

Altoona Accessory Dwelling Unit



Prepared for
The City of Altoona
Designed by
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Accessory Dwelling Units, as defined by the American Planning Association:

An accessory dwelling unit (ADU) is a smaller, independent residential dwelling unit located on the same lot as a stand-alone (i.e., detached) single-family home. ADUs go by many different names throughout the U.S., including accessory apartments, secondary suites, and granny flats. ADUs can be converted portions of existing homes (i.e., internal ADUs), additions to new or existing homes (i.e., attached ADUs), or new stand-alone accessory structures or converted portions of existing stand-alone accessory structures (i.e., detached ADUs).

Internal, attached, and detached ADUs all have the potential to increase housing affordability (both for homeowners and tenants), create a wider range of housing options within the community, enable seniors to stay near family as they age, and facilitate better use of the existing housing fabric in established neighborhoods. Consequently, many cities and counties have signaled support for ADUs in their plans and adopted zoning regulations that permit ADUs in low-density residential areas.

Source: <https://www.planning.org/knowledgebase/accessorydwellings/>

Design Overview

My proposed ADU is a stand alone 798 sq.ft. structure which includes a living room, kitchen with a large island for dining, laundry closet, primary bedroom, bathroom, mechanical room, and closet space for storage. I've also designed in potential 200 sq.ft. loft space for an extra bedroom or office.

The ADU is a slab on grade structure to allow for an accessible, at grade entrance. The proposed structure is Structural Insulated Panels (SIP) for the exterior walls and roof. This will allow for simple, cost effective, and efficient construction times as well as provide an insulated R-Value above and beyond conventional construction. The house is designed to have a large window wall facing south for wintertime solar heat gain and the southern roof structure is designed for solar panels to have a house that could potentially be 100% self sufficient.

Proposed exterior materials include engineered wood siding, standing seam metal roof, and fiberglass windows and doors. There is space on the houses west side for a potential deck/patio. All materials have multiple color selections to fit each potential property.



What are SIPs?

Per the Structural Insulated Panel Association

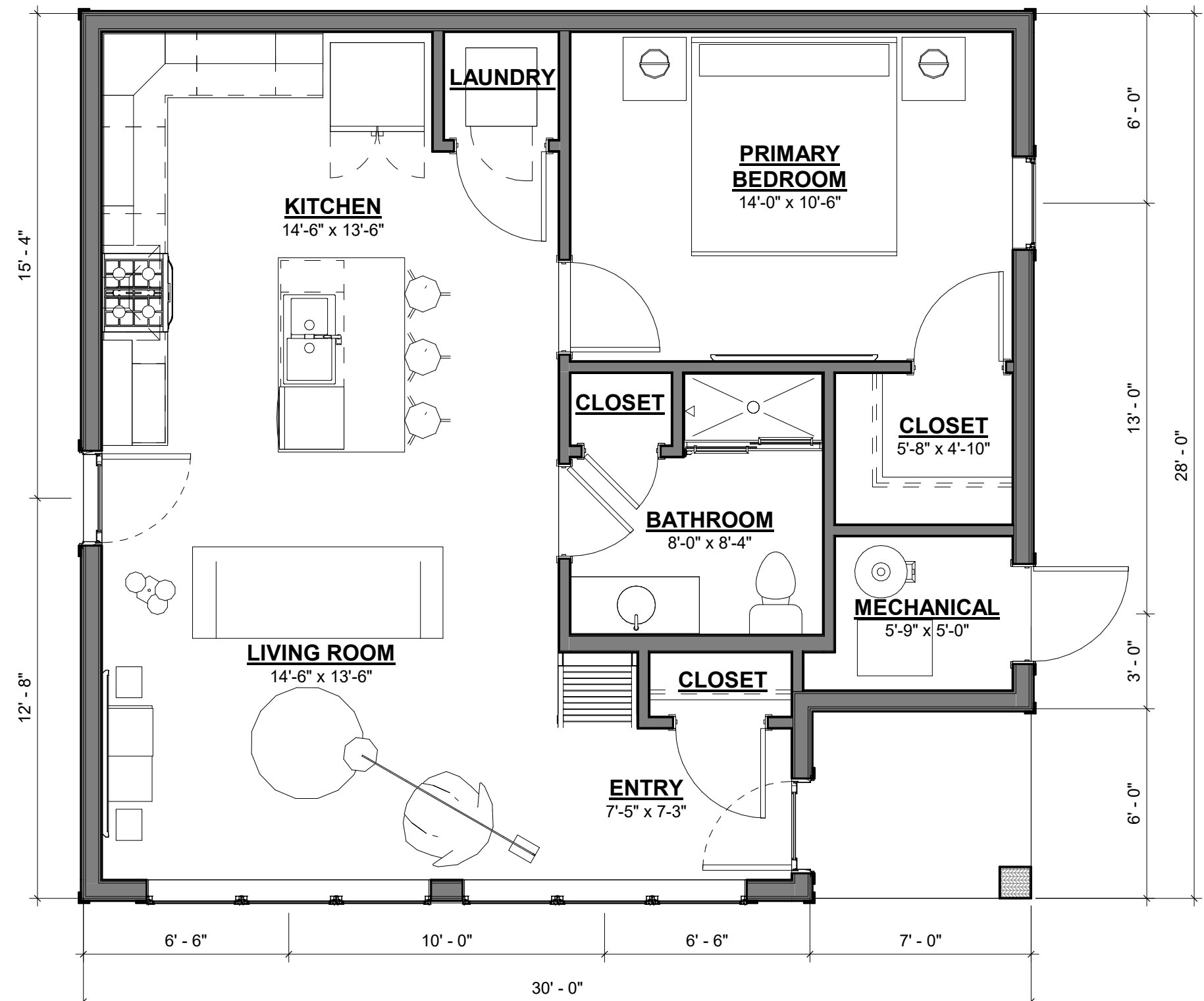
Structural insulated panels (SIPs) are a high-performance building system for residential and light commercial construction. The panels consist of an insulating foam core sandwiched between two structural facings, typically oriented strand board (OSB). SIPs are manufactured under factory-controlled conditions and can be fabricated to fit nearly any building design. The result is a building system that is extremely strong, energy-efficient and cost-effective.

