

September 16, 2022

Sudbury Conservation Commission Department of Public Works Building 275 Old Lancaster Road Sudbury, MA 01776

Re: DEP File #301-1376

Plan Revision Jonatas Storck

58 Massasoit Avenue, Sudbury, MA

Dear Commission Members,

In response to comments raised during the September 12, 2022 Conservation Commission meeting we have revised the Design Plan for 58 Massasoit Avenue, Sudbury, MA. The revisions include the following:

- A reduction of four (4) feet to the house depth. The house footprint was reduced from 34'x64' to 30'x64'.
- The proposed driveway has been reduced in size. The driveway entrance was reduced from 12 feet wide to 10 feet wide.
- A deck and stairs were added to the rear of the house. The deck will have six (6) inches of stone underneath to accommodate stormwater infiltration. Although the deck is not impervious, it was included in the impervious calculations table.
- A bulkhead to the basement has been added to the proposed house.
- Two air conditioning units have been added to the plan.
- The roof drain recharge system has been moved further from the house as suggested by the Town Engineer.
- Additional proposed plantings have been added along the northerly and easterly sides of the existing yard area as mitigation for activity in the wetland buffer zone. The planting schedule has been revised to reflect 40 shrubs and 12 trees.
- The erosion control barrier has been moved closer to the wetlands to surround the debris piles, trash, and invasive species along the northerly and easterly sides of the property.
- In response to concerns regarding existing impervious calculations we have revised the site plan:
 - 1. The area of the existing deck and handicap ramp are now excluded from the impervious area calculations.
 - 2. The previous site plan did not reflect the house overhang on the side and rear of the house. The plan has been revised.

- 3. The previous site plan did not reflect the bulkhead and concrete walk on the north side of the house. The plan has been revised.
- 4. The previous site plan did not reflect the concrete pad in front of the garage door. The plan has been revised.
- The septic system is in the rear yard. The cover to the tank/leach pit has been added to the plan.

The original house and garage were constructed in 1952, prior to the current wetland bylaw. This plan revision decreases the footprint of the proposed house and driveway. The project will now result in a 133 square foot reduction in impervious area. In addition, the project will also increase the separation between the house and the wetlands and move the septic system outside the 50-foot wetland buffer zone.

Attached please find six (6) copies of the revised plan entitled "Proposed House Location Plan, 58 Massasoit Avenue, Sudbury, MA" dated through September 1, 2022.

Thank you for your attention. Please call me at 508-429-1100 if you have any questions.

Sincerely,

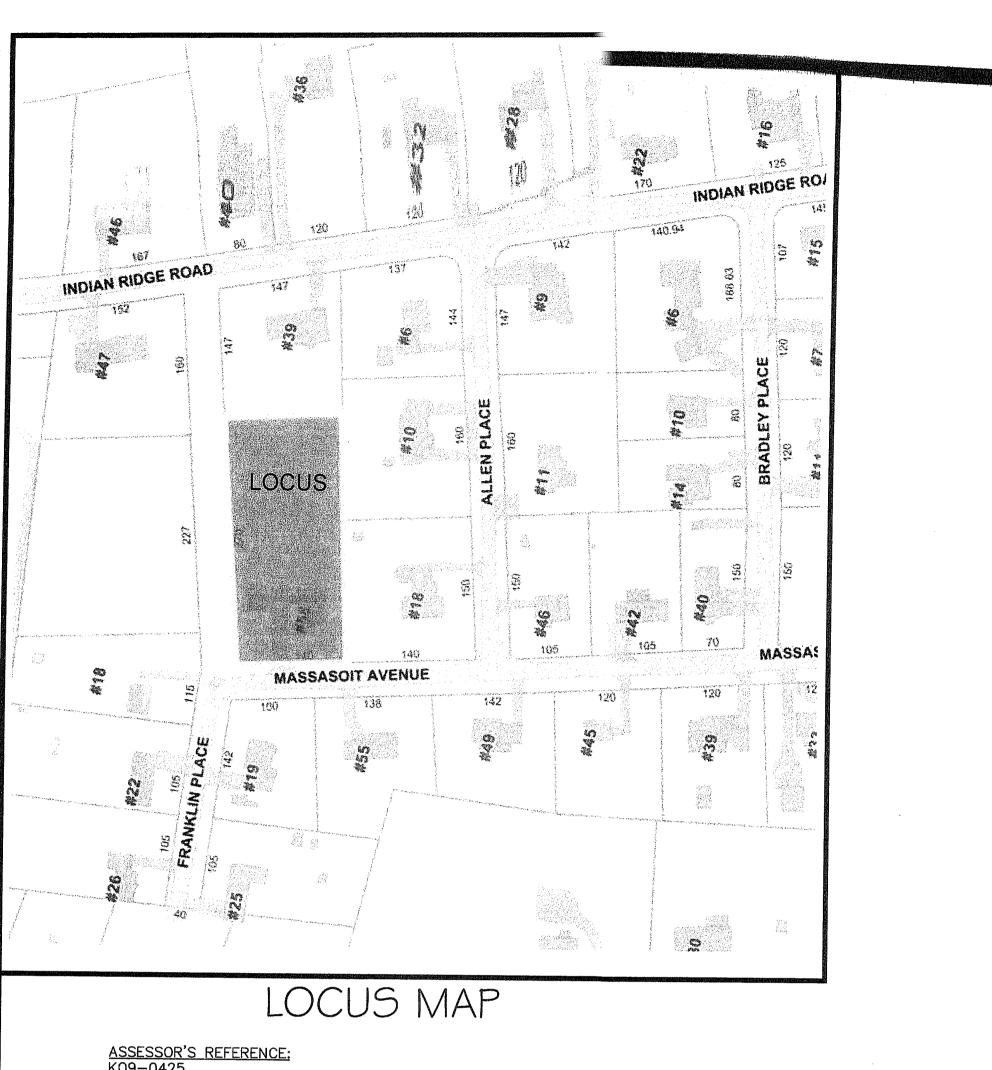
GLM Engineering Consultants, Inc.

