation from the Conservation Commission is granted.

PARCEL ID#  
7-2-14  
7-2-29

710,310 S.F. (COMBINED TOTAL)  
129,075 S.F. (TOTAL UPLANDS)

#### SHEET 2

Issue	Date	Description	Drawn	Design	Check	Resp. Eng.
#1	6/23/21	PROPOSED SANITARY SYSTEM				
#2	2/15/22	REVISE WETLANDS FLAGS				
#3	4/26/22	REVISE FOR CON. COM. REVIEW				
#4	11/28/22	RELOCATE HOUSE, WELL, & DRIVEWAY, FOR CON. COM.				
#5	4/4/23	REVISE PROPOSED ACCESS DRIVEWAY WIDTH ON PLAN				

#### PROPOSED Sanitary System

TOWN:	PLYMPTON	PARCEL ID#	7-2-29 & 7-2-14
LOCATION:	MAPLE STREET		
PREPARED FOR:	PAUL D'ANGELO		
SCALE:	1" = 40'	DATE:	JUNE 23, 2021

WEBBY ENGINEERING ASSOCIATES, INC.  
Civil Engineers & Land Surveyors  
180 County Road - Plympton, MA.  
(781) 585-1164

