

The Family

AHOUSE STUDIO



PROJECT DESCRIPTION

“The Family” is a backyard cottage designed with a flexible plan layout that fits a variety of family sizes and needs. The design efficiently focuses the bathrooms and kitchen in the center of the floor plan, while leaving the rooms on either side open to varying, flexible arrangements. The living room could become a bedroom, and the dining space could be a double-height living area. The location of the main entrance can be determined based on the preferred use of the ground floor spaces.

Standard building materials and a simple form keep costs low, but details such as built-in furnishings and a subdued, natural palette provide the feel of a modern, custom home.

Large windows and cross-ventilation in every room allow for passive cooling as much as possible.

Rainwater harvesting, solar PV panels, hight-quality cavity insulation, an air tight envelope, Heat Recovery Ventilation and high performance windows are encouraged to increase energy efficiency.

PLAN VARIATIONS

Three plan variations are available, depending on family sizes:

VARIATION 1: 1 bedroom unit wtih double height living space (GCA: 808 SF).

VARIATION 2: 2 bedroom unit with an optional 3rd bedroom where the living room is located. this variation has the same footprint as Plan Variation 1 (GCA: 964 SF).

VARIATION 3: 3 bedrrom unit with a lager foortprint (GCA: 1132 SF).

LOW COST / CONSTRUCTABILITY

A simple, efficient layout includes no “hallways” and yields a high usable area to total square footage constructed.

Plumbing elements are grouped in the building's center to limit piping lengths.

Materials are chosen considering their first-cost as well as their durability, to minimize maintenance and repair costs. Two finish package options are provided for different budgets.

A flexible plan and simple form and construction methods encourage homeowners to complete the construction themselves.

GREEN BUILDING AND DESIGN

Wherever possible, proposed building materials promote indoor air quality, environmental sustainability, and incorporate recycled content.

Symmetric and Flexible plan configuration to allow for favorable solar orientation.

Window placement and variation options to provide cross ventilation and maximize passive heat control.

Skylights and large windows are proposed to maximize daylight and solar heat gain.

High quality insulation and efficient mechanical systems are proposed.

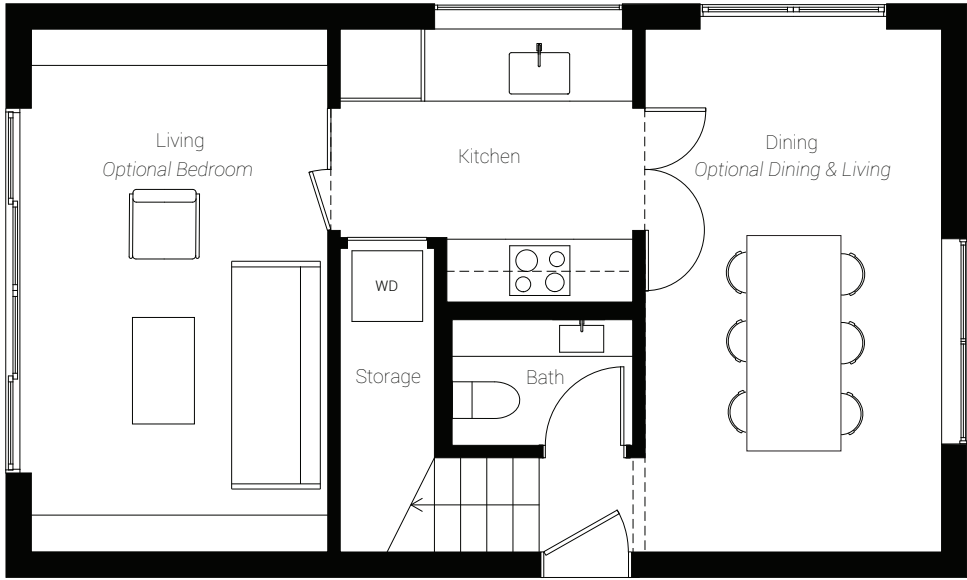
CONTEXT

For a family-sized house, the footprint is minimized to reflect the scale of most neighborhoods. The steeply pitched roof helps minimize view blockage.

