Project: Zach and Liz, Keene NH 317 Court Street Keene, New Hampshire



Our project aims to create workforce housing for three people in a stand-alone Accessory Dwelling Unit (ADU). This building will sit on a lot alongside a Federal or Greek Revival residence dating back to the 1870s, which underwent significant renovations and expansions in the 1920s. Located on the eastern side of Court Street, near downtown Keene, the approximately half-acre site is surrounded by many historic homes from various periods.

The existing primary residence is situated 22 feet from Court Street, providing ample space in the rear yard for the proposed ADU. The owners have expressed a preference for placing the building in the southeast corner at the back of the lot, allowing for the retention of the current circular driveway.

Positioning the ADU in the desired location also maximizes privacy for both the new structure and the main residence. Furthermore, the eastern, southern, and western exposures of the ADU's primary living spaces will ensure abundant natural daylight. The building features a high-pitched gable roof with shed dormers designed for optimal solar panel placement on the south-facing roofs.

Our design approach focuses on creating a standalone structure that complements the primary residence, reminiscent of a barn or carriage house, but in a modern style inspired by classic New England architecture. The building's form and exterior siding draw from vernacular architecture and incorporate traditionally inspired, updated details.

The two-story layout strategically positions the main living areas above utilities and garage space, minimizing the building's footprint. The first level accommodates the garage, foyer, workshop, and utility areas, while the second level features open-concept seating, dining, and kitchen space, along with two bedrooms and a bathroom. In addition, there are designated storage spaces on both floors that could be retrofitted for the installation of an elevator if required in the future.

Throughout the building, the interior finishes include painted gypsum wallboard and solid wood doors and trim. The first level will have a finished concrete slab floor. The second level is primarily wood flooring, except for the bathroom, which features tile flooring.

The ADU's exterior is clad in a combination of traditional clapboard and vertical shiplap siding, with all wood materials potentially sourced from local mills to advance our sustainability goals. The exterior windows are triple-glazed fiberglass with wooden jambs and trim.

While pursuing Passive House and Net Zero certifications can increase costs, we have integrated many of their principles to ensure a high-performance, comfortable ADU. This includes R-40 exterior walls, R-60 roofs, R-30 floors, R-20 foundation insulation, and triple-

glazed windows. Water consumption is reduced through low-flow plumbing fixtures, and energy use is minimized by employing heat pumps for heating and cooling, natural ventilation, and Energy Star appliances. An energy recovery ventilation system (ERV) further enhances comfort and environmental quality.

The projected construction cost for the ADU is \$450 per square foot.

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