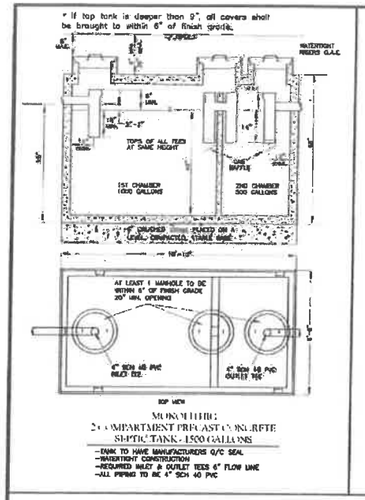
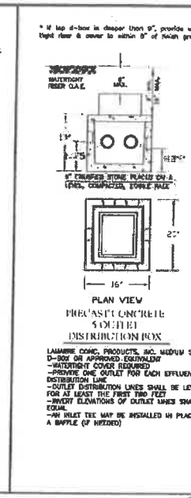


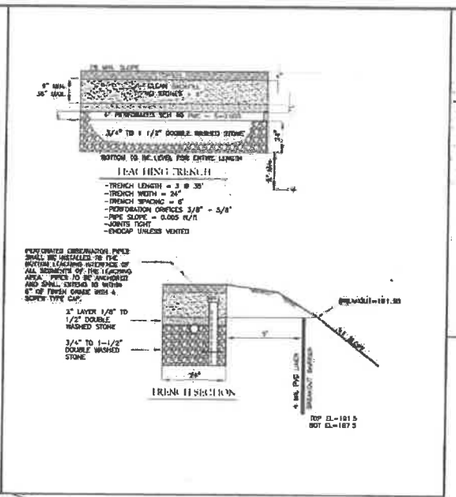
MONOLITHIC
2-COMPARTMENT PRECAST CONCRETE
SEPTIC TANK - 1500 GALLONS

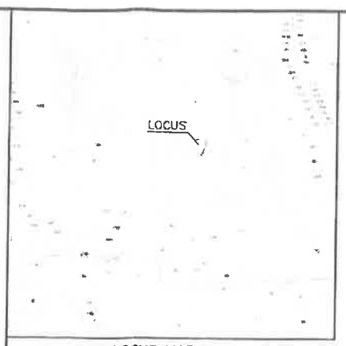
- TANK TO HAVE MANUFACTURERS O/C SEAL
- WATERTIGHT CONSTRUCTION
- REQUIRED INLET & OUTLET TEES 6" FLOW LINE
- ALL PIPING TO BE 4" SCH 40 PVC



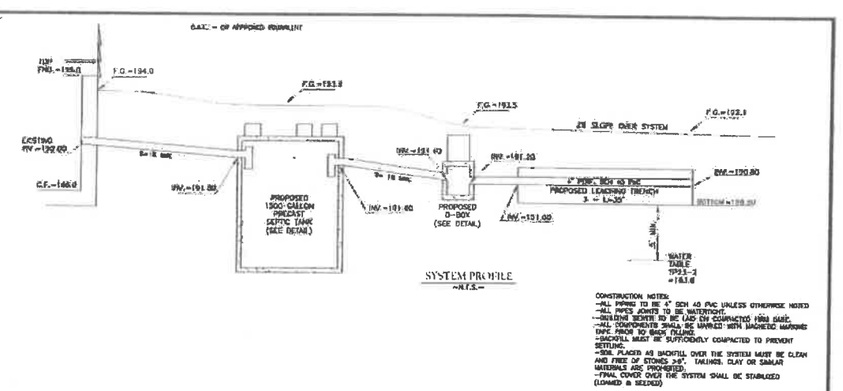
PRECAST CONCRETE
5 OUTLET
DISTRIBUTION BOX

LAMBERT CONC. PRODUCTS, INC. MEDIUM SIZE D-BOX OR APPROVED EQUIVALENT
- WATERTIGHT COVER REQUIRED
- PROVIDE ONE OUTLET FOR EACH EFFLUENT DISTRIBUTION LINE
- OUTLET DISTRIBUTION LINES SHALL BE LEVEL FOR AT LEAST FIVE FEET FROM THE D-BOX
- INVERT ELEVATIONS OF OUTLET LINES SHALL BE EQUAL
- AN INLET TEE MAY BE INSTALLED IN PLACE OF A BAFFLE (IF NEEDED)





LOCUS MAP
N.T.S.