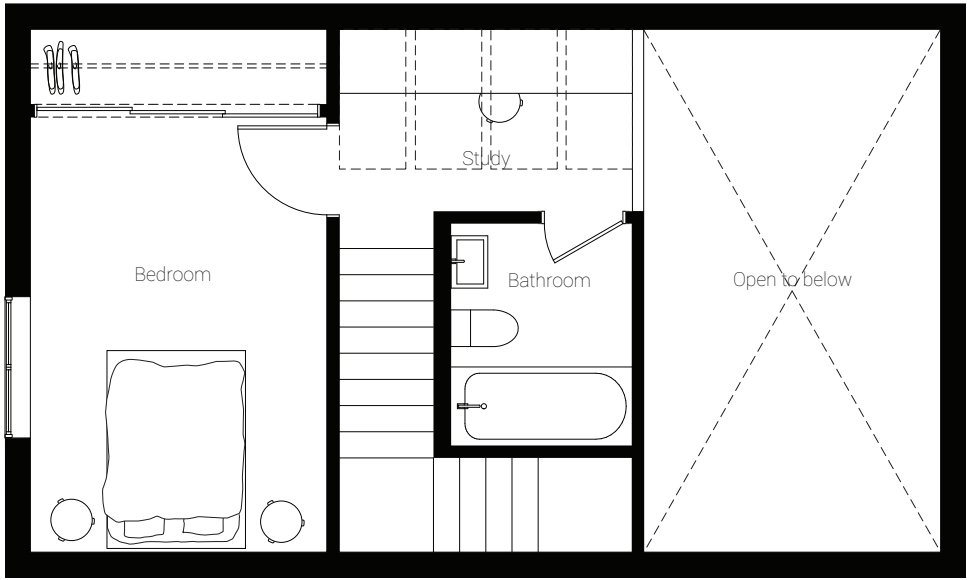
CULTURALLY RESPONSIVE DESIGN / PRIVACY

The design allows for large families and many uses of space. On the ground floor, a smaller family could have a living room and a dining room. Larger families might combine those uses, allowing for an additional bedroom on the ground floor. Two more bedrooms are available on the upper level, as well as a deep hall that can serve as an office, or could become a large closet. Smaller families could keep one side of the upper level open to below to create a double-height ground floor space.

Windows are strategically placed to provide privacy.



LEVEL 1



LEVEL 2

VARIATION 1 - 1 BEDROOM

GROSS FLOOR AREA - 808 SF;

LEVEL 1: LIVING - 157 SF; DINNING - 157 SF; KITCHEN - 75 SF; BATHROOM - 23 SF.

LEVEL 2: BEDROOM 1 - 157 SF; STUDY - 58 SF; BATHROOM - 39 SF.

DADU DIMENSIONS

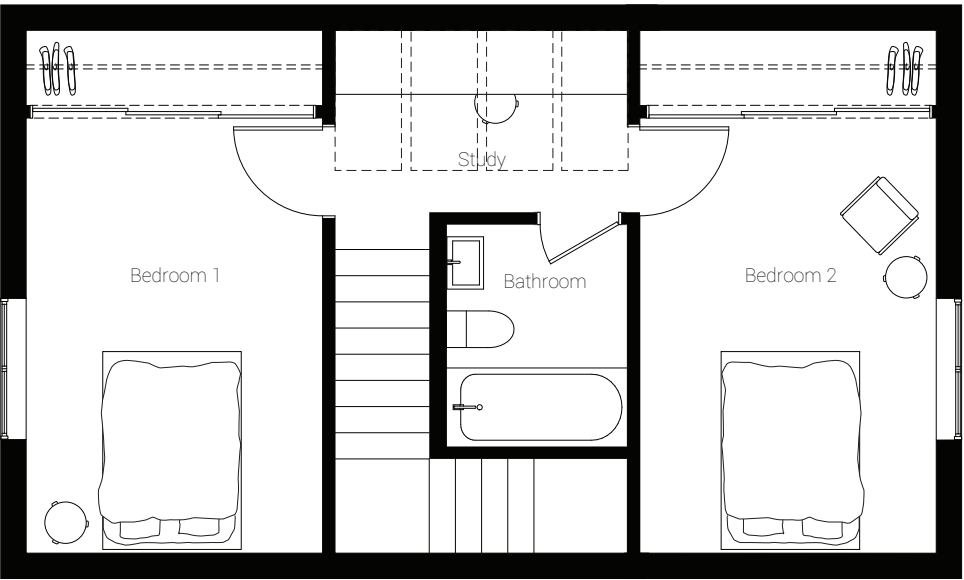
Base height: 14'-7"

