



A Modular Solution to the Housing Crisis

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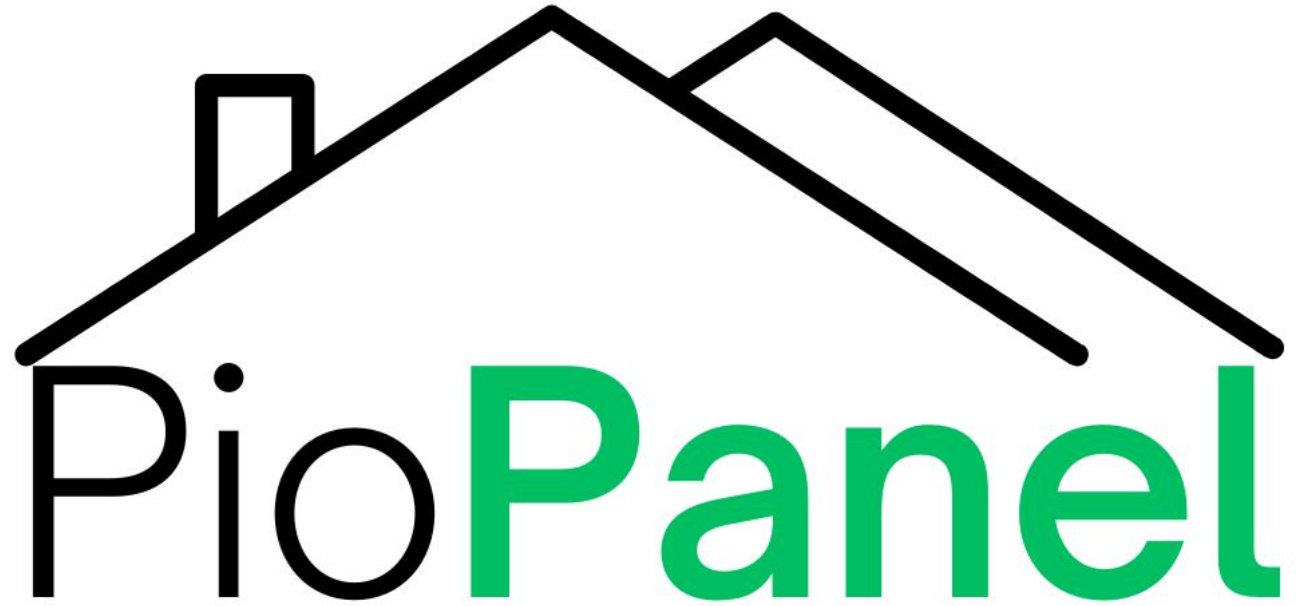


Background

Accessory Dwelling Units (ADU's) are an effective way to increase housing and maximize space. Unfortunately, government regulations and entry cost restrict their implementation.

