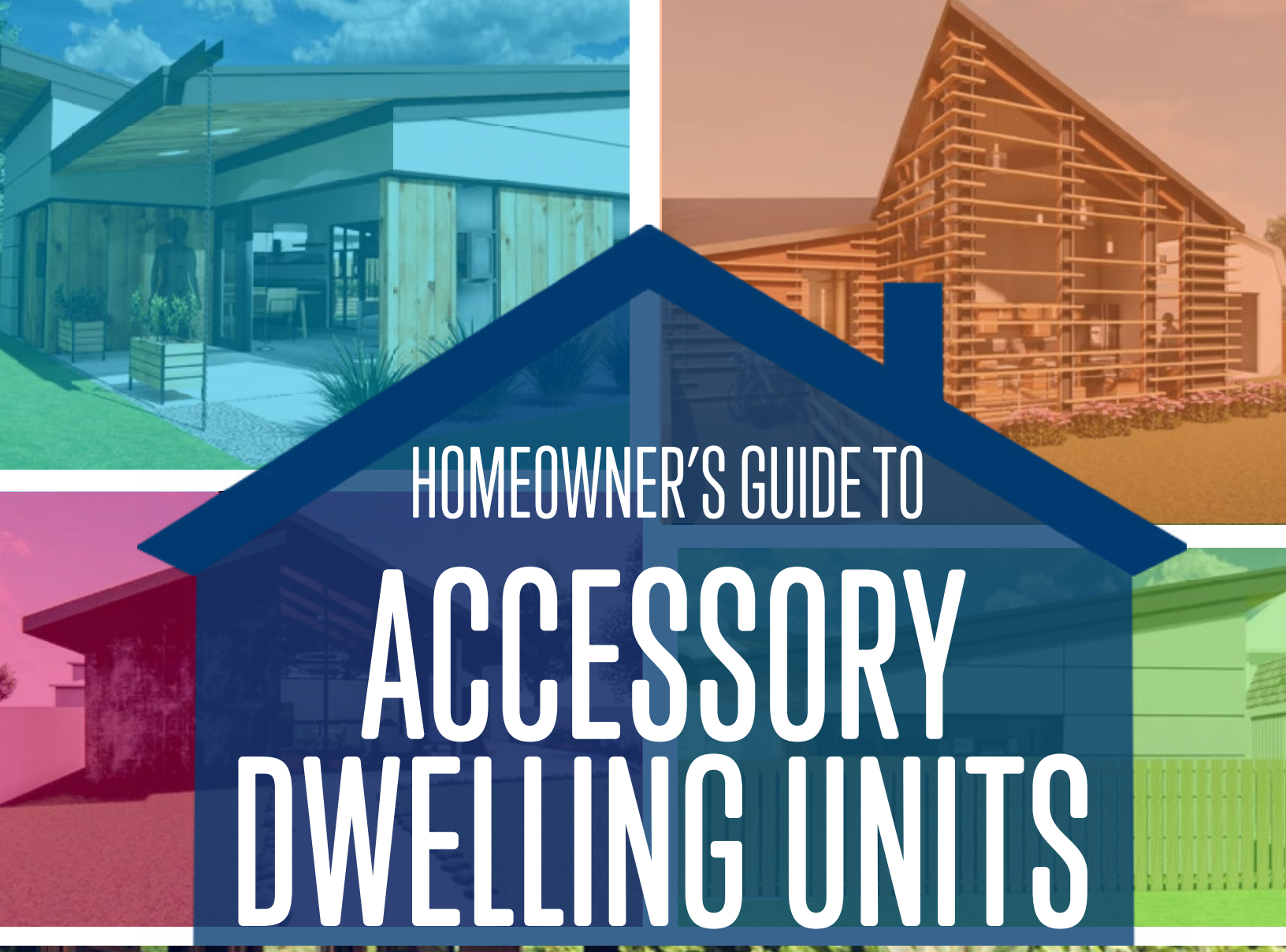

HOMEOWNER'S GUIDE TO ACCESSORY DWELLING UNITS

UK College of Design Architecture

AARP Real Possibilities

LEXINGTON

Initial Publication: 01.31.19

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SECTION 1

INTRO TO ADUs

Accessory Dwelling Units (ADUs) present an opportunity to meet the demand for housing as Lexington's population continues to grow. In addition, ADUs can be used as a tool for enhancing existing neighborhoods by introducing a greater diversity among residents across age, ability-level and income, while providing an option to promote aging-in-place.

WHAT IS AN ADU?

An Accessory Dwelling Unit, or ADU, is a secondary housing unit built on a single-family residential lot. ADUs are significantly smaller than the primary residence and are typically not built at the time of the original home's construction.

While ADUs may have many different names depending on where you live, these small homes are clearly defined as dwelling units that are accessory to the principal residential structure. Usually they include only a kitchen, bathroom, bedroom, and limited living space given their emphasis on efficient size.

COMMON SYNONYMS FOR ADUs	
Carriage house	Backyard cottage
Basement apartment	Garden cottage
Mother-in-law suite	Home expansion unit
Granny flat	Multi-generational home

An ADU is different from a duplex in that typically, a duplex has two equally sized, attached units, whereas ADUs are subordinate to the primary house. In Lexington, the allowable size of an ADU is limited under the zoning ordinance.

ADUs are not currently permitted in most residential areas in Lexington. However, this manual intends to introduce the many benefits ADUs hold for our community. The manual creates a foundation for the future public input that will inform new zoning regulations for safe and responsible ADU development. Once the appropriate ordinances are in place, it will also serve as a guidebook for those interested in navigating the process of building their own ADU.

This manual is intended for homeowners who are interested in constructing an ADU on their property. It provides guidance through the permitting process and the

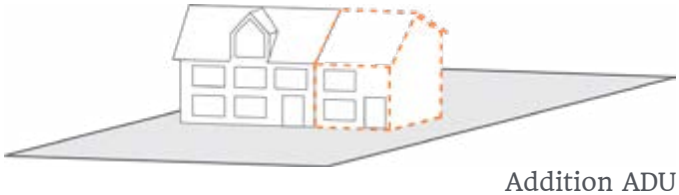
KRISTY LARKIN ADU. PHOTO CREDIT: PORTLAND PHOTOS, ACCESSORYDWELLINGS.COM

design and construction principles that will enable a new ADU to seamlessly blend in to the context of an existing neighborhood.

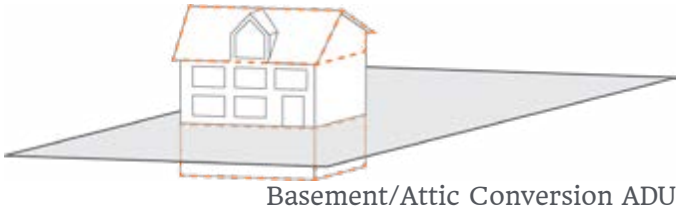
WHAT ARE THE TYPES OF ADUs?

Detached ADU

Garage Conversion ADU



Addition ADU



Basement/Attic Conversion ADU

WHY ACCESSORY DWELLING UNITS?

The positive impact of ADUs can be seen in cities across the country. This section outlines just a few of the community benefits that ADUs bring—from supporting aging in place to boosting the local economy.

AGING IN PLACE

The U.S. Centers for Disease Control and Prevention outlines aging in place as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level." ADUs allow seniors to downsize on their own properties, in their own familiar neighborhoods. A 2010 AARP survey found that 88 percent of respondents over age 65 wanted to remain in their homes for as long as possible, and 92 percent said they wanted to remain in their communities. To make these options viable, we must adapt homes and communities to meet the changing needs of aging residents, make available affordable housing options suitable for aging residents, and connect seniors to the services they need in the places that they live.

PROVIDE FOR MULTI-GENERATIONAL LIVING

Multi-generational housing arrangements occur for a variety of relational, cultural and financial reasons. As incomes do not always align with increasing home prices,

research has shown an increase in households with several generations living under one roof. ADUs offer greater housing flexibility and security for these multi-generational families who find it more practical, desirable, or economically feasible to live together rather than apart. Whether a family owns existing property that allows for ADUs, or whether they seek to purchase property with ADU potential, the benefits are numerous.

CAREGIVER ASSISTANCE

ADUs can be used to house aging parents or to provide a residence for persons with disabilities. Detached ADUs are ideal for those seeking some independence while providing easy access to additional living assistance on the same property. Both detached and attached ADUs may offer a more affordable and long-term alternative to nursing home care. Assisted living facilities can cost around $6,000 a month, and intensive care options can run upwards of $30,000 a month. Additionally, many find comfort in keeping their loved ones closer and the ability to provide for their everyday needs.

Alternatively, ADUs can be used for housing childcare providers or other caregivers who may be supporting the residents of the primary house. ADUs provide a variety of caregiving options.

COMMUNITY BENEFITS

ADUs provide benefits for both society and individuals. As infill development, they promote sustainability by making efficient use of existing infrastructure and help increase densities to levels at which transit becomes viable — yet with lower costs and quicker permitting processes than for larger, multi-family building types. Because ADUs tend to be relatively small and their amenities modest, they provide more affordable housing options at less than one-third of the cost of comparable units in multi-family buildings. Oftentimes, ADUs are the only rental housing available in older, predominantly single-family neighborhoods, making it possible for people from all walks of life to live in the area. Yet, they also significantly improve the value of the property.

ADUs HELP STABILIZE NEIGHBORHOODS

ADUs can be designed to blend in with the surrounding context and architecture, maintaining compatibility with established neighborhoods and preserving community character. Furthermore, in most cases there is no need to develop new infrastructure, since ADUs can utilize the existing utility lines provided for the primary dwelling.

ADUs facilitate efficient use of existing housing stock, support the demand for housing, and offer an alternative to major zoning changes.

As land values increase and create additional redevelopment pressure on neighborhoods, ADU development can offer alternatives to large-scale neighborhood redevelopment.

GOOD FOR THE LOCAL ECONOMY

In economic terms, the impact of ADUs can be significant. A $100,000 ADU generates an additional $80,000 of indirect and induced spending in the economy, and if most purchases are made locally, each ADU creates one year-long local job. New property taxes from this type of infill development with higher property valuations, help to improve city services. If the new households are clustered, they may be able to help a neighborhood's struggling retail corridors become more viable.

THE MANY SHAPES OF ADUs

CONSIDERING THE COSTS OF BUILDING AN ADU

ADUs are major construction projects. The scale of costs means that building an ADU is a serious venture that involves financial risk. While it can certainly have a good payoff, homeowners should do their research when getting involved in such a project.

While the development budget includes all the costs required to design, permit, finance, and build an ADU, construction is usually the largest single expense category. Non-construction development costs include:

- Design
- Building permits and/or impact fees
- Financing (ie. lender fees, interest payments, etc.)
- Other professional fees based on the specific needs of your project (ie. surveyor, structural engineer, environmental assessment/clean-up, project manager, etc.)

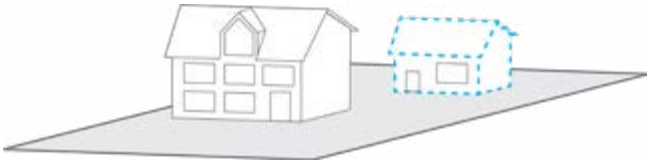
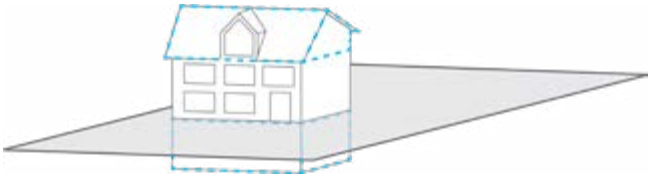
If you are putting together an ADU project budget, make sure to research and quantify these costs too. They may be smaller than construction costs, but they are no less real.

Another factor to keep in mind is that ADUs typically cost more per square foot than full sized homes. This is due to several reasons:

- The small size of ADUs reduces efficiency of scale for labor, coordination, and materials
- ADUs usually contain proportionally more kitchen and bathroom space (expensive) and less bedroom and hallway space (inexpensive)
- ADUs are more likely to be located in back yards, away from the street, which may increase costs to provide for excavating machinery or material deliveries
- ADUs are more likely to be built in tight locations where careful protection of existing structures and landscaping is required

Each site is different, every ADU is unique, and everyone's personal circumstances vary, so it is important to consider all of the factors that go into constructing a unit of your own. The benefits of ADUs are found throughout this document, but you will also want to consider these costs in undertaking your situational analysis.

WHAT IS THE BALLPARK COST OF CONSTRUCTING AN ADU?

DETACHED NEW CONSTRUCTION 	~ $200-300/ SQUARE FOOT
GARAGE CONVERSION 	~ $150-250/ SQUARE FOOT
BASEMENT/ATTIC CONVERSION 	~ $100/ SQUARE FOOT

*Not including design and permitting fees.
*Compared to avg cost according to National Homebuilders of $95/square foot.

SECTION 2

GETTING STARTED

Can I add an ADU to my property? → What could my ADU look like? → How much could it cost?

Refer to the map on page 17 to see if your property is zoned for an ADU.

Look up your property on Lexington's online property information map to see if your property's zone permits an ADU.

Lexington Map It!
http://maps.lexingtonky.gov/mapit

Contact or visit LFUCG's Planning Office.

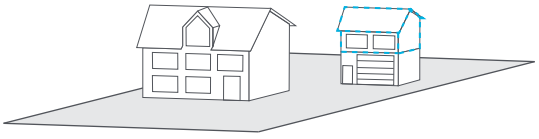
Planning Office
Phoenix Building - 7th Floor
101 E. Vine St.
Lexington, KY
Hours: Monday - Friday: 8 a.m. - 5 p.m.
Phone: (859) 258-3160
Email: planningmailbox@lexingtonky.gov

Detached ADU

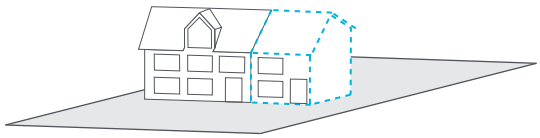
see page 34

ADU over Garage

see page 38

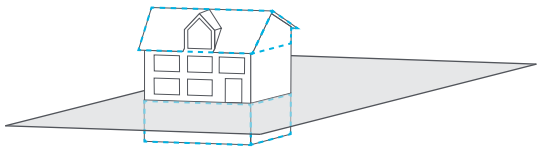


Attached ADU (Addition to Principle Residence)



Basement or Attic Conversion ADU

see page 42



Consider how you will finance your ADU and the potential costs associated with designing, permitting, and construction.

see page 8

Download the ADU Breakeven Calculator to estimate costs and potential revenue from your unit.

ADU Breakeven Calculator download at:
https://accessorydwellings.org/adu-breakeven-calculator/

IMPORTANT NOTE
The ADU Prototypes described in this document are for preliminary planning purposes only.

Who doesn't love a good process diagram? When fully fleshed out, this page will provide a step-by-step guide for navigating the ADU process from beginning to end. It will be updated as processes are defined through the coming public input process, and continued collaboration with government agencies. For now, it provides a sample road map for what a completed process may look like. There is more to come!

OK, where do I begin?

Building an ADU usually requires an Architect, City Agencies, and a Contractor. The color coded circles in the diagram below indicate the key party involved for each step.

Architect/Designer · City Agencies · Contractor

1. Interview and select a design professional

Design and Permitting

2. Pre-Application meetings with Planning and Building Inspection
3. Preliminary ADU Design
4. Complete Construction Drawings
5. Submit Building Permit and Pay Fees
6. City Agency Review
7. Revise Drawings per City Agency Review
8. Building Permit Issued
9. Bids from Contractors
10. Select Contractor — Contract bidding can begin after Step 4

! potential neighborhood meetings and notification

Construction

11. Begin Construction
12. Construction Administration
13. Construction Inspections

✓ All Inspections Passed

14. Certificate of Occupancy
15. Approve Final Payment to Contractor
16. Handover to Owner. Enjoy your new ADU!

MORE TO COME ON THIS DIAGRAM FOLLOWING PUBLIC INPUT.

WHERE DO I START MY ADU PLANNING?

If you are interested in pursuing an Accessory Dwelling Unit, you will first want to stop by the County Clerk's Office and request a copy of any deed restrictions, covenants, or Homeowner Association requirements that may impact ADU construction on your property. Verifying that there are no privately (non-governmental) enforceable restrictions regarding ADUs is an important first step in the process.

Once you have completed that first step, stop by the City of Lexington's Division of Planning and ask to speak with a staff member. Planning staff will be available to help:

- Verify zoning information
- Check for existing environmental, sanitary sewer and/or stormwater issues in the area
- Discuss your vision for your property
- Explain the regulations (standards) governing ADUs
- Review design principles contained in Section 3 – Designing your ADU
- Provide important contact information for other agencies that will review the ADU application

EVALUATE YOUR SEWER CONNECTION

A lateral sewer line is the privately-owned pipe that connects a property to the City's municipal sanitary sewer system. Maintenance and upkeep is generally the responsibility of the homeowner. Therefore, it will be important to have a licensed plumber inspect your existing sewer lateral and its adequacy will later be a part of the permitting process. Doing this work up front will allow you to get a handle on any expensive repairs that may be necessary before moving forward. If needed repairs are in the right of way, they can be substantially more expensive than if they are on the building lot.

HIRE A DESIGN PROFESSIONAL

While this manual is intended to provide examples and steer an applicant through the process of building an ADU every site is unique and will require a professional to customize a set of plans for the unit you wish to build. You may need an architect, a landscape architect, an engineer, and/or a builder depending on your specific constraints.

When choosing a design professional, ask for references and look at previous experiences to find someone capable and familar with navigating the development process. Often a professional with local experience can save you time and cost by anticipating the types of issues that typically arise during the permitting process.

DETERMINING FIT

Determining the ADU design that will fit your property and neighborhood context requires understanding your neighborhood's general patterns and a more focused examination of your lot and those of your neighbors'. These factors will inform the placement and orientation of your ADU, the treatment of outdoor spaces, and the ADU's architectural design.

PLACEMENT & ORIENTATION

Protecting the privacy of neighbors is a primary concern when determining the placement and orientation of your ADU. Consider the locations on your property where you could place the ADU to minimize impacts created by viewing private interior and exterior spaces, acoustical disturbances, exterior lighting, and entry routes used by ADU occupants. Whether attached, detached, one or two-story, each type of unit has its own set of privacy challenges.

The orientation of the ADU is another important privacy consideration. The orientation is the direction the unit faces once it is placed on the site. The entry, porches, private or shared outdoor spaces, window placement and closeness to property lines should be considered when orienting your unit.

OUTDOOR SPACES

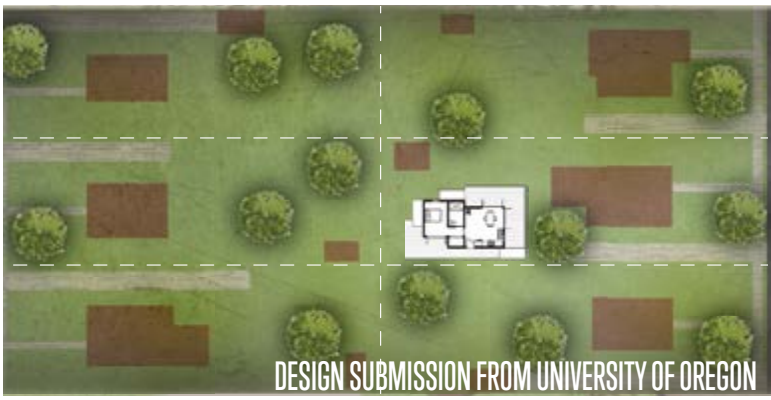
Planning for privacy between the main house and the ADU should also be part of your design. Besides views from windows, there are other considerations including the use of rear and side yard spaces, entry pathways, and the parking location for the ADU.

The way someone enters the ADU can cause privacy concerns as well. Planning the site to limit or screen uses next to private yard areas or to limit passing by private rooms to access the ADU can improve privacy. The location of parking can also have an impact on where tenants walk and the noises from after hour departures and arrivals. Alley lots and corner lots provide more flexibility in terms of locating ADU parking away from the owner's house.

When designing your ADU, there is an opportunity to plan which parts of the yard will be exclusively for the tenant's or home owner's use and which parts will be shared. These areas can be defined with landscaping, gardens, paving, and other creative devices.

ARCHITECTURAL DESIGN

Architectural design is another area of consideration. Many suburban subdivisions and sites located adjacent to commercial or industrial areas



DESIGN SUBMISSION FROM UNIVERSITY OF OREGON

provide opportunities to explore more contemporary design solutions for ADUs. Contemporary solutions can feature new energy saving technology or sustainable design, non-traditional indoor and outdoor spaces, or fanciful and sculptural roof and building forms. ADUs can also be designed to complement historic and traditional homes while incorporating the benefits of modern, energy efficient building systems.

Your existing house may provide a palette of roof forms, window design, materials and colors, and other architectural features that can be replicated. This would create an aesthetic and ownership connection between the main house and the ADU. More information on ADU design can be found in Section 3 – Designing your ADU.

