

# Smart, Simple, and Affordable:

## Addazu's ADU Solution Designed for Rapid Urban Density

Explore how Addazu's ADU Kit is changing the face of urban housing with a streamlined solution that maximizes space, cuts costs, and meets the needs of modern city living.

As housing demands continue to rise in densely populated urban areas, affordable and accessible housing solutions are essential. Addazu, a Denver-based panelized modular provider, partnered with ArcWest Architecture, Vastyan Construction, Douglass Colony Group, and a private client to develop an innovative Accessory Dwelling Unit (ADU). This collaborative project aimed to create a highly adaptable, 1000 sq ft studio-style ADU with 500 square feet of living space over a 2-car garage, maximizing usable space without compromising aesthetics or functionality.

The result is an ADU, which offers a solution for increasing residential density while ensuring affordability, flexibility, and financial accessibility. With the ability to make dynamic design decisions on the floor plan, window configuration, exterior finishes, etc., with minimal cost implications to accommodate various on-site constraints and customer aesthetic preferences, this ADU meets diverse client needs across varied urban landscapes.

### Key Project Outcomes

#### Increased Density:

Enable property owners to add value to existing lots, increasing density without extensive land development.

#### Cost Efficiency:

Reduce the time and cost of construction, that aligns with both budgetary and timeline requirements.

#### Client-Centric Flexibility:

Provide a repeatable design that also allows the unit to adapt to various urban environments and aesthetic preferences.

### Introduction

Addazu, a panelized modular housing provider, recent graduate from the [CU Denver Smart Futures Lab](#), and member of the [Colorado Smart Cities Alliance](#), is focused on delivering innovative, streamlined solutions for affordable housing. Leveraging advanced modular technology and strategic partnerships, Addazu aims to provide a straightforward ADU solution that can be fast-tracked through local permitting authorities. This approach aligns with Addazu's mission to increase housing density in urban areas efficiently and affordably, addressing the critical need for accessible, flexible housing options in growing communities.



# Smart, Simple, and Affordable:

Addazu's ADU Solution Designed for Rapid Urban Density

## Project Highlights

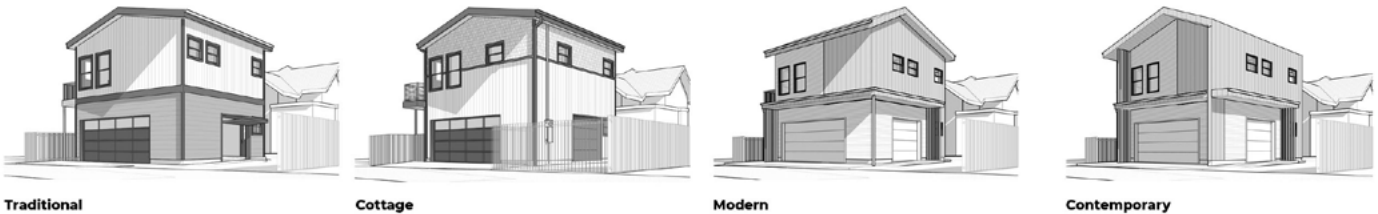
### Collaborative Approach to Affordable Housing

The development of the ADU was a true collaboration, bringing together the expertise of Addazu, [ArcWest Architecture](#), [Vastyan Construction](#), [Douglass Colony Group](#), and the client's specific requirements. This partnership focused on creating an adaptable, visually appealing, accessible, and affordable solution. A critical part of the design process involved evaluating local planning and zoning regulations around ADUs to ensure our design complied with local requirements to streamline permitting processes. By understanding and navigating these regulations, Addazu and ArcWest optimized the ADU design for faster approval, allowing for a more efficient path to construction. Working closely with ArcWest, Addazu ensured that the ADU would meet diverse requirements, seamlessly integrate into urban settings, and align with the team's shared commitment to addressing the affordable housing crisis.

A critical part of the design process involved exploring various floor plans, building elevations, and finishing options that could address different lot types and sizes in the Denver metro area and beyond. ArcWest led the exploration phase, proposing configurations and layouts that can be highly adaptable to different lot sizes, orientations, and architectural styles. ArcWest developed multiple elevation options and exterior finishes, allowing the ADU to fit various property aesthetics, from traditional to contemporary styles.