Joyce E. Hastings, P.L.S.

Wetland Consultant

cc. Jonatas Storck

DEP NERO



ASSESSOR'S REFERENCE: K09-0425

<u>DEED REFERENCE:</u>
MIDDLESEX COUNTY REGISTRY OF DEEDS
Bk. 79979, Pg. 14

PLAN REFERENCE: PLAN No. 933 OF 1949

OWNER OF RECORD: JBJS CHARLES, LLC c/o JONATAS STORCK 15 EDWARDS LANE QUINCY, MA 02169

ZONING CLASSIFICATION: RES A-1

MIN. LOT SIZE = 40,000 S.F. MIN. FRONTAGE = 180 FEET

MIN. SETBACK REQUIREMENTS: FRONT SET BACKS = 40 FEET SIDE SETBACKS = 20 FEET REAR SETBACKS = 30 FEET

WETLAND BUFFER ACTIVITY

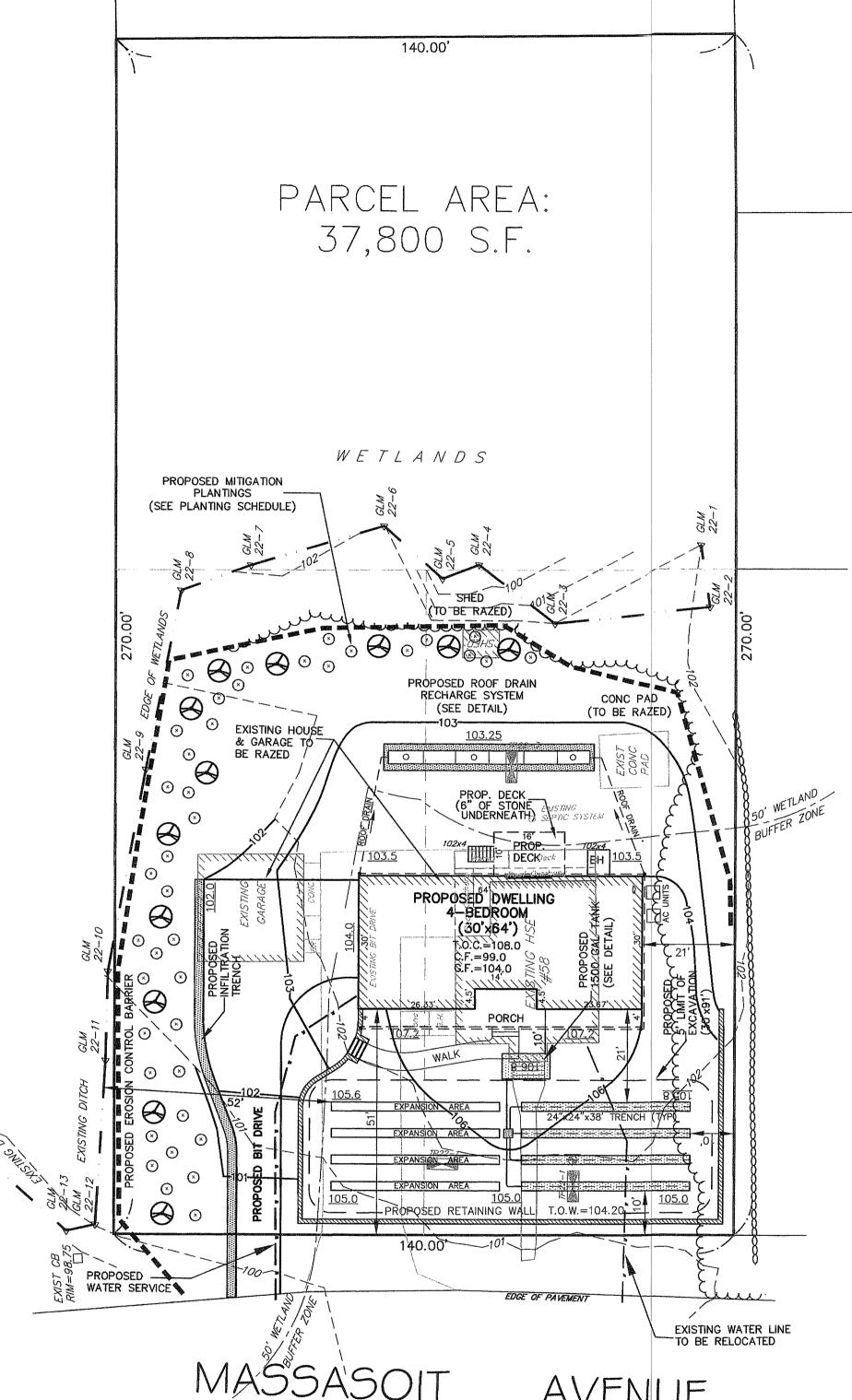
ACTIVITY	100' BUFFER	
EXISTING CONDITIONS HOUSE & ROOF OH DRIVEWAY CONC WALK/BULKHEAD GARAGE SHED CONC. PAD TOTAL:	1,305 S.F. 2189 S.F 312 S.F. 581 S.F. 52 S.F 189 S.F. 4,628 S.F.	
EXISTING DECK & RAMP — 130 S.F. (NOT INCLUDED IN IMPERVIOUS AREA)		
PROPOSED CONDITIONS HOUSE & PORCH DRIVEWAY WALK RETAINING WALL BULKHEAD DECK & STAIRS AC UNITS	2,176 S.F. 1,733 S.F 161 S.F. 197 S.F. 30 S.F. 180 S.F.	
TOTAL:	4,495 S.F.	