CONSTRUCTION NOTES:
- ALL PIPING TO BE 4" SCH 40 PVC UNLESS OTHERWISE NOTED
- ALL PIPES JOINTS TO BE WATERTIGHT
- BUILDING SEWER TO BE LAID ON COMPACTED FINE SAND.
- ALL COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING DATE PRIOR TO BEING CLOSED.
- BACKFILL MUST BE SUITABLY COMPACTED TO PREVENT SETTLING.
- SOIL PLACED AS BACKFILL OVER THE SYSTEM MUST BE CLEAN AND FREE OF STONES 3-6". TALUSES, CLAY OR SIMILAR MATERIALS ARE PROHIBITED.
- FINAL COVER OVER THE SYSTEM SHALL BE STABILIZED (LOAMED & SEEDED)

PERCOLATION TEST RESULTS

TEST HOLE	DATE	DEPTH	RATE
23-1	7/13/23	36-48"	2.0 M.P.I.

DEEP OBSERVATION HOLE LOGS

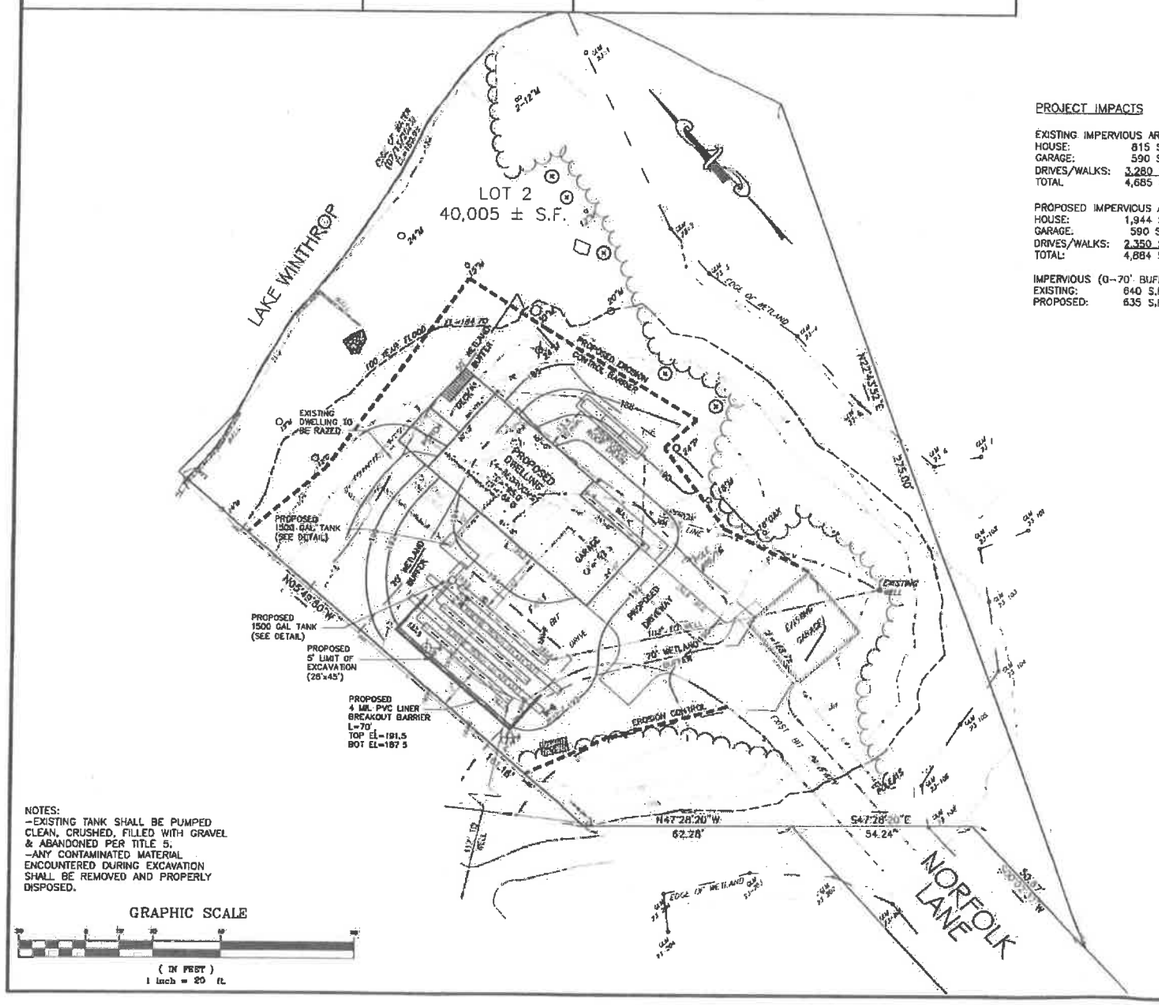
DEEP HOLE – 23-1

HORIZ DEPTH	DATE: 7/13/23 SOIL DESCRIPTION	ELEV. 193.3
HOUSE 0"	A SANDY LOAM 10YR3/2	
6"	Bw SANDY LOAM 10YR5/8	186.8
20"	C1 SANDY LOAM 2.5Y5/4	
134"		179.3
120"	GRAVELLY/SANDY LOAM/SAND	180.5
84"	SOIL MOTTLING	183.3
	GRAVELLY/SANDY LOAM/SAND	
84"	EXCESSIVE SEASONAL WATER DEPENDENT	183.6

DEEP HOLE – 23-2