INCORPORATE UNIVERSAL DESIGN

Universal Design (UD) is often referred to as "inclusive design" or "design for all". If opting to age in place, it is important to choose this type of design for the home and for products because UD recognizes the wide range of human abilities (physical, cognitive and sensory). UD homes are usable for the activities of daily living by just about all people regardless of age and ability.

While there are 7 principles of universal design which address aspects such as ease of use, minimal physical effort needed and so forth, it is basically a design approach that makes access and performance in activities of daily living do-able for most people with differing abilities. A remote garage door opener, light switches on dimmers, pull-out shelves, and adequate space around a commode for a wheel chair user's approach/transfer are all examples of universal design.

The basic inclusive design allows access including egress, bathroom maneuverability, and movement within the home. More extensive universally designed features and products allow for increased accessibility throughout the home and support easy functioning during activities of daily living for people of all ages, sizes and capability.

Incorporating UD design principles is important to any residential structure and ensures they meet the needs of any and all occupants throughout the life of the structure without costly retrofits. They are especially important in ADUs to accomplish the many aging in place, and accessibility goals outlined in Section 1 – Intro to ADUs.

TALK TO NEIGHBORS

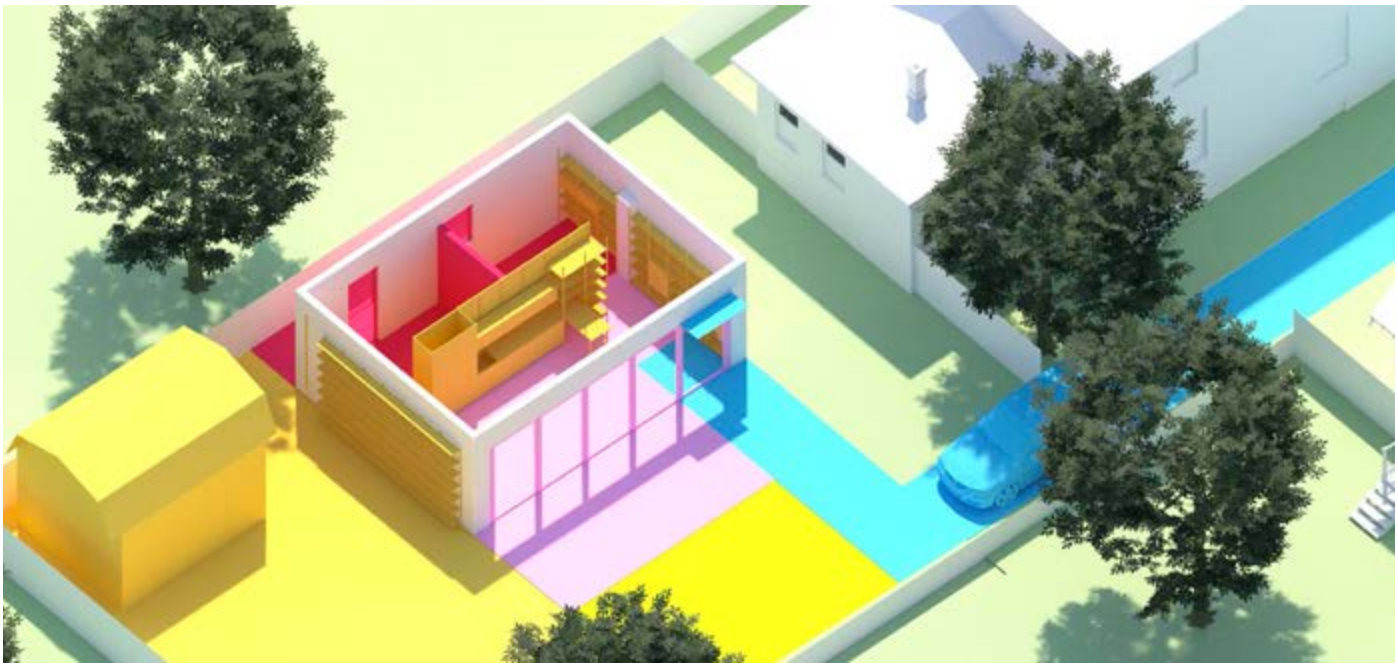
Of course an important part of being a good neighbor is discussing your plans with adjacent property owners. This can help you better understand how your ADU can be designed to reduce the impact on

their lifestyle. In some cases, your neighbor may also be considering developing an ADU in the future and the coordination of siting and orientation can result in a better situation for both. Some issues you may want to discuss include privacy, views, solar access, parking location, and the timing and schedule for construction. Talking with your neighbor provides an opportunity to discuss the merits and trade-offs of different design approaches. Some potential talking points are listed below:

- **Privacy.** One of the most obvious topics will be visual privacy. This often includes views into houses and into private backyards. The location of the ADU, window placement and orientation of private and public rooms in ADUs could be topics of discussion in this regard.
- **Solar Access.** Access to the sun for gardens and yards can be an important concern of neighbors. Placing a two-story unit close to your northern property line can impact a neighbor's solar access.
- **Scheduling the Work.** In some cases, your neighbor may have young children or other needs that cause you to consider how you schedule construction of your ADU. You may want to discuss the schedule of your construction project, both in terms of start and finish dates and the times of day and days of the week that construction will take place.

Remember, your neighbor may be the next one to develop an ADU, and you would like the same opportunity to discuss their project.

ZONING STANDARDS FOR ADUs



DESIGN BY JORDAN HINES & ERIN RUHL

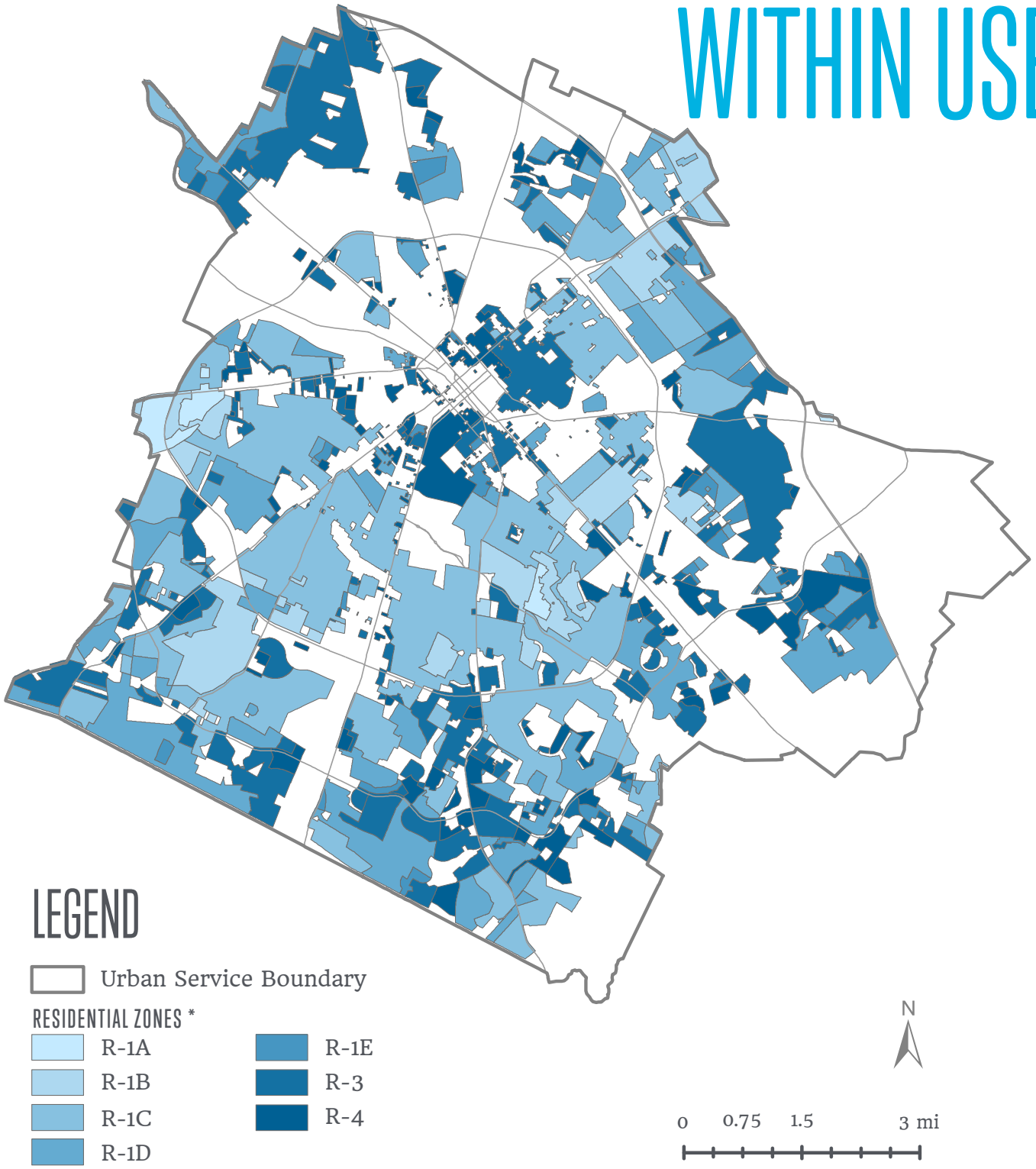
WHAT SORT OF ZONING/ PERMITTING REQUIREMENTS SHOULD BE DEVELOPED?

Zoning is a tool that most cities use to govern "uses" (e.g. residential, commercial, or industrial), the size of buildings, and how buildings relate to their surroundings, including other buildings, open spaces, and the street. Best practices in urban planning and zoning now look to diversity to help improve communities: diversity of housing types to provide options to different types of people and different-sized families; diversity of uses to get people closer to where they work or buy their daily needs; and diversity of transportation options. Additionally, the quality of physical character is also viewed as an important contributor towards a sense of community and place in contemporary planning practice.

The City of Lexington is required by law to enforce numerous Federal, State and local construction and development regulations to insure that your project is safe and is an asset to the community. Generally, you need to obtain a building permit whenever you construct, enlarge, alter, repair, move, remove, improve, convert, or demolish a building or other structure. A Building Permit may include building, grading, plumbing, mechanical and electrical permits.

These regulatory tools are crucial for ensuring that ADUs do not negatively

RESIDENTIAL ZONES WITHIN USB



* Individual parcels within these zones may have additional restrictions, meaning that eligibility is not guaranteed. Additional considerations such as overlays, deed restrictions, Homeowner/Neighborhood Association requirements, & covenants must be considered as a primary step in the process.

impact surrounding areas. However, if they are overly burdensome or unnecessarily restrictive, they can effectively disincentivize a desired outcome.

Therefore, when drafting ADU regulations and permitting requirements, it is critical to ensure the health, safety, and welfare of the community are protected, while still encouraging the construction of ADUs as a small, but vitally important, component of an overall housing strategy.

In cities where ADUs are permitted, there are vast differences in the zoning requirements. The impact of those regulations can be seen in the numbers of permitted units. However, even in the most successful markets, like Portland, OR; Vancouver, BC; and Austin, TX; ADUs have only been constructed on roughly 1% of available single family lots. Two cities with the most progressive ADU ordinances, Portland, OR and Austin, TX, were the only US cities permitting more than 100 ADUs a year as of 2016.

So, the question is, what are the issues the City needs to address through regulation? What are the most important factors that zoning can address meaningfully and still encourage ADU development? There are 3 key areas where zoning and permitting processes can have meaningful impact:

- Stormwater Drainage
- Sanitary sewer capacity and infrastructure
- Neighborhood compatibility and enhancement

STORMWATER DRAINAGE

Impervious surfaces are areas covered by any of a variety of materials or surfaces that impedes the infiltration of water into the soil. Examples include buildings, pavement, concrete, and severely compacted soils. The increase of impervious surfaces caused by development can affect water resources in several ways. First, impervious surfaces combined with drainage systems such as curbs, gutters and storm drain pipes alter the natural hydrology in a watershed. Impervious surfaces can result in loss of aquatic habitat, loss of biological diversity, and an overall decrease in water quality due to the accelerated discharge of pollutants into local streams, and estuaries. Therefore, when adding any impervious surfaces to a site, it is crucial to consider the impacts those might have, and mitigate the stormwater issues associated with those impacts.

Through the public education and input process, the Senior Services Commission and the Division of Planning will be working with the Division of Water Quality (DWQ) to review the Engineering Manuals and permitting processes that will ensure development of ADUs will not negatively impact adjacent areas with stormwater runoff. In the past, updates have been made in order to accommodate additional runoff from proposed increases in parking hardscape. A similar approach to reviewing ADU applications will be needed to ensure that areas with documented drainage issues are not made worse.

SANITARY SEWER CAPACITY & INFRASTRUCTURE

The Capacity Assurance Program (CAP) is a requirement of the City of Lexington's federal Consent Decree that prohibits the City from authorizing new connections (or increases in flow from existing connections) to the sewer system unless there is adequate capacity in the sanitary sewer system.

Working with the DWQ, there will be updated provisions for evaluating ADUs under the Capacity Assurance Program (CAP). Through the CAP application process there will be a review of existing conditions and the adequacy of the sanitary sewer system in the area before any permits are issued.

However, DWQ has indicated that one of the most significant and difficult issues remaining in residential areas are existing sump pumps that have not been redirected away from sanitary sewers. The application for an ADU may be an opportunity to inspect the primary residence for such occurrences and stipulate that they be corrected prior to any new construction. Just one sump pump can generate 10 times the amount of flow of one single family home during a wet weather event.

NEIGHBORHOOD COMPATIBILITY & ENHANCEMENT

ADUs have immense potential to increase the desirability of a neighborhood, and certainly the investment by a property owner back into a neighborhood is a positive development. Supporting a housing policy that allows your neighbors to stay in their homes and neighborhoods by constructing simple and easily accessible housing after they retire is a worthy goal. That sort of inclusivity also makes an area attractive to future home buyers.

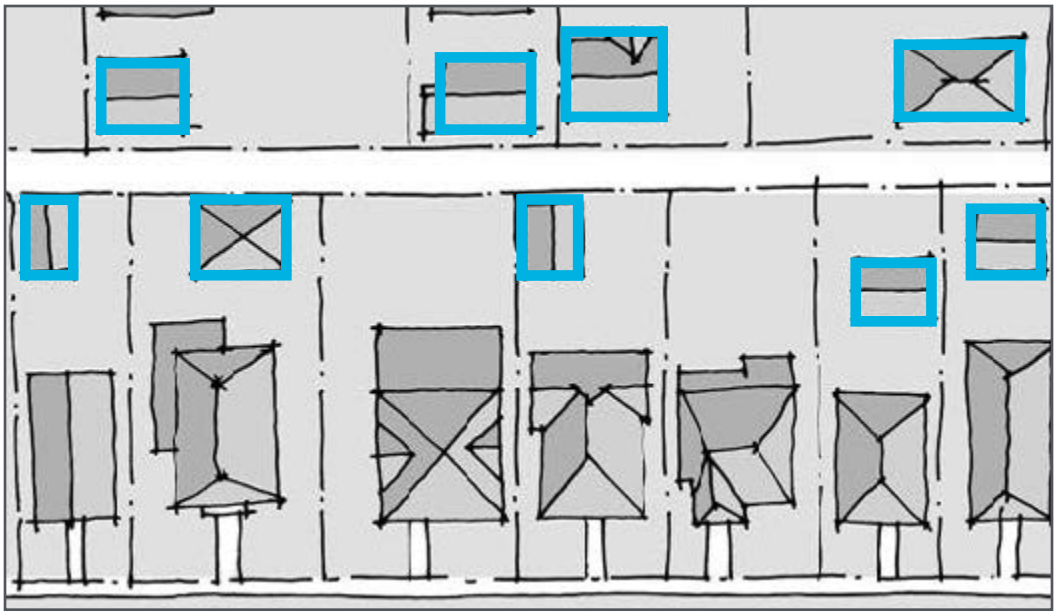
However, ensuring that an ADU seamlessly blends into the existing property and the surrounding neighborhood context is also important. This is something that can be achieved with a set of minimum zoning requirements and design standards. This manual goes a step further and outlines a series of design principles that would be discussed with applicants throughout the permitting process. These can be found in Section 3 - Designing Your ADU.

QUESTIONS TO CONSIDER:	HOW WILL IT AFFECT YOUR PLANNING?
What is the predominant height of homes in your neighborhood? One or two stories?	If a neighborhood has predominantly one-story homes, then you probably would want to build a one story ADU.
Are homes set back the same distance from the street or are they staggered? Is there an established pattern to the house and lot patterns in your neighborhood?	Some neighborhoods have uniform setbacks and relationships to the streets. Other neighborhoods have irregular patterns. An ADU should fit into the pattern of setbacks for houses and garages.
What do most of the roofs in the neighborhood look like? What are the materials, colors and pitch?	Typically for best neighborhood fit, your roofline may mirror the main house's roof. In some neighborhoods, garages and ancillary structures have different roof forms. You may chose to reflect these traditions instead.
Where do most of the homes have their garages? Are they detached or attached? Are they in front, back or on the side of the house?	ADUs are typically about the size of a large garage. Look at your neighborhood pattern for garage placement to reduce the impact on your neighborhood character.
Is there typically a narrow or wide space between homes?	If your ADU is in the backyard, consider how you will enter the ADU. If possible it should be from an alley. The goal is to minimize the impact that the ADU access way might have on neighbor's windows.
Is landscaping or fencing or a combination used to define lot lines?	Fencing or landscaping in a neighborhood establishes different degrees of privacy. You may want to screen your ADU with plant materials that are compatible with the neighborhood.
Do lots typically have only one structure or several (i.e. house, garage, sheds, etc.)?	A pattern with multiple structures would enhance the option of building a stand-alone ADU.
Is there one material or color that is predominantly used for the homes on your block?	Often the best option for exterior materials is to match the main house. However, if there is a dominant material or color in the neighborhood, that might be considered as well.
Are front yards nicely landscaped or is the most prominent feature paved parking areas?	Placement of parking is critical when thinking of neighborhood impact. If you are using your front driveway to accommodate more cars, think of how you might use landscaping to help reduce the visual impact on the street. Try to keep your front yard in keeping with your neighbors.
Does your neighborhood have heavy or light vegetation in the back yard areas?	Your ADU siting and design should respond to the pattern of landscape located in your neighborhood. The pattern of canopy trees and hedges is part of the neighborhood context.

TRADITIONAL NEIGHBORHOOD

Features:
- Shallow lots
- Carriage houses & garages at the back of the lot

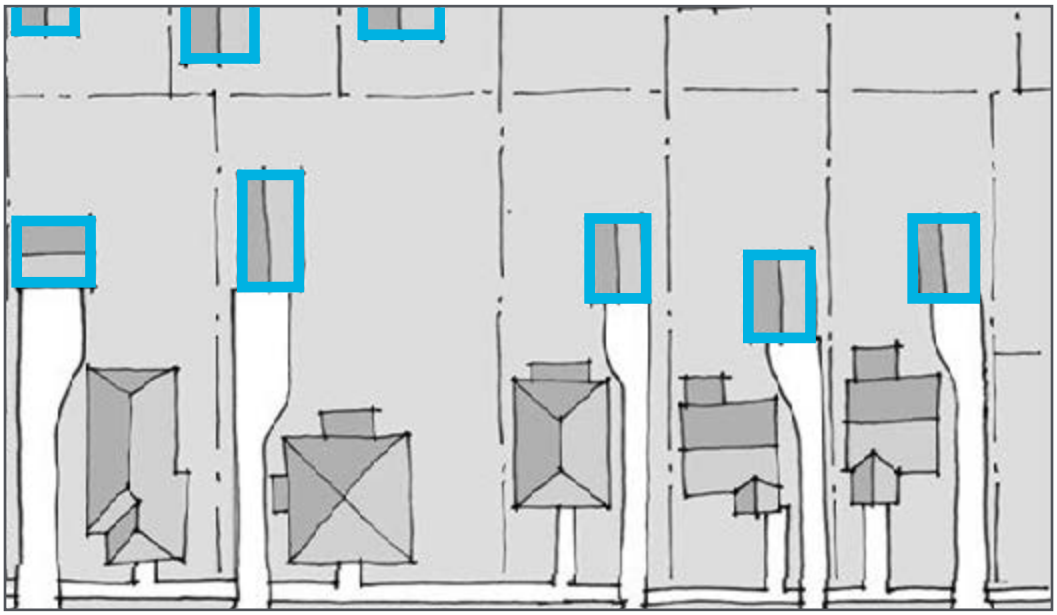
ADU Sites:
- Place ADUs along alley frontage or rear property line



TRANSITIONAL NEIGHBORHOOD

Features:
- Deep lots
- Garages located in rear yards

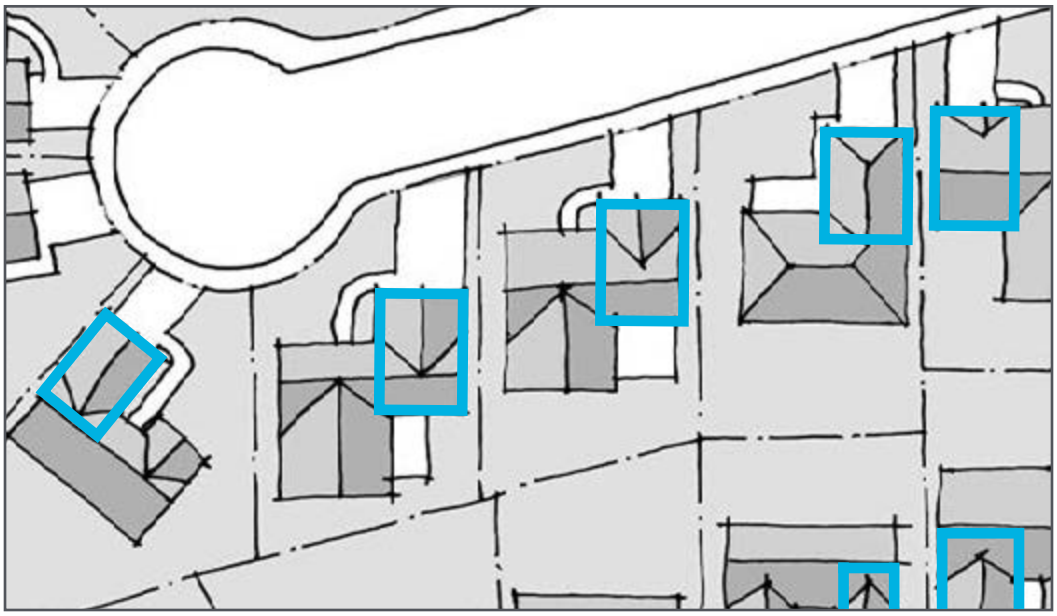
ADU Sites:
- Place ADUs within garage zone in rear yards



SUBURBAN NEIGHBORHOOD

Features:
- Cul-de-sac blocks
- Small yards
- Parking in front of lot with driveway

ADU Sites:
- Garage conversions
- Place ADUs in rear lot areas on bigger lots



ZONING & DESIGN STANDARDS

Zoning and design standards must consider the full range of impacts to the neighborhood and the community as a whole. All amendments to the Zoning Ordinance have a public process that is outlined in state law, but as Lexington develops this ADU regulatory framework, extensive public input will be sought that goes above and beyond this requirement.