PARCEL AREA: 37,800 S.F. WETLANDSEXIST CONC PAD EDGE OF PAVEMENT

MASSASOIT

AVENUE

EXISTING CONDITIONS



MASSASOIT

AVENUE

PROPOSED CONDITIONS

Received SEP 2 1 2022 Sudbury Conservation Department

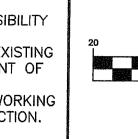


NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.

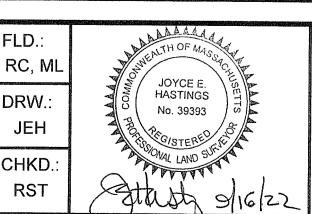
DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.

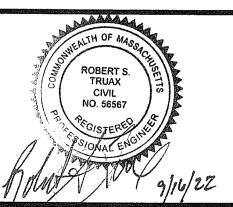
DIGSAFE 1-888-344-7233

THE PROJECT RESULTS IN A 133 S.F. DECREASE IN BUFFER ZONE ACTIVITY



FLD.: **REVISIONS** GRAPHIC SCALE DATE DESCRIPTION DRW.: 8/10/2022 DRAINAGE, GRADING, SEPTIC DETAILS (IN FEET) STORMWATER, PLANTING 9/1/2022 1 inch = 20 ft.3 9/16/2022 REDUCE HOUSE, CALCS





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

PROPOSED HOUSE LOCATION PLAN "58 MASSASOIT AVENUE" SUDBURY, MASSACHUSETTS

APPLICANT: JBJS CHARLES, LLC 15 EDWARDS LANE QUINCY, MA 02169

JOB No.	17,240
DATE:	7/6/2022
SCALE:	1"=20'
SHEET:	1 of 3
PLAN #:	27,611

AS MITIGATION FOR ACTIVITY IN THE WETLAND BUFFER ZONE 2,200 S.F. OF EXISTING YARD WILL BE RESTORED WITH NATIVE VEGETATION.

PLANTING SCHEDULE

⊙ - (40) SHRUBS (1 GALLON)

(10) — SWEET PEPPERBUSH (Clethra alnifolia)

(10) - HIGHBUSH BLUEBERRY (Vaccinuim corymbosum) (10) - GRAY DOGWOOD (Cornus racemosa)

(5) – RED CHOKEBERRY (Aronia arbutifolia) (5) — SERVICEBERRY (Amelanchier arborea)

(N) - (12) TREES (2 GALLON) - 1.5 INCH CALIPER

(4) - RED MAPLE (Acer rubrum)

(4) - BALSUM FIR (Abies balsamea) (4) - BLACK GUM (Nyssa sylvatica)