HORIZ DEPTH	DATE: 7/13/23 SOIL DESCRIPTION	ELEV. 190.2
HOUSE 0"	A SANDY LOAM 10YR3/2	
8"	Bw SANDY LOAM 10YR5/8	189.7
18"	C1 SANDY LOAM 2.5Y5/4	
121"		180.4
115"	GRAVELLY/SANDY LOAM/SAND	180.3
76"	SOIL MOTTLING	183.8
	GRAVELLY/SANDY LOAM/SAND	
76"	ESTIMATED SEASONAL WATER DEPENDENT	183.6

CERTIFIED SOIL EVALUATOR : CHRIS GABORIAULT, SE#2949
WITNESSED BY B.O.H. AGENT : SCOTT MOLES
DESIGN PERCOLATION RATE : 2.0 M.P.I. (0.74 gpd/sf) SOIL CLASSIFICATION: CLASS I



NOTES:
- EXISTING TANK SHALL BE PUMPED CLEAN, CRUSHED, FILLED WITH GRAVEL & ABANDONED PER TITLE 5.
- ANY CONTAMINATED MATERIAL ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED AND PROPERLY DISPOSED.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

PROJECT IMPACTS

EXISTING IMPERVIOUS AREA:
HOUSE: 815 S.F.
GARAGE: 590 S.F.
DRIVES/WALKS: 3,280 S.F.
TOTAL 4,685 S.F.

PROPOSED IMPERVIOUS AREA:
HOUSE: 1,944 S.F
GARAGE. 590 S.F.
DRIVES/WALKS: 2,350 S.F.
TOTAL: 4,884 S.F.

IMPERVIOUS (0-70' BUFFER)
EXISTING: 640 S.F.
PROPOSED: 635 S.F.