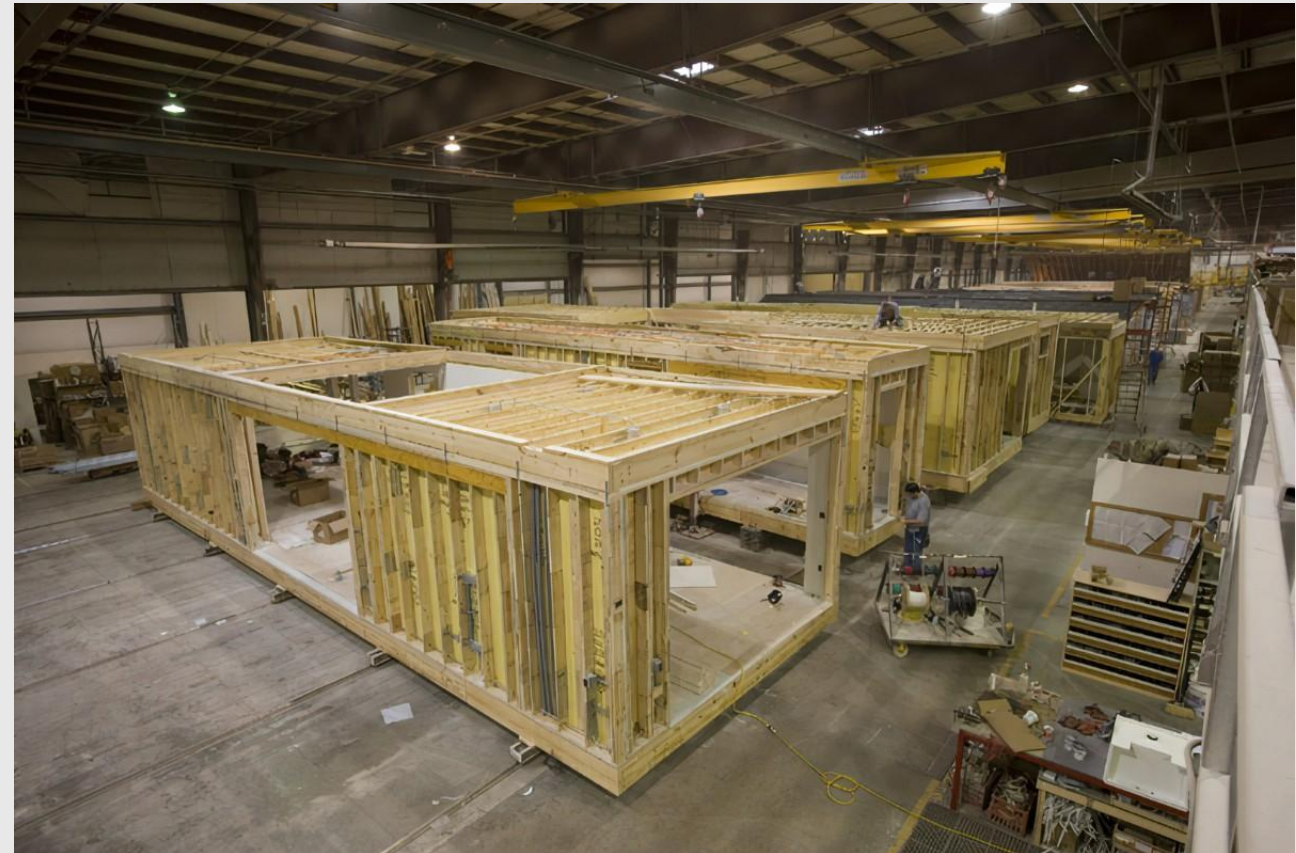
Solution

To solve this issue, we propose **PioPanel**: a government-sponsored panel ADU business that aims to benefit both the government and homeowners.



