

# Bay Colony Group, Inc.

Professional Civil Engineers & Land Surveyors

4 School Street, PO Box 9136  
Foxborough, Massachusetts 02035  
Telephone (508) 543-3939 • Fax (508) 543-8866  
E-mail: mailbox@baycolonygroup.com

May 17, 2023

Mr. Robert W. Boette, Chairman  
Foxborough Conservation Commission  
40 South Street  
Foxborough, MA 02035

## **RE: 31 WATER STREET FOXBOROUGH, MA (SE157-0610)**

Dear Mr. Boette,

I am submitting herewith in accordance with Condition #30 of Attachment A to the Order of Conditions a revised site plan for the construction of a single-family home at 31 Water Street. The modifications to the plan are due to the owner finalizing the floor plans for the home and involve the new home footprint and a revised driveway configuration.

I have also included a separate plan that shows in red the house, patio, pool and driveway as approved by the Commission in February, 2022. The house size has changed from 7,225 sf to 7,780 sf with the major change being the elimination of the separate bedroom that was nw of the garage and the "nook" in the center of the house near the pool. The expansion of the footprint has largely taken place in the front yard. The pool size has been decreased from 492 sf to 233 sf and the patio size has decreased from 1,364 sf to 1,164 sf. The driveway area within the buffer zone has decreased from 3,450 sf to 2,718 sf. The total impervious area in the buffer zone has decreased from 12,174 sf to 11,662 sf.

At its closest point the revised house location is 56' from the BVW, which is less than the approved design which was 36' at the nw corner of the house. The pool is now 69' from the BVW which is less than the approved design which was 52'. The location of the septic system and roof recharge systems have not changed and there is 717 sf less clearing to the west side of the driveway where the driveway now curves in toward the center of the lot where it previously came straight to the garage. One area where the driveway is about 2' closer (44' vs 42') to the BVW is where the driveway meets the garage. The limit of work is about 4' closer and 55 sf larger than the original design.


The Owner is undertaking the initial work specified in the Order by removing invasive species at the entrance to the site. The work is being overseen by Pare Corp and it is my understanding that they have been keeping Ms. Pierce informed of the progress of the work.

It is my professional opinion that the modifications are minor and do not derogate from the conditions imposed by the Commission in the Order of Conditions. I request that the Commission review the modification and render an opinion at the May 22, 2023 hearing.

Thank you for your consideration and we look forward to meeting with you on May 22d.

Very truly yours,

**BAY COLONY GROUP, INC.**

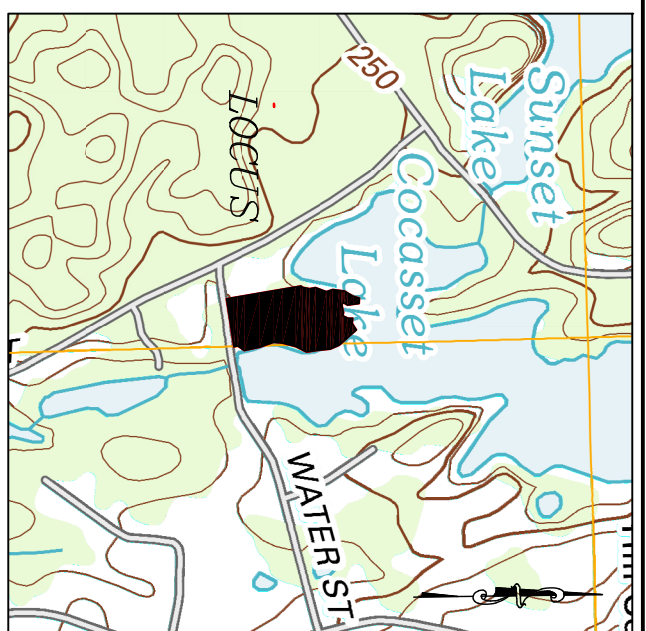
A handwritten signature in blue ink, appearing to read "William R. Buckley, Jr.", with a long horizontal flourish extending to the right.

