the grove (accompanying narrative)

Affordability and Constructability:

The design for the grove aims to mesh the best of both the multifamily and single family worlds through economic viability and efficiency by strategically addressing construction costs, long-term maintenance, and operational expenses. From a site planning perspective, an imaginary lot line divides the site into two lots with two units per lot, allowing the buildings to follow the International Residential Code rather than the more complex International Building Code, substantially reducing construction and design-related costs. The space between the two buildings removes the need for sprinkler systems, further enhancing cost savings.

The building massing is intentionally simple, with a stacked design that minimizes envelope area, reducing both material usage and heat loss. The mirrored layouts of the buildings streamline constructibility, making the process more efficient and economical. The grove uses standard construction materials typical of single-family homes to maintain affordability and ensure that the build remains straightforward.The project incorporates mass timber in horizontal applications for floor/ceiling and roof assemblies, allowing the interior to achieve taller floor-to-ceiling heights with fewer interior finishes, saving both time and costs by reducing trades on the jobsite. This method enhances both constructability and the overall quality of the space.

The ground level “understory” units are designed as “universal use” units with zero steps or curbs. Access across these units are sized for flexible mobility requirements with future-ready blocking in walls for adaptable needs to be implemented without sacrificing space or functionality.

Sustainability and Resilience:

The grove prioritizes sustainability and energy efficiency by integrating strategies that reduce ecological impact while enhancing livability. First, the roofs of the buildings slope toward the site’s center to capture maximum daylight while ensuring privacy by limiting sightlines between units. Rainwater is thoughtfully managed through custom downspouts that direct water into terraced rain garden bioretention planters, filtering and reducing runoff onsite.

Correctly siting the buildings is important, with the buildings positioned as far north as possible, creating a south-facing meadow with abundant solar exposure, promoting a communal garden. The massing is optimized for sun exposure and surrounding context: the east and west buildings open toward the sunrise and sunset, respectively, offering views and daylight. The lofts act as solar shades, blocking high summer sun and reflecting low winter light into living areas, complemented by roof overhangs that further shield against summer sun. Tall windows maximize daylight and feature shading devices for flexibility across seasons. The simple rectangular form of the buildings simplifies structure and reduces envelope area and overall operability and constructability costs.

Materials matter, and the grove prioritizes low-impact choices, including a primary wood structural frame of sustainably harvested mass timber. The project specifies low-carbon concrete mixes and sustainable fiber cement panels that are made from recycled materials.

Innovation and Creativity:

The grove takes inspiration from the way our forests grow - vertically. Middle-housing won't always have the flexibility to grow horizontally like single-family homes can, so this proposal aims to show a creative solution for how to build up and still provide opportunities for community connection that single family neighborhoods have.

A core principle of the design is that the homes have as many opportunities to be connected with the outdoors as possible. Every level includes a thoughtfully designed private outdoor space that serves a different purpose: the loft level has as a small perch for sunrise/sunset views; the gathering level has a deck that connects seamlessly to the living room via a multislide door,; the entry deck creates a porch-like setting for neighborhood eyes; and the patio at the understory units offers the perfect spot for outdoor dining.

This project also features custom details that craft a human scale. These include the bespoke light fixtures at the understory units and the unique exposed loft at the canopy units that feature large stairs with integral shelving. The design goes beyond conventionally “copy and paste” multifamily design by blending innovative spatial solutions, creativity, and thoughtful detailing to build a vertically oriented yet deeply connected community.

Address:

n/a (actual project is outside Bellingham), but lot size is 50’ x 100’

Parking:

The property has an existing curb cut for a driveway at the NW corner of the lot. The lower “understory” units are designed to be friendly towards aging in place needs, so the curb cut is proposed to be maintained for the flexibility of a future resident to use as either a private outdoor gathering space *or* if needed, as a parking spot with an easy and flat route to their front door.