1. TREES AND SHRUBS WILL BE PLANTED AS SHOWN ON THE PLAN, WITH MINOR DEVIATIONS TO LOCATION BASED ON SITE CONDITIONS.

- 2. ALL PLANTINGS WILL BE WATERED AS NECESSARY AFTER PLANTING UNTIL SUCCESSFULLY ESTABLISHED.
- 3. ANY MODIFICATIONS TO PLAN SPECIES SHALL ONLY BE ALLOWED IF APPROVED BY SUDBURY CONSERVATION COMMISSION STAFF PRIOR.
- 4. THE RESTORATION AREA IS NOT INTENDED TO BE A LANDSCAPED AREA. IT IS TO BE REMAIN NATURAL. NO MULCH IS TO BE ADDED.
- 5. AS GRASS WITHIN THE RESTORATION AREA REACHES A HEIGHT OF 12 TO 14 INCHES, THE AREA WILL BE MOWED TO A HEIGHT OF 4 INCHES TO ENCOURAGE THE GROWTH OF THE PLANTED TREES AND SHRUBS.
- 6. AFTER THE SHRUBS AND TREES ARE PLANTED, THE RESTORATION SHALL BE OVERSEEDED WITH A WETLAND SEED MIX.
- 7. DURING THE MONITORING PERIOD, THE WEEDS AT THE BASE OF THE PLANTED TREES AND SHRUBS SHALL BE PULLED TO ENCOURAGE THE GROWTH OF THE TREES AND SHRUBS.

AS ADDITIONAL MITIGATION FOR WETLAND BUFFER ZONE ACTIVITY, THE PROJECT WILL INCLUDE INVASIVE SPECIES MANAGEMENT.

AS ADDITIONAL MITIGATION FOR WETLAND BUFFER ZONE ACTIVITY, THE PROJECT WILL INCLUDE INVASIVE SPECIES MANAGEMENT.

The applicant is proposing to reduce the prevalence of invasive species within the wetland buffer zone along the northerly side and easterly sides of the property.

The undesirable species in this area include: Tatarian honeysuckle (Lonicera tatarica) Glossy Buckthorn (Frangula alnus) Oriental Bittersweet (Celastrus orbiulatus) Japanese Knotweed (Polygonum cuspidatum)

Woody shrubs and vines will be either pried (smaller specimens) using leverage tools (i.e. puller bar, weed wrench, etc.), or they will be cut and the stems/trunks will be and painted immediately with concentrated, wetland safe herbicide. Herbicides shall only be applied by a licensed applicator and the product will be approved by the Conservation Commission prior to use. The area will be monitored for re-sprouts or missed plants during the build out of the project; undesirable vegetation can be treated with a dilute herbicide solution (usually 2%) applied to the leaves during the mid—late growing season.

All woody or herbaceous materials will be removed from the site and disposed of so as not to foster propagation of these species elsewhere; either buried or properly composted, as appropriate. During the build out of the project, the areas of invasive treatment will be inspected and spot treated by either mechanical or legally applied chemical means so that at the closure of the Order of Conditions, the property will have benefitted from one or more years of invasive species management that will diminish the prevalence of these species.

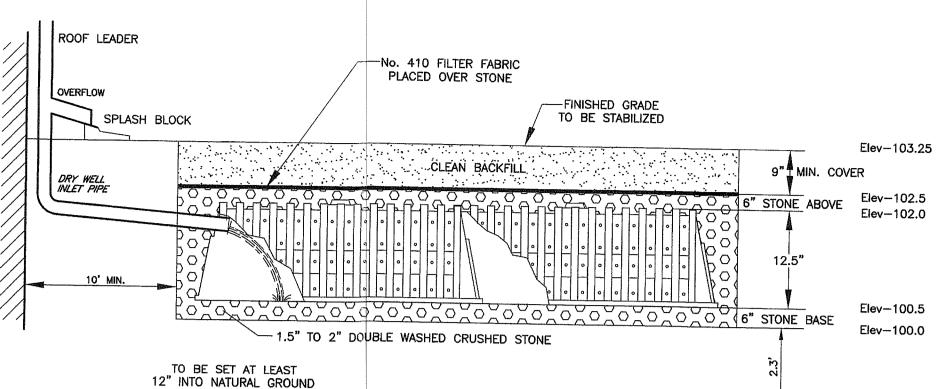
Invasive Vegetation Management for Habitat Improvement

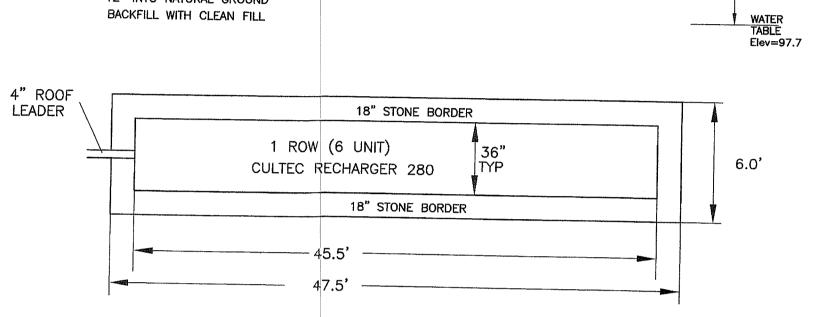
- 1. Remove small undesirable shrubs via wrenching tool as practicable.
- 2. Cut woody stems with licensed application of herbicide. 3. Legally dispose of all salvage vegetation.
- 4. Monitor for re-sprouts and spot treat/maintain treatment through issuance of Certificate of Compliance.