TYPICAL SIP CONSTRUCTION

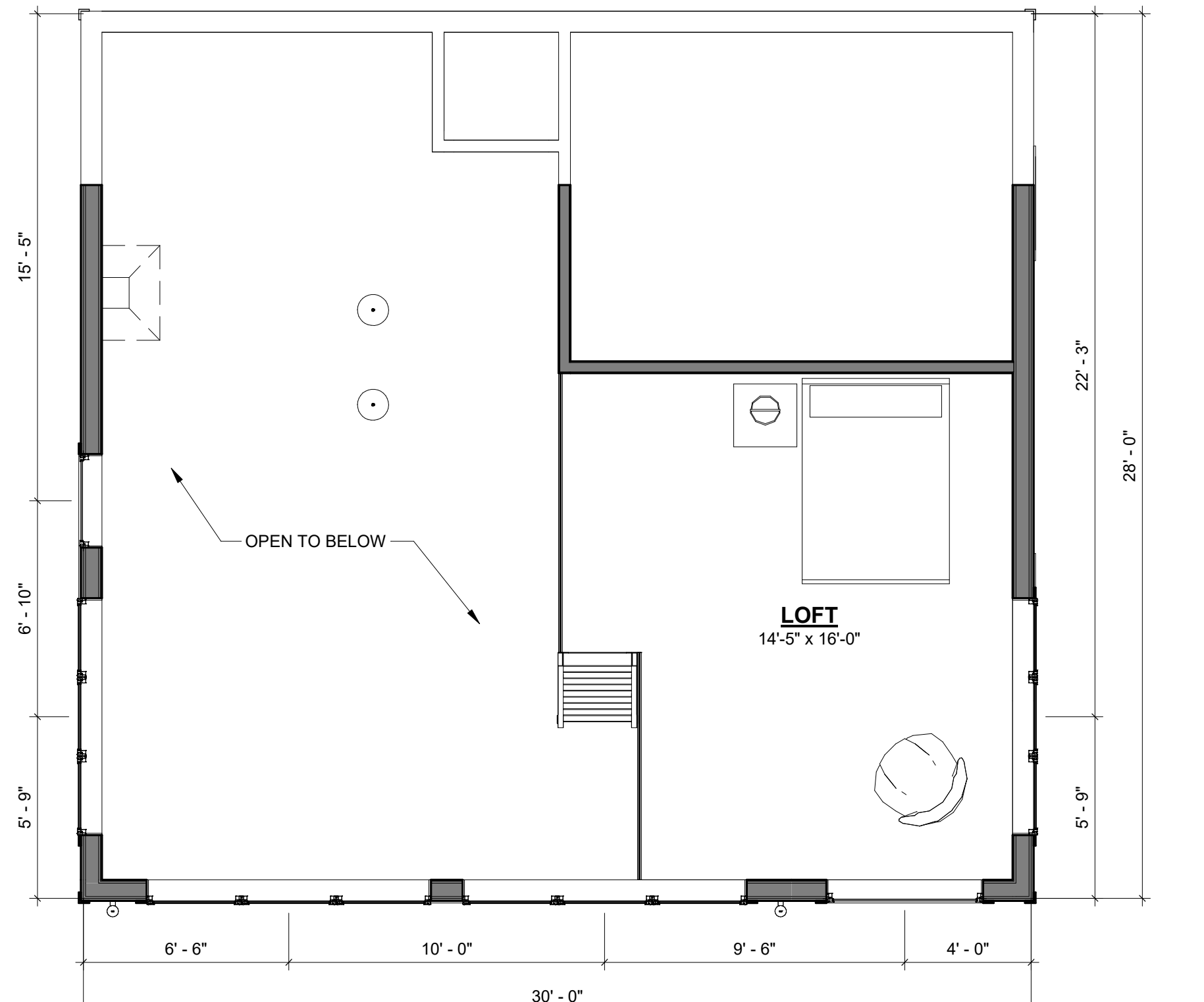


Source: <https://www.sips.org/what-are-sips>





1 MAIN LEVEL FLOOR PLAN