Through this process the zoning and design standards will be discussed and eventually a proposal will be presented for the Planning Commission's consideration, and ultimately the approval of the Urban County Council.

The zoning and design standards will need to be flexible to address both attached and detached ADUs, though some will apply in all situations. In looking at cities with ADUs, one thing is clear: no two ADUs are the same. That is because no two residential lots are the same, and constraints that are unique to each application require a different solution than what an ordinance mandated design standard can achieve. The Planning staff, with the help of public input, research, and best practices will develop a set of regulations that are nimble and still encourage the development of ADUs.

TOPICS TO BE FLESHED OUT & DISCUSSED:

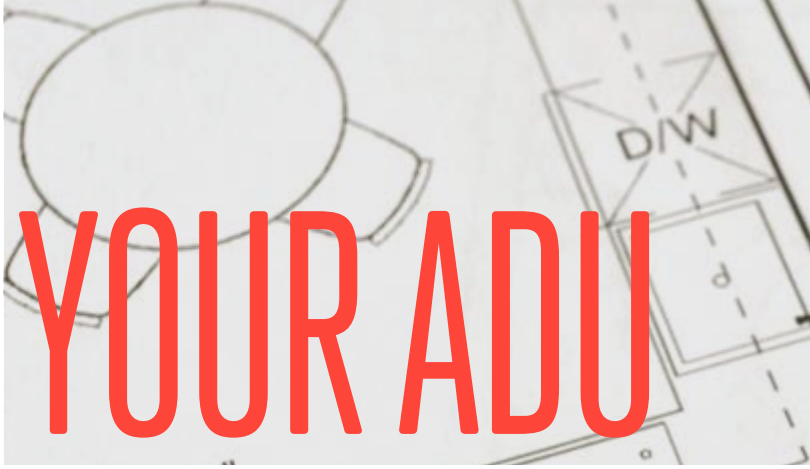
- DEFINING THE TERM ADU
- IDENTIFYING AREAS THAT ARE ELIGIBLE FOR ADUs
- WHAT STEPS ARE REQUIRED FOR APPROVAL
- THE PERMITTED SIZE OF THE ADU
- PARKING CONSIDERATIONS
- EXTERIOR FINISH MATERIALS
- ROOF PITCH
- WINDOW PLACEMENT AND TYPE
- DESIGN OF ANY EAVES
- ORIENTATION OF ENTRANCES
- TREATMENT OF EXTERIOR STAIRS
- BUILDING PLACEMENT IN RELATION TO THE PRINCIPLE STRUCTURE
- YARD SETBACKS
- LANDSCAPING


ACCESSORYDWELLINGS.COM


STROM ADU; ACCESSORY DWELLINGS.COM

SECTION 3

DESIGNING YOUR ADU



ACCESSORY DWELLING UNITS SHOULD...

NEIGHBORHOOD CONTEXT (NC):

NC.1 Maintain the ADU's privacy, & that of adjacent units

NC.2 Related to the existing neighborhood front & side yard setbacks

NC.3 Consider the architectural & landscape patterns in the neighborhood including:

- NC.3.1 - ARCHITECTURAL STYLES & MATERIALS
- NC.3.2 - SCALE & MASSING
- NC.3.3 - ROOF LINES & CHIMNEYS
- NC.3.4 - ENTRANCES & PORCHES
- NC.3.5 - WINDOWS & DOORS
- NC.3.6 - DRIVEWAYS & WALKWAYS
- NC.3.7 - FENCES AND OTHER SCREENING DEVICES
- NC.3.8 EXTERIOR STAIRS

NC.4 Create visual & acoustic separation between the ADU & neighboring structures

NC.5 Incorporate adequate exterior lighting to provide security without intruding upon adjacent properites

SITE LAYOUT (SL)

SL.1 Be placed on the site & oriented to increase energy efficiency

SL.2 Incorporate Universal Design Principles, & other accessibility measures

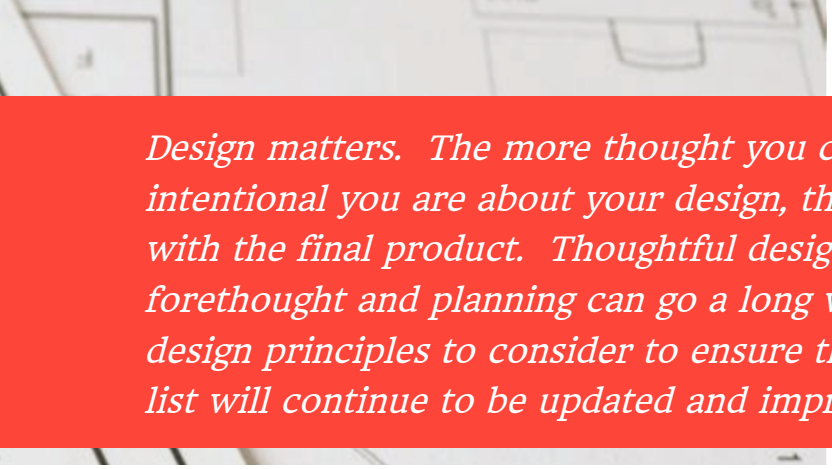
SL.3 Be intentionally placed on the site to either orient toward the primary residence, toward an alley or street, or in some similar manner

SL.4 Be intentionally designed with formal access & passageways that clearly delineate it as a separate unit

SL.5 Utilize shared spaces on the property

SL.6 Be placed on the site to intentionally designate open spaces for the primary residence & ADU

- SL.6.1 - PUBLIC OPEN SPACES (E.G. STREETS, ALLEYS)
- SL.6.2 - SEMI-PRIVATE SPACES (E.G. FRONT YARD/ALLEY-FACING YARD, SIDE YARD)
- SL.6.3 - PRIVATE SPACES (E.G. BACKYARD, PATIO)



Design matters. The more thought you can put into your layout and plan, and the more intentional you are about your design, the happier you and your neighbors will be with the final product. Thoughtful design does not need to cost a fortune, but a little forethought and planning can go a long way! This page includes a list of best practice design principles to consider to ensure the best possible outcome for your ADU. This list will continue to be updated and improved throughout the public input process.

INFRASTRUCTURE & SUSTAINABILITY (IS)

IS.1 Make use of existing infrastructure where possible

IS.2 Adequately address excess stormwater generated by the ADU

IS.3 Consider using sustainable & green building technologies & materials (e.g. low-flow fixtures, PV panels, solar hot water panels, tankless water heaters, etc.)

SAFETY & SECURITY (SS)

SS.1 Ensure exterior spaces are observable

SS.2 Provide for interior privacy for the ADU

MORE TO COME ON THIS DIAGRAM FOLLOWING PUBLIC INPUT.

ADU DESIGN PRINCIPLES

DETACHED ADUs

DESIGN BY POOYA MOHAGHEGH

Both functionally and physically separate from the primary home, detached ADUs can be a great new addition to a property with an adequately sized rear-yard. Though a detached ADU can come in a variety of styles, the structure should be at a proper scale to the surrounding neighborhood and should be clearly secondary to the primary structure.

During the design process, detached ADUs require careful consideration of multiple factors. Architectural style, orientation, designated open space, and points of access can all affect the relationship the ADU has to the main home and its impact on adjacent properties.

Maintaining an architectural style that is complementary to the main house and the aesthetic of the neighborhood is essential to establishing a desirable and well integrated structure. This does not mean that your freestanding ADU must be identical in style to the main home; rather, a strong relationship can be established using complementary colors, materials, and other compatible structural characteristics in a mutually beneficial way. In fact, many homeowners and designers view detached ADUs as an opportunity to add a contemporary flare as an accessory to a traditional style home.

The placement and orientation of the detached ADU should match the intended level of privacy. ADUs oriented towards the primary residence will have a closer relationship than an ADU oriented towards an alley or street. Additional techniques such as screening and window placement can all affect this relationship. Outside of the relationship between the ADU and its parent property, detached structures should always be designed with both visual and acoustic separation from adjacent lots.

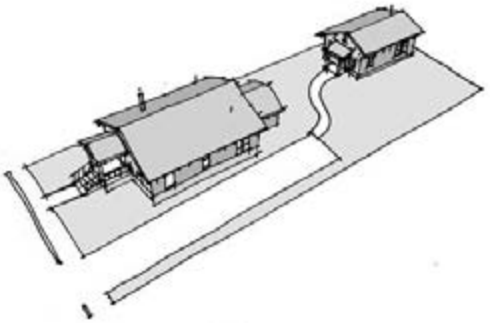
DETACHED REAR YARD DWELLING UNIT - NEW CONSTRUCTION

How can detached ADUs be in scale with the neighborhood and architecturally compatible with the existing house?

- In what ways is the ADU architecturally compatible with the primary structure and other houses in the neighborhood?
- Is the ADU subordinate in scale and size to the primary house?
- How is the ADU designed to reduce the impact on privacy of neighbors?
- Does the lowest side of the ADU roof face adjacent properties to reduce the visibility of the ADU from the adjacent property?
- Are ADU entries oriented towards rear alleys, the main house, or yard rather than the neighboring house or yard?
- Are ADU windows either oriented or glazed to ensure privacy for neighbors?

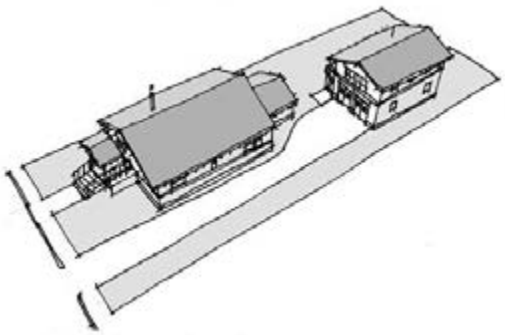
SKETCH OF TWO STORY ADU OVER GARAGE

SINGLE STORY



SINGLE STORY OFFSET

1-1/2 STORY



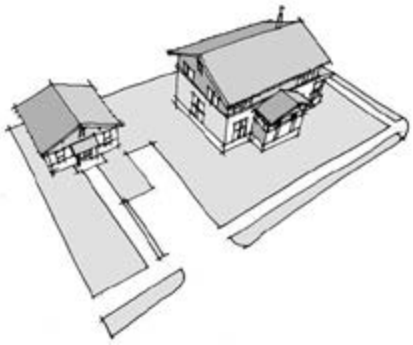
OVER DETACHED GARAGE

DETACHED REAR-YARD DWELLING UNIT - ALLEY OR CORNER LOT

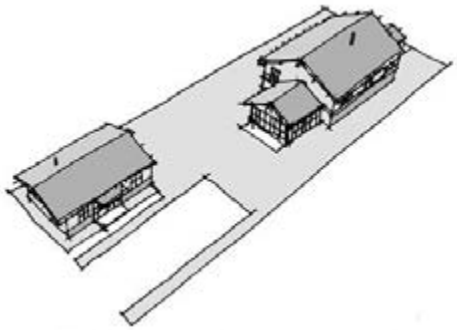
How can alley access and corner lot ADUs be compatible with the primary structure and neighborhood?

- Is the ADU built along the edge of the alley to maintain the pattern of back yard open space in neighborhoods?
- Is an alley ADU designed to provide "eyes-on-the-street" security?
- Does the ADU preserve existing trees in rear yards and along alleys?
- If the alley ADU is located over a garage, is the building set back far enough to back a car into the alley?
- Is enhanced landscaping provided along the street or alley edge?

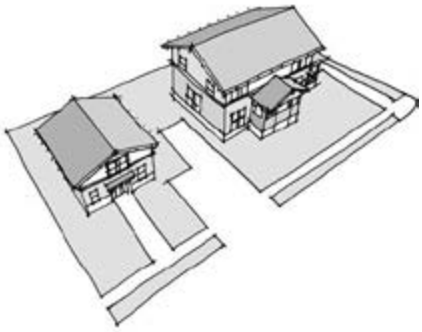
SKETCH OF 1-1/2 STORY BACKYARD COTTAGE



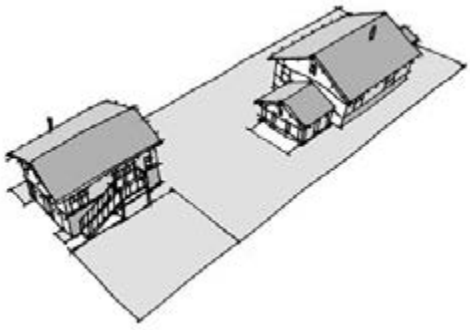
ONE STORY BACKYARD COTTAGE - CORNER



ONE STORY BACKYARD COTTAGE - ALLEY



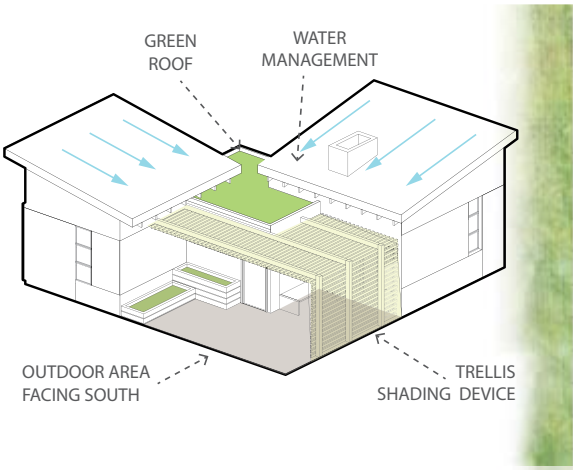
1-1/2 STORY BACKYARD COTTAGE - CORNER



ADU OVER DETACHED GARAGE - ALLEY

DESIGN SUBMISSION FROM UNIVERSITY OF OREGON

DESIGN BY SHYLO SHEPHERD



DESIGN SUBMISSION FROM UNIVERSITY OF OREGON

DESIGN SUBMISSION FROM UNIVERSITY OF OREGON

DESIGN BY JORDAN HINES & ERIN RUHL

DESIGN BY KENNETH RIGGS

SOME INSPIRATION

ATTACHED ADUs

ONE STORY BACKYARD ADDITION

As their name implies, attached ADUs are directly connected to the main residence. These ADUs are either added onto or adapted within existing structures and include horizontal/vertical additions, attached garage conversions, and attic/basement conversions.

For additions involving new construction, the ADU's exterior must maintain the building scale, architectural character, and lot patterns that are characteristic of the parent structure and surrounding neighborhood. Depending on the design, additions and garage conversions can be taller than the original building, such as with a converted two-story garage attached to a single-story home. In those cases, the ADU must still be visually subordinate to the primary structure and must be compatible with adjacent properties.

Architectural elements of additions, such as style, form, and building materials, should be in close harmony with the main house. Unlike some detached ADUs, the visual elements of attached ADUs should be heavily similar or identical to the parent structure.

Exterior access points for attached ADUs should be intentionally designed and should clearly delineate the structure as a separate units. Residents of the ADU should be able to enter and exit the unit without entering the main house.

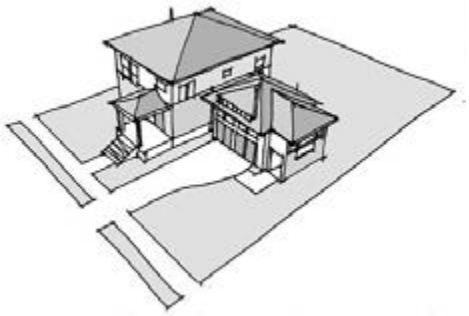
Whether an addition or conversion, attached ADUs have important internal considerations. These include the necessity for fire-rated walls between the primary and secondary units, reinforced structure (particularly with upper level additions and conversions), and separation of utilities.

ADDITION TO PRIMARY DWELLING OR GARAGE ADDITION/CONVERSION

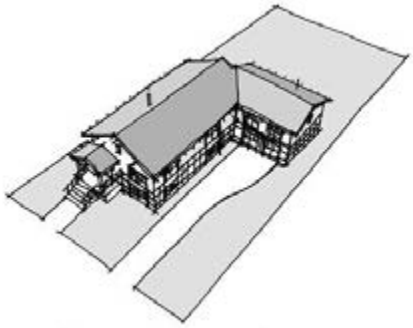
How can ADUs that are added to existing structures be designed to maintain the building scale, architectural character, and yard patterns found in the surrounding neighborhood?

- Is the primary residence containing the ADU of a compatible scale with nearby residences?
- Is the ADU addition visually subordinate to the original building? Do the massing, scale, and the location of an addition allow the original building to remain visually prominent?
- If the ADU addition is taller than the original building, is it set back from the primary facade?
- Is the ADU entrance visible from the street front? Does it maintain the appearance of a single-family home?
- Are the materials and windows of the ADU compatible with those in the original house?
- Is the ADU roof or attic addition in scale and compatible with the original structure?
- Are dormer or roof additions subordinate to, and set back from, the primary facade so the original roofline can be seen from the street?
- Does the ADU have yard setbacks, street orientation, use of front porches and other design elements found on your block?

ADU & GARAGE ADDITION/CONVERSION



ADU & GARAGE ADDITION/CONVERSION



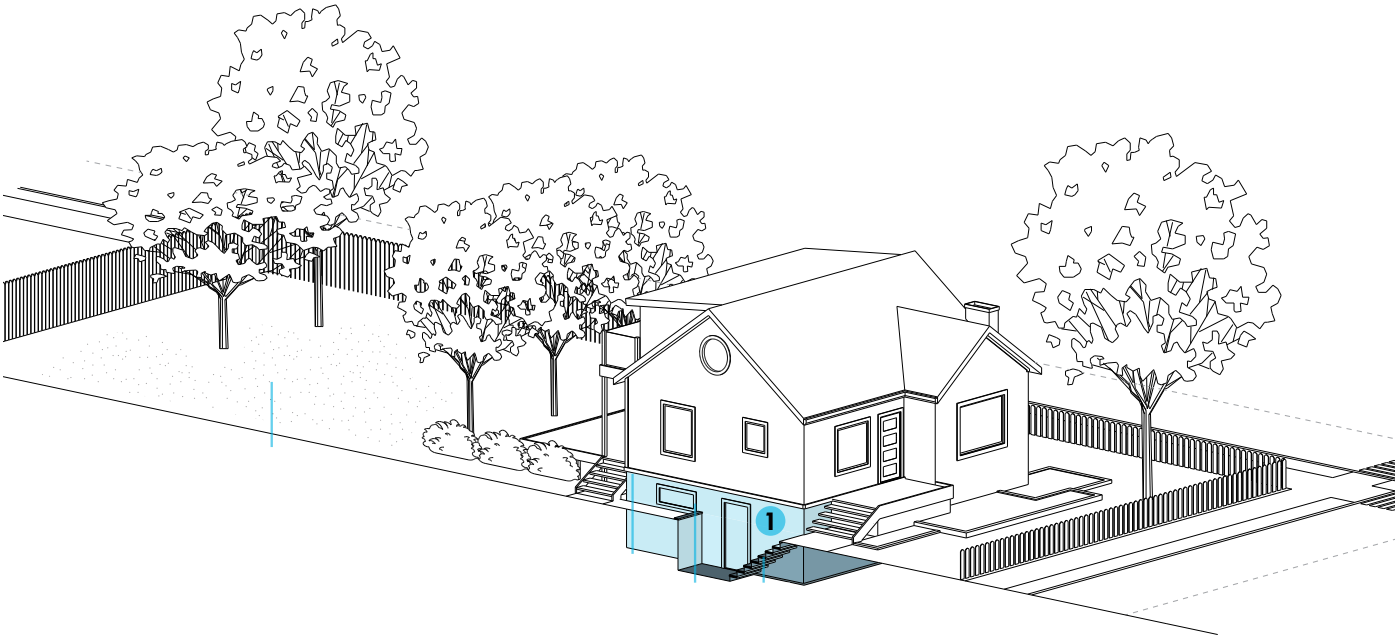
ADU & GARAGE ADDITION/CONVERSION

ONE STORY BACKYARD ADDITION

CONVERSIONS WITHIN MAIN RESIDENCE

How can existing living space within the main residence be converted to a separate ADU while maintaining safety and adhering to code requirements?