William R. Buckley, Jr., P.E.  
Project Manager

Encl.



- NOTES:
- AREAS NORTH, EAST AND WEST OF THE HOUSE SHALL HAVE "ORIGINAL JONATHAN GREEN BLACK BEAUTY" SEED MIX ON 6" OF LOAM. AREA IN FRONT OF THE HOME SHALL BE STANBORD 6" LOAM AND SEED.
  - STUMPS WITHIN 50' OF WETLANDS SHALL BE GROUND AND NOT PULLED.
  - NO STUMPS SHALL BE BURIED ON THE SITE.
  - ALL MATERIAL STOCKPILES SHALL BE OUTSIDE OF THE 100' BUFFER ZONE.
  - ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED PRIOR TO CLEARING. SILT SOCKS SHALL BE INSTALLED AFTER CLEARING AND BEFORE GRUBBING.



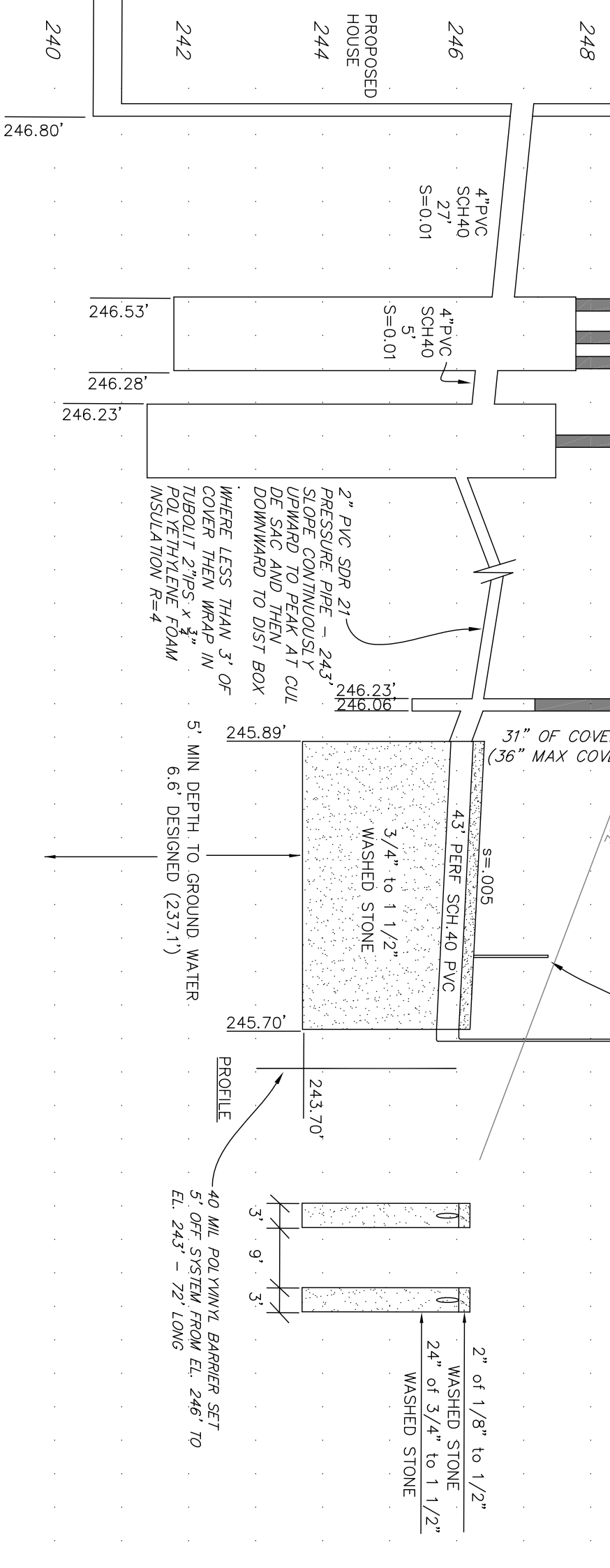
LOCUS 1"=1000'

