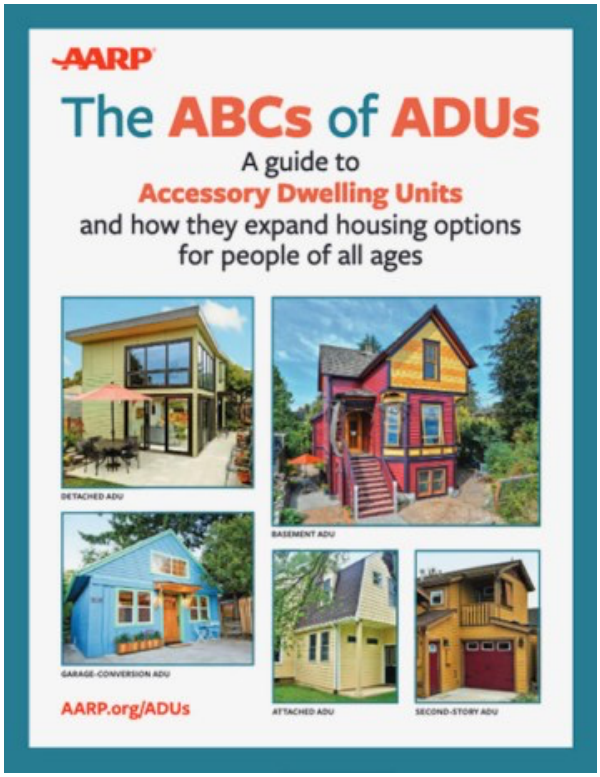
Eye on Evanston: Thoughts on Design | Designing an ADU

The second of two articles about accessory dwelling units – coach houses and granny flats – in Evanston
by Robinson Markus, Design Evanston January 13th, 2022

Though accessory dwelling units (ADUs) play a valuable role in the community at large, they ultimately exist to provide people with a healthy, safe home. This article focuses on the latter of these two purposes – how to design ADUs that best meet our residents' needs. As the final article in a two-part series on ADUs, this essay aims to give Evanstonians a more comprehensive understanding of why, and how, you or your neighbor would take on an ADU project.

Like any project, your ADU should start with purpose. Why is it being built, and who is it being built for? In many cases, ADUs are used in multiple ways over time. They can function as an apartment for a renter or family member for years, only to become a home business during a career transition, such as in this recent RoundTable article about a bicycle repair shop based in a garage. It's useful to have a clear understanding of both the primary, initial purpose of the structure as well as sought-after use cases over time, as this greatly affects which type of ADU makes the most sense for you.

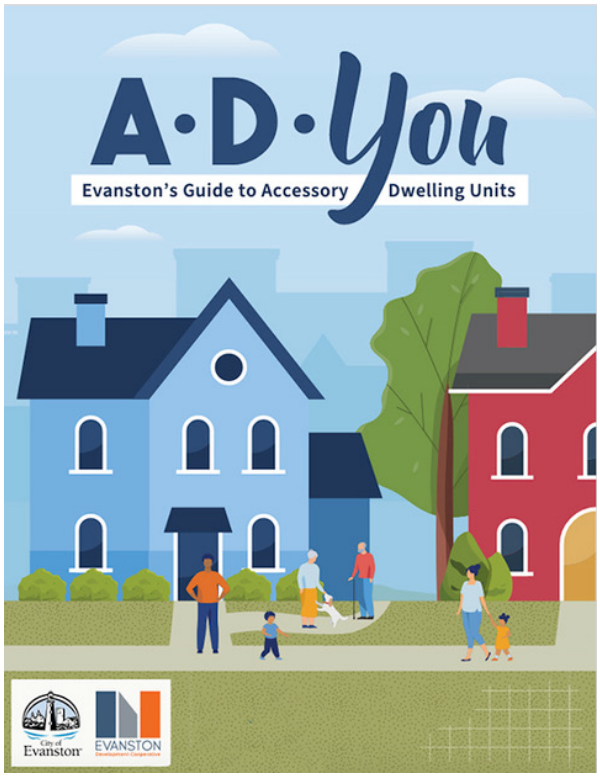
Next, it can save time and money to arrive at a budget range for an ADU project early on. Otherwise, you may end up designing a unit which doesn't fit your budget range, which can require a redesign. While it is tempting to search for "dollars per square foot cost of an ADU" on the internet, it can often be difficult to compare apples to apples. Different ADU types typically have different cost ranges, and expenses such as utility connections or permit fees can sometimes be excluded from an estimate.



To arrive at an initial sense of ADU costs, AARP's "The ABCs of ADUs" cites construction costs below the images of various ADUs in the guidebook. If you are a homeowner, it can be useful to speak with the mortgage holder of your primary house, or a trusted financial adviser, to understand your financing options. This step ensures that residents are designing a project which not only meets their living needs, but one that they can eventually afford to build.

Once you have a cohesive sense of the project's purpose and budget range, this can be the right time to home in on the ADU type for you.

While most people typically think of the independent "detached" ADU in a backyard, ADUs can also be part of the existing primary residence. They can be "interior" (e.g., a conversion of an existing space in the house) or a bump-out of the main house. Lastly, as is popular in Los Angeles, they can even be a garage conversion. Each of these options has pros and cons, which are explained to a more granular level of detail in the city publication Evanston's Guide to Accessory Dwelling Units.