Pitch height: 22'-10"

Plan Dimensions: 17'-8" x 30'-0" (Var 1 and 2); 17'-8" x 35'-0" (Var 3)

Coverage area: 530 SF (Var 1 and 2); 618 SF (Var 3)

Gross Area : 808 SF (Var 1); 960 SF (Var 2); 1132 SF (Var 3)



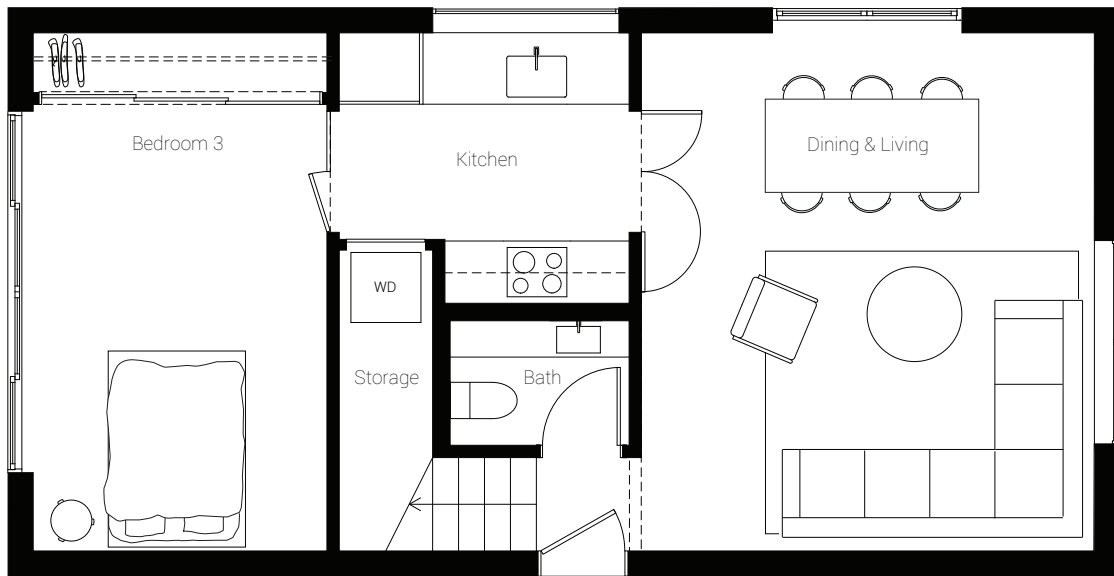
LEVEL 2

VARIATION 2 - 2 BEDROOM

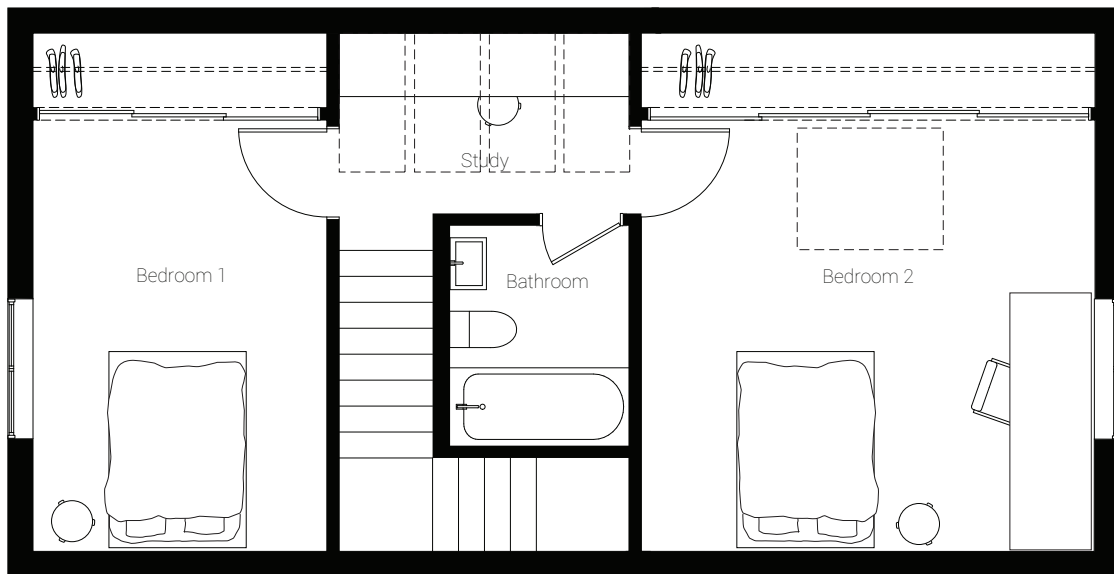
GROSS FLOOR AREA - 964 SF;

LEVEL 1: LIVING - 157 SF; DINNING - 157 SF; KITCHEN - 74 SF; BATHROOM - 23 SF.