1,000 GALLON PUMP CHAMBER - SET ON 6" BED OF CRUSHED STONE - BRING COVER TO FINISHED GRADE

1,500 GALLON FAST READY SEPTIC TANK - MICROFAST 0.5 W/VENT - SET BRING COVERS TO FINISHED GRADE

DISTRIBUTION BOX - SET ON 6" BED OF CRUSHED STONE - BRING COVER TO WITHIN 6" OF FINISHED GRADE

INSPECTION PORT PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE - BRING TO WITHIN 5" OF FINISHED GRADE



PROFILE SCALE: HORIZONTAL: 1"=20' / VERTICAL: 1"=2'

- WAIVERS GRANTED:**
- 310 CLR 15.00 (TITLE 5) REGULATIONS.
  - 310 CLR 15.211 - SEPTIC TANK 145.7' FROM TROUBARTY TO SURFACE WATER SUPPLY WHERE 2007 IS REQUIRED.
  - 310 CLR 15.211 - LEACHING SYSTEM 5' FROM PROPERTY LINE WHERE 10' IS REQUIRED.
  - 310 CLR 15.211 - LEACHING SYSTEM COMPONENT LOCATED BEYOND PROPERTY LINE OF THE FACILITY.

DATE	DESCRIPTION
11.11.2021	SEE REVISION BLOCK LOWER RIGHT
11.23.2021	MODIFIED DRAINAGE RECONFIGURED/PAINT TO ONK RED STOP & REVISION ADDED/PAINTING STAMPS, STONE & SILT SOCKS
12.30.2021	LOT LINES RECONFIGURED/WETLAND LINE (ACCORDING AUGUST 2021) SET 9.5' USE HIGH BUSH BLUEBERRY OR SWEET PERSIMMON FROM WF A-108 TO WF A-110. OTHER MATERIALS MAY BE SUBSTITUTED WITH APPROVAL OF CONSERVATION AGENT.
01.13.2023	BUILDING FOOTPRINT MOVED/SEPTIC TANK & PUMP CHAMBER MOVED/DRIVEWAY MODIFIED/ACCOMMODATE CHANGES
01.13.2023	BUILDING MOVED 10' SOUTH/SPLIT RAIL FENCE OF ADDED/PLANT TYPED SOUTH ON EAST SIDE OF HOUSE/EROSION CONTROL FENCE DETAIL COMPLETED REVISION ADDED/INSPECTION PORT PLACED VERTICALLY DOWN INTO STONE AWAY FROM WETLAND IN SEVERAL AREAS

**DESIGN DATA:**

1. ESTIMATED HYDRAULIC LOADING = 4 BEDROOMS AT 110 GPD/BEDROOM = 440 G.P.D.  
GARAGE DISPOSAL: **NOT** ALLOWED WITH DESIGN  
2. SEPTIC TANK SIZE: AVERAGE DAILY FLOW = 440 x 200% = 880 GALLONS  
3. DESIGN PERCOLATION RATE = 0.24 G.P.D./SF SOIL CLASS = 1

SOIL TEST DATA	TEST PIT #1	TEST PIT #2	TEST PIT #3
DATE	8/11/2021	8/11/2021	11/3/2021
DATE	8/11/2021	8/11/2021	11/3/2021
10° (247.1)	A SL: 10MR3/2	A SL: 10MR3/2	6° (248.8)
30° (245.4)	B SL: 10MR5/6	B SL: 10MR5/6	24° (247.4)
130° (237.1)	NO WATER OR MOTTLING	NO WATER OR MOTTLING	120° (238.4)

4. LEACHING AREA: SIDEWALL = 344 SF x 0.24 GAL/SF = 255 G.P.D.  
BOTTOM = 258 SF x 0.24 GAL/SF = 191 G.P.D.  
5. REQUIRED HYDRAULIC LOADING = 446 GAL/DAY