Evanston's Guide to Accessory Dwelling Units is a useful resource for residents seeking to take on an ADU project. It is available on the City of Evanston and the Evanston Development Cooperative's websites.

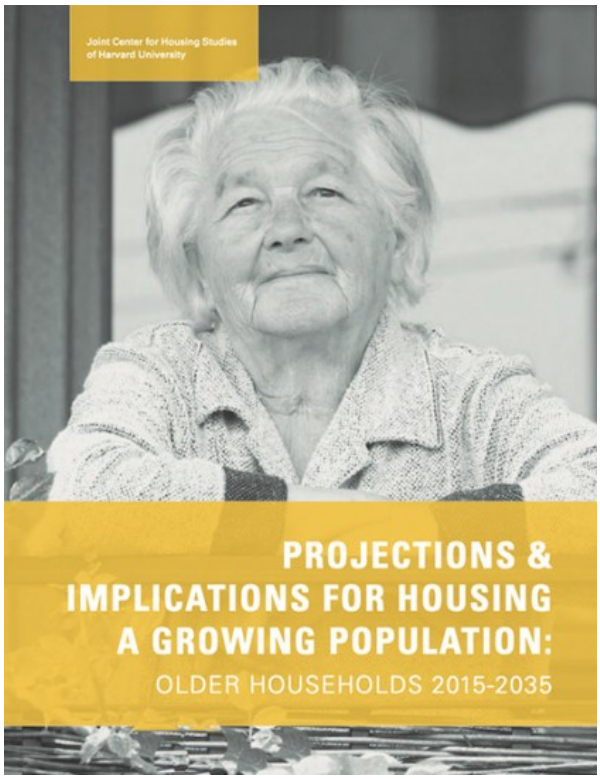
During the architectural design process, compliance with Evanston's zoning and building codes will affect the design of your project. Thankfully, Evanston has a relatively flexible ADU code. Your "zoning district" is the primary variable in this equation. Anyone can find a property's zoning district on Evanston 311 About My Place. A zoning district affects several things, including the allowable amounts of "building lot coverage" and "impervious surface coverage" on your property.

While "building lot coverage" determines how much of the property can be taken up by buildings (as opposed to vacant land), "impervious surface coverage" regulates the percentage of hard surfaces (e.g., rooftops, concrete driveways, etc.) that can occupy a property. Together, building lot coverage and impervious surface coverage will be two of the main zoning policies which determine the shape and size of your ADU. Regardless of your zoning district, though, new ADUs can only have up to 1,000 square feet in living space.

Three additional zoning issues that require consideration are setbacks, height and parking. Setbacks refer to the distance which an ADU can be from a property lot line or the primary residence, and the requirements vary by type of structure and zoning district. As for height, one can go up to 28 feet with a sloped roof, providing flexibility in design. Lastly, one is not required to add an additional off-street parking space when building an ADU in Evanston, which opens up design options, but you cannot permanently reduce parking spaces. If you remove one of

your existing off-street parking spaces during an ADU project, upon project completion you must have the same number of off-street parking spaces on the property.

Lastly, two particular issues deserve attention during ADU design: accessibility and sustainability. According to a study by the Joint Center for Housing Studies at Harvard University, only 1% of the current housing stock contains all the key features required for accessible living. If one is building an ADU for aging parents or a disabled relative, it can be important to think about accessibility from the start. Given Evanston's relatively lax off-street parking regulations, it can often be possible to design a ground-level ADU. Additionally, one can plan for wider, zero-step entryways and hallways; future-proof designs in bathrooms; and reachable light switches and outlets, to name only a few examples.



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With the need for climate action ballooning, new ADUs are also an excellent opportunity for more climate-resilient buildings. These structures can be all-electric with no reliance on natural gas. Incorporating high efficiency appliances can save both energy and money. For example, an induction cooktop, an electric oven, an air-source heat pump for space heating and cooling, and a heat pump water heater for hot water, as well as a heat pump clothes dryer can all contribute to a potential net-zero carbon building.

Structural insulated panels, pictured here on an Evanston Development Cooperative jobsite in Evanston, can be one way to align an ADU project with climate action goals. (Kirk Wooller/Evanston Development Cooperative)

Additionally, an ADU can be very airtight and highly energy-efficient, which keeps the heating and cooling within the building's tight envelope. Paired with an energy recovery ventilator that continuously replaces stale indoor air with fresh outdoor air while retaining air temperature, an ADU can efficiently provide clean, healthy air with minimal energy use. Further, it can be relatively inexpensive to add electric vehicle charging to a garage or carport.

ADUs are exciting because within a relatively small space, there is an abundance of design opportunities for a future home – a conversion of an underutilized part of a house, a garage or a new space in a backyard.

Whatever their purpose, ADUs require a time commitment of site analysis, architectural design, construction drawings, permit review and construction. Nevertheless, if the final structure aligns with the owner's vision and needs, it is ideally well worth the effort. Better yet, it is one more housing unit in a city with a constrained supply, and hopefully a welcome addition to the neighborhood.

Design Evanston's "Eye on Evanston" articles focus on Evanston's design history and advocate for good design. Visit designevanston.org to learn more about the organization.