A1 1/4" = 1'-0" 798 SQ. FT.



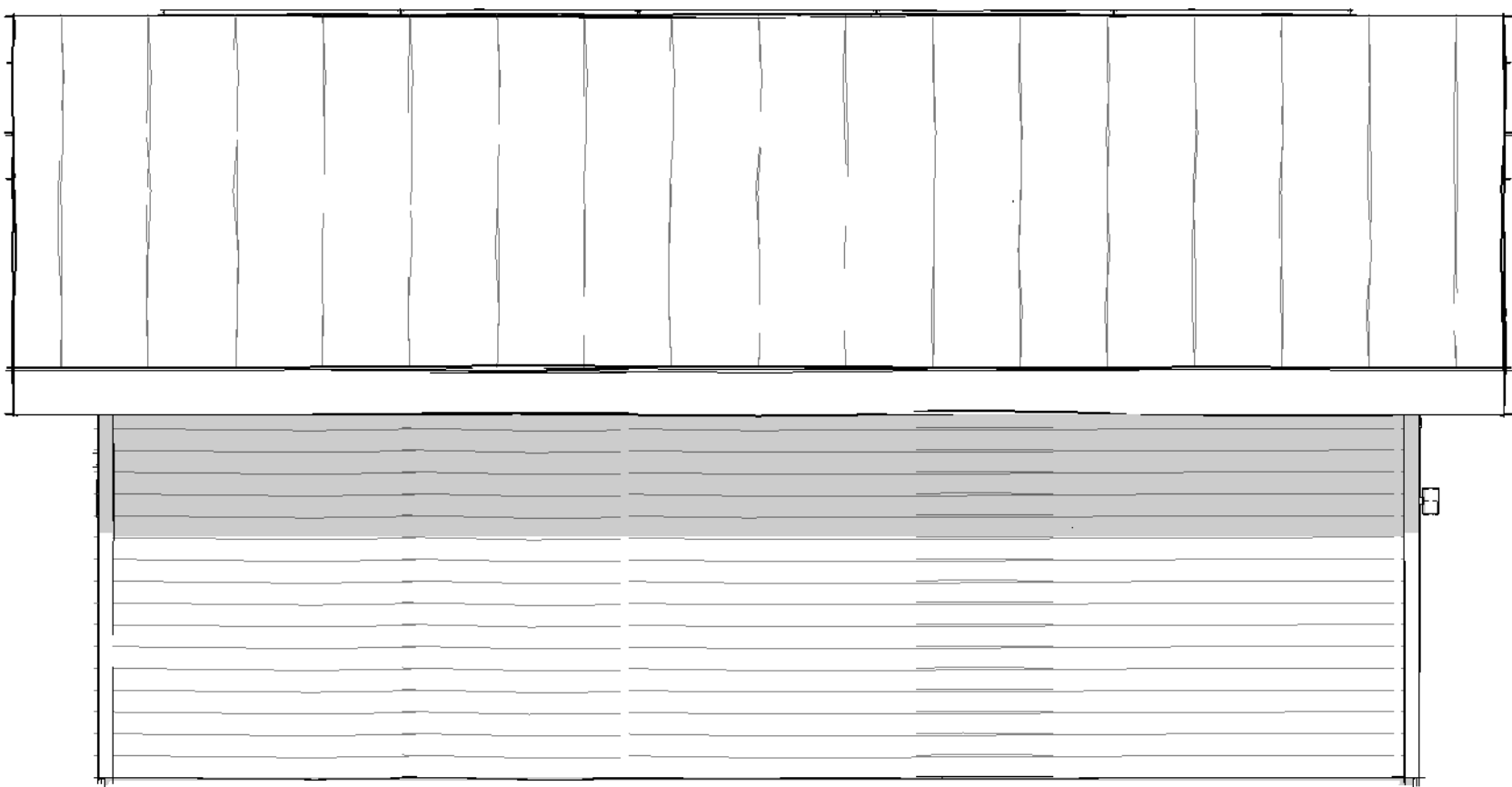
2 LOFT FLOOR PLAN
A1 1/4" = 1'-0" 200 SQ. FT.