PERCOLATION TESTS	TEST PIT No. 2	TEST PIT No. 3
DATE	8/11/2021	11/3/2021
DEPTH OF PERC START PRESSURE	1050	0831
END PRESSURE	1103	0846
TIME @ 9"	1107	0848
TIME @ 9"	1107	0851
TIME (9"-6")	1112	0851
CALC. RATE	2 MPH	1 MPH
DESIGN RATE	2 MPH	2 MPH

**GENERAL CONSTRUCTION NOTES:**

- All work shall conform to the latest edition of the Commonwealth of Massachusetts regulations governing the installation of subsurface sewage disposal systems, as published in the Code of Massachusetts regulations and referred to as Title 57 and any additional regulations and details. Contractor shall coordinate his work with the Designer to show open hole inspection of the foundation excavation. Components shall not be installed until inspection and approval is obtained from the Board of Health, Designer and Owner.
- Inspector, traffic, parking of vehicles, stacking of materials, and storage of equipment over time of installation until Certificate of Compliance is issued. Magnetic tape shall be placed over all components.

**LEACHING FIELD NOTES:**

- Contractor shall strip and stockpile A and B horizons and any other unsuitable material. material shall be removed from the site - stump burial not permitted. Excess material shall be removed from the site - stump burial not permitted.
- Stone used in leaching system shall consist of double washed 3/4" to 1-1/2" stone free of soil, rock, silt and other deleterious matter. The stone shall be placed in a distribution box with a 4" PVC vent pipe and a 4" PVC cleanout pipe.
- Leaching pipes shall be schedule 40 PVC with solvent welded joints. Holes shall be 3/8 inch diameter. Leaching pipes shall be covered with a 2 inch layer of double washed 1/2" to 1/2" prestone.
- Contractor shall provide certified 15% EROSION CONTROL MATTER (ECM) substrate within 5' of the leaching area. Any required fill for the leaching area shall conform to the requirements of Title 57 as repeated below.
- Fill for systems constructed in fill shall consist of select on-site or imported soil free of rocks and deleterious substances, and shall not contain Remanition Waste as that term is defined in 310 CLR 40.0000. Mixtures and layers of different classes of soils shall not be used. #4 stone shall be placed on top of the ECM. A 4" PVC cleanout pipe shall be placed on the fraction of the fill passing the #4 stone. Stone analysis shall also be performed on the fraction of the fill passing the #4 stone. Stone analysis shall also be performed on the fraction of the fill passing the #4 stone. Stone analysis shall also be performed on the fraction of the fill passing the #4 stone.