Specifications for Compost Sock
1. Tube filter tube exterior shall be 100% organic burlap or other approved biodegradable material, and will become incorporated with the organic material
2. Organic matter content shall be between 70-100% (dry weight basis) as determined by ASTM D2974 (method A) Standard Test Methods for Moisture, Ash and Organic Matter of Peat and Other Organic Soils.
3. Moisture content shall be <150% by dry weight (<60% by wet weight) as measured by ASTM D2216 Standard Test Method for Laboratory Determination of Water Content of Soil and Rock and ASTM D2974 (cited above).
4. Particle size as measured by sieving shall be as follows:

Sieve Size	% Passing
75 mm	100%
19 mm	70-100%
#4	30-75%
#20	20-40%

No particle may be longer than 150 mm

5. Soluble salts in the organic interior material shall be <5.0 mmhos/cm, and the pH of same shall be between 5.5 and 8.0.

LEGEND
- 168 — EXISTING CONTOUR ELEVATION
- 168 — PROPOSED CONTOUR ELEVATION
- DEEP HOLE OR SOIL PIT
- PERCOLATION TEST
- 183.0 PROPOSED SPOT ELEVATION
- PROPOSED TREE TO BE REMOVED

- NO PUBLIC WELLS WITHIN 400 FEET EXCEPT AS SHOWN.
- NO PRIVATE WELLS WITHIN 200 FEET EXCEPT AS SHOWN.
- NO WETLANDS, INLAND BANKS, OR SURFACE WATERS WITHIN 150 FEET EXCEPT AS SHOWN
- NO SURFACE WATER SUPPLIES WITHIN 400 FEET EXCEPT AS SHOWN.
- NO SURFACE DRAINS EXCEPT AS SHOWN.
- NO SURFACE OR SUBSURFACE DRAINS WHICH INTERCEPT GROUND WATER EXCEPT AS SHOWN.
- LOCATION OF FLOODWAY SHOWN, IF ANY.
- NO 100 YEAR FLOOD LINE, EXCEPT IF SHOWN.
- SITE IS WITHIN A HUNDRED YEARS (PRIVATE WELL ON-SITE)

IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND/OR CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. ALL UTILITIES WITHIN A BUILDING SHALL BE REVIEWED BY THE APPROPRIATE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY INTERIOR OR EXTERIOR WORK. DIG SAFE IS TO BE NOTIFIED 72 BUSINESS HOURS IN ADVANCE OF CONSTRUCTION (1-888-344-7233)

ZONE	MIN. FRONTYARD	MIN. SIDEYARD	MIN. REARYARD

ASSESSOR'S REFERENCE:

MAP 5, BLOCK 5, LOT 18

*NO GARBAGE GRINDER ALLOWED
UPGRADE

TYPE OF FACILITY SERVED

SINGLE FAMILY DWELLING – 110 BEDROOMS

DESIGN FLOW :

4 BEDROOMS x 110 GAL./DAY/BEDROOM = 440 G.P.D.

SEPTIC TANK SIZING:

DESIGN FLOW x 200%

440 GAL x 200% = 880 GALLONS

SEPTIC TANK PROPOSED: 1500 GALLON 2-COMPARTMENT

SYSTEM SIZING CALCULATIONS:

GARBAGE GRINDER: NO

DESIGN FLOW = 440 GPD

EFFLUENT LOADING RATE = 0.74 GPD/SF

LEACHING AREA REQUIRED = 440 GPD/0.74 GPD/SF = 595 SF

SYSTEM DESIGN

LEACHING TRENCHES – 3 @ 35'L x 24"W x 24"H

BOTTOM AREA: 3 x 35'L x 2'W = 210 S.F

SIDEWALL AREA: 6 x 35' x 2'H = 420 S.F.

LEACHING AREA PROVIDED = 630 S.F.

FLOW PROVIDED = 630 S.F. x 0.74 GAL./S.F. = 466 G.P.D.

Soil Evaluator Certification: I certify that I am currently approved by the D.E.P. pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017; I further certify that the results of my soil evaluation are accurate and in accordance with 310 CMR 15.100 through 15.107.

