

Spring 2026

TXMI 3390



SUSTAINABILITY PROJECT

LEXI SIMONDS





CONCEPT STATEMENT

This two-story home was designed with sustainability and wellness in mind for the Palmer family, whose daughter suffers from asthma. The home is located in Cape Cod, a northeastern coastal region where the surrounding ocean can help support cleaner air quality. The floor plan includes three bedrooms, three and a half bathrooms, a living area, kitchen, dining room, and a painting studio designed for Mary Palmer's work as a painter, and her husband John who works as a dentist.

Throughout the home, sustainable design strategies were carefully selected to reduce environmental impact. Wood-framed windows with triple glazing help with heat retention and passive cooling, improving energy efficiency. Window coverings throughout allow better control of indoor temperatures, while light-colored paint and reflective surfaces help reduce the need for artificial lighting. FSC-certified wood, natural stone, and low-VOC paints were incorporated because of their durability, and low environmental impact. To further improve indoor air quality, the home includes many indoor plants and a HVAC system compatible with high-MERV filters, which help remove particles such as dust and bacteria from the air.

Overall, the Palmer residence combines sustainable materials, and the natural air-quality benefits of its Cape Cod location to create a healthier home for the family. In summary, this home is designed to protect both the environment and the people who live in it by creating a low-impact and breathable living space.



SITE INFORMATION

19 Muskrat Ln, Brewster, MA 02631

Lot Information:

- 0.7 Acres
- Waterview: Cape Cod
- Convenient To: School, Shopping, Conservation Area
- Water Access: Salt
- Beach Description: Ocean
- Miles to Beach: 0 - .1
- Waterfront: Yes
- Topography/Lot Desc: Wooded, Level