- Will the conversion allow for the appropriate ceiling height as required by the city for dwellings?
- Will the site permit the converted ADU to have its own exterior entrance from the house?
- For attic conversions, will the existing structure be able to support the additional weight brought on by the new use? Or will the floor need to be reinforced?
- Will all units have access to water and electricity shutoff valves?



BASEMENT CONVERSION

EXTERIOR ENTRANCE TO JOHN BAKER'S ADU, ACCESSORYDWELLINGS.ORG

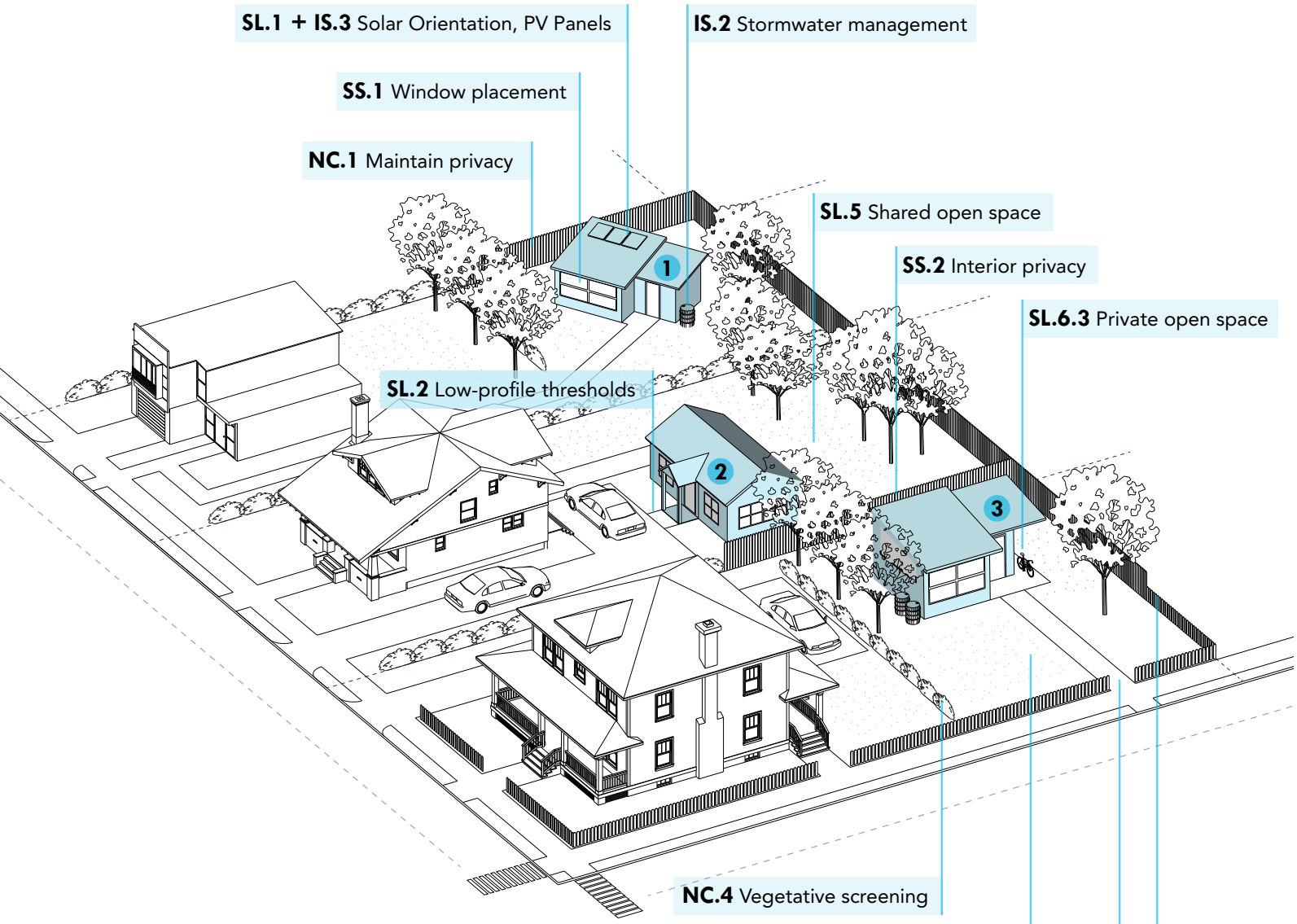
LAWRENCE ADU; ACCESSORYDWELLINGS.ORG

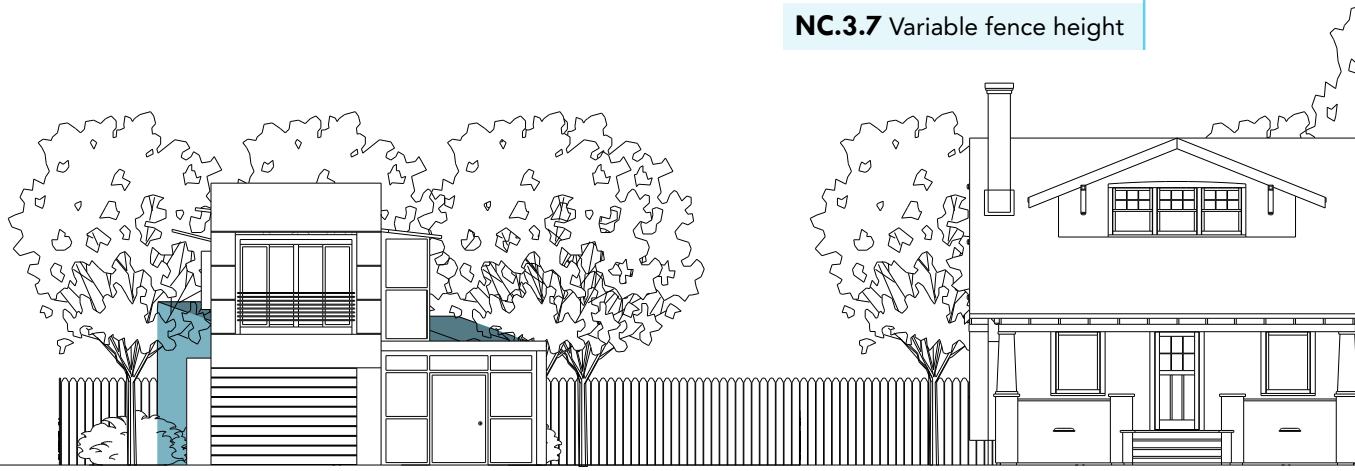
BONNIE & LARRY DALTON'S HILLSIDE ADU; ACCESSORYDWELLINGS.ORG

GRIMM & HABERMAN'S CARVED OUT STUDIO

SOME INSPIRATION

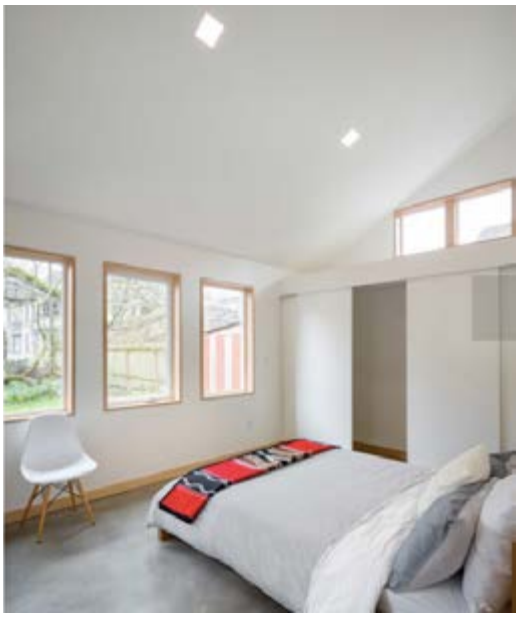
EXAMPLE 1: DETACHED REAR-YARD ADU

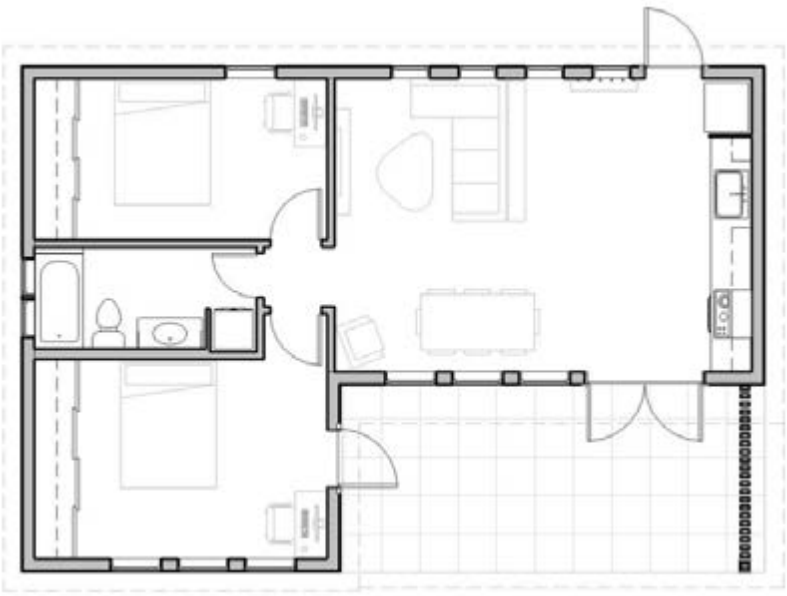




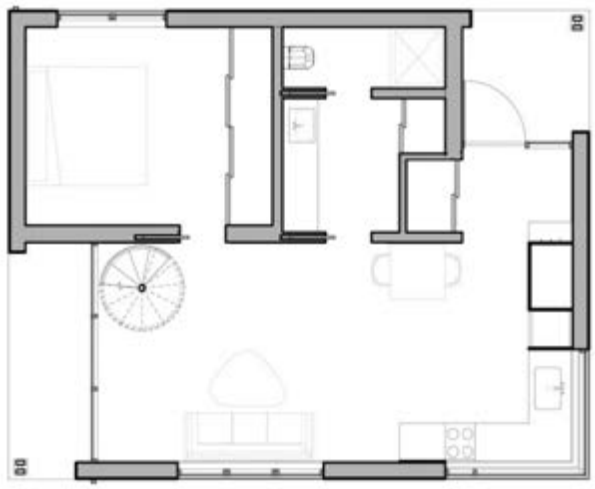
1. The original home has a modern architectural style with a matching ADU. This ADU is designed and placed on the site to encourage a semi-private relationship between the home and ADU residents. The ADU is oriented to optimize photo-voltaic (PV) panel placement.
2. The original home has a traditional architectural style with a matching ADU. This ADU is designed and placed on the site to encourage a close relationship between the home and ADU residents with shared open spaces and parking.
3. The original home has a traditional architectural style with a modern-style ADU. This ADU is designed and placed on the site to encourage independence between the home and ADU residents. The ADU has its own private open space and access to the public street.

EXAMPLE 1: DETACHED REAR-YARD ADU



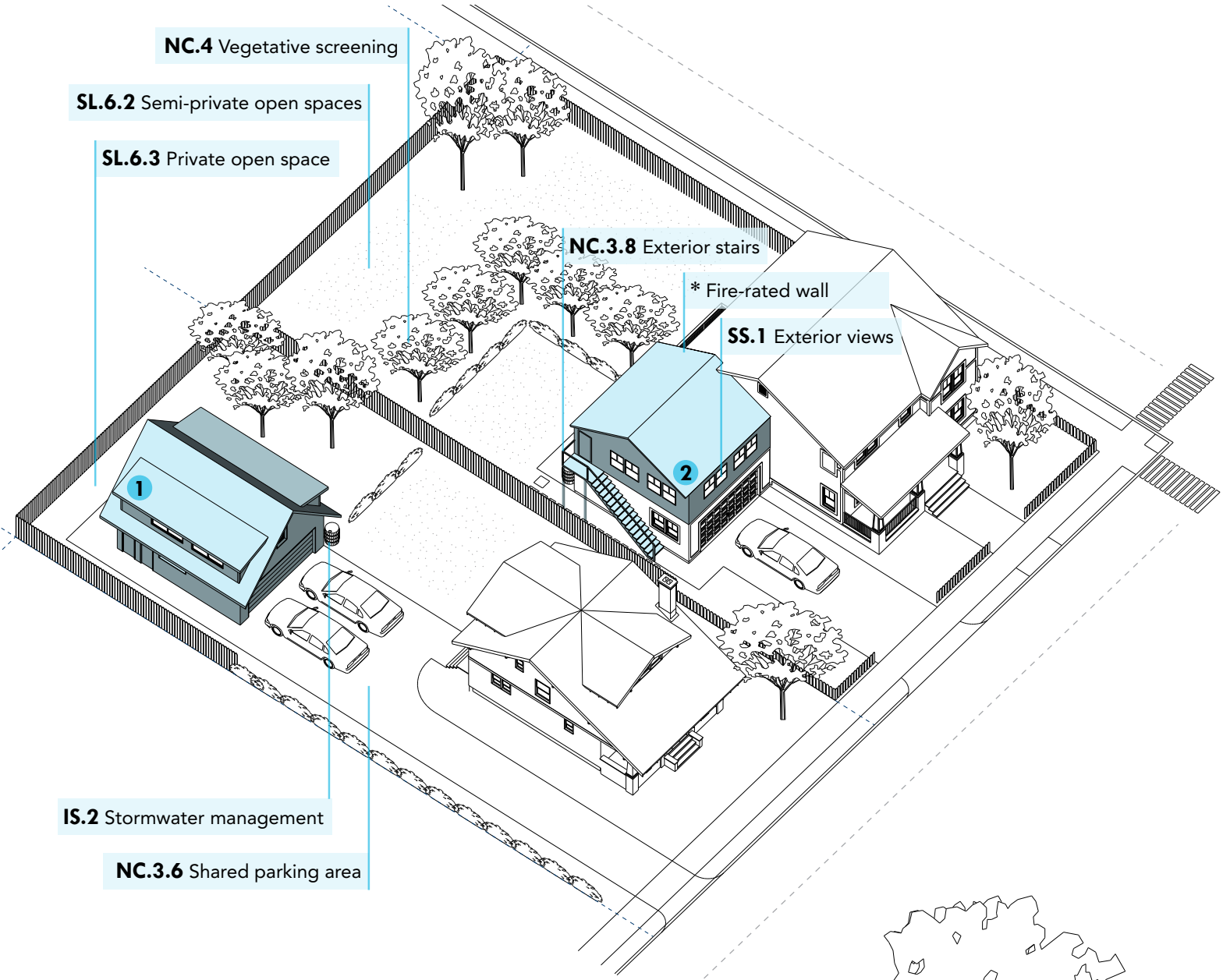


PROPEL ADU DESINGS; ACCESSORYDWELLINGS.COM



PROPEL ADU DESINGS; ACCESSORYDWELLINGS.COM

EXAMPLE 2: ADU OVER GARAGE

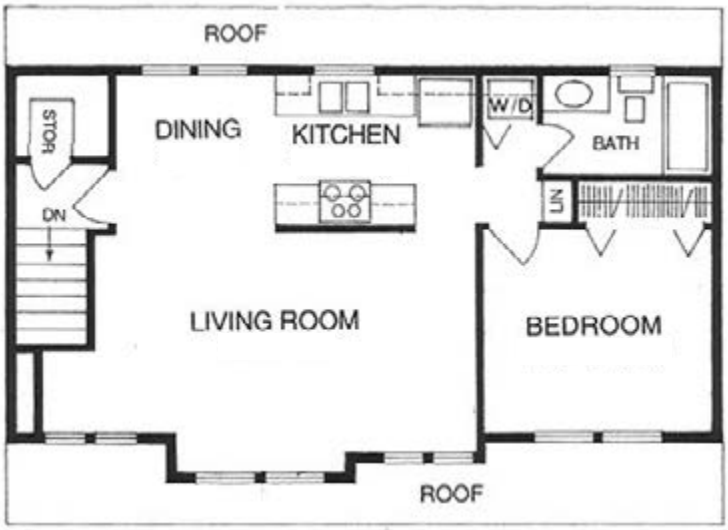


1. This new construction ADU was designed and built with a dwelling unit above a garage. Access to the ADU is provided on the interior of the structure.

2. This ADU is a conversion of an existing attached one-and-a-half story garage. Access to the ADU is provided via an exterior stair.

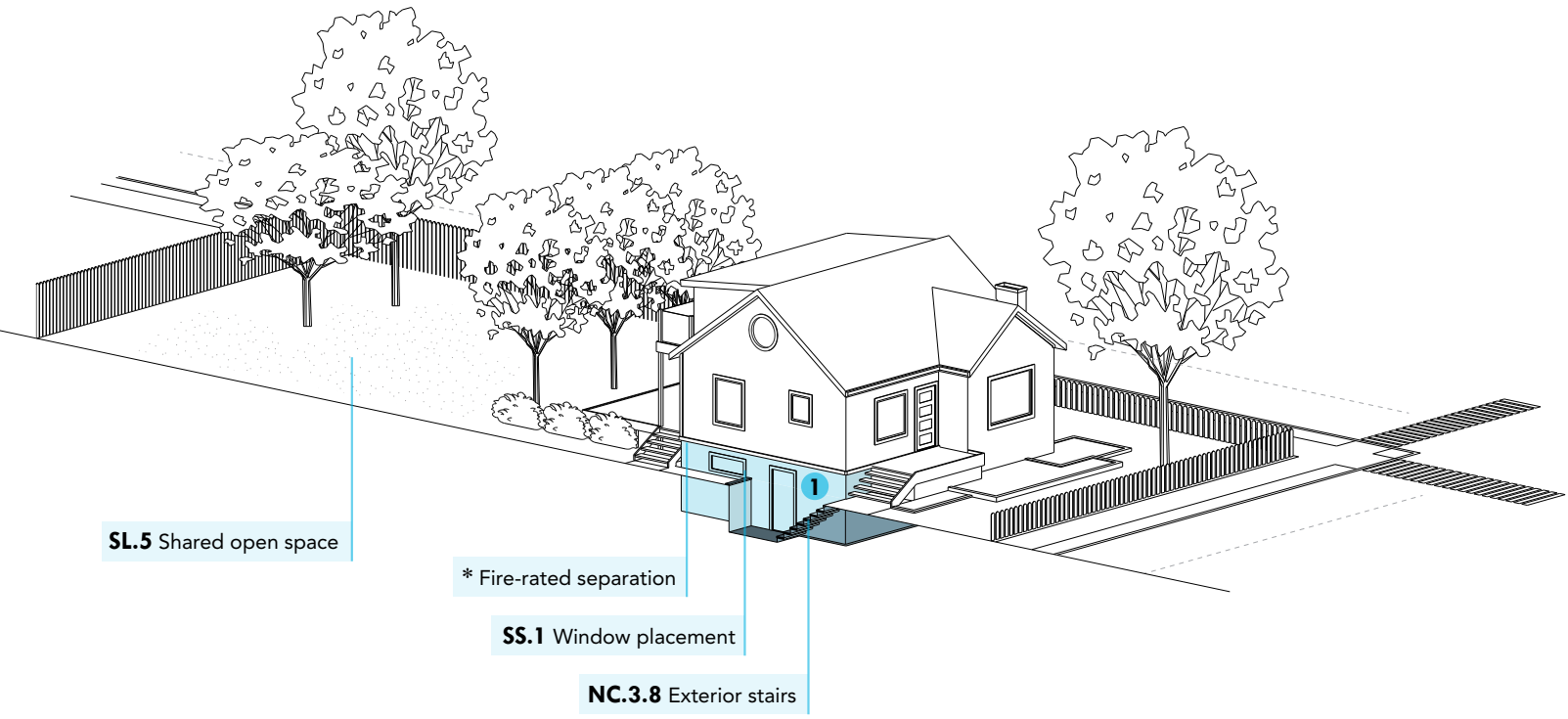
   * Reinforced structure, separate utilities, and fire-rated walls are considerations when building an ADU that is attached to the original home.