DRAINAGE SYSTEM CALCULATIONS
ALL ROOF RUNOFF TO BE DIRECTED TO RECHARGE SYSTEM. PROPOSED ROOF AREA = 2,432 S.F. VOLUME REQUIRED FOR 1" OF RUNOFF OVER ROOF AREA: 2,432 S.F. \times 1" = 202.67 C.F. DRAINAGE SYSTEM: CULTEC CHAMBERS - CONTRACTOR 100HD WITH STONE

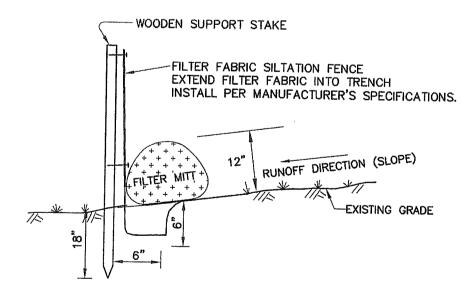
TOTAL STORAGE WITH 18" STONE = 37.76 C.F./UNIT

VOLUME PROVIDED: 6 SYSTEMS \times 37.76 C.F. = 226.6 C.F.

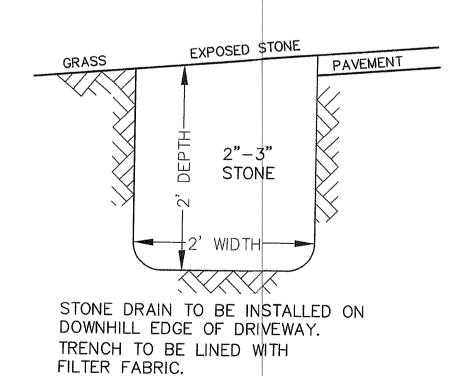




CULTEC DRY WELL SYSTEM FOR ROOF RUNOFF INFILTRATION CULTEC CONTRACTOR 100HD N.T.S.



EROSION CONTROL BARRIER FILTER MITT W/ SILT FENCE N.T.S.



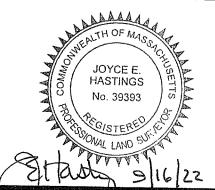
INFILTRATION TRENCH DETAIL

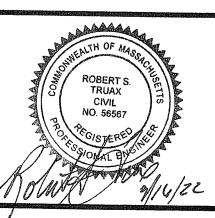
N.T.S.



NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION. DIGSAFE 1-888-344-7233

REVISIONS			FLD.:
No. DATE DESCRIPTION		RC, ML	
1	8/10/2022	DRAINAGE, GRADING,	DRW.:
		SEPTIC DETAILS	JEH
2	9/1/2022	STORMWATER, PLANTING	OLUZD
3 9/16/2022 REDUCE HOUSE, CALCS		CHKD.:	