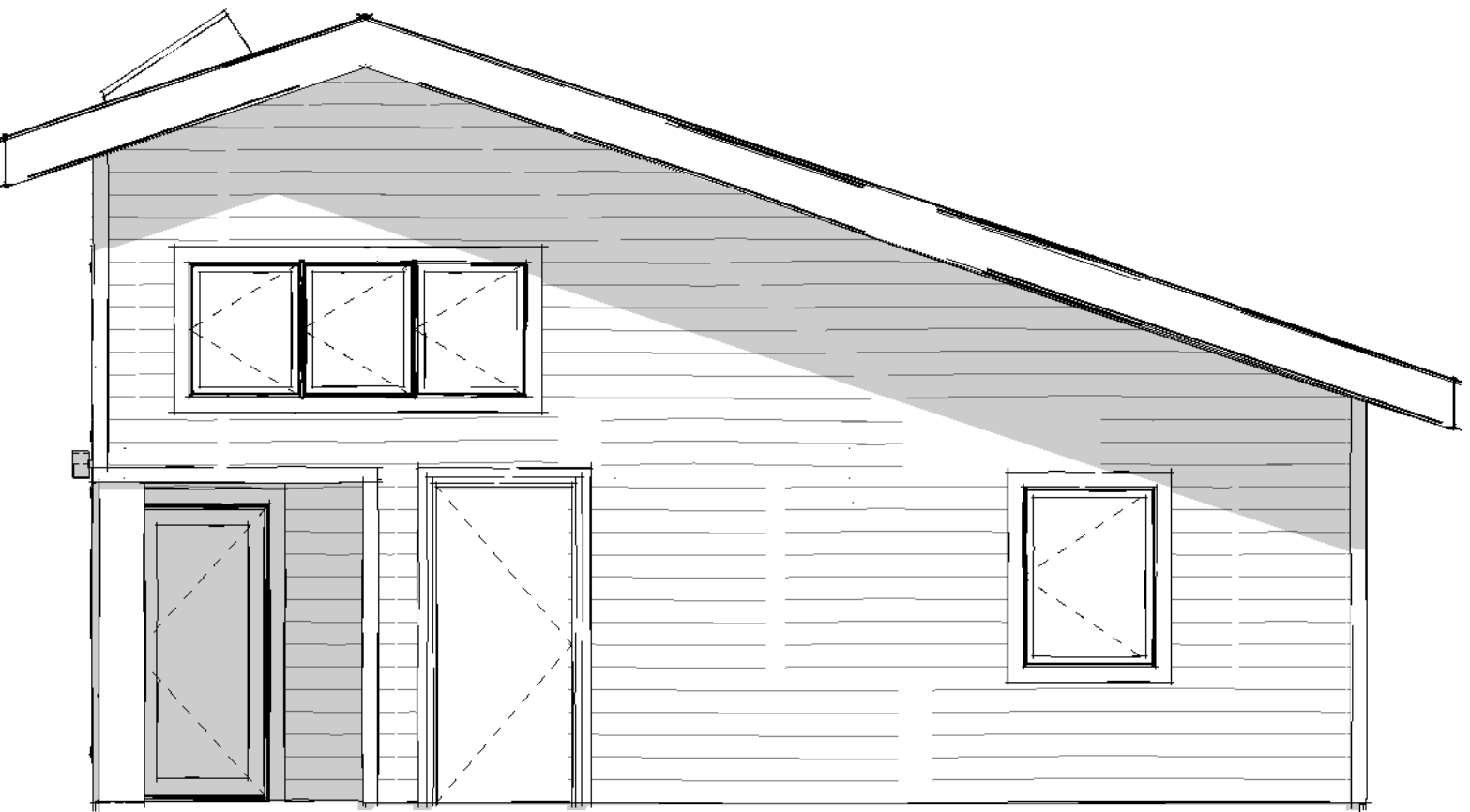
3 SOUTH ELEVATION
A1 1/4" = 1'-0"