EXAMPLE 2: ADU OVER GARAGE


ROOF
STOR
DINING
KITCHEN
W/D
BATH
DN
LIN
LIVING ROOM
BEDROOM
ROOF


HALPERN ADU; ACCESSORYDWELLINGS.COM

EXAMPLE 3: BASEMENT CONVERSION



1 This ADU is a conversion of an existing basement. Access to the ADU is provided via an exterior stair.

* Reinforced structure, separate utilities, and fire-rated walls are considerations when building an ADU that is attached to the original home.

CLARK & CHEN ADU; ACCESSORYDWELLINGS.ORG

SECTION 6

MORE RESOURCES

ACCESSORY DWELLING UNITS: CASE STUDY

Author: Price, T.
Date: 2008
http://accessorydwellings.files.wordpress.com/2011/10/adu-case-study.pdf

ACCESSORY DWELLING UNITS: MODEL STATE ACT AND LOCAL ORDINANCE

Author: Cobb, Rodney L.
Author: Dvorak, Scott
Publisher: Public Policy Institute [of the AARP]
Date: 2000
https://accessorydwellings.files.wordpress.com/2011/10/d17158_dwell.pdf

BACKDOOR REVOLUTION

Author: Kol Peterson
Publisher: Accessory Dwelling Strategies, LLC
Date: 2018
http://www.buildinganadu.com/backdoor-revolution/

FEDERAL NATIONAL MORTGAGE ASSOCIATION

https://www.fanniemae.com/content/guide/selling/b4/1.3/05.html

FEDERAL HOME LOAN MORTGAGE CORPORATION

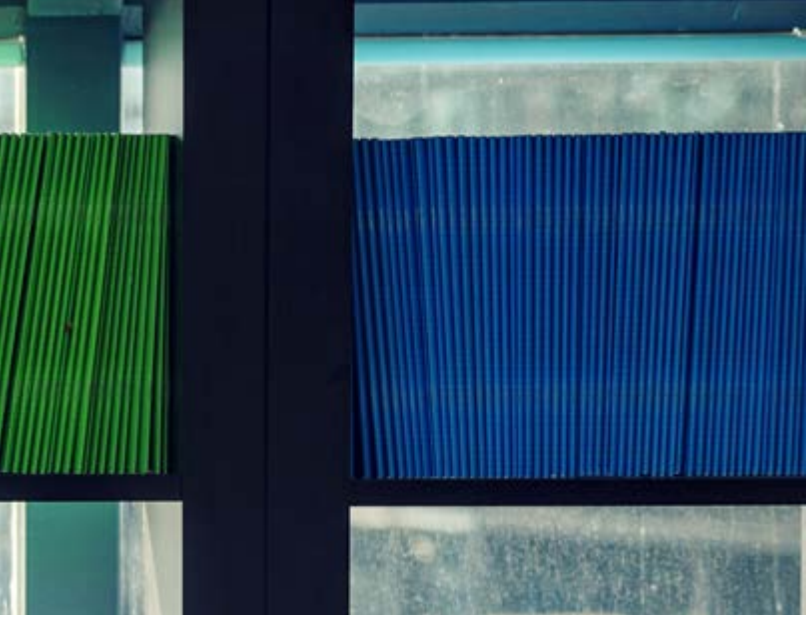
http://www.freddiemac.com/singlefamily/guide/bulletins/pdf/bll1708.pdf

CITY OF PORTLAND ADU PERMIT TRENDS | ACCESSORY DWELLINGS

Author: Palmeri, Jordan
Date: 2014/03/12
http://accessorydwellings.org/2014/03/12/city-of-portland-adu-permit-trends/

ESTABLISHING A BACKYARD COTTAGE (DETACHED ACCESSORY DWELLING UNIT)

Author: Seattle Department of Planning and Development,
Date: 2011/05/13
http://www.seattle.gov/DPD/Publications/CAM/cam116b.pdf



FROM ALLOWANCE TO ACCEPTANCE: CHANGING THE ROLE OF ACCESSORY DWELLING UNITS IN AMERICA'S HOUSING LANDSCAPE

Author: Lazaro, Christopher Ray
Institution: Texas A&M University
Date: 2013
Page 39
https://accessorydwellings.files.wordpress.com/2015/02/professional-paper-lazaro.pdf

DO ADUS CAUSE NEIGHBORHOOD PARKING PROBLEMS?

Author: Brown, Martin J.
Abstract: The single biggest and most specific fear mentioned by ADU opponents is loss of street parking. Is there any evidence on this?
Blog Title: Accessory Dwellings
http://accessorydwellings.org/2014/07/16/do-adus-cause-neighborhood-parking-problems/

GRANDMA NEVER HAD IT SO GOOD

Author: Keenan, Sandy
Publication: The New York Times
Date: 2014-05-07
http://www.nytimes.com/2014/05/08/garden/grandma-never-had-it-so-good.html

HEALTH IMPACT ASSESSMENT: ACCESSORY DWELLING UNITS

Author: Benton County Health Department,
Date: 2010 June 30
http://accessorydwellings.files.wordpress.com/2011/10/benton-county-accessory-dwelling-unit_hia-summary-final.pdf

MODEL BYLAW FOR ACCESSORY DWELLING UNITS

Author: Massachusetts Smart Growth Toolkit,
http://accessorydwellings.files.wordpress.com/2011/10/mass-adu-bylaw.pdf

PEOPLE IN PORTLAND WANT AND BUILD ADUS–WITH OR WITHOUT PERMITS

Author: Brown, Martin J.
Date: 2009 Oct. 13
http://architecturaltherapy.files.wordpress.com/2009/10/portland-adus-permitted-and-not-2009-10-13.pdf

RESEARCH AND POLICY ABOUT ACCESSORY DWELLING UNITS: INTRODUCING A 13-PART SERIES

Author: Brown, Martin J.
http://accessorydwellings.org/2014/06/04/adu-research-and-policy-introducing-a-12-part-series/

SECONDARY UNITS AND URBAN INFILL

Author: Wegmann, Jake
Author: Nemirow, Alison
Institution: University of California
Date: 2011 February
http://www.econstor.eu/bitstream/10419/59382/1/651729963.pdf

SMART GROWTH / SMART ENERGY TOOLKIT - ACCESSORY DWELLING UNITS (ADU)

Date: 2010-05-07 03:02:09
http://www.mass.gov/envir/smart_growth_toolkit/pages/mod-adu.html

THE ROLE OF ACCESSORY DWELLING UNITS IN ACHIEVING THE CITY OF EUGENE'S VISION FOR COMPACT GROWTH

Author: Fifeld, Michael
Author: Muller, Brook
Institution: University of Oregon School of Architecture and Allied Arts
Date: 2007 June 01
accessorydwellings.files.wordpress.com/2011/10/role-of-accessory-dwellings_eugene.pdf

2018 MILLENNIAL HOMEOWNERSHIP REPORT: AMERICAN DREAM DELAYED

Publication: www.apartmentlist.com
Authors: Chris Salviati, Rob Warnock
Date: 12/6/2018
https://www.apartmentlist.com/rentonomics/2018-millennial-homeownership-report-american-dream-delayed/

IT'S BECOMING MORE COMMON FOR YOUNG ADULTS TO LIVE AT HOME - AND FOR LONGER STRETCHES

Publication: Pew Research Center
Author: Richard Fry
Date: 5/5/2017
http://www.pewresearch.org/fact-tank/2017/05/05/its-becoming-more-common-for-young-adults-to-live-at-home-and-for-longer-stretches/

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DIVISION OF BUILDING INSPECTION

DIVISION OF WATER QUALITY

AGING & DISABILITY SERVICES DIVISION

SPECIAL THANKS TO...

Dr. Brent Sturlaugson, UK College of Design, and all students and professionals who submitted designs for use in this manual (see Appendix).

The City of Santa Cruz, for permitting use of their "Accessory Dwelling Units Manual." Portions of this manual were adapted from that text.

Accessorydwellings.org, for being a source of information, inspiration, and visual imagery during the creation of this manual.

Made possible due to the generous support from AARP.

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Current as of 02.01.19

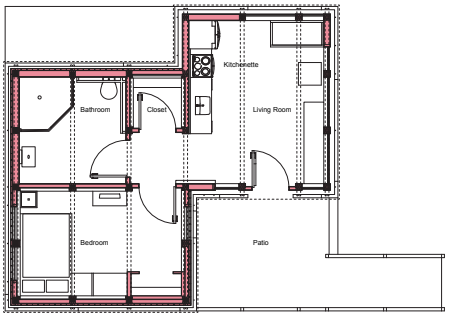
APPENDIX A: ADU DESIGN SUBMISSIONS

DESIGN BY DAVE GARCIA & JORDAN DAY
1ST PLACE - STUDENT, UK COLLEGE OF DESIGN

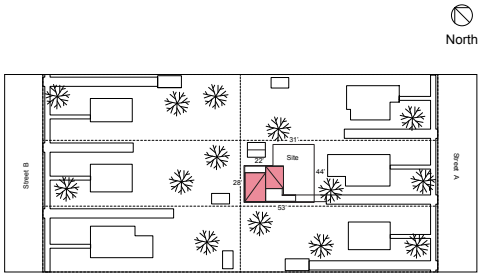
Ease Dwelling

EH-DE-YU Design Competition

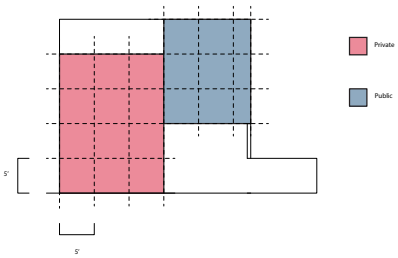
Lexington faces accessibility issues amidst the suburban sprawl. This 500 sq. ft. accessible dwelling unit addresses these issues with in its design through interior and exterior accessiblity features. It provides improved comfort for people with disabilities. The ADU is placed in the back-left corner of the site for increased backyard sp ace. A full glass face connects the living area to the backyard space. Public and private spaces are separated into two shifted masses. A louvre system wraps the masses connecting them. Two louvres are wrapped continuously around the exterior and interior creating handrails. The walls are dictated by a 5ft by 5ft structural grid allowing for a 4.5ft flow of circulation for comfortable wheel-chair space. The louvres and slanted roof enhance and relate to the urban fabric while offering endless accessiblity through the custom features.



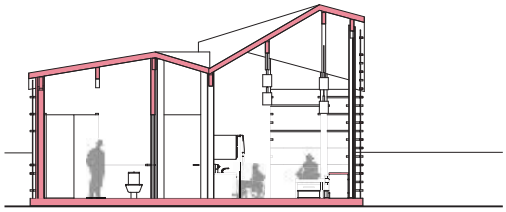
PLAN 1/8" = 1'



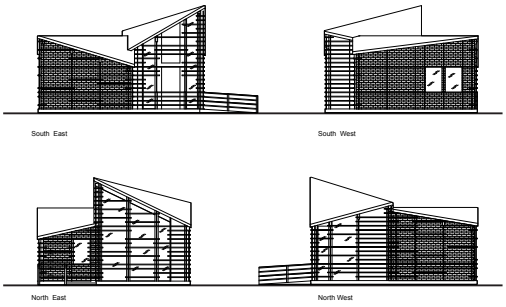
SITE PLAN



DIAGRAM



SECTION 1/8" = 1'



ELEVATIONS 1/16" = 1'

BEDROOM WINDOW PERSPECTIVE

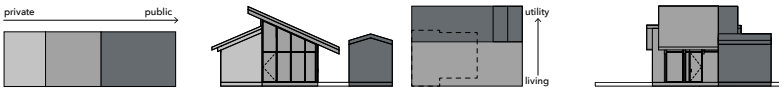
LIVING ROOM PERSPECTIVE

EXTERIOR PERSPECTIVE

DESIGN BY ABBI EVANS & KATHRYN SANDERS
2ND PLACE - STUDENT, UK COLLEGE OF DESIGN

ACCESSORY DWELLING UNIT

Zones pushed the design discussion in the formation of our ADU. Both in a private/public distinction as well as a utility/living distinction. The resident's primary sleeping and bathing areas are of the utmost private, while the kitchen and living areas become much more open and light-filled, indicating public space. On the site, there is a shed which aligns with the bathroom and kitchen, completing the household utility zone. The living spaces are defined by the bedroom, living room, and outdoor patio area. The overall form of the exterior façade clearly reveals the distinction between public and private space.

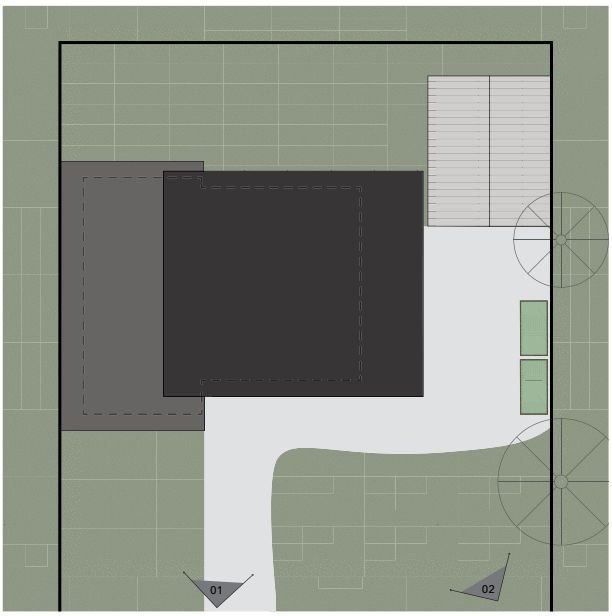



VIEW 01

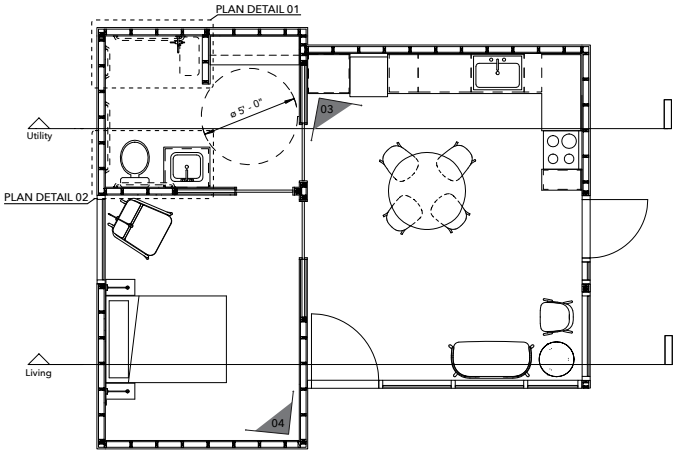

VIEW 02


VIEW 03

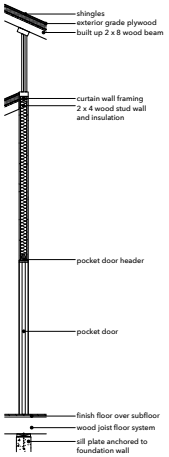

VIEW 04



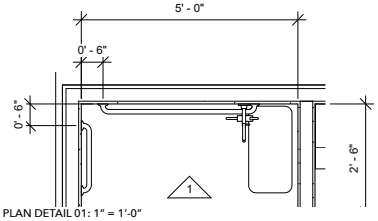
SITE PLAN: 1/4" = 1'-0"



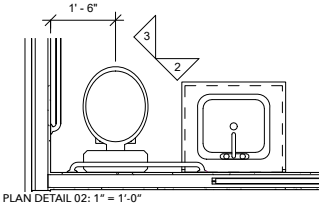
FLOOR PLAN: 1/2" = 1'-0"



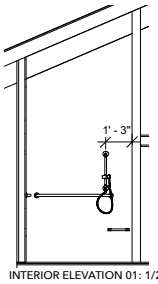
WALL SECTION 01: 1/2" = 1'-0"



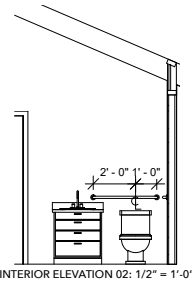
PLAN DETAIL 01: 1" = 1'-0"



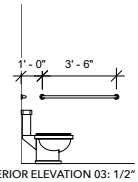
PLAN DETAIL 02: 1" = 1'-0"



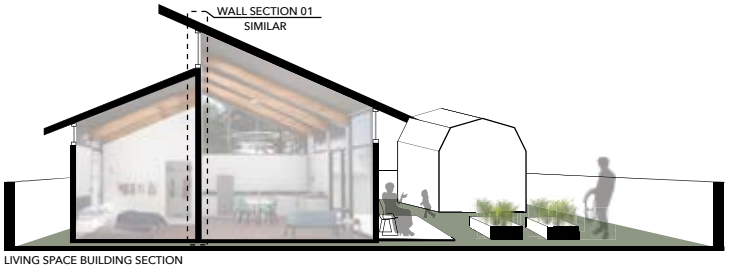
INTERIOR ELEVATION 01: 1/2" = 1'-0"



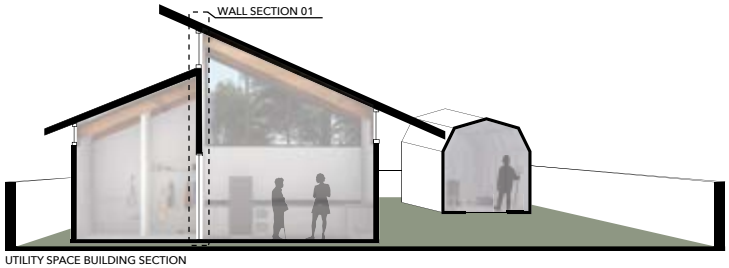
INTERIOR ELEVATION 02: 1/2" = 1'-0"



INTERIOR ELEVATION 03: 1/2" = 1'-0"



LIVING SPACE BUILDING SECTION



UTILITY SPACE BUILDING SECTION

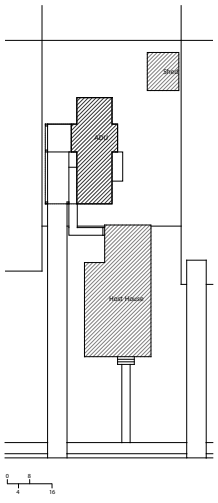
DESIGN BY JORDAN MILLION
3RD PLACE - STUDENT, UK COLLEGE OF DESIGN

CELEBRATIONHOME

My design approach seeks to maximize the potential for both program and architectural form in an accessory dwelling unit. The house's interior is divided into four rooms: a bedroom, a living room, a kitchen, and a bathroom. This variety of spaces results in the home's user being completely self-sufficient. A carport at the end of the host house's driveway ensures the resident's ability to remain mobile despite any age or medical problems they face in life. Outdoor spaces include a covered porch in the rear, and a patio facing the backyard. All aspects of the design exceed ADA resitrictions to properly accomodate residents with physical disabilities. While the ADU is intended to function independently from its host house, its position keeps it within convenient reach so that the resident and their family can easily visit one another.

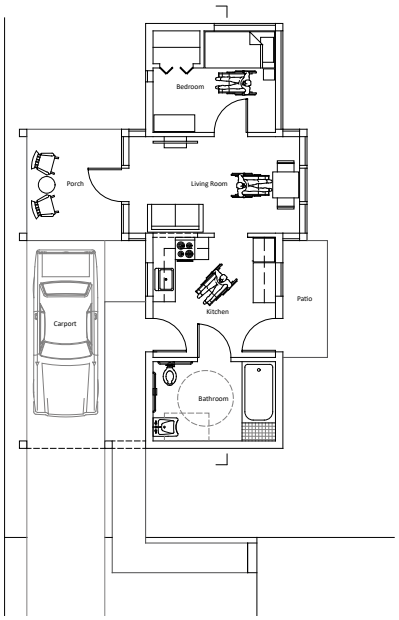
Architecturally, the design distinguishes the home as a different style of dwelling and thus a recognition of its user. The home will not be viewed as an inferior object to its host, but instead as an eye-catching symbol of the importance of the user's independence. Its roof, composed of woven concrete beams with glass strung between, creates a constant pattern of natural light throughout the interior. The stigma of a grandparent's house being old and outdated disappears in this design.

The home is not a necessary measure for one to watch over a needy friend. It is a celebration of that friend's life.