Sustainability Floor Plan

Second Floor



Locally sourced wood

Indoor Plants

Low-E Windows

First Floor



Large Windows for Daylighting

Natural Stone

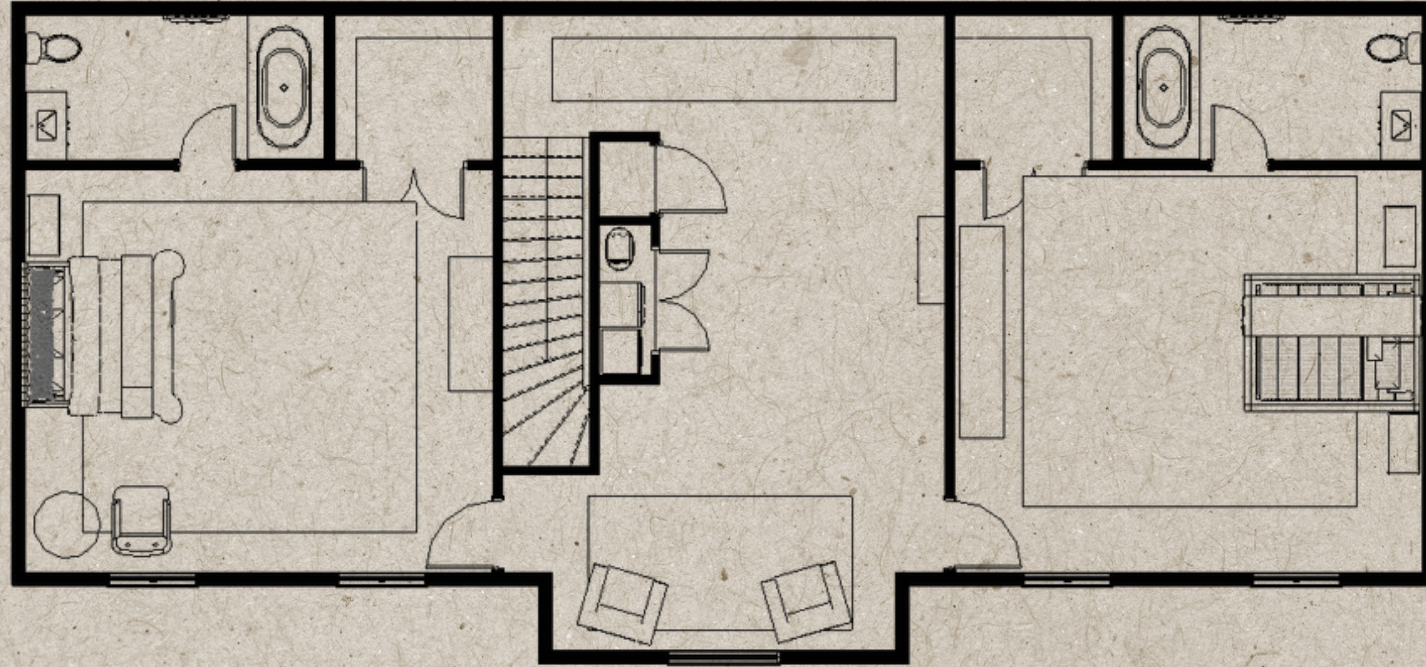
EXTERIOR



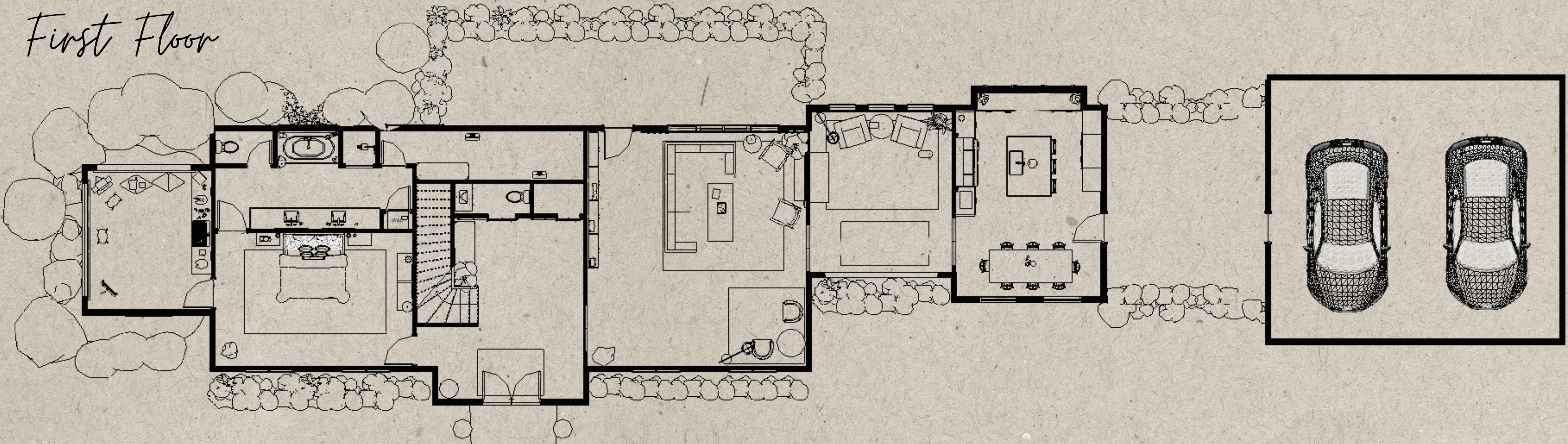


Second Floor

FLOOR PLAN



First Floor



KITCHEN



Quartz



Cabinets



Oak Cabinets



Floor



Stone



Light
Fixtures



Vent Hood



Ogee Countertop
Edge Profile



Sink



Faucet



Dishwasher 24"
Custom Panel Ready



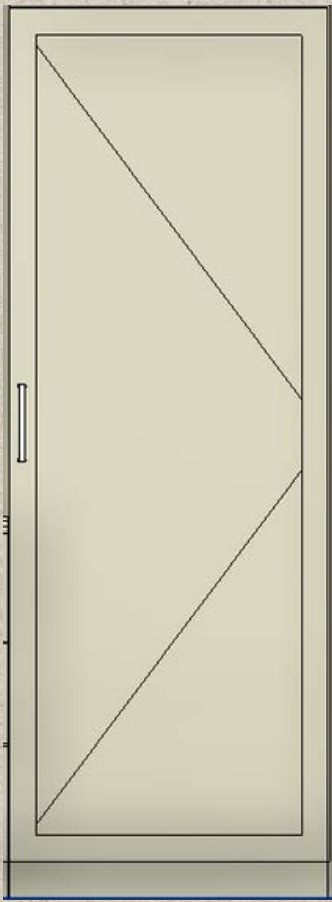
Pulls



Range



Panel Ready
Refridgerator



Shaker-style
cabinetry
(recessed panel)