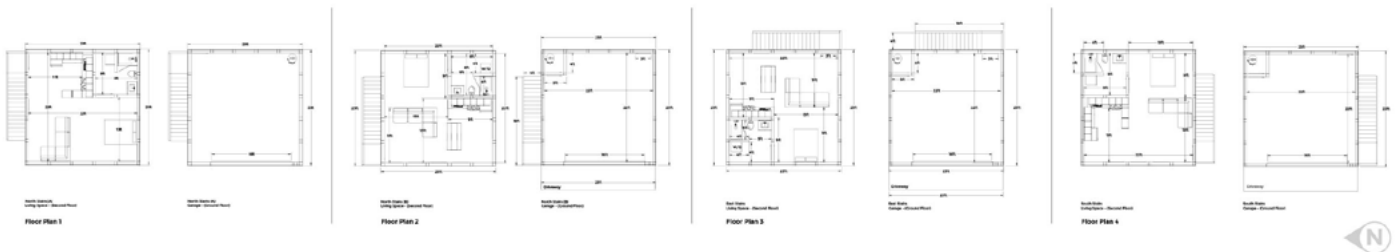
The team also prioritized accessibility and affordability throughout the design. By incorporating adaptable elements and focusing on Addazu's cost-effective modular system, the team created an ADU that is both functional and economically viable. These considerations ensured the ADU could serve a broad range of users while keeping construction costs within reach.

Ultimately, the partnership has resulted in a flexible, accessible, and affordable ADU that can increase urban housing density without compromising design quality. This collaborative approach highlights the power of combining thoughtful design with modular engineering to address the missing middle housing crisis.



### Flexible Floor Plan and Modular Design

A defining feature of this ADU is its highly flexible layout, which is made possible through the advanced modular capabilities of Addazu's panelized construction system. The studio floor plan can rotate and be adjusted to accommodate unique site constraints, such as lot orientation, sun exposure, and neighborhood aesthetics. This flexibility allows property owners to optimize the ADU's placement, ensuring functional and visual integration within the existing surroundings. Beyond the ability to adapt the studio floor plan based on the individual lot and customers' demands, the ADU also allows flexibility in adjusting to a single-bedroom unit.





# Smart, Simple, and Affordable:

**Addazu's ADU Solution Designed for Rapid Urban Density**

## Merits of Accessory Dwelling Units

The ADU design provides both affordability and accessibility, making it a viable option for a broad demographic. Utilizing modular components provides customization through standardization; the Addazu ADU offers significant cost savings without sacrificing quality or style. Additionally, this ADU maximizes a property's square footage by providing a versatile, dual-purpose structure that combines garage and living space. The living space of the ADU rests seamlessly over the 2-car garage, offering a compact yet functional living area without occupying additional lot space. This approach allows property owners to increase usable square footage effectively, adding storage and residential functionality to the site.

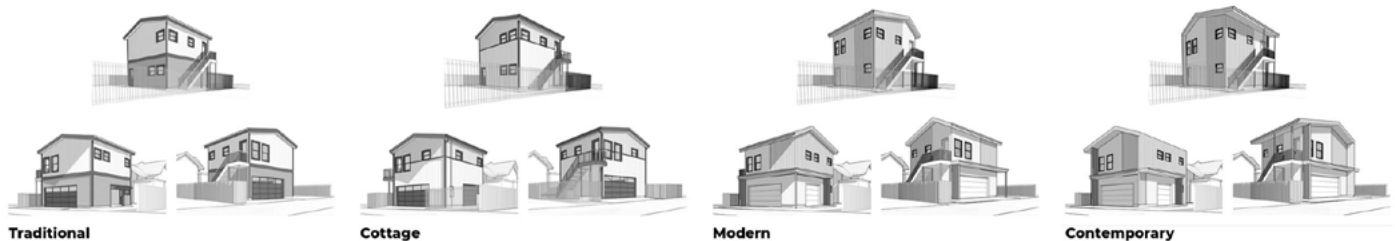
This dual-purpose design enhances the property's overall value by creating a multi-functional space that can adapt to changing needs—whether used as a rental unit, guest suite, or extended family housing. The design addresses the housing crisis with thoughtful space planning and modular flexibility. It provides property owners with a practical way to increase the density and usability of their existing lots.

