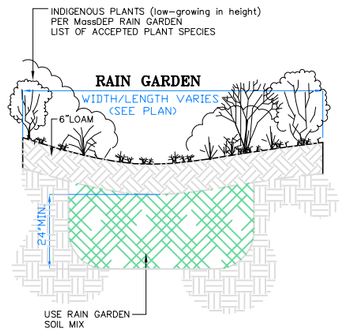


RAIN GARDEN SOIL MIX

Engineered Soil Mix for Bioretention Systems Designed to Exfiltrate:

The soil mix for bioretention areas should be a mixture of sand compost and soil as follows:
40 % sand,
20-30% topsoil, and
30-40% compost.

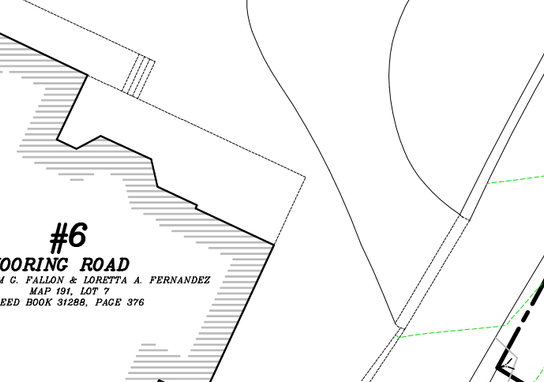
The soil mix must be uniform, free of stones, stumps, roots or similar objects larger than 2 inches. Clay content should not exceed 5%. Soil pH should generally be between 5.5-6.5, a range that is optimal for microbial activity and adsorption of nitrogen, phosphorus, and other pollutants. Use soils with 1.5% to 3% organic content and maximum 500-ppm soluble salts. The sand component should be gravelly sand that meets ASTM D 422.

Sieve Size Percent Passing:
2-inch 100
3/4-inch 70-100
1/4-inch 50-80
U.S. No. 40 15-40
U.S. No. 200 0-3

The topsoil component shall be a sandy loam, loamy sand or loam texture. The compost component must be processed from yard waste in accordance with MassDEP Guidelines (see http://www.mass.gov/dep/recycle/reduce/leafguid.doc). The compost shall not contain biosolids.

STORMWATER Best Management Practice (BMP): RAIN GARDEN

Not To Scale



STORMWATER Best Management Practice (BMP): WQS

Not To Scale

ZONING DISTRICT: SESR

(Shoreline Expanded Single-Residence)

	REQUIRED:	EXISTING GARAGE:	PROPOSED GARAGE:
LOT AREA:	35,000±SF	25,900±SF***	25,900±SF***
FRONTAGE:	100 feet	142.3 feet	142.3 feet
FRONT YARD:	20 feet	24.2±feet	24.2±feet
SIDE YARD:	25 feet	64.4 feet	64.4 feet
REAR YARD:	25 feet*	39.7 feet	38.0 feet
WATERFRONT:	25 feet*	156±feet	152.5±feet
BLDG.HEIGHT**:	30 feet	16.5±feet	29.5±feet

* 25 feet = required waterfront setback (applies for this project)
** measured from lowest point (existing or proposed elevation, whichever is lower, to be confirmed by the Marblehead Building Inspector)
*** Lot area is measured to Mean High Water

#5 MOORING ROAD
FIVEN POINT ASSOCIATES, INC.
C/O CARL R. HYAM
(STEVEN L. GRANSBURY)
MAP 192, LOT 5
DEED BOOK 3710, PAGE 424

#33 BRADLEE ROAD
BLUE THALASSA, LLC
MAP 191, LOT 34
DEED BOOK 29018, PAGE 216

#6 MOORING ROAD
WILLIAM G. FALLON & LORETTA A. FERNANDEZ
MAP 191, LOT 7
DEED BOOK 31288, PAGE 376

#17 BRADLEE ROAD
LANDON & EMILY MITCHELL
MAP 193, LOT 2
DEED BOOK 36867, PAGE 110

#11 BRADLEE ROAD
WILLIAM F. & KATHLEEN O'CONNOR TRUSCOTT
MAP 193, LOT 4
DEED BOOK 33407, PAGE 28

LOCUS #3 MOORING ROAD
SUZANNE IOVANNA
MAP 193, LOT 1
DEED BOOK 40334, PAGE 390

#1 MOORING ROAD
JULIAN PELENUR
MAP 193, LOT 3
DEED BOOK 28904, PAGE 490

MOORING ROAD

SALEM HARBOR

Marblehead MEAN HIGH WATER (310 CMR 10.23) (Elevation= +4.4) NAVD'88 approx.line

N63°38'55"E 53'± (DEED)

220'± (DEED)

R = 133.44' L = 67.30

N29°36'19"E 75.00'

N29°36'19"E 85.00'

N58°09'58"W 49.15'

N87°38'17"W 27.01'

S46°29'00"W 45.95'

S37°36'27"W 29.4'±

EASEMENT

FEMA V.E. ZONE (BASE FLOOD ELEVATION 14) AREA OF MINIMAL FLOOD HAZARD (ZONE X)

FFE=24.85 (threshold)

FFE=24.8 (threshold)

LOW POINT=20.1 (existing)