DINING ROOM



Light Fixture

Artwork



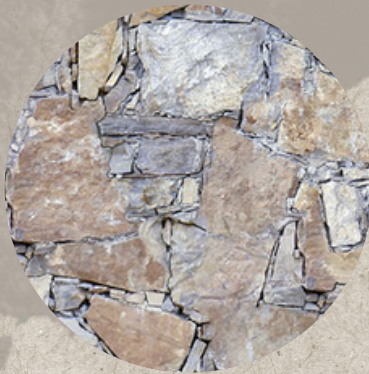
Table



Chairs



Floor



Stone



Shiplap



Table

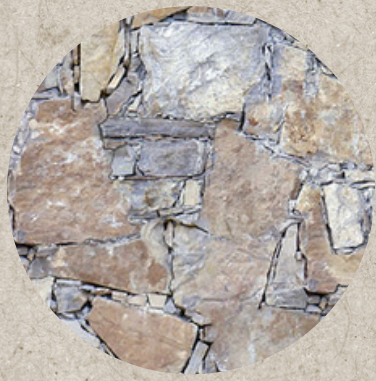


Chairs

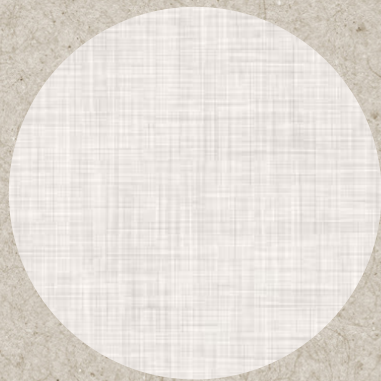
LIVINGROOM



Cabinetry



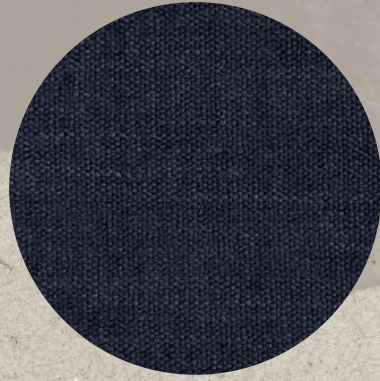
Stone



Curtains



Paint



Chair Fabric



Bookcase



Pendant



Sofa



Coffee Table



Chair



Lamp



Side Table

Rug



Art

MASTER BEDROOM



Wallpaper

Pillow Fabric

Bedside Wood

Pillow Fabric

Headboard

Rug

Bench

MASTER BATHROOM



Light Fixture

Faucet

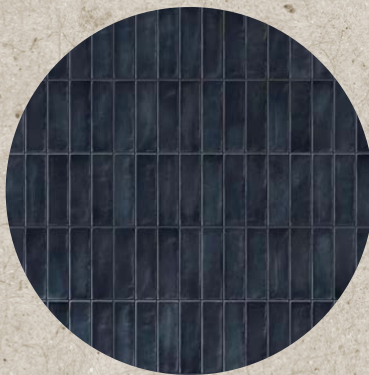
Vanity Light

Knob

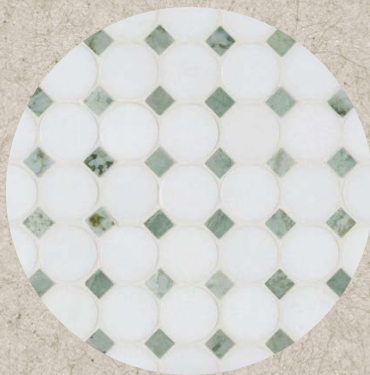
Sink



Quartz



Shower Tile



Bath Tile



Roman Shade



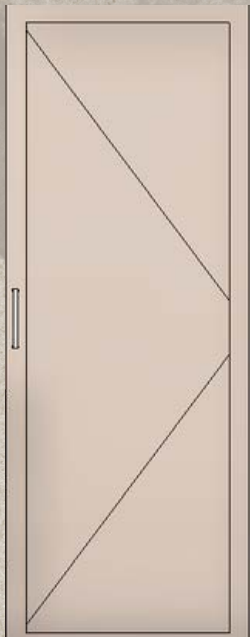
Cabinets



Floor



Wall Paint



Shaker-style
cabinetry
(recessed panel)

ART STUDIO



Modular Adjustable
Triangular Tables



Stools



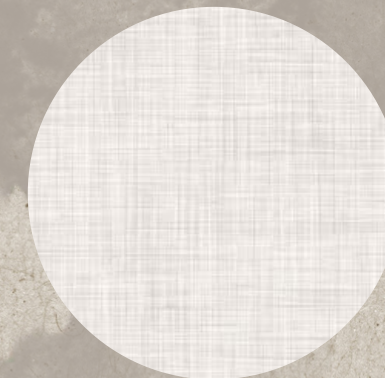
Faucet



Floor



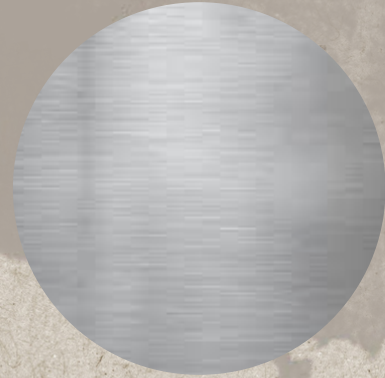
Cabinetry



Roman Shade



SW - Pure White



Countertop

Slab-overlay
cabinetry

ENTRYWAY