LEVEL 2: BEDROOM 1 - 157 SF; BEDROOM 2 - 157 SF; STUDY - 58 SF; BATHROOM - 39 SF.



LEVEL 1



LEVEL 2

VARIATION 3 - 3 BEDROOM

GROSS FLOOR AREA - 1132 SF;

LEVEL 1: LIVING AND DINING - 157 SF; BEDROOM 3 - 157 SF; KITCHEN - 75 SF; BATHROOM - 23 SF.

LEVEL 2: BEDROOM 1 - 157 SF; BEDROOM 2 - 157 SF; STUDY - 58 SF; BATHROOM - 39 SF.

DADU DIMENSIONS

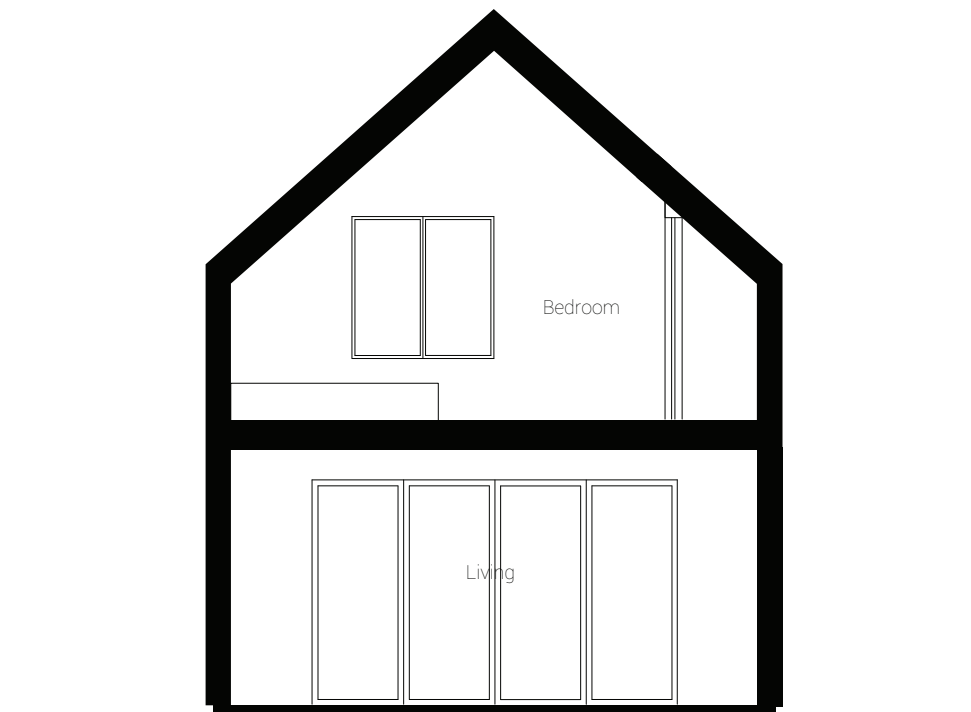
Base height: 14'-7"