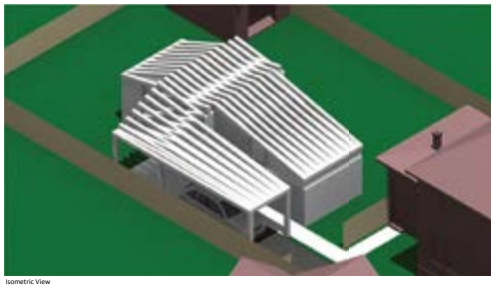
Site Plan at 1/16"=1'0"

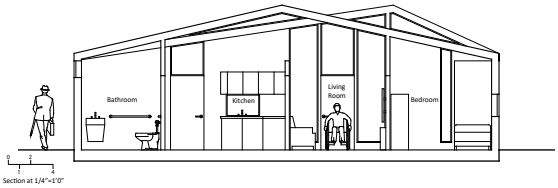

Isometric View



Plan at 1/4"=1'0"


View from Street


Isometric View



Section at 1/4"=1'0"


Living Room

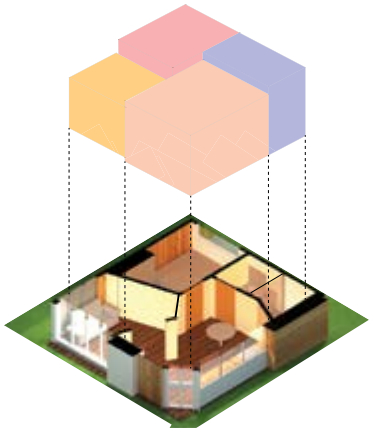

Kitchen


Side View


Rear View

DESIGN BY HANNAH ENGLE
HONORABLE MENTION - STUDENT, UK COLLEGE OF DESIGN

LEX ADU



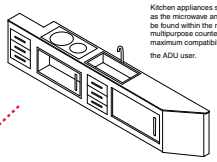
- Kitchen / Dining .....170 SQFT
- Living / Sun room .....105 SQFT
- Bedroom ..... 140 SQFT
- Bathroom ..... 075 SQFT

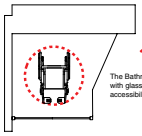
490 / 500 SQFT

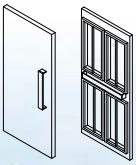

Perspective from within Kitchen

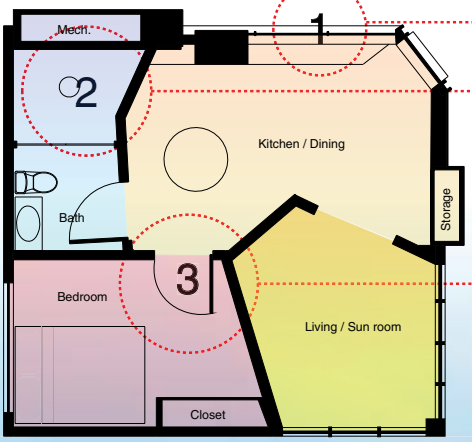

Bathroom Perspective


Perspective from within the Sun room / Living area


Kitchen appliances such as the microwave and refrigerator can be found within the recessed creases of the multipurpose countertop and cabinets, allowing maximum compatibility and easy accessibility to the ADU user.


The Bathroom of the ADU has a large walk in shower with glass sliding doors, permitting complete wheelchair accessibility.

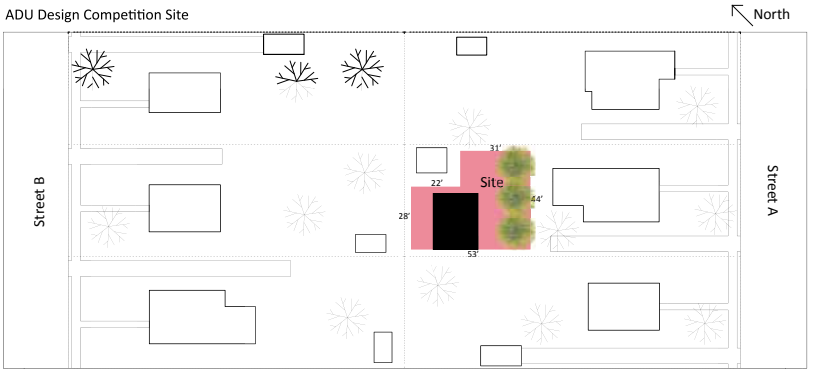

All doors in the ADU are equipped with pull and push levers rather than turnable doorknobs as a means of providing easier grasping and usage for those with disabilities.

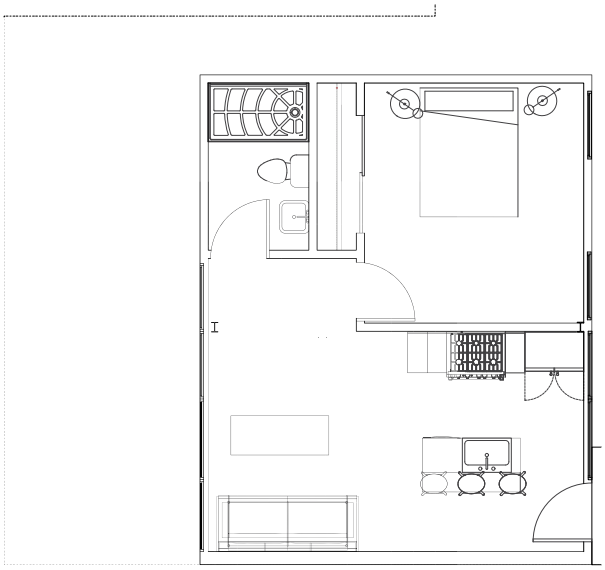


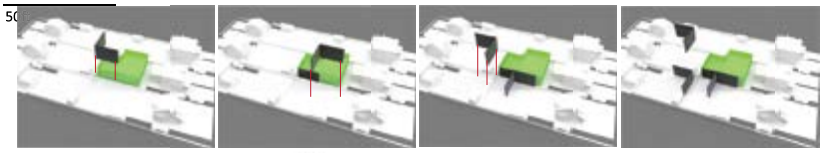
DESIGN BY ELVIA BAUTISTA STUDENT, UK COLLEGE OF DESIGN

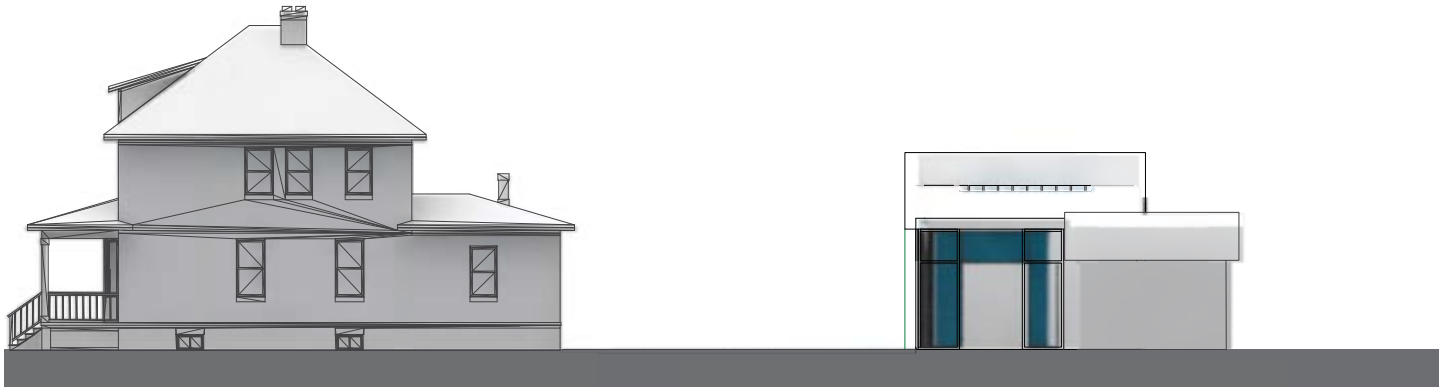
ADU

With The steady growth in cities, the demand for housing has increased. Lexington is growing at a fast rate. One of the major necessities are accessory dwelling units. Theses units will allow the urban fabric of Lexington to densify and allow diverse housing and also help contain the city limits. Therefore preserving what is left of the bluegrass. In order to increase the amount of dwellings in individual partials one must oversee the planning and safety of the occupants due to fire.
This design will show the process of integrating new units based on the future location of additional units, relying on a barrier to keep the placement of units feasable.



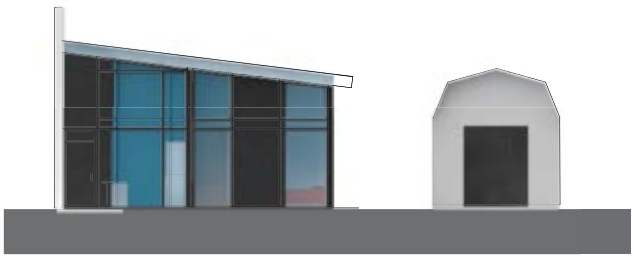






Right Elevation

Back Elevation

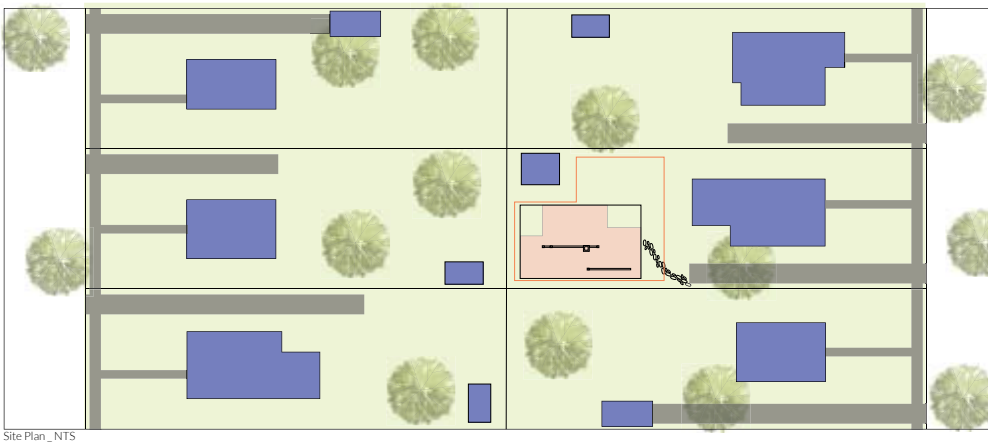


Front Elevation

DESIGN BY POOYA MOHAGHEGH STUDENT, UK COLLEGE OF DESIGN

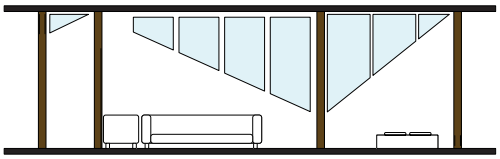
This residence is a compact, one person flat that focuses on accessibility. By shifting the bedroom and bathroom off the main axis of the building, the resident gains privacy in intimate spaces. The building is also equipped with a front porch and a backyard patio for outdoor living. The flat has an unique window design to provide natural light in all rooms. The design shifts up or down, depending on if the section is private or public.

This flat was designed with sips panels in mind. Sips panels have a high R-value; this would allow the resident to conserve energy throughout the year. The sips panels will also make the construction process easier. These qualities make the flat accessible to residents with disabilities for immediate use.

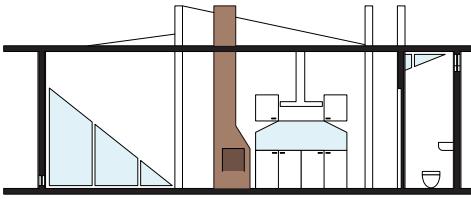


Site Plan _ NTS

Interior Render _ Bedroom

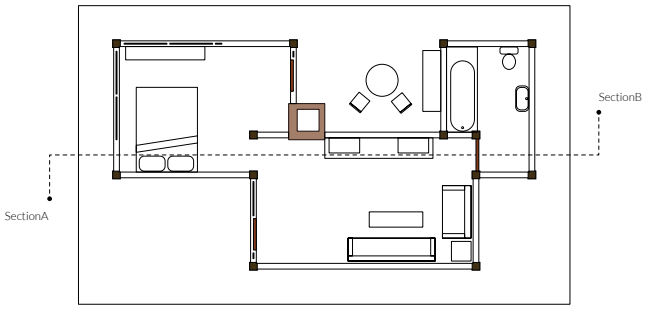


SectionA _ 1' = 1/4"



SectionB _ 1' = 1/4"

Interior Render _ Living Room / Kitchen



Floor Plan _ 1' = 1/4"

Exterior Render _ Front View

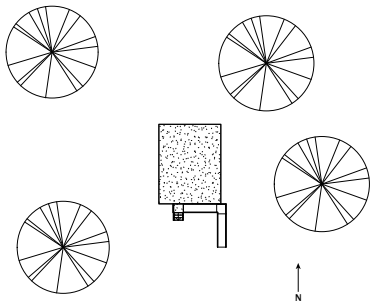
Exterior Render _ Front View

DESIGN BY KENNETH RIGGS
STUDENT, UK COLLEGE OF DESIGN

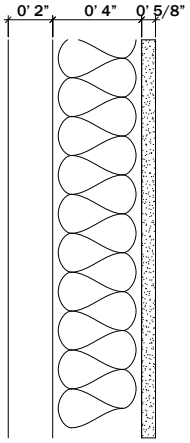
Bluegrass Flats

Lexington is a city exeriencing rapid increase in urban dwelling and is considering the commonly known building type of “granny flats.” Lexington is exploring what could be a beautiful, respectful and vibrant ADU home added to the cities’ real estate mix. The floorplan is capable of being rearranged to make any accessiblity needs. The eco friendly house with slanted roof designed for energy efficiency and options to ugrade in the future, such as solar panels and rain collection to make the home as affordable as possible. The design is capable to suit the adaptable needs of patrons, while being environmentally concious and affordable.

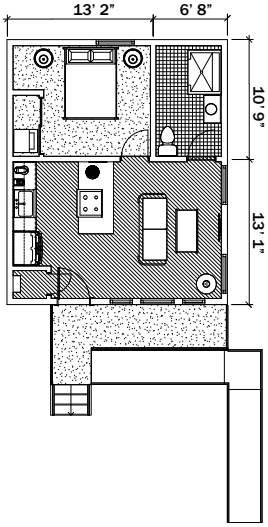
Site Pan
1/16” = 1’



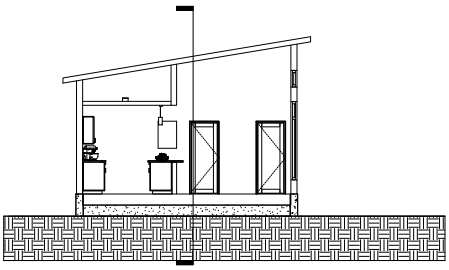
Wall Section
1/2” = 1’



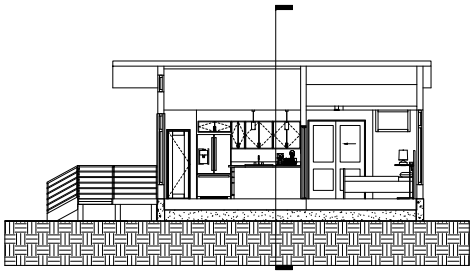
Floor Plan
1/4” = 1’



Section 1
1/4” = 1’

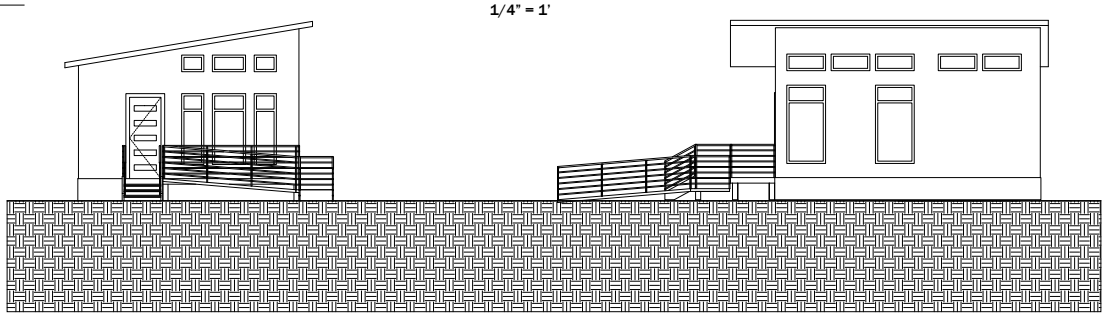


Section 2
1/4” = 1’



South Elevation
1/4” = 1’

East Elevation
1/4” = 1’

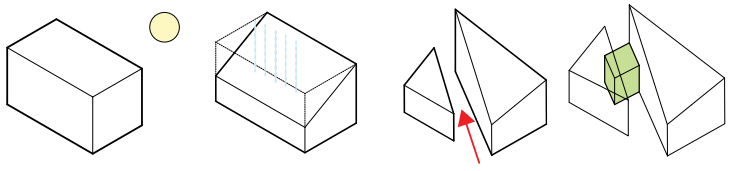


DESIGN BY ZANE SLONE
STUDENT, UK COLLEGE OF DESIGN

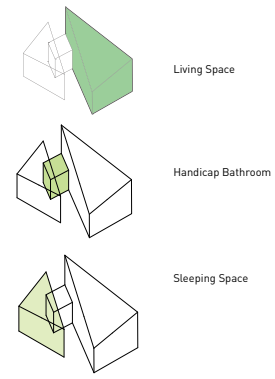
3 Piece House

3 Piece House is a proposal for a space aimed to spatially accommodate people with both physical or mental disabilities. The house is comprised of three units separated by programs including living space, sleeping space, and a handicap bathroom. The living and sleeping space are connected by a large handicap bathroom designed for both handicap requirements and circulation. The form of the house was derived by a series of functional and environmental controls applied to a single rectangular box. The idea of "Poche" was utilized in corners of the triangular form to functionally serve as programs such as kitchen and storage space. Between the living and sleeping space lies a courtyard designed to blur the relationship of inside and outside spaces within the house. Privacy of the courtyard is controlled by a large sliding door. The door is adjusted by steering a wheel attached to the paneling of the exterior wall. The goal of the 3 Piece House is to provide a variety of programs on a small site with spatially comfortable rooms that provide easy accessibility to one another.

