

The Butterfly ADU was designed to accommodate numerous living situations across all stages of life. Doorways are wide and headers are tall. There is a natural flow through the space which welcomes more than a typical 900 square foot single-person studio. While the loft is only accessed by a set of stairs, they remain wide with a gradual pitch. It is also a supplemental room to the rest of the unit. All required amenities are on the main floor; additional entertainment, children, guests, or caretakers may occupy the loft space. The lower suite can easily be transformed depending on the use-case of the resident. Those who know they are planning for a private home may opt for a door from the kitchen to the entire suite, while most others will choose to have the bathroom accessible without entrance to the bedroom. This dividing wall is entirely optional and non-structural.

At first glance, this unit may appear less affordable than a traditional gable structure. However, it uses standard framing practices and requires no complex carpentry. The two shed roofs are constructed with economical TJI joists and a cricket drainage to move water away from the center of the structure preventing leaks and extending the life of the home. In an attempt to minimize ongoing maintenance, the standing seam metal roof does not include any skylights; instead, a series of clerestory windows and western facing glass provides the desired light throughout the seasons. Some atypical window sizes can easily be interchanged with standard dimension windows for a simpler, more cost effective build. Levels of features, finish, and trim are readily scalable to the needs of the owner. While on the larger side of most accessory units, the Butterfly ADU was designed to fulfill the needs of those who were previously restricted by size limits in Whatcom County. The state of Washington's newly adopted ADU laws promote more living opportunities and inclusivity among all.

In order to offset the additional electrical load of an accessory structure, an array of solar panels can easily be added to the south facing roof. Solar gain from south and west facing windows is retained by limiting windows on the north and east walls. Two high efficiency heat-pump head units are the primary heating and cooling system for the unit. The butterfly roof pitch is optimized for rainwater harvesting and rain gardens to meet the needs of drier summers.

All accessory dwelling units run into the issue of potential incongruity of their surroundings. By incorporating both pacific northwest modern as well as traditional craftsman elements, the adaptability of this design allows for varying final aesthetics. Since most ADUs are in close proximity to other houses, an emphasis on privacy is necessary. The wall between the kitchen and bedroom extends beyond the structure, blocking views from the road and main house, while allowing light through a satin-etched glass. The sides of the ADU facing neighboring properties have fewer windows. The loft utilizes skewed, exposed studs allowing southern light into the kitchen, while blocking direct sight from below. There is also ample storage, cabinetry, and built-ins throughout the home. The smaller the space, the more essential specific storage solutions become. The Butterfly ADU design is an ideal blend of practicality and aesthetic for a constantly evolving construction industry.