Pitch height: 22'-10"

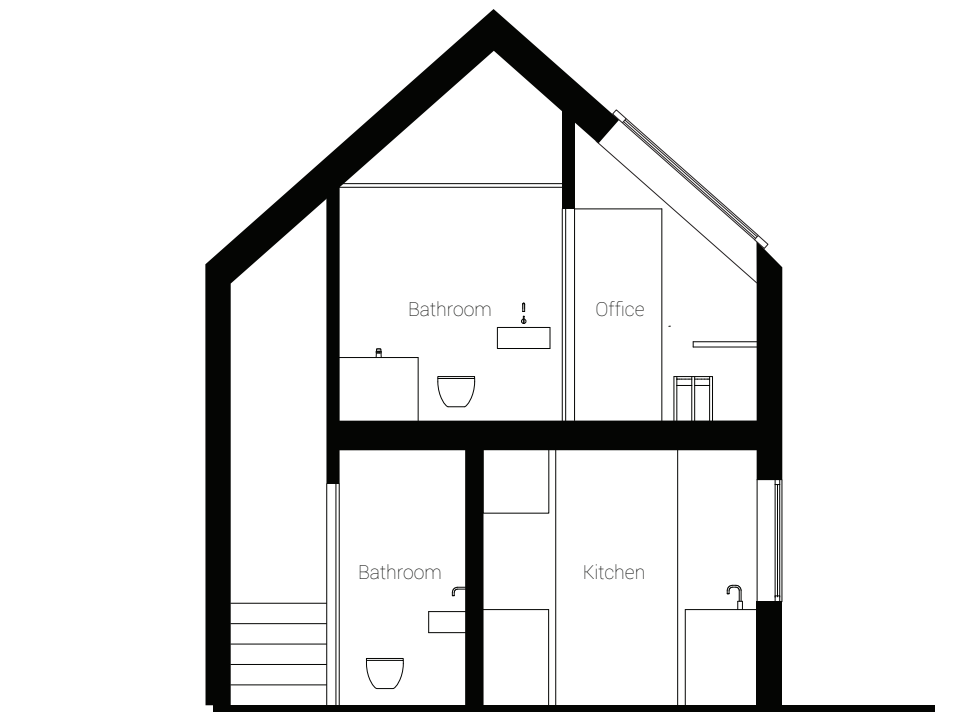
Plan Dimensions: 17'-8" x 30'-0" (Var 1 and 2); 17'-8" x 35'-0" (Var 3)

Coverage area: 530 SF (Var 1 and 2); 618 SF (Var 3)