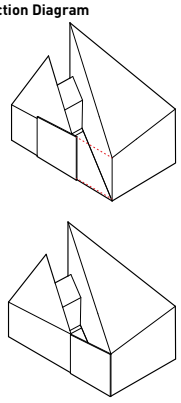
Concept Diagram



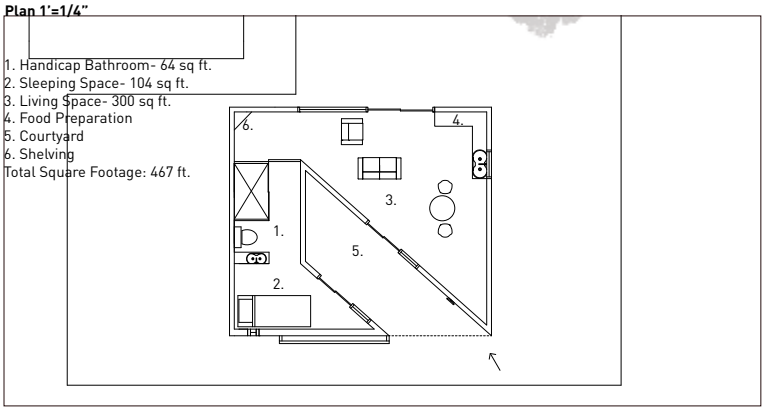
Program Diagram



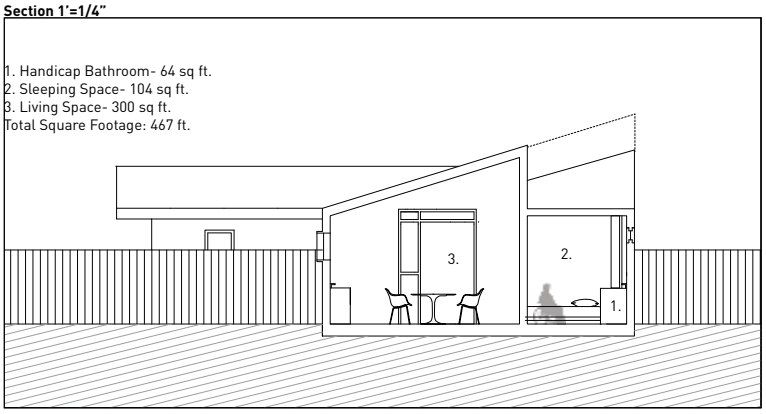
Function Diagram



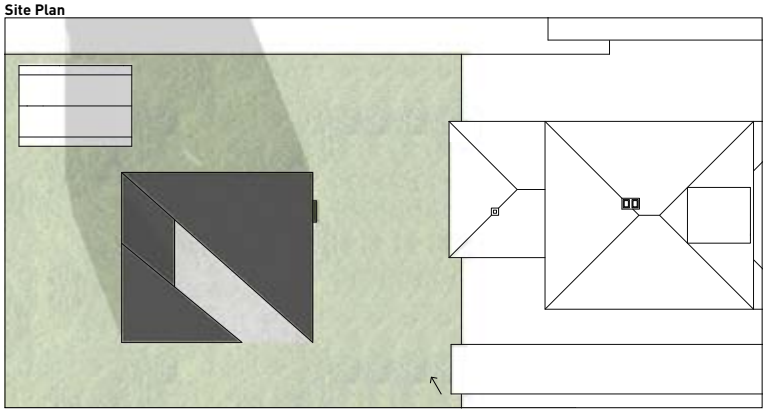
Plan 1'=1/4"



Section 1'=1/4"



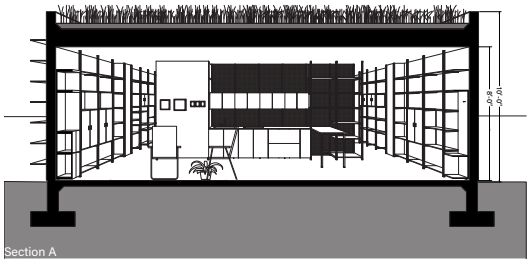
Site Plan



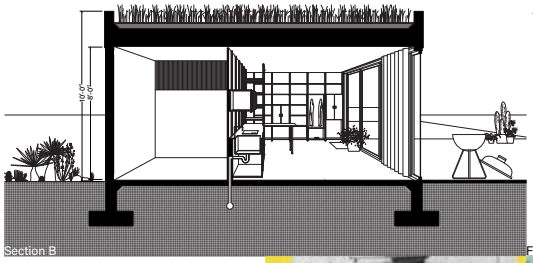
Living Space Perspective

Exterior Perspective

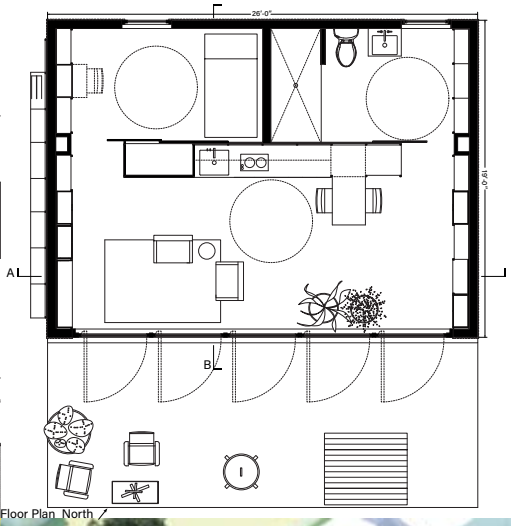
DESIGN BY JORDAN HINES & ERIN RUHL
1ST PLACE, PROFESSIONAL SUBMISSION



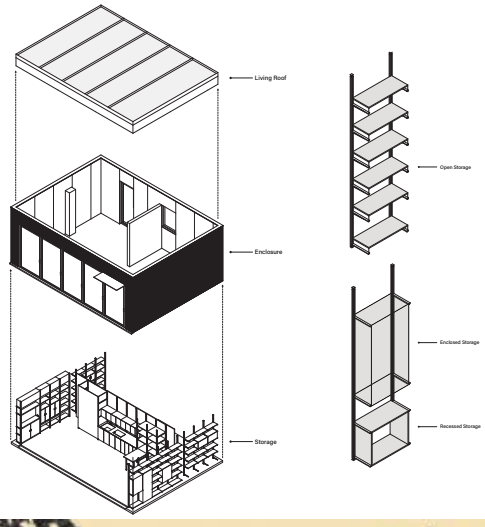
Section A



Section B



Floor Plan North ↗



MEMORY HOUSE

Memory House embraces the idea that a house is comprised of objects of memory. With walls and central core acting as a mechanism to display memories, Memory House surrounds the inhabitant with their own objects. The central core splits the house into a simple social-seclusion organization, opening the social space onto the lawn helping the ADU "claim" existing lawnscape an extension of interior living space.

DESIGN BY SHERMAN CARTER BARNHART ARCHITECTS
2ND PLACE, PROFESSIONAL SUBMISSION

FLAT500

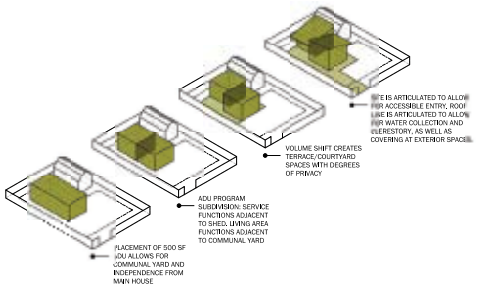
PROJECT DESCRIPTION:

Flat500 seeks to facilitate the unique draw of the Accessory Dwelling Unit - maintaining a second residence on a single plot - by retaining the features and programmatic relationships necessary for a primary residence. Loose separation of the Public and Private elements of the plan is accented by a shift in plan, creating distinct, identifiable rooms and exterior spaces, while maintaining openness and accessibility. Site placement is at the rear of the property allowing for openness between the main house and the new building.

Flat500's site design serves to reflect the overall Shift, as the Public program flows from interior space to exterior patio. The single-sloped roof accents this relationship and shift, extending beyond the common room and crafting a large open area beneath its eave. In its opposing slope, the roofline of the Private component is equally important, finding parity with the adjacent fence to form a small, cozy patio for the occupant.

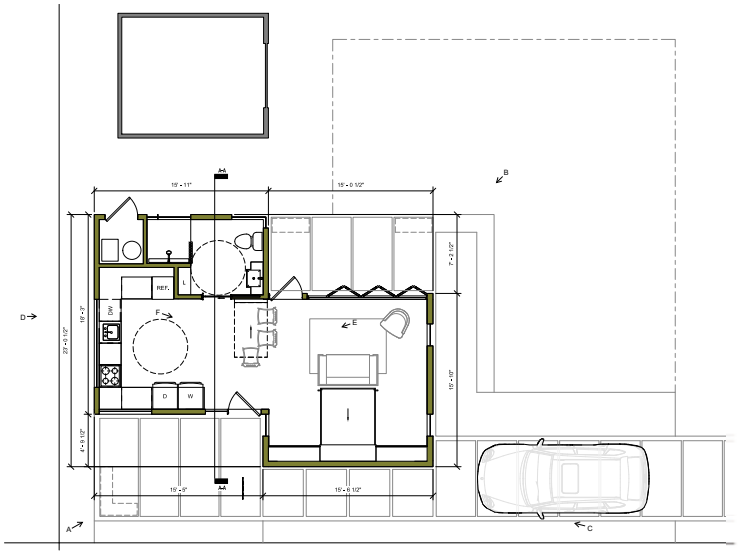
In all, Flat500's success is in it simple approach. By distilling the functions of a home to their essence, this design creates a flexible, comfortable, accessible, complete home in harmony with its site.

PROJECT DIAGRAM:

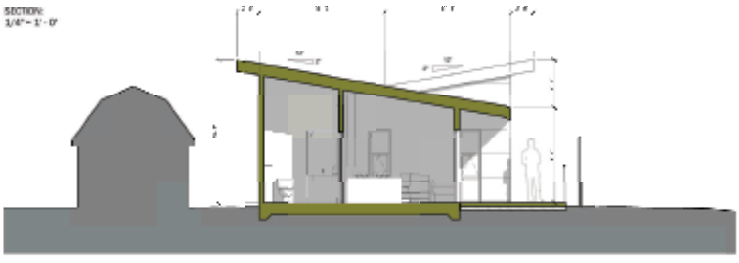


SITE PLAN:
N.T.S.

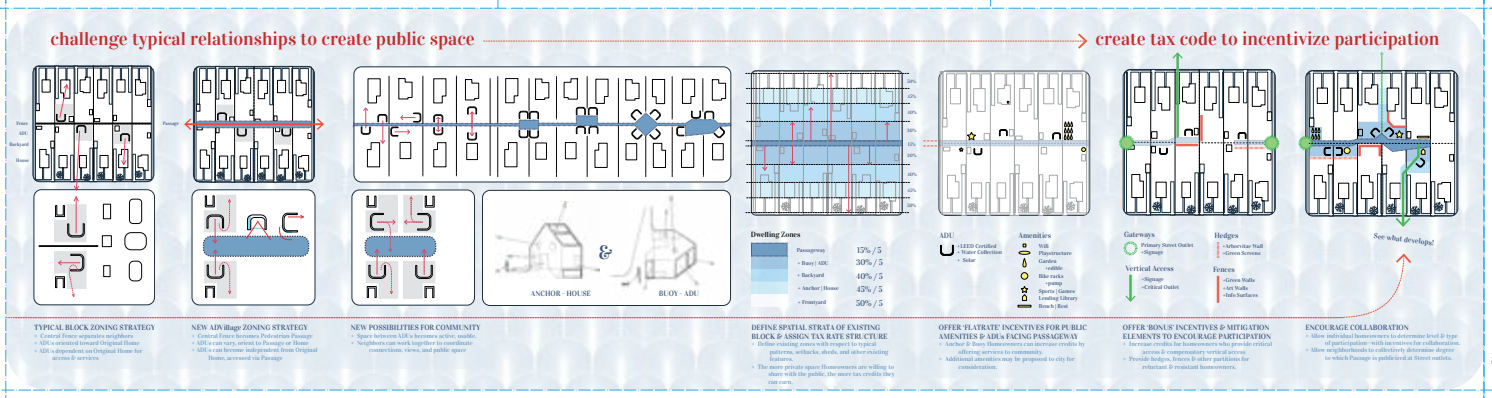
PLAN:
1/4" = 1' - 0"

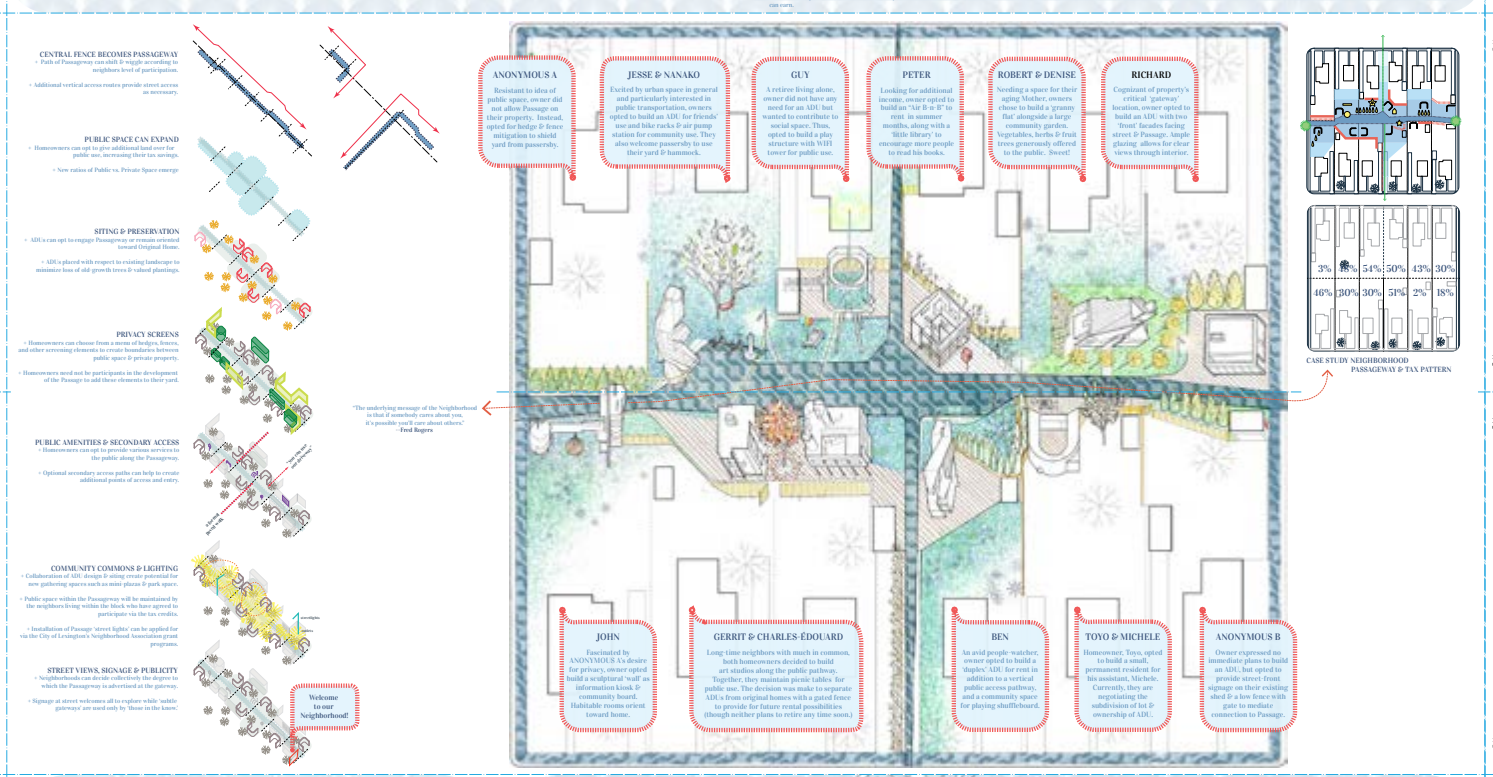


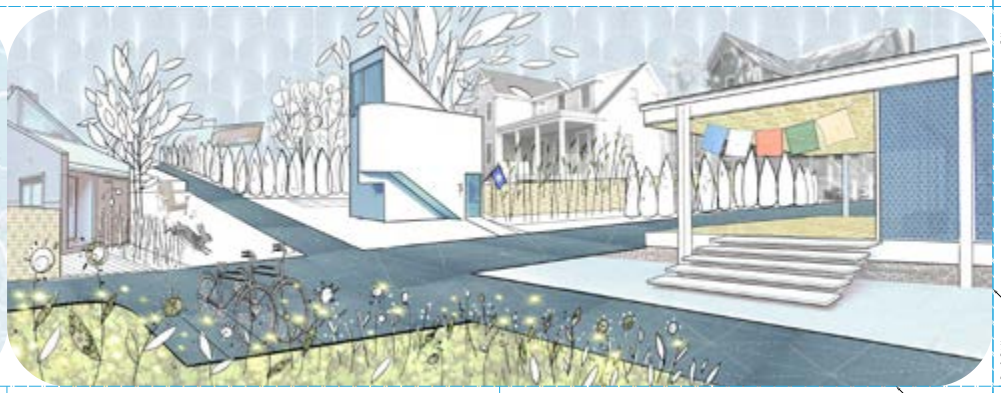
SECTION:
1/4" = 1' - 0"



DESIGN BY LIZ SWANSON
3RD PLACE, PROFESSIONAL SUBMISSION







DESIGN BY ROSSTARRENT ARCHITECTS
HONORABLE MENTION, PROFESSIONAL SUBMISSION

ACCESSORY DWELLING UNIT

THE LIFE CYCLE OF AN ADU
The ADU is typically conceived and built as a private structure for living in. A common organizational approach is to use service space (bathrooms, mechanical space, etc.) to define and physically separate private spaces from more public ones. This creates spaces (and constrains valuable square footage) that become difficult to adapt to other uses. This lack of functional flexibility creates a problem for any future owners of the main property. During a period of several decades and owners, the ADU could serve as···

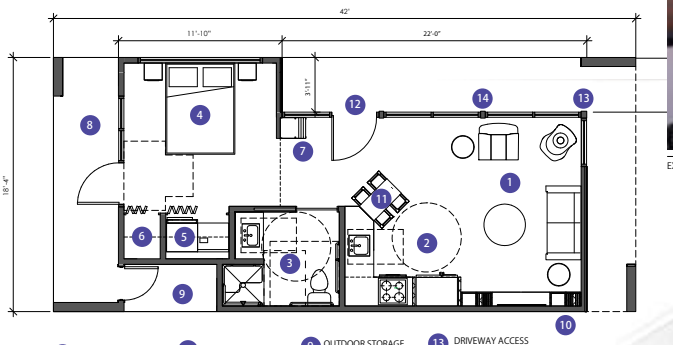
A home for an aging family member...a rental for additional income...a space for entertaining...a guest bedroom and home office...a child's playroom....

Each use has its own set of needs. This design for an ADU explores a scheme that balances the needs of an accessible home while emphasizing openness and flexibility of space for future uses.

FORM AND DESIGN
Beginning with a rectangular form, the surface is carved away to create pockets of outdoor space. Based off their location on the site, these outdoor spaces begin to define main entry, semi-private, and private outdoor patios. Expanses of glazing are created to create generous views and bring daylight into the space. Points on the roof are pulled up to 20' AFF to provide ceiling height for a loft space. At the opposite end, the roof at 15' AFF provides tall ceilings in the living and dining spaces. Roof points between are further manipulated to create a sloped roof with dynamic folds that trace along the length of the building. The resulting roof form is unique in its neighborhood context. However, the roof is also reminiscent of traditional residential roof forms such as the gable, hip, and mansard.

By placing service spaces (kitchen, bathroom, washer, dryer, etc.) to one side of the house, it allows for maximum openness, connectivity and sight lines of occupied spaces. The living, dining and bedroom spaces are fully open to one another. All ground level spaces are accessible and provide required turning and clearances. All appliances are selected for accessibility and meet ADA clearances. A loft is provided to take advantage of allowable building heights in order to provide for storage, HVAC unit access and any other future use. Accessible pocket doors allow for easier maneuvering without having door swings. Operable windows near the floor in the living and bedroom spaces provide easy access to open for natural ventilation.

CONSTRUCTION
The ADU is constructed using typical wood framed, residential construction methods and materials. The wood framed exterior walls are clad in durable painted fiber cement panels, detailed in two ways. The lighter colored exterior is butt joined, to create a smooth appearance. The carved portions of the exterior are darker and detailed as board and batten siding. The roof is structured with wood rafters, preserving an unrestricted and open volume inside. To keep the space uncluttered, threaded rods (in lieu of trusses or joists) structurally tie exterior walls together. The metal roof panels provide a durable, long lasting roof with seams aligned with the exterior wall panels, so to blend with the original surface of the form. Box gutters along the long edges of the roof discreetly collect rainwater, leading to internal downspouts at each of the four corners. Wood clad doors and windows provide long lasting exterior systems with a familiar residential scale and character to the neighborhood.



1 LIVING AREA
2 KITCHEN
3 ACCESSIBLE BATHROOM
4 BEDROOM
5 LAUNDRY
6 CLOSET
7 ACCESS TO LOFT AND MECHANICAL CLOSET
8 PRIVATE PATIO
9 OUTDOOR STORAGE
10 SERVICE ACCESS (MECHANICAL, ELECTRICAL AND TRASH)
11 FOLDING DINING TABLE
12 PATIO AND MAIN ENTRY
13 DRIVEWAY ACCESS
14 LOW OPERABLE WINDOWS

FLOOR PLAN

INTERIOR PERSPECTIVE SECTION

EXTERIOR PERSPECTIVE

EXTERIOR PERSPECTIVE

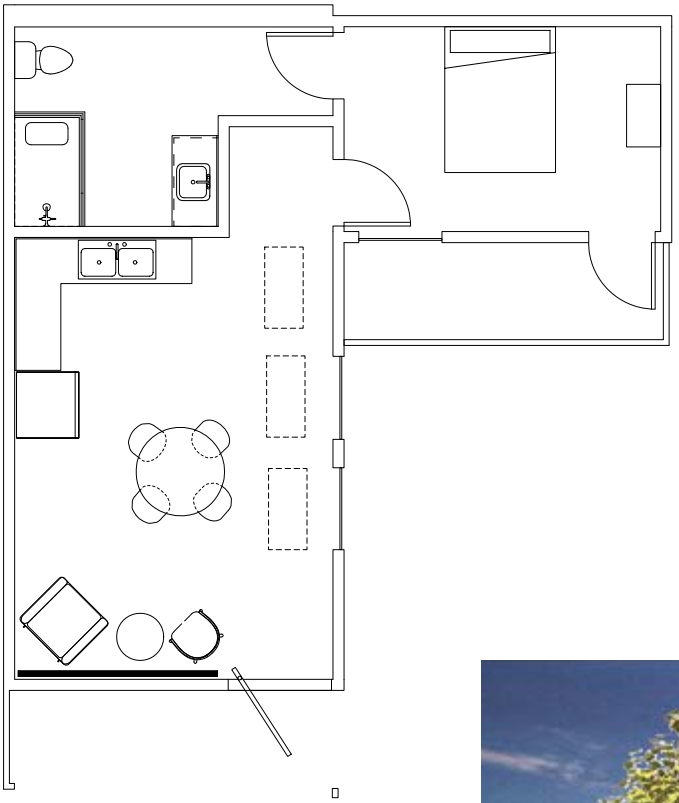
1 ADU IS SITUATED ON SITE TO ALLOW HOST RESIDENTS TO MAINTAIN SIZABLE, OPEN BACKYARD SPACE.
2 PUBLIC PORTION OF ADU OPENS ON TO SMALL PATIO AND BACKYARD FOR ENTERTAINMENT.
3 DRIVEWAY EXTENDED TO ALLOW FOR ADDITIONAL PARKING AND ACCESS TO ADU.
4 PRIVATE PATIO IS PLACED AT BACK OF YARD TO CREATE A SMALLER, INTIMATE SPACE
5 SERVICE SIDE OF ADU PLACED AGAINST FENCE.
6 FLEXIBLE LOFT SPACE AND MECHANICAL
7 ORIGINAL FORM SURFACE.