GENERAL CONSTRUCTION NOTES:
1. THE DETAILS SHOWN ARE GENERAL IN NATURE AND ARE NOT INTENDED TO SHOW EVERY POSSIBLE INSTALLATION REQUIREMENT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE IN THE REFERENCED CODES, INSTALLATION REQUIREMENTS AND PROVIDE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO INSTALL A FUNCTIONAL SYSTEM.
2. COMPONENTS SHALL NOT TO BE BACKFILLED OR CONCEALED WITHOUT INSPECTION BY AND PERMISSION FROM BOARD OF HEALTH.
3. IT IS THE RESPONSIBILITY OF THE APPLICANT TO OBTAIN THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE PROPER INSPECTIONS FOR CERTIFICATIONS AND AS-BUILT PLANS.
4. INSTALLER REQUIRED TO PROVIDE PROPER CERTIFICATION.
5. LEACHING AREA TO BE FLAGGED FOR PROTECTION UNTIL CERTIFICATE OF COMPLIANCE IS OBTAINED.
6. NO STOCKPILING OF MATERIALS OVER SYSTEM.
7. NO TRAFFIC OR PARKING OVER SYSTEM.
8. BOTTOM AND SIDES OF EXCAVATION AREA SHALL BE SCARIFIED.
9. PLACEMENT OF FILL SHALL BE DONE BY STOCKPILING AT THE EDGE OF THE EXCAVATION AREA AND PUSHED OR CAST IN PLACE.
10. FILL SHALL NOT BE PLACED IN THE EXCAVATION AREA DURING RAIN OR SNOW STORM.
11. IF ANY FILL IS TO BE PLACED BELOW THE WATER TABLE, DEWATERING IS REQUIRED PRIOR TO PLACEMENT.

TO ENSURE THE PERFORMANCE OF THE SYSTEM, MAINTENANCE SHOULD BE PERFORMED ANNUALLY BY A LICENSED SEWAGE PUMPING CONTRACTOR.

GLM ENGINEERING CONSULTANTS, INC. WILL NOT BE RESPONSIBLE FOR THE PERFORMANCE OF THIS SYSTEM UNLESS CONSTRUCTED AND INSPECTED IN ACCORDANCE WITH THIS PLAN. INSPECTIONS TO BE DONE AFTER EXCAVATION FOR SYSTEM AND AFTER CONSTRUCTION, BUT PRIOR TO BACKFILLING. ANY ALTERATION MUST BE APPROVED IN WRITING BY GLM ENGINEERING CONSULTANTS, INC.

5' LIMIT OF EXCAVATION (28' x 35')
ALL TOPSOIL, SUBSOIL AND ANY DELETERIOUS MATERIAL MUST BE REMOVED FROM THE AREA OF THE SYSTEM AND OTHER DESIGNATED LIMITS AND FILLED WITH APPROVED, CLEAN, GRANULAR SAND. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 3 INCHES AND BE GRADED SO NOT MORE THAN 45% OF THE SAMPLE IS RETAINED IN A #4 SIEVE, OF THAT PASSING, 70% OR LESS SHALL PASS A #100 SIEVE AND 5% OR LESS SHALL PASS THE #200 SIEVE. NOT MORE THAN 90% SHALL BE RETAINED ON THE #50 SIEVE. SAMPLE FOR SIEVE ANALYSIS TO BE TAKEN FROM SAMPLE IN PLACE.

ALL CONSTRUCTION & COMPONENTS SHALL CONFORM TO THE LATEST REQUIREMENTS OF 310 CMR 15.000 TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND THE TOWN OF HOLLISTON BOARD OF HEALTH REGULATIONS.

BENCH MARK (DATUM = NAVD88) SPIKE SET IN POLE#88/16; ELEV=191.96 (NAVD88)

PROFESSIONAL CIVIL ENGINEER

PROPOSED SEWAGE DISPOSAL SYSTEM
3 NORFOLK LANE
HOLLISTON, MASSACHUSETTS

APPLICANT/OWNER:
HEATHER COSTABILE
208 FRANKLIN FARM COURT
FRANKLIN LAKES, NJ 07417

DATE: AUGUST 8, 2023
REVISED:

GLM Engineering Consultants, Inc
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

DES: RST | SCALE: 1" = 20' | JOB #17,519 | SHEET #1 of 2

3 NORFOLK LANE