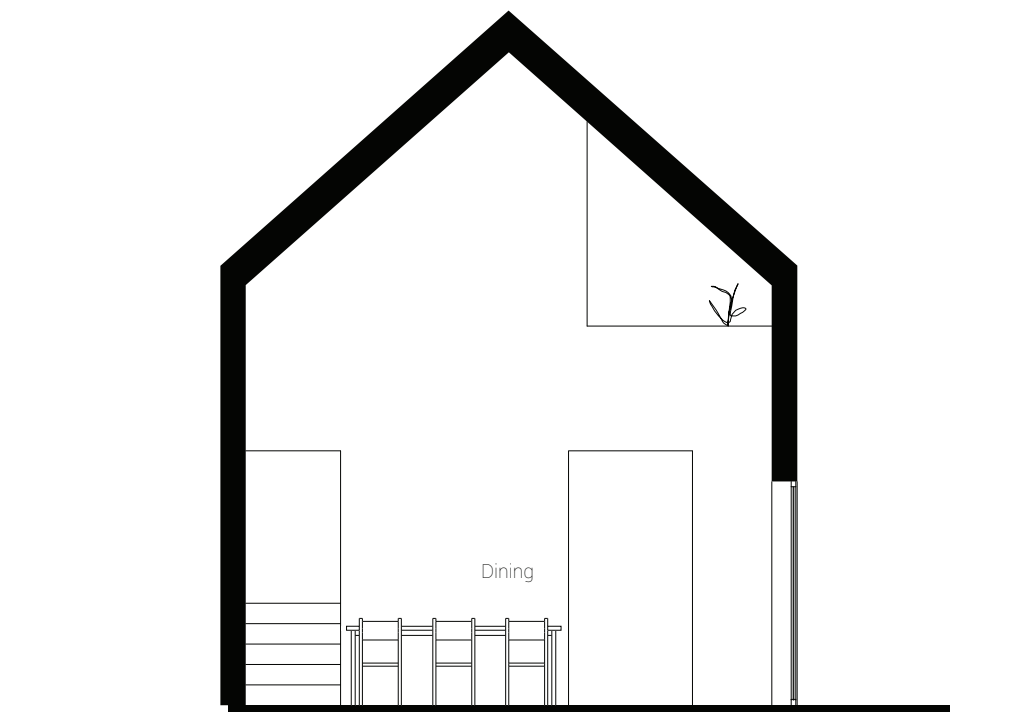
Gross Area : 808 SF (Var 1); 960 SF (Var 2); 1132 SF (Var 3)



SECTION THROUGH LIVING ROOM



SECTION THROUGH THE CORE (KITCHEN AND BATHROOMS)



SECTION THROUGH DINING AREA
(VARIATION 1 - DOUBLE-HEIGHT DINING AREA)



SIDE FACADE

Showcasing Variation 1.

The oversized window plays with scale and proportion to reduce the apparent mass of the cottage.



DINING AREA

Showcasing Variation 1 - Double-height dining area.
The skylights above the study area illuminate stairs and dining area.



LIVING AREA

The living area is provided with a door and built-in storage, so it could easily become an additional bedroom.



BEDROOM

The large window occupies a central position, ensuring privacy in the sleeping and dressing areas.

MATERIALS PALETTE #1 HIGHER GRADE (rendered option)

EXTERIOR FINISHES

- ROOFING: Corrugated metal.
- EXTERIOR SIDING: Corrugated metal (alternative 4" wide cedar boards, vertical orientation).
- DECKING: Alaskan Cedar Hardwood Decking, 4" wide.
- WINDOWS / GLAZED DOORS: All wood or Aluminum-clad wood.
- SKYLIGHTS: Wood with external clad to match roof.
- ENTRY DOOR: Solid wood, stainless steel threshold.

INTERIOR FINISHES

- FLOOR - FIRST FLOOR: 1"x 4" White Oak hardwood Floor, soap treated or matte finish.
- FLOOR - FIRST FLOOR BATHROOM: Colored microcement, wear resistant and waterproof.
- FLOOR - SECOND FLOOR: 1"x 4" White Oak hardwood Floor, soap treated or matte finish.
- FLOOR - SECOND FLOOR BATHROOM: Colored microcement, wear resistant and waterproof.
- STAIR TREAD AND RISER: White Oak tread and riser, soap treated or matte finish.
- WALL FINISH: Painted GWB, level 5 finish.
- WALL FINISH SECOND FLOOR BATHROOM: Painted GWB and ceramic tile at shower and trim.
- CEILING FINISH: Painted GWB, level 5 finish.
- BASEBOARD & DOOR TRIM: Painted Poplar to match wall color, semi-gloss finish.
- WINDOW & DOOR RETURN: Painted GWB. Hardwood Sill.
- INTERIOR DOOR: Flush solid core wood doors, painted to match wall color.
- KITCHEN: Plywood cabinets and paperstone countertop.