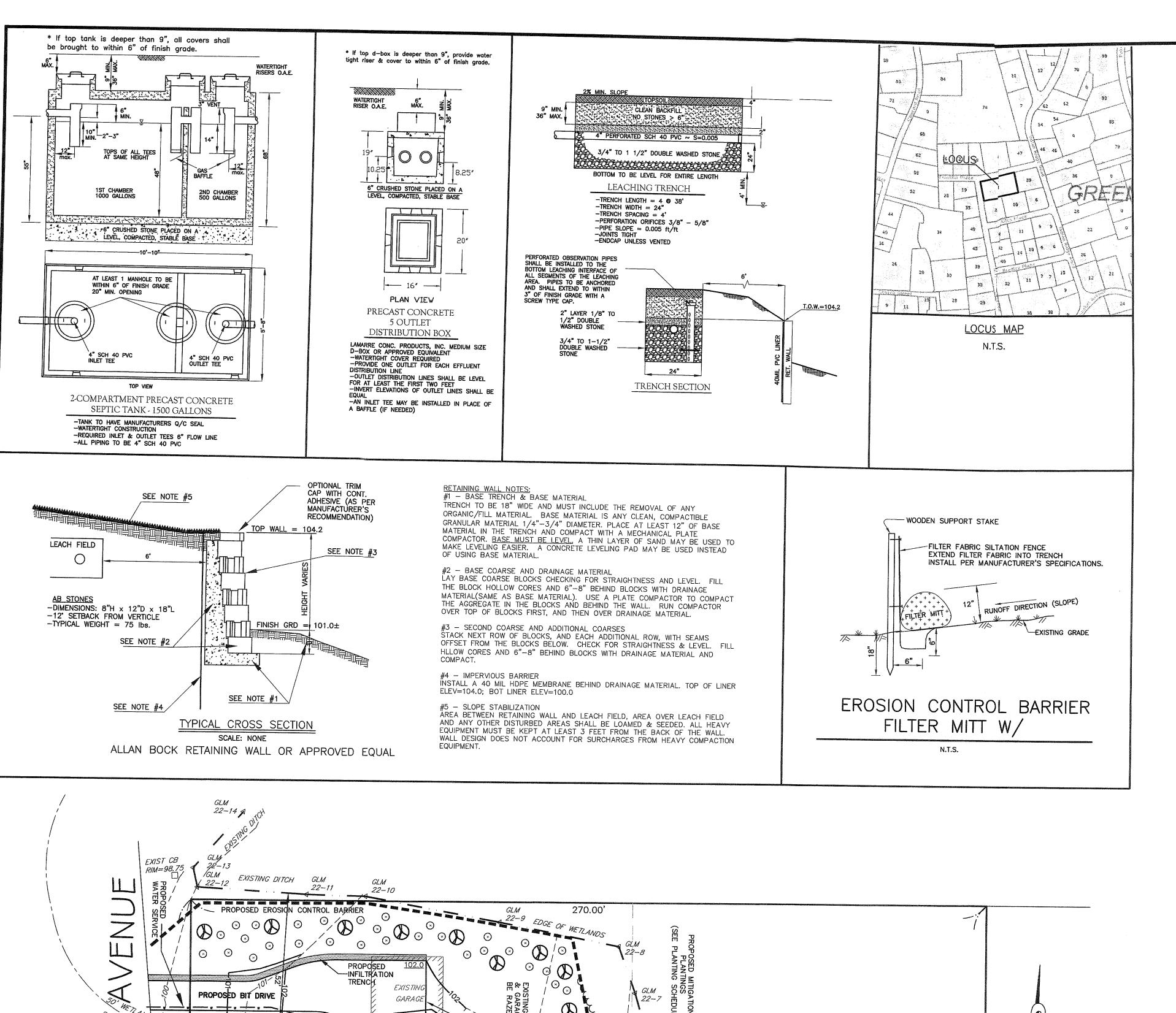


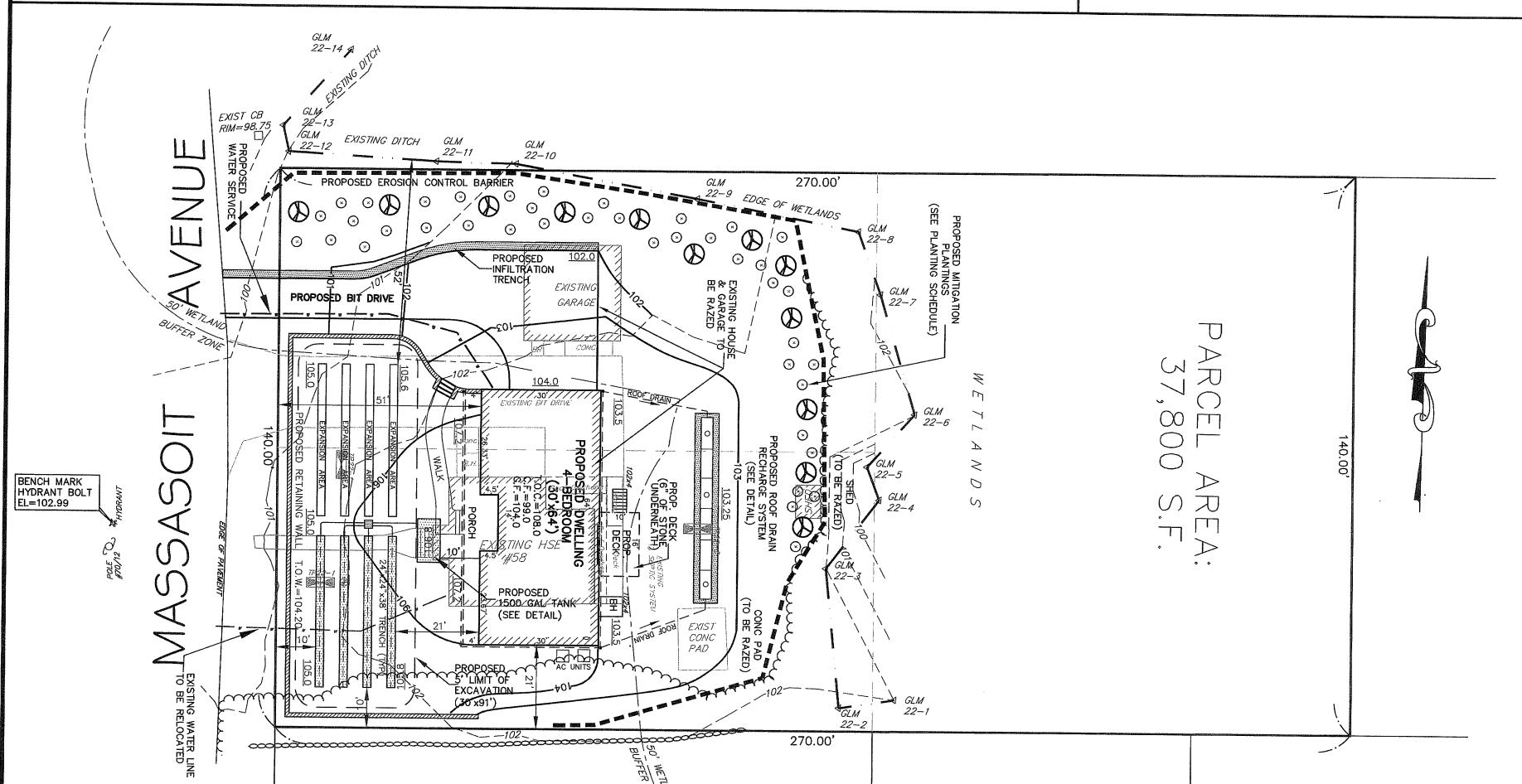
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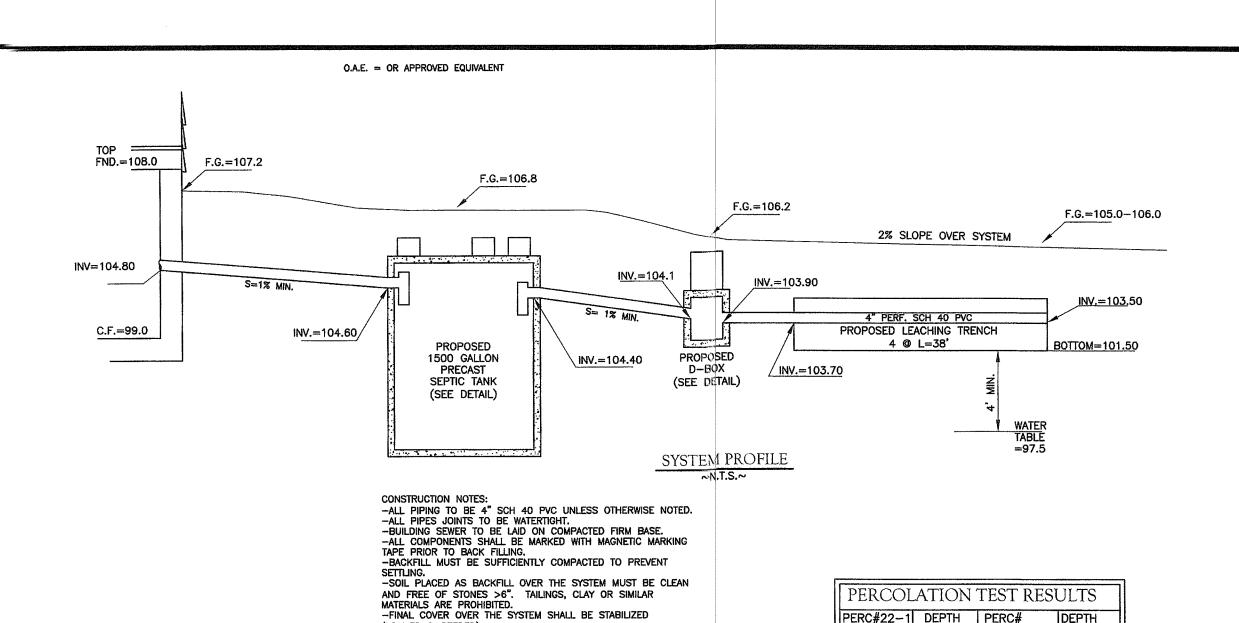
QUINCY, MA 02169

APPLICANT: JBJS CHARLES, LLC 15 EDWARDS LANE

JOB No.	17,240
DATE:	7/6/2022
SCALE:	1"=20'
SHEET:	2 of 3
PLAN#:	27,611







DEEP HOLE - 22-1

HORIZ DATE: 3/23/22 ELEV

SOIL DESCRIPTION

FILL

(LOAMED & SEEDED)

VARIANCE REQUESTED:

Sudbury Rules & Regulations Governing the Subsurface Disposal of Sewage.

Section X. Retaining Walls:

Request a variance to install a retaining in lieu of the slope requirement as detailed in Title V.

EXISTING TANK SHALL BE PUMPED CLEAN, CRUSHED, FILLED WITH GRAVEL AND ABANDONED PER TITLE 5.

2. ANY CONTAMINATED MATERIAL **ENCOUNTERED DURING EXCAVATION** SHALL BE REMOVED AND PROPERLY DISPOSED.

3. EXISTING DWELLING TO BE RAZED.

ASSESSOR'S REFERENCE:

*NO GARBAGE GRINDER ALLOWED **NEW CONSTRUCTION**

TYPE OF FACILITY SERVED SINGLE FAMILY DWELLING - 4 BEDROOMS

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

SEPTIC TANK SIZING:

DESIGN FLOW x 200%

PARCEL ID: K09-0425

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 (Sudbury BOH): 150 sf/bedroom LEACHING AREA REQUIRED = $150 \times 4 = 600 \text{ s.f.}$ (Sidewall Area)

SYSTEM DESIGN

LEACHING TRENCHES - 4 @ 38'L x 24"W x 24"H

SIDEWALL AREA: $8 \times 38' \times 2'H = 608$ S.F. LEACHING AREA PROVIDED:

SIDEWALL AREA = 608 S.F.