**CONSTRUCTION NOTES:**

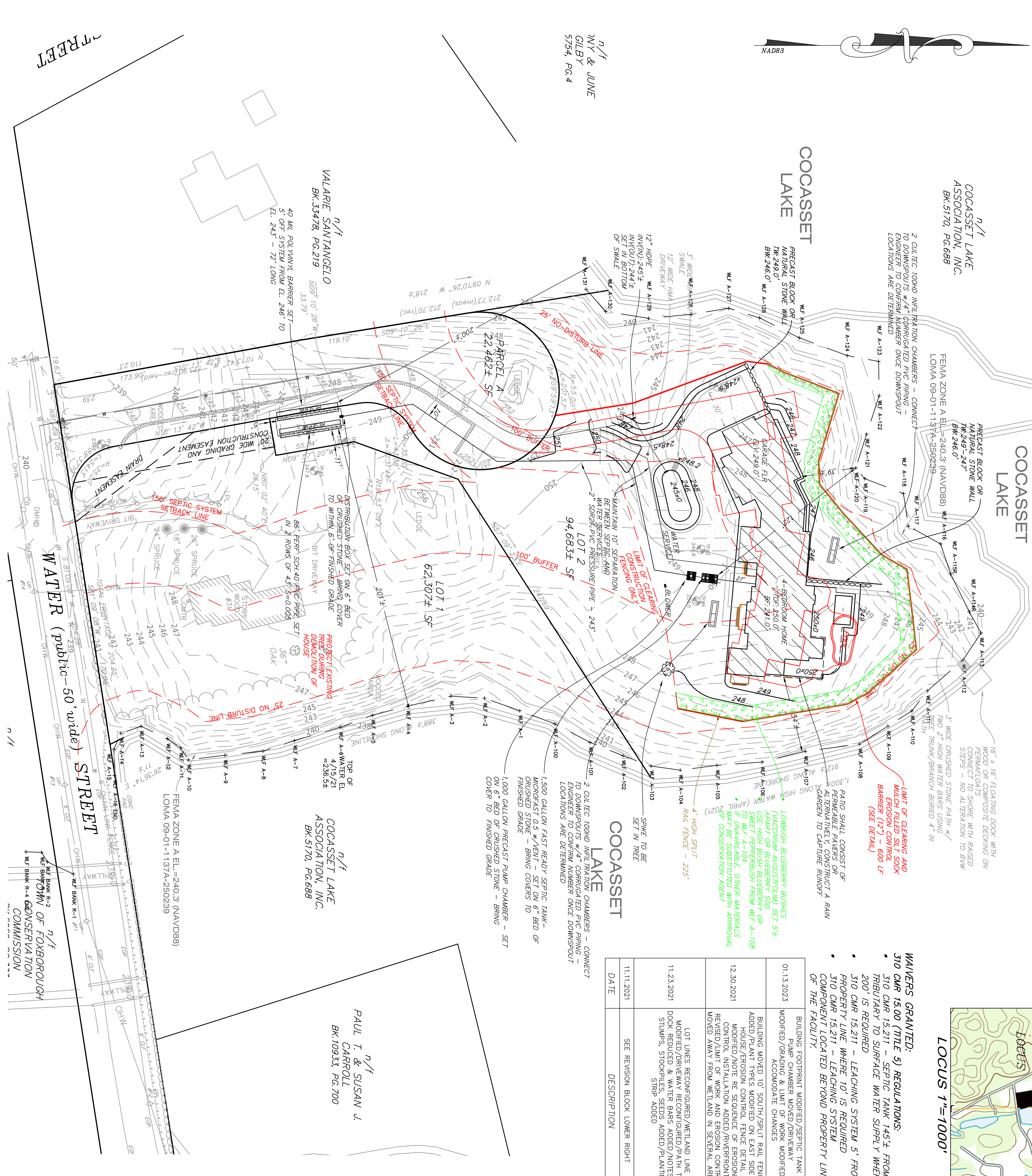
- Fill shall be placed gradually in layers and compacted as required to achieve an in place density acceptable to the Board of Health and Engineer. Fill shall only be placed when the underlying soil is in place. The owner will collect at least one sample and have a stone analysis performed. If the fill does not pass the analysis, the contractor shall remove all fill and replace with appropriate material at no additional cost to the owner.
- Contractor shall provide a minimum of 12" of fill above the distribution box. The vent shall be backfilled to prevent siphoning of water in to the system and shall be constructed to meet the requirements of Title 57. The pipe shall be placed vertically down into the naturally occurring soil or sand fill below the stone. The pipe shall be capped with a screw type cap and accessible to within three (3) inches of finish grade.
- DISTRIBUTION BOX NOTES:
  - removable cover. Unused outlets shall be plugged for future use.
  - A minimum 6" slump below outlet invert and minimum 12" inside distribution box shall be provided.
  - Distribution box shall be set level on 6" of 3/4" stone. Verify by filling distribution box with water and observe that all outlets are of same elevation.

**SEPTIC TANK NOTES:**

- Septic tank shall be microfast, FAST READY, 1,500 gallon capacity.
- Septic tank shall be set on 6" of 3/4" stone.
- Inside length to width ratio shall be equal to or greater than 1.5, with a ratio of 2:1 preferred.
- Tank shall be constructed of reinforced watertight precast concrete and shall have manufacturer's quality control seal drilled through.