MATERIALS: 1. Corrugated Metal Roofing. 2. Corrugated Metal 3. Alaskan Cedar Hardwood decking 4. Wood window 5. White oak floor, soap treated. 6. Plywood cabinets and paperstone countertop 7. Vertical ceramic tiles 8. Light grey microcement.

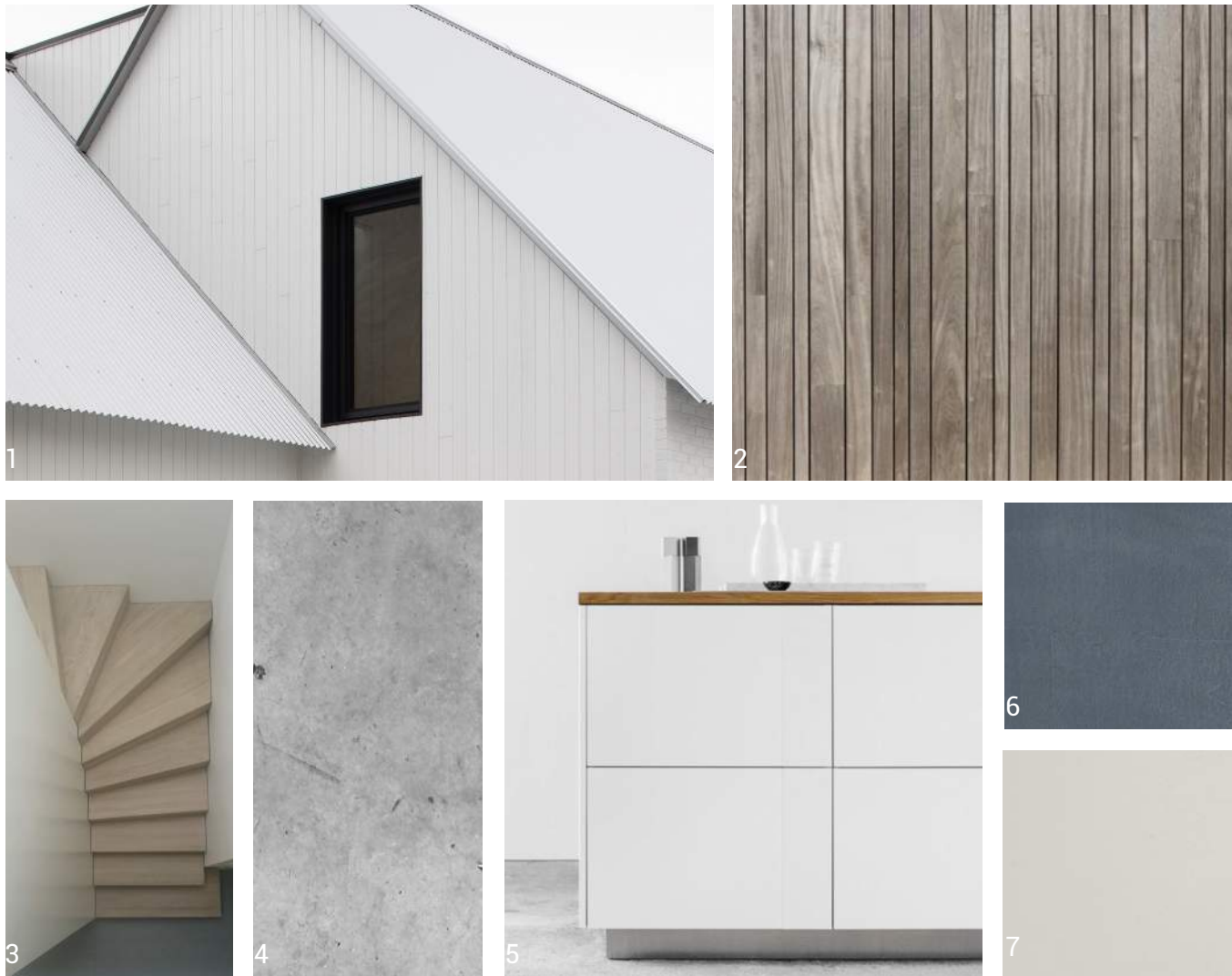
MATERIALS PALETTE #2 LOWER GRADE

EXTERIOR FINISHES

- ROOFING: Corrugated metal.
- EXTERIOR SIDING: Corrugated metal (alternative 4" wide cedar boards, vertical orientation)
- DECKING: Alaskan Cedar Hardwood Decking, 4" wide.
- WINDOWS / GLAZED DOORS: Fiberglass.
- SKYLIGHTS: Wood with external clad to match roof.
- ENTRY DOOR: Solid wood; stainless steel threshold.

INTERIOR FINISHES

- FLOOR - FIRST FLOOR: Cast in place concrete, smooth trowel and penetrating sealer, matte finish.
- FLOOR - FIRST FLOOR BATHROOM: Cast in place concrete, smooth trowel and penetrating sealer, matte finish.
- FLOOR - SECOND FLOOR: Linoleum floor.
- FLOOR - SECOND FLOOR BATHROOM: Colored microcement, wear resistant and waterproof.
- STAIR TREAD AND RISER: Pine tread and riser, soap treated.
- WALL FINISH: Painted GWB, level 5 finish.
- WALL FINISH SECOND FLOOR BATHROOM: Painted GWB and Colored plaster, wear resistant and waterproof.
- CEILING FINISH: Painted GWB, level 5 finish.
- BASEBOARD & DOOR TRIM: Painted Poplar to match wall color, semi-gloss finish.
- WINDOW & DOOR RETURN: Painted GWB. Hardwood Sill.
- INTERIOR DOOR: Flush solid core wood doors, painted to match wall color.
- KITCHEN: IKEA Metod Cabinets with painted fronts and wood countertop.



MATERIALS: 1. Corrugated Metal Roofing. 2. Cedar Vertical Siding. 3. Pine tread and riser stair, soap treated
