

Title: Expanding the Middle

Summary:

Expanding the Middle seeks to identify underutilized spaces and opportunities for middle housing development in Bellingham's existing historic neighborhoods. Within these core neighborhoods, the back property line abutting the alley offers the most promising location for additional Middle Housing.

The project compares the differences between ADU and Middle Housing regulations and proposes slight code changes that leverage additional buildable areas along existing alleys.

New development is a consideration of pursuing two code pathways: ADU or Interim Middle Housing, each with their own advantages and disadvantages depending on the goals of the development.

- ADU: (2) D-ADU's 2000 sq. ft. total including ancillary space can be built in rear 22' of side yard setback. 24' max height by city definition. Must be detached.
- Middle Housing: 4-6 units per lot (depending on proximity to public transportation). 35' foot height limitations. No zero lot line development. Can be attached or detached.

Expanding the Middle proposes combining the pathways above with 2 code changes:

1. Allow buildings to be built into the side yard setback with a zero-lot line design, currently only allowed with ADUs and garages. The additional buildable area found in the side yard setback (220ft² per floor), would allow for increased diversity in the size and number of allowable dwelling units.
2. Eliminate subgrade building from any area calculations. This would allow for a diversity of dwelling sizes, specifically larger units, without impacting the surrounding neighborhood. Specifically, any subgrade building area would not count towards FAR or the max ADU size of 1000ft².

By allowing developments to extend into the side yard and integrating sub grade spaces, these mid-block alley developments would allow for increased density, while still honoring the existing character of single-family neighborhoods. With increased density along the alley, we anticipate the occupants would creatively appropriate the alley space as a less

formal “second street”, offering space for experimentation and spontaneous social activity rather than maintaining the alley’s traditional utilitarian nature.

The proposed concept consists of an existing single-family lot (50’ x 100’) in an established neighborhood, which is often adjacent to existing pedestrian, bike and public transportation. By combining the attributes of the ADU code and Middle housing ordinance we can pursue a zero lot line in the rear 22’ of the property and build to the middle housing ordinance height limitation of 35’. In this way we can prioritize constructability, diversity of unit sizes and sustainability through simplified massing while providing livable units and supporting a new alley street frontage.

Precedents already exist in our region and beyond influenced by the Dutch Woonerf or Japanese Roji/shotengai. Specific policies and governmental interventions are already active; such as Market Octavia Living Alley Program in San Francisco, The Chicago Green Alley Handbook, Laneway Housing in Vancouver. Bellingham’s alley spaces could evolve similarly transforming underutilized backstreets into vibrant shared spaces of dense housing and pedestrian corridors.

Affordability & Constructability:

- Simple rectilinear footprint that’s easy to construct
- Common structural materials that contractors can easily find
 - Walls | 2x6 advanced framing
 - Floor & Roof | Trusses
- Diversity of unit size to meet different income demographics
- Built to Zero Energy Ready Home standards
 - \$2,000 tax credit per unit to owner/developer
- Accessibility to public transit provides- lower transportation costs

Sustainability & Resilience:

- **Building Massing**
 - Elongating building along alley (Provide a new informal “second street”)
 - Open courtyard (between buildings)
 - Increases interaction between neighbors & fosters stronger community
 - Open play space for kids and families
- **High quality/ durable Materials-** lower long-term costs

- Windows | High-performance windows with Passive House u-values
- Roof | Standing seam metal (Durability, Recyclable, potential for rain catchment)
- Siding | Metal & Durable Local Wood (Invasive Juniper from Oregon grass lands)
- **Continuous Thermal and Air Barrier Strategy**
 - HVAC located within subgrade construction (increased efficiency)
 - No thermal bridging of structure (increased efficiency & durability of structure)
 - Airtight, Passive House air sealing levels with vapor open assembly
 - increased structural durability & HVAC efficiency
 - HRV | Heat Recovery Ventilator
 - Whole unit balanced air supply & exhaust system)
 - Provides fresh, filtered air during wildfire & pollen season and prevents mold
 - Efficient Heat Pump conditioning units
 - Provides high efficiency heating and cooling
 - Continuous Exterior Insulation
 - Prevents condensation in wall assembly, & increases HVAC efficiency
 - Preference for low carbon materials like cork or wood fiber
 - Rainscreen cladding - natural ventilation of siding / wall assembly
 - Increased durability of wall & cladding

Innovation & Creativity:

- **Code changes to allow development flexibility**
 - Allow Middle Housing Built into side yard setback
 - realizes 220ft² per floor of building- equivalent of 2 additional bedrooms
- **Shared Outdoor Courtyard**
 - Flexible community space (garden, playground, parties, sports, outdoor movies) *consolidated private space as required by code