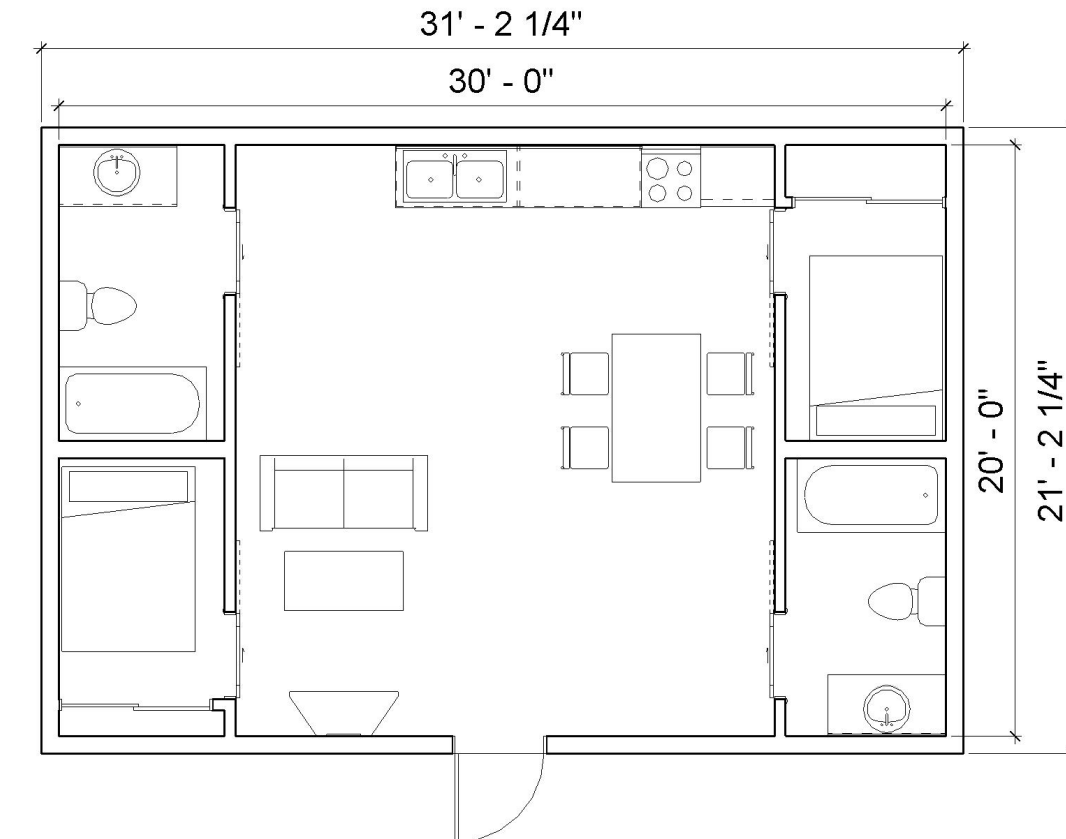
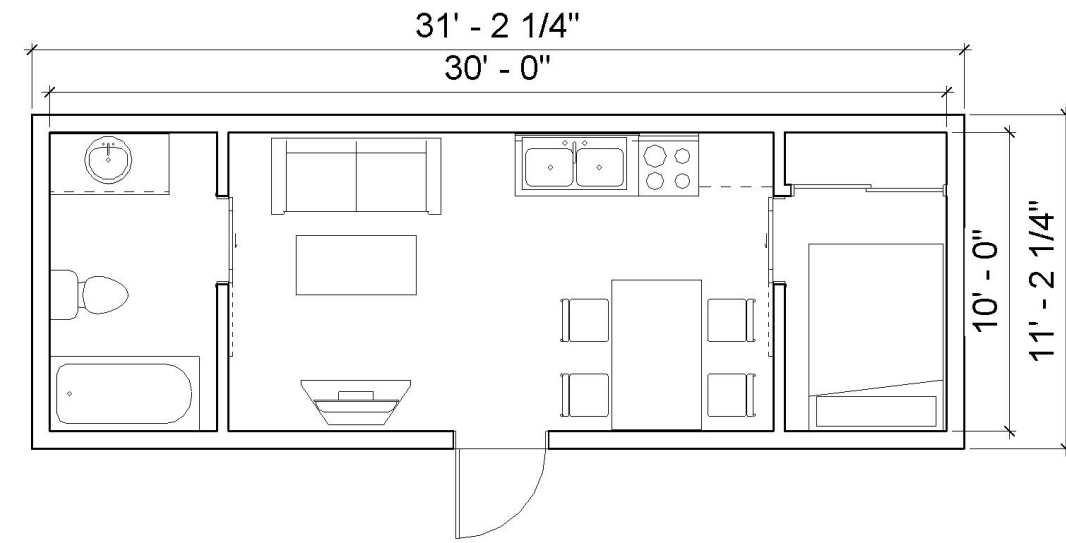
Government Facilities

- Local Counties/Municipalities will own and operate construction facilities as hybrid factory/trade schools, with a certification program in modular building practices
- Demand for new construction will create jobs, and the program will train skilled labor to fill it
- Involving the public sector allows buyers to access ADUs at a lower cost to them, and allows the local government to generate revenue through sales while providing affordable housing, as well as streamlining permitting and re-zoning processes

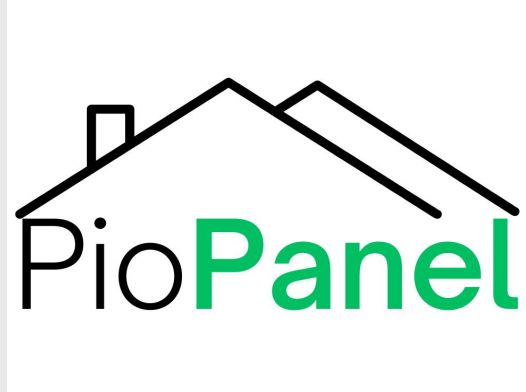


Design

- Units will be produced in 30'x10', sized to fit on flatbed trailers with minimal permitting
- Available standalone as a 1 bed/1 bath (300 sqft), but easily combined into a 2 bed/2 bath (600 sqft)
- Units are designed for multiple foundation types, including poured slab and pier & beam for maximum versatility



Mission



Many workers cannot afford to live in the communities they serve; 1 in 20 workers live over 50 miles from their place of employment (Gusto, 2024)



Accordingly, rental priority will go to medical staff, first-responders, teachers, and other essential workers.