SITE PLAN

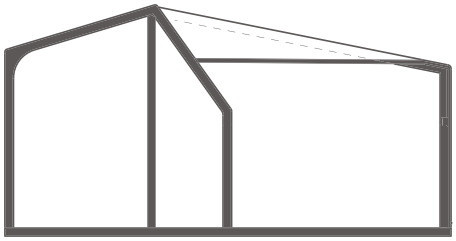
DESIGN BY JOE BREWER PROFESSIONAL SUBMISSION

Accessory Dwelling Unit

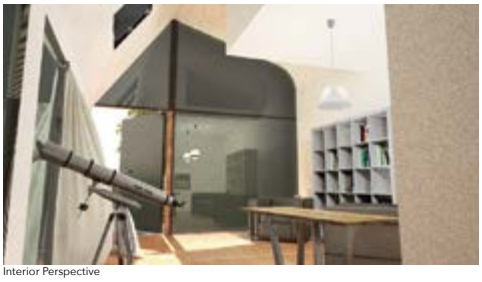
This unit is integrated with the suburban landscape. The structure is encapsulated with a singular material, but is structurally supported with glue laminated timber ribs. A pathway of ADA circulation drives the plan, and as you move through its program it goes from public space to private space. The 'L-shaped' plan creates an outdoor room that is shared with the primary residence. Beyond creating an outdoor room, the plan is also intended to provide some privacy for the occupant of the ADU.



Building Plan: 1/2"=1'-0"



Building Section

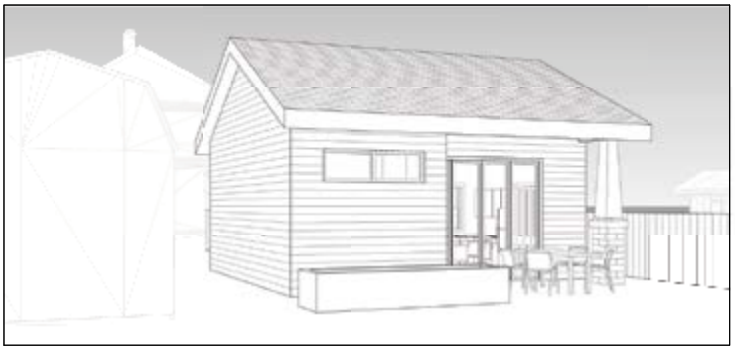


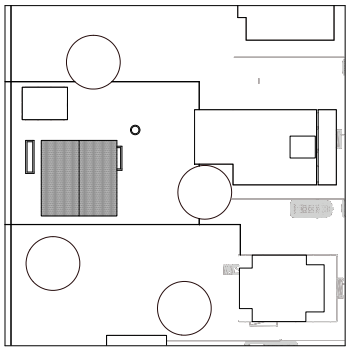
Interior Perspective

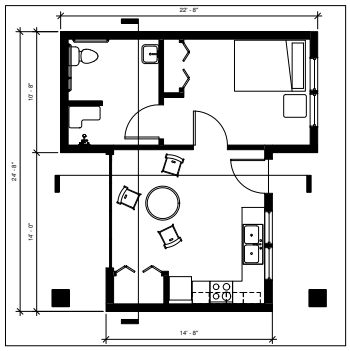
Interior Perspective

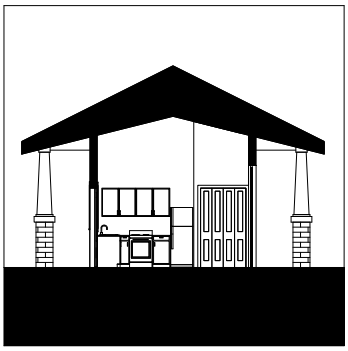
Exterior Perspective

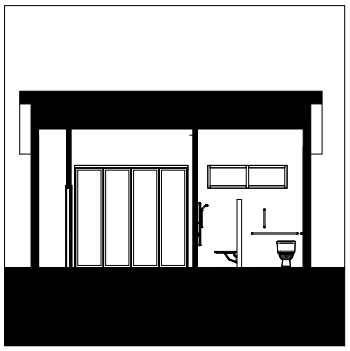
DESIGN BY SETH GOVER
PROFESSIONAL SUBMISSION











ADU

This design is an attempt to use space efficiently, while accomodating accessibility needs. The living room can be reconfigured based on the need, and can also be opened to the back to allow the space to extend outdoors. The house attempts to respect the context of the surrounding neighborhood, while adding a few modern elements.

DESIGN BY SHYLO SHEPHERD
PROFESSIONAL SUBMISSION

DESIGN BY DONNIE SHEPPERSON PROFESSIONAL SUBMISSION

DESIGN BY STUDENT GROUP UNIVERSITY OF OREGON

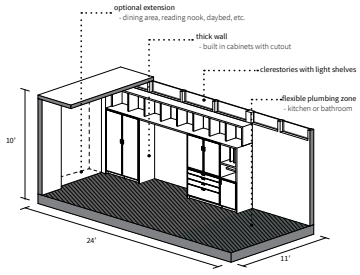
SHARED FRONT COURT

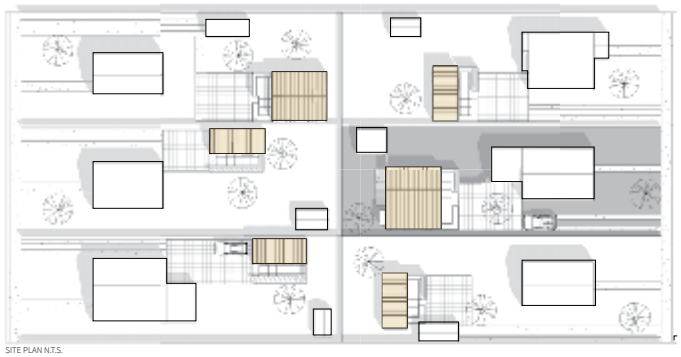
LIVING ROOM LOOKING TO KITCHEN

KITCHEN LOOKING TO LIVING ROOM

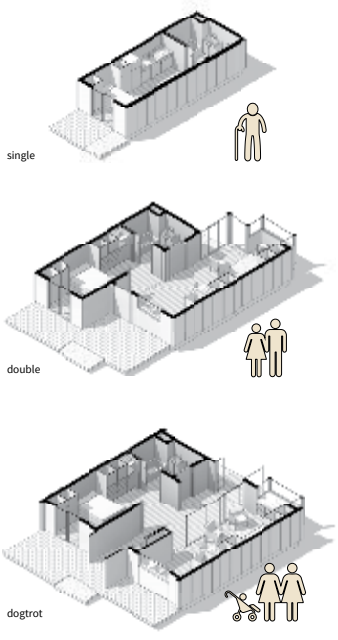
CONFIGURE

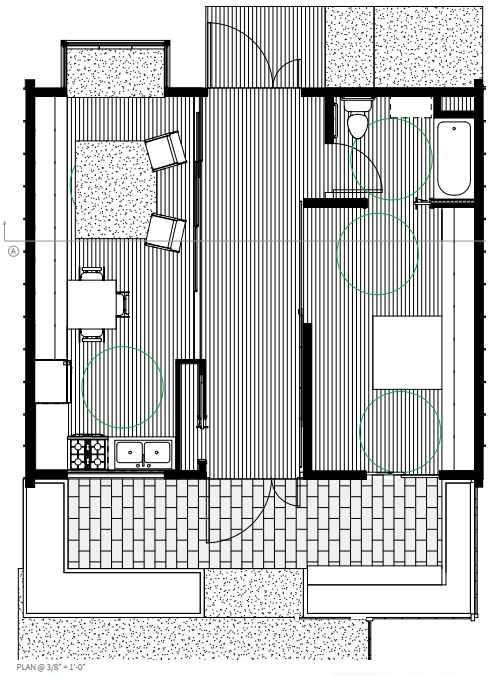
The housing crisis demands that we develop new strategies to provide humane and affordable housing to a broad spectrum of people. To fill the missing middle, we must build smaller and smarter while maximizing flexibility. This project calls for an accessible accessory dwelling unit (ADU) in the backyard of a single-family dwelling. But while ADUs effectively accommodate diversity and density within existing neighborhoods, one alone cannot address the crisis. So we did not design an ADU for one client—we designed a solution for the whole neighborhood. We propose that by working with a local builder to develop a modular, prefabricated ADU, we could inspire nearby residents to request their own unique configuration using modular parts. Good design is good advertising. As more units are ordered, costs would decline, and more and more people in need would have their very own backyard paradise.





SITE PLAN N.T.S.





PLAN @ 3/8" = 1'-0"

BACKYARD VIEW

FLEX ROOM

SECTION A

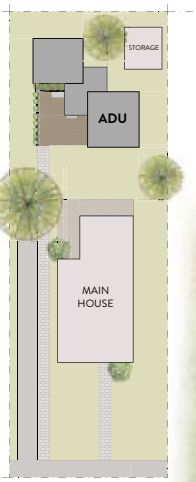
DESIGN BY STUDENT GROUP
UNIVERSITY OF OREGON

ADU

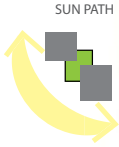
Like many cities in the United States faced with increasing populations in and around cities, Eugene, OR has begun to amend its zoning laws to allow for accessory dwelling units (ADU).

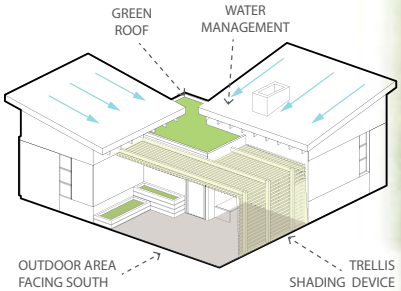
This 500 SF ADU focuses on the flexibility of the unit no matter the resident. The L shape circulation separates the two main rooms so that the smaller room can be used as a bedroom or separate workspace. Hallways are slightly wider than normal to allow wheelchair users maximum maneuverability.

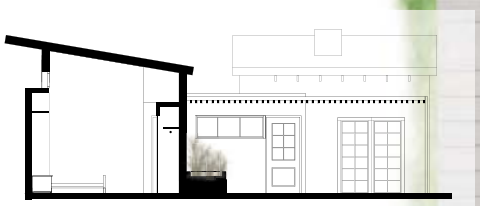
The volumes of the two main rooms are vaulted ceilings that slope down onto the green roof of the volume that contains the service functions. The ADU has a private patio accessed from both the entry and the living room, with space for a small garden. The wooden slats wrapping the patio provide both rain cover and privacy from the main house.



SITE PLAN
1/16=1'-0"







SECTION 1
1/4=1'-0"

PERSPECTIVE SECTION

CIRCULATION

FLOOR PLAN
1/4=1'-0"

LOFT ABOVE KITCHEN

BEDROOM

ENTRANCE AND PATIO

EAST CORNER

DESIGN BY STUDENT GROUP UNIVERSITY OF OREGON

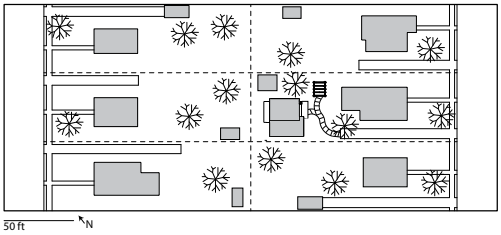
ACCESSORY DWELLING UNIT

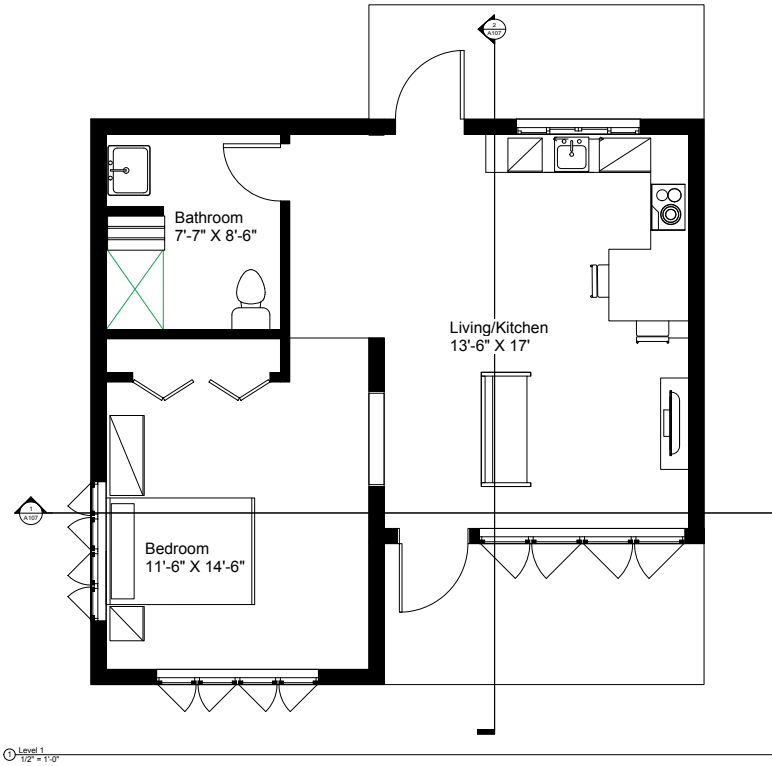
Although simple in its floor plan and programmatic layout, our ADU uses a series of sloping roof planes to create vertical usable space while maximizing daylight and views to outdoor space. The ADU is broken into two parts, the main living space and private bedroom, which are differentiated by the slope of their roofs which open to the main garden space and private patio space respectively. Accessibility was the guiding design factor but the ADU also anticipates guests and future occupants. The tall living space ceiling allows for a lofted space that can be used for storage or a sleeping space while the open ground floor makes for easy circulation for occupants with disabilities. Large picture windows and operable glass doors open up the main spaces of the ADU to the outdoors and a wrap around deck provides private and public outdoor space that connect to the main garden.

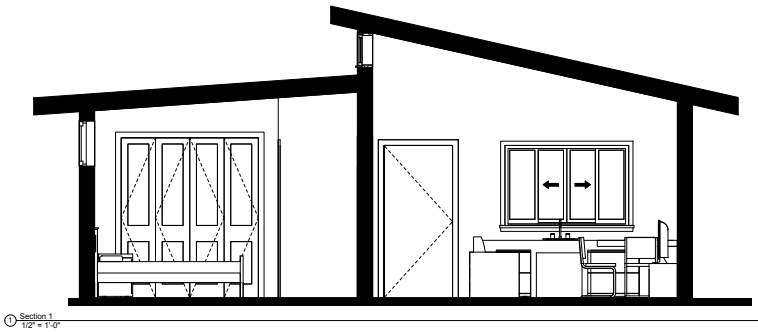
DESIGN BY STUDENT GROUP UNIVERSITY OF OREGON

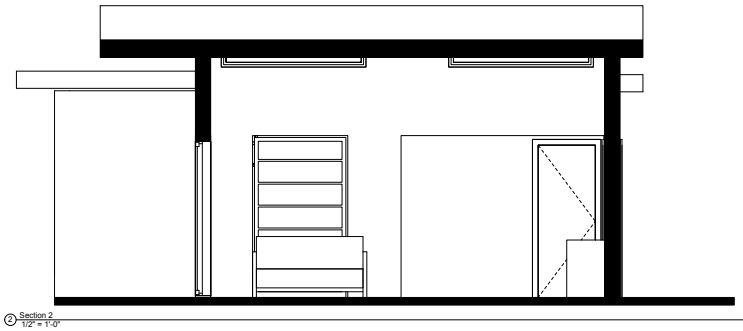
Shading Hollows ADU

Shady Hollows is a 500 square foot ADU located in a friendly and welcoming residential area in a back lot. This ADU is unique in that it was designed to provide improved accessibility for people with disabilities. Shady Hollows add personality and character to the existing surrounding residential context. It was designed to be simplistic and homey. To continue this theme, we used a simplistic material palette, utilizing contrasting materials for the exterior to visually separate the house into private vs public. Our design intends to optimize solar gain and natural light, with the front of the house facing East. Shady Hollows is ADA compliant, however, design characteristics were also carefully considered to appeal to more than those with disabilities. The surrounding lots and yards were a big pull in our design. We wanted to create a more private "backyard" area and a porch that would be specifically for the ADU, while also creating a bigger shared yard with specialized landscaping for both the main house and the ADU.

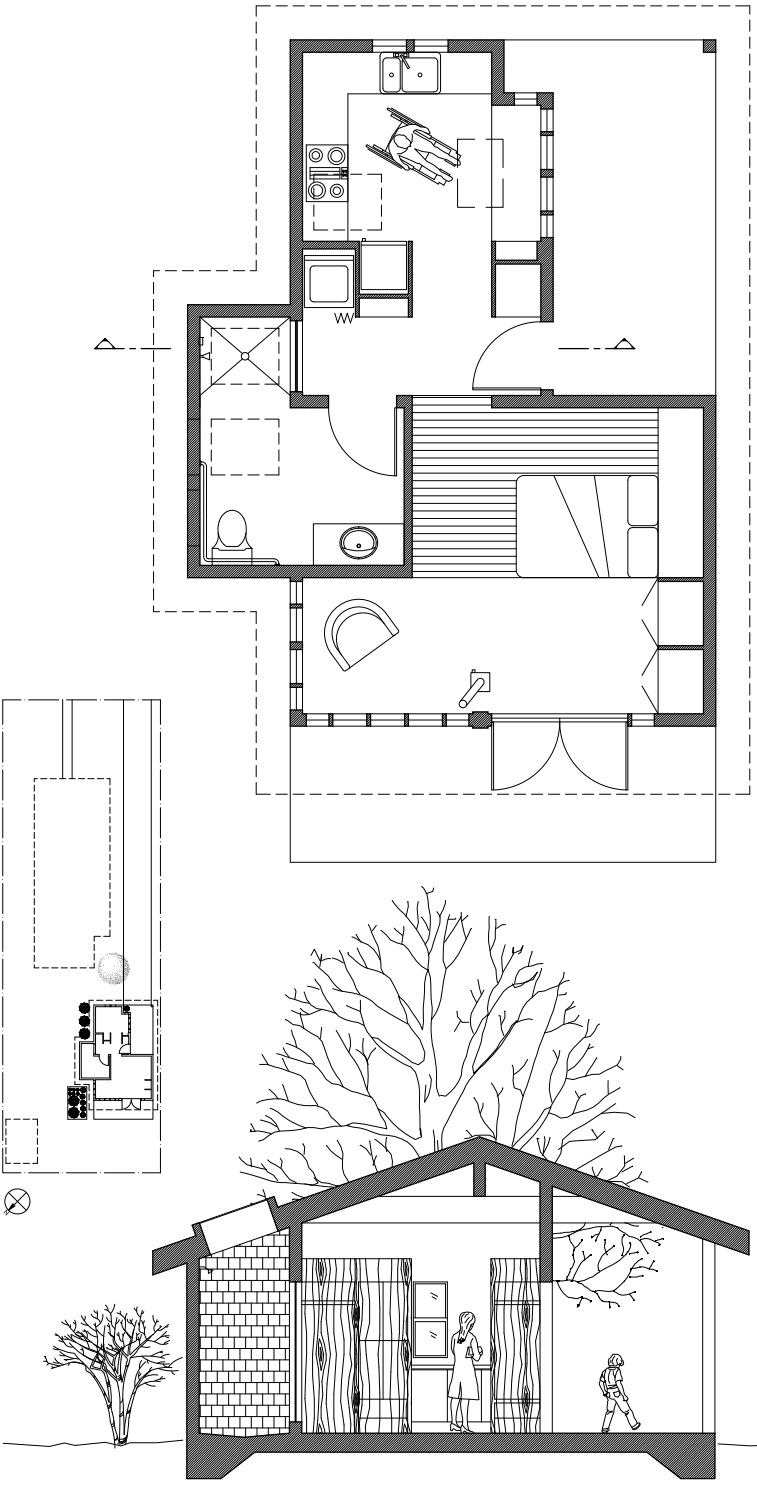








DESIGN BY STUDENT GROUP UNIVERSITY OF OREGON



Accessible ADU in the Pacific Northwest

This fully accessible studio dwelling is inspired by the neighborhood's historic Northwestern mid-century homes.

Utilize existing site geometries and massing to create shared and private outdoor spaces (see diagram at right)

Engage existing driveway to create a welcoming and accessible approach

Entery located at the center of the home to minimize circulation

Placement of windows and skylights maximize privacy and connection to the outdoors

Ample built in cabinetry to reduce furniture needs

Spaces with multiple functions for maximum space

Local materials to foster a sense of place and create warmth

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