4 WEST ELEVATION
A1 1/4" = 1'-0"



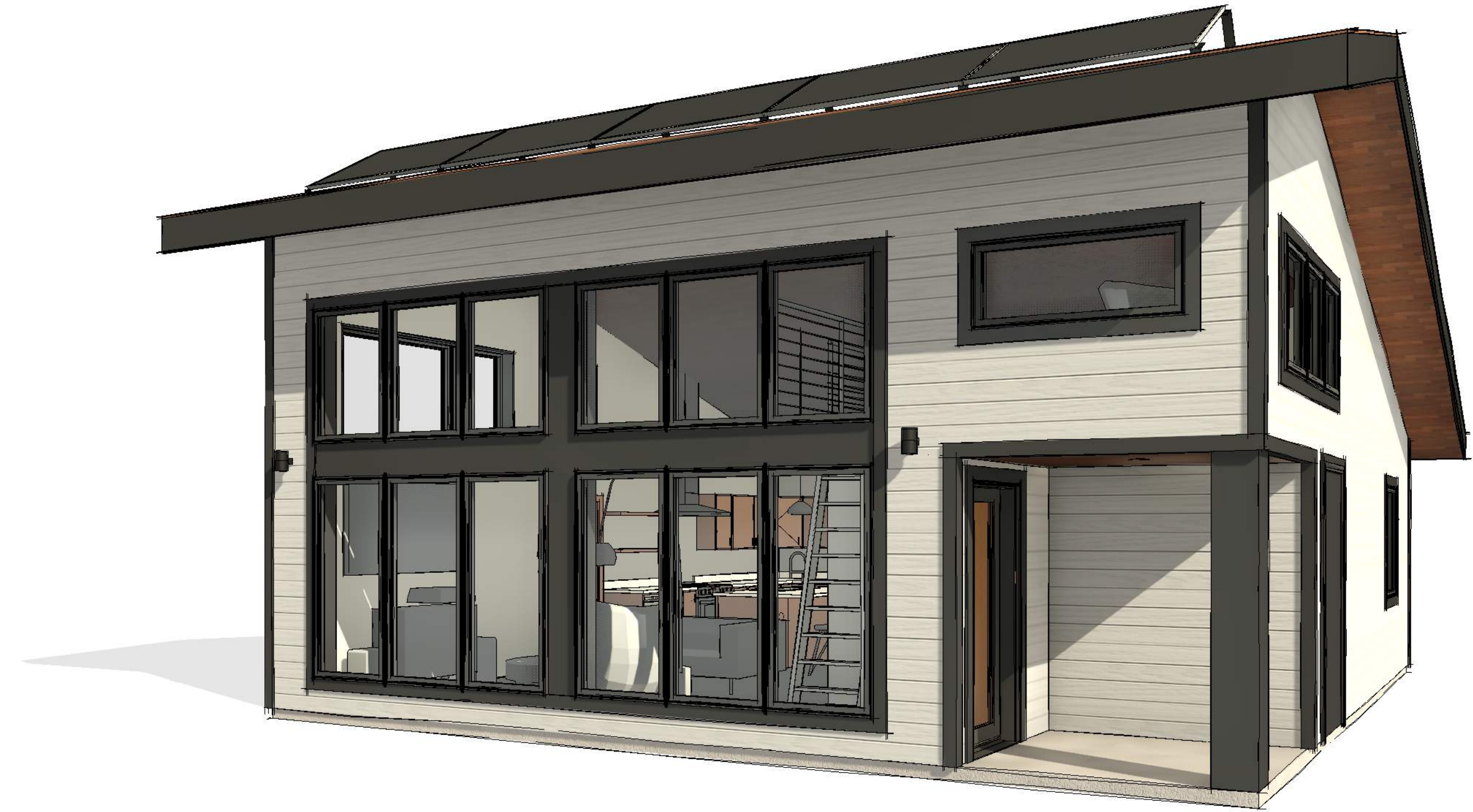
5 NORTH ELEVATION
A1 1/4" = 1'-0"