4. Concrete, matte. 5. White IKEA Metod cabinets and wood countertop 6. Microcement, in Ivory 7. Microcement in Royal Velvet.

PROPOSED MECHANICAL SYSTEMS

WATER HEATER

Electric Water Heater with a minimum efficiency of 2.0 and Enerfy Star Compliance (Tier I NEEA's Advanced Water Heating Specification) or a an Energy Star Gas Water Heater with a minimum UEF of 0.91.

HEATING AND COOLING

Ductless Mini-split Heat Pump dual zonal contro min. HSPF of 10.

OPTIONAL GREEN BUILDING FEATURES FOR HIGHER ENERGY PERFORMANCE

STORMWATER MANAGEMENT

500 gallon (64" diameter) rainwater harvesting tank.

SUSTAINABLE BUILDING MATERIALS

Zero VOC paint.

High density cellulose cavity insulation.

Paperstone (recycled paper and non petroleum resin) or wood countertops.

Wood or Linoleum flooring.

Low flow fixtures.

Induction cooktop.

EnergyStar appliances.

ADDED FEATURES

Targeting 0.6 ACH Airtight envelope.

Heat Recovery Ventilator

INTUS/ZOLA high performance windows and doors.

ADDED RENEWABLE ELECTRIC ENERGY

Solar array. Possibility of generating up to 6139 kWh/year, considering the full use of one of the roof faces.

These results will vary based on location and orientation of the roof.

PROPOSED FEE: The pre-approved drawing set can be purchased for \$1,000. Additional services such as site specific permitting, customization and construction detailing can be provided at an hourly rate of \$150 per hour, or on a fixed fee depending on the project scope.

Please contact us at hello@ahouse.stuido for a projetc specific scope and fee proposal, or check out our website for other DADU and cabin designs.



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