## Design Elements and Material Considerations

Addazu's ADU was created with aesthetics in mind, allowing clients to work with local contractors to specify exterior finishes that match or complement the main property. The ADU enables the homeowner to customize various options, like interior finishes, exterior siding, and roofing, to create a seamless architectural connection between the ADU and existing structures. Addazu has developed various add-on elements to enhance the design, bringing a modern, stylish appeal to the ADU.

These add-ons include contemporary features such as waterfall roof lines for a sleek profile, wrap-around awnings that provide solar shading and visual interest, and modern materials like standing seam metal roofing and composite timber siding sourced through our various partners. These options allow property owners to personalize the ADU, blend seamlessly with the existing neighborhood, or stand out from traditional home designs. Through these enhancements, Addazu aims to provide clients with an ADU that meets the practical needs and serves as an aesthetically striking addition to their properties.

### Building Elevations



## Sustainable and Energy-Efficient Construction

Sustainability is a critical component of Addazu's construction philosophy. The Addazu ADU incorporates energy-efficient materials, high-performance insulation, and optional green features, such as solar panel compatibility, which collectively minimize environmental impact and reduce utility costs for residents. This energy-efficient design leverages optimized building envelope strategies to effectively manage heating and cooling loads, providing consistent comfort throughout the year.

To achieve this, the ADU includes efficient mini-split heat pump heating and cooling systems sized to meet typical residential needs, achieving energy balance without requiring supplemental heat in colder conditions. This precise load management strategy reduces overall energy consumption, aligning with Addazu's goals for sustainable, low-impact living spaces.

The building envelope is designed with R-30 wall insulation and R-60 ceiling insulation to meet the strictest (IECC) energy codes, delivering a low overall U-value for superior thermal performance. Low-e double-glazed windows with argon gas fill further enhance the thermal barrier, minimizing heat loss and gain and contributing to significant energy savings. This well-insulated and tightly sealed envelope reduces the need for intensive heating and cooling, allowing the ADU to perform effectively in various climates.

Ventilation strategies like continuous mechanical exhaust ensure consistent air quality while maintaining energy efficiency. These features make the ADU a cost-effective housing solution and sustainable, high-performance living space, supporting Addazu's commitment to environmentally responsible construction.



# Smart, Simple, and Affordable:

## Addazu's ADU Solution Designed for Rapid Urban Density

### How building an Addazu ADU works

#### 01 Consultation

Contact us at [build@addazu.com](mailto:build@addazu.com) to schedule a meeting to discuss your ADU project needs.

#### 02 Feasibility Studies

Financing pre-approvals, Site Evaluation, Zoning Code review.

#### 03 Design Selections

Preferred layout and material selection, formal quotes for approved design.

#### 04 Permitting Preparation

Site-specific permitting documents prepared for the approved layout and material selections.

#### 05 Pre-Construction & On-site Assembly

Fabrication of all manufactured elements, initial on-site groundwork, and on-site assembly.

#### 06 Final Inspection & Handover

Completed inspection and certificate of occupancy.

### Conclusion

Addazu's ADU, developed in collaboration with ArcWest Architecture, Vastyan Construction, Douglass Colony Group and a forward-thinking client, solves the affordable housing crisis in urban areas. By combining flexibility, affordability, and accessibility in a compact studio over garage design, this project is a model for how modular construction can effectively address modern housing needs. With its adaptability and streamlined design, the ADU exemplifies how modular building systems can create scalable, attractive, and economically viable housing in today's competitive real estate market.

This case study illustrates the impactful results achieved through innovative design and collaborative efforts, positioning Addazu's ADU as a leading choice for homeowners and developers aiming to maximize space and affordability in urban settings.



### For Press Inquiries

Please contact Addazu at [build@addazu.com](mailto:build@addazu.com) or visit our website at [addazu.com](http://addazu.com).

#### For additional information contact:

CEO / Founder –  
Kelly Pickering  
[kpickering@addazu.com](mailto:kpickering@addazu.com)

Dir of Engineering / Co Founder –  
David Boone  
[dboone@addazu.com](mailto:dboone@addazu.com)