ELIMINATE ASPHALT HERE INSTALL LANDSCAPING

RE-CONSTRUCT RE-ALIGNMENT / RE-SURFACE

SOFTEN GRADES (in the field if possible)

ez.garage (wooden) one-story concrete slab-on-grade RE-CONSTRUCT (same footprint)

2nd floor BALCONY

LANDSCAPE

3 STEPS

ez.single-family house

*FINAL NUMBER OF STEPS (typ) BY OTHERS

OUTDOOR LIVING SPACE (uncovered) PERVIOUS PAVERS

STEPS

PLANTS

MASONRY STONE RETAINING WALL (typ) (low-gradient water quality swale)

FLAT AREA (parking)

21.2±

ELIMINATE ASPHALT HERE INSTALL LANDSCAPING

LANDSCAPE INSTALL SM.TREES & LARGE SHRUBS (for privacy)

STEEP SLOPE (2H:1V max) 11%

INSTALL WATER QUALITY SWALE

INDIGENOUS GARDEN INSTALL "RAIN GARDEN" SOIL MIX

ez.asphalt driveway

ez.maintained lawn

ez.landscaping

ez.shed

ez.flagpole

ez.concrete

ez.concrete retaining wall

existing pier

ez.boulders migrating seaward

ez.numerous plants growing amongst stone boulders (deliberately left undisturbed with no signs of erosion, damage or retaining stones)

ez.exposed bedrock

ez.wooden deck (exposed ledge underneath)

ez.pool & decking

ez.edge of pavement

ez.granite curb (typ)

ez.paved hobbs (landscaping)

ez.drain outlet

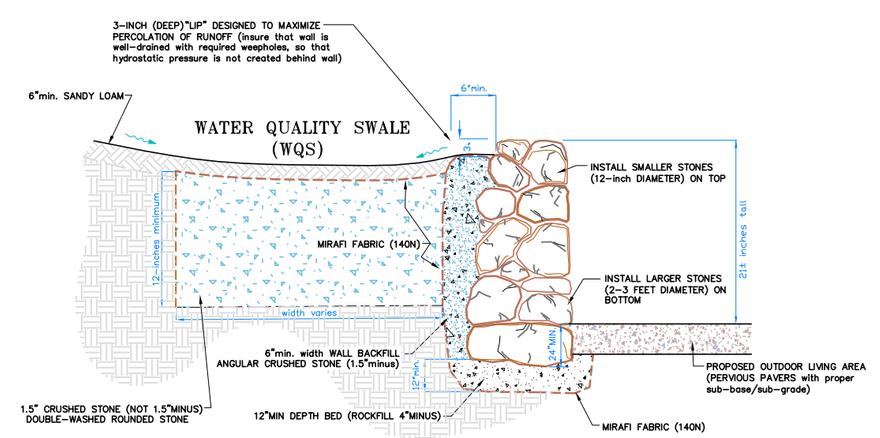
Drain

NOTE: RAMIFICATIONS FOR FLOOD INSURANCE RATES (CHARGES/FEES) ARE NOT KNOWN WITH THIS PROPOSED DESIGN. PLDE MAKES NO ASCERTAINS THAT FLOOD INSURANCE RATES WILL BE HIGH OR LOW.

NOTE: THIS PLAN IS FOR PERMITTING PURPOSES ONLY.

THE SITE CONTRACTOR MAY WANT TO MAKE CHANGES (during construction based on field actualities). PLDE'S CERTIFICATIONS ARE NULL & VOID UNLESS PRIOR APPROVAL (from PLDE) IS OBTAINED PRIOR TO CONSTRUCTING ANY FIELD CHANGE.

ANY CHANGES TO THIS PERMIT PLAN ALSO REQUIRE AUTHORIZATION FROM THE MARBLEHEAD CONSERVATION COMMISSION PER THE ORDER OF CONDITIONS PERMIT:
PRIOR TO CONSTRUCTION OF THE ANTICIPATED CHANGE



STORMWATER Best Management Practice (BMP): WQS & SMALL STONE MORTARED "LIPPED" SEATING WALL

NOTE: NO MIRAFI FILTER FABRIC ON THE BOTTOM OF THE RAIN GARDEN TO ALLOW FOR MAXIMUM PERCOLATION

Not To Scale

SITE PLAN

PROPOSED SCOPE of WORK

to accompany a
SITE PLAN APPLICATION
to the
Marblehead Planning Board
for
Re-construction of an Existing Garage & Re-purposed Outdoor Living Area/Kitchen & Site Work/Landscaping
located at:
#3 Mooring Road
Marblehead, MA
October 7, 2023
Plan Scale: 1" = 20'
Sheet 2 of 2

Massachusetts State Plane Coordinate System Grid North

Datum: NAVD'88

GRAPHIC SCALE (in feet)
0 10 20
1 inch = 20 feet

PATROWICZ
LAND DEVELOPMENT ENGINEERING
14 Brown Street, Salem, MA 01970
(978) 836-6400
scott.patrowicz@verizon.net

COMMONWEALTH OF MASSACHUSETTS SCOTT IAN PATROWICZ CIVIL No. 33658 REGISTERED PROFESSIONAL ENGINEER

PLDE#22-09

S:\Data\LAND PROJECTS 4\Marblehead\IOVANNA #3 Mooring Road\!22-09\dwg\2023-10-07 MPB SITEPLANs [garage] C-size.dwg