Home Owner Proforma

Denver Homeowner ProForma	
Interest Rate	6.00%
Vacancy Rate	10.00%
Operating Expenses (% of Rent)	10.00%
Rent Growth Rate	3.00%
Target GRM	7x
Loan Amortization	20 Years
Loan-To-Cost	80%
100% AMI	\$104,400
Tenant % AMI	40%
Homeowner Labor Cost / SF	\$150.00

Return Metrics	
Breakeven Point	Year 11
IRR (20 Years)	10.19%

	Acquisition	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Rent Estimate	\$0	\$12,528	\$12,904	\$13,291	\$13,690	\$14,100	\$14,523	\$14,959	\$15,408	\$15,870	\$16,346
Vacancy	\$0	(\$1,253)	(\$1,290)	(\$1,329)	(\$1,369)	(\$1,410)	(\$1,452)	(\$1,496)	(\$1,541)	(\$1,587)	(\$1,635)
Operating Expenses	\$0	(\$1,253)	(\$1,290)	(\$1,329)	(\$1,369)	(\$1,410)	(\$1,452)	(\$1,496)	(\$1,541)	(\$1,587)	(\$1,635)
Net Operating Income	\$0	\$10,022	\$10,323	\$10,633	\$10,952	\$11,280	\$11,619	\$11,967	\$12,326	\$12,696	\$13,077
ADU Purchase Price	(\$132,696)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Proceeds	\$106,157	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Debt Service	\$0	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)	(\$9,126)
Cashflow	(\$26,539)	\$896	\$1,197	\$1,506	\$1,825	\$2,154	\$2,492	\$2,841	\$3,200	\$3,570	\$3,950
Overall Project Proceeds	(\$26,539)	(\$25,643)	(\$24,447)	(\$22,940)	(\$21,115)	(\$18,961)	(\$16,469)	(\$13,628)	(\$10,429)	(\$6,859)	(\$2,908)

ADU Factory Proforma

Government Proforma	
SqFt	31,000
Cost to Build (SqFt)	\$250
Total Cost	\$7,750,000
Loan-To-Cost	80%
Loan Amortization	20 Years
Loan Interest Rate	6%
ADU Production / Year	30
Sale Price ADU (2bd)	\$175,392
Sales Price ADU (1bd)	\$87,696
2 Bed ADU COGS	\$141,562
1 Bed ADU COGS	\$80,401

Fix Production Costs	
Add ons	\$14,580.00
Utilities	\$4,141.60
Boundary & Survey	\$518.00

Variable Production Costs / SF	
Site Prep / Foundation	\$12.94
Building Construction	\$182.68
Permits & Inspections	\$8.25

Manufacturer Metrics	
1 Bed Profit Margin	9.1%
2 Bed Profit Margin	23.9%
IRR (20 Years)	4.98%

	Acquisition	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
ADU Sales	\$0	\$3,946,320	\$4,064,710	\$4,186,651	\$4,312,250	\$4,441,618	\$4,574,866	\$4,712,112	\$4,853,476	\$4,999,080	\$5,149,053
ADU Construction Costs	\$0	(\$3,329,433)	(\$3,429,316)	(\$3,532,195)	(\$3,638,161)	(\$3,747,306)	(\$3,859,725)	(\$3,975,517)	(\$4,094,783)	(\$4,217,626)	(\$4,344,155)
Net Operating Income	\$0	\$616,887	\$635,394	\$654,455	\$674,089	\$694,312	\$715,141	\$736,595	\$758,693	\$781,454	\$804,898
Factory Purchase Price	(\$7,750,000)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Proceeds	\$6,200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Debt Service	\$0	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)	(\$666,281)
Cashflow	(\$1,550,000)	(\$49,394)	(\$30,887)	(\$11,825)	\$7,808	\$28,031	\$48,860	\$70,314	\$92,412	\$115,173	\$138,617

Case Study: Boulder

Boulder Mod is a cutting-edge factory in Boulder that collaborates with Habitat for Humanity to produce affordable housing units, addressing the growing demand for accessible homeownership in the community.

- Square Feet: 31,375
- Partnership with Boulder Valley School District and their Technical Education Center
- Capacity: 50 homes per year