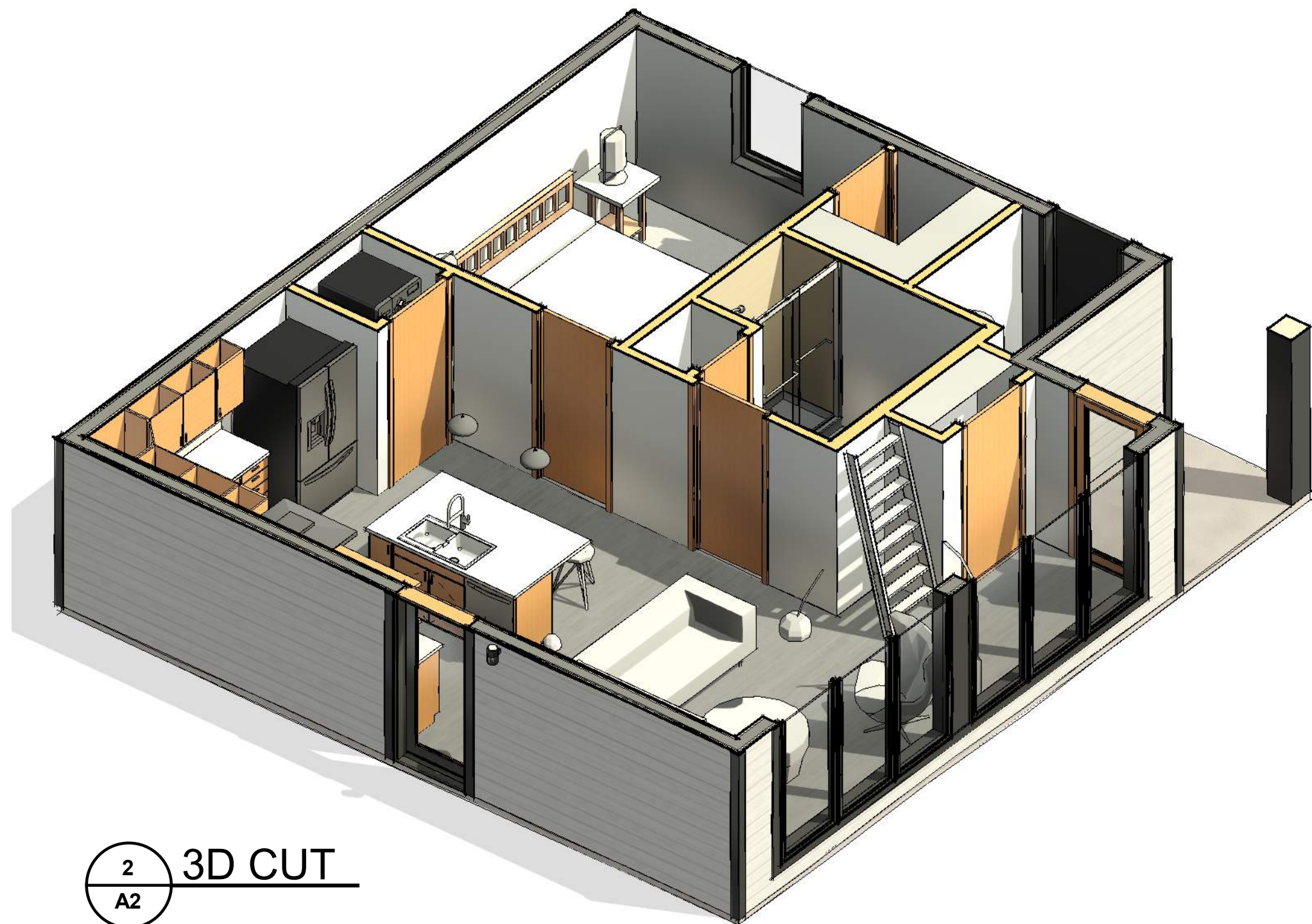
6 EAST ELEVATION
A1 1/4" = 1'-0"



1 3D LOFT CUT
A2



3 3D EXTERIOR SOUTH EAST VIEW
A2



2 3D CUT
A2



4 3D EXTERIOR SOUTH WEST VIEW
A2