BOTTOM AREA = 304 S.F.

FLOW PROVIDED = 912 S.F. x 0.74 GAL./S.F. = 674 **G.P.D.**

LEGEND — — 168— — EXISTING CONTOUR ELEVATION ____166____

PROPOSED CONTOUR ELEVATION DEEP TEST SOIL PIT PERCOLATION TEST PROPOSED SPOT ELEVATION

-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 LIMIT, EXCEPT IF SHOWN -SITE IS NOT WITHIN A NITROGEN SENSITIVE AREA.

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)

MIN. FRONTYARD

MIN. REARYARD

SANDY LOAM SANDY LOAM 10YR3/2 10YR3/2 SANDY LOAM 10YR5/6 SANDY LOAM 10YR5/6 96.2 Fine Sand 2.5Y5/4 Hole was collasping Encounter Old Roof GROUNDWATER OBSERVED 96.5 SOIL MOTTLING SOIL MOTTLING ESTIMATED SEASONAL 97.5

DEPTH SOIL DESCRIPTION SANDY LOAM 10YR5/6 25% Gravel 2.5Y5/3 GROUNDWATER OBSERVED SOIL MOTTLING 97.7 GROUNDWATER MONITORED

C.S.E. #2476

DEEP HOLE - 22-3

HORIZ DATE: 8/30/22

CERTIFIED SOIL EVALUATOR : ROBERT TRUAX SOIL CLASSIFICATION: CLASS WITNESSED BY B.O.H. AGENT : ROBERT LAZO DESIGN PERCOLATION RATE: 3.0 M.P.I.

3/23/22 40-58"

DEEP HOLE - 22-2

SOIL DESCRIPTION

HORIZ DATE: 3/23/22

SOAK 11:20 SOAK

6" 11:50 6"

RATE 3 MPI RATE

DEEP OBSERVATION HOLE LOGS

9" 11:42

12" 11:35 12"

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 REQUIREMENT. THE CONTRACTOR SHALL BE KNOWLEDGABLE 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

3. IT IS THE REPONSIBILITY OF THE APPLICANT TO OBTAIN THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE PROPER INSPECTIONS FOR CERTIFICATIONS AND AS-BUILT PLANS.

. INSTALLER REQUIRED TO PROVIDE PROPER CERTIFICATION. LEACHING AREA TO BE FLAGGED FOR PROTECTION UNTIL CERTIFICATE OF COMPLIANCE IS OBTAINED.

3. NO STOCKPILING OF MATERIALS OVER SYSTEM. 7. NO TRAFFIC OR PARKING OVER SYSTEM.

B. BOTTOM AND SIDES OF EXCAVATION AREA SHALL BE SCARIFIED. D. PLACEMENT OF FILL SHALL BE DONE BY STOCKPILING AT THE EDGE OF THE EXCAVATION AREA AND PUSHED OR CAST IN

10. FILL SHALL NOT BE PLACED IN THE EXCAVATION AREA DURING RAIN OR

11. IF ANY FILL IS TO BE PLACED BELOW THE WATER TABLE, DEWATERING IS REQUIRED PRIOR TO PLACEMENT.

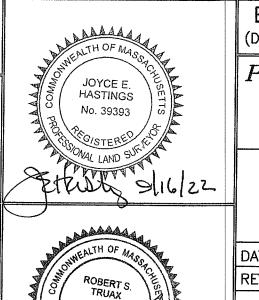
TO ENSURE THE PERFORMANCE OF THE SYSTEM, MAINTENANCE SHOULD BE PERFORMED ANNUALLY BY A LICENSED SEWAGE PUMPING CONTRACTOR.

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. $\frac{5'}{1}$ LIMIT OF EXCAVATION (30' x 91')

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 2 INCHES AND BE GRADED SO NOT MORE THAN 45% OF THE SAMPLE IS RETAINED IN A #4 SIEVE, OF THAT PASSING, 20% 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 SUDBURY BOARD OF HEALTH REGULATIONS.



PROFESSIONAL CIVIL ENGINEER

BENCH MARK FRONT HYDRANT BOLT: EL=102.99 (DATUM = ASSUMED)PROPOSED SEWAGE DISPOSAL SYSTEM 58 MASSASOIT AVE

SUDBURY, MASSACHUSETTS **APPLICANT:** UNIVERSAL J&S CONST INC 15 EDWARDS LANE QUINCY, AM 02169

9/16/2022 REDUCE HOUSE,

S GLM Engineering Consultants, Inc 19 EXCHANGE STREET DATE: MAY 16, 2022 REVISED: AUGUST 10, 2022 SEPTEMBER 1, 2022

HOLLISTON, MA 01746 P: 508-429-1100 F: 508-429-7160 www.GLMengineering.com

DES: RST | SCALE: 1" = 20' | JOB #17,240 SHEET #3 of 3

58 MASSASOIT AVE