**DESIGNER NOTES:**

- No variations from this plan shall be made without written direction from the Designer, Owner and Board of Health Agent.
- The contractor shall notify the Designer of any discrepancies between the plan and actual site conditions. The Designer shall be notified in writing, in person, within 7 days of discovery.
- The Designer shall be notified in writing, in person, within 7 days of discovery.
- 310 CLR 15.00 (Title 5) and are not meant as stand-alone documents.
- Notwithstanding anything shown or not shown on these drawings, the Owner and Contractor are responsible for complying with the current edition of the Massachusetts Building Code regarding foundation drainage, backfilling and waterproofing and are responsible for ensuring that water does not enter the distribution through the walls or floor.



BENCHMARK DESCRIPTION: SPIKE IN TREE TO BE SET TO BE SET BENCHMARK ELEVATION AND DATUM TO BE SET (MAID 88)

THERE ARE NO PUBLIC WELLS OR SURFACE WATER SUPPLIES WITHIN 400' OF THE PROPOSED SYSTEM.

THERE ARE NO PRIVATE WELLS WITHIN 200' OF THE PROPOSED SYSTEM.

THERE ARE WETLANDS BORDERING A SURFACE WATER SUPPLY OR RIPARIAN SYSTEM TO SAME.

THERE ARE NO STREAMS AS DEFINED BY THE RIVERS ACT WITHIN 200' OF THE PROPOSED SYSTEM.

THERE ARE NO OPEN, SURFACE OR SUBSURFACE DRAINS THAT INTERCEPT HIGH GROUND WATER ON THE LOT.

THE SITE DOES NOT LIE WITHIN A REGULATORY FLOODPLAIN BUT IS PARTIALLY WITHIN A 100 YEAR FLOOD ZONE. WASTEWATER FROM THE PROPERTY WILL CONSIST OF DOMESTIC WASTE ONLY.

**SCHEDULE OF ELEVATIONS**

Top of foundation	= 250.00'
Basement floor	= 241.00'
Inv. @ foundation	= 246.80'
Inv. @ septic tank inlet	= 246.23'
Inv. @ septic tank outlet	= 246.28'
Inv. @ dist. box outlet	= 246.08'
Inv. @ pump chamber inlet	= 246.23'
Inv. @ dist. box inlet	= 246.23'
Inv. @ leaching structure(n)	= 245.20'
Inv. @ leaching structure(n) @	= 245.20'
Elevation of stone bottom	= 245.20'

PREPARED FOR: STEVEN GRINGERI 617.680.8039

PROJECT ADDRESS: #31 WATER STREET (LOT 2) FOXBOROUGH, MA

ASSESSORS MAP/PARCEL: MAP 105, PARCEL 026

PROPERTY ADDRESS: #31 WATER STREET (LOT 2) FOXBOROUGH, MA

DESIGNED BY: CHG  
DRAWN BY: CHG  
CHECKED BY: WB4  
DATE: AUGUST 20, 2020

FILE NUMBER: 21-0142  
JOB NUMBER: 111-2021-LEACHING SYSTEM MOVED/PAUP MODIFIED/HAND MOD/WETLAND DME MOD

PAUL T. & SUSAN J. CARROLL  
BK.10933, PG.700

N/F  
WY & JUNE  
GILBY  
5754, PG.4

N/F  
WALLABE SANTIANGELO  
BK.53478, PG.219

N/F  
COCASSET LAKE ASSOCIATION, INC.  
BK.5170, PG.688

COMMISSIONER OF REGISTRATION

WILLIAM J. BIRNBAUM, JR.  
No. 35833  
CIVIL

DESIGNED BY: CHG  
DRAWN BY: CHG  
CHECKED BY: WB4  
DATE: AUGUST 20, 2020

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SHEET 7 OF 2