We acknowledge the City of Tucson’s forward-thinking initiative in removing restrictions around permitting guesthouses in residential zones and align our mission by facilitating a fast track to bring Accessory Dwelling Units (ADU’s) to life.

We present a diverse collection of three model units; each thoughtfully designed with variations in size and materials, tailored to meet the distinct housing needs and varied property requirements of our City’s residents.

**LUMEN:**
*Note: The Lumen model unit is available as a studio, one-bedroom, or two-bedroom unit*

2018 International Residential Code
City of Tucson ADU Zoning Code Amendment

**Area Summary:**
- Studio Unit: 605 SF
- One-Bedroom: 825 SF
- Two-Bedroom: 1,000 SF

**Amenities:**
- Full Kitchen: sink, refrigerator, dish washer, oven
- Stackable Laundry
- Tank style or Tankless instant hot water heater
- All-Electric Design Load = 100amps, Solar Ready
- Graywater infrastructure included
- Cool Roof Coating specified
- Roll-in shower, 36” interior doors, meets Tucson Inclusive Home Design Guidelines

**MICRO 144:**
*Note: 144 is the clear interior area of the building, 12’x12’*

Appendix Q: Tiny Houses from the 2018 International Residential Code
City of Tucson ADU Zoning Code Amendment

**Area Summary:**
- Ground Floor Area: 176 SF
- Loft Area: 130 SF
- Total Livable: 306 SF

**Amenities:**
- Full Kitchen: sink, refrigerator, dish washer, oven
- Stackable Laundry
- Tankless instant hot water heater
- All-Electric Design Load = 100amps, Solar Ready
- Graywater infrastructure included

**ROOST:**
*Note: The Roost model unit is available as a studio, one-bedroom, or two-bedroom unit*

2018 International Residential Code
City of Tucson ADU Zoning Code Amendment

**Area Summary:**
- Studio Unit: 436 SF
- One-Bedroom: 623 SF
- Two-Bedroom: 768 SF

**Amenities:**
- Full Kitchen: sink, refrigerator, dish washer, oven
- Stackable Laundry
- Tank style or Tankless instant hot water heater
- All-Electric Design Load = 100amps, Solar Ready
- Graywater infrastructure included
- Cool Roof Coating specified
- Roll-in shower, 36” interior doors, meets Tucson Inclusive Home Design Guidelines
ACCESSIBILITY AND UNIVERSAL DESIGN
All model plans conform to PCDS Accessible Routes and all provisions of the Inclusive Home Design Ordinance (IHDO). The ROOST and LUMEN models fully comply with all IHDO provisions, feature wide entry and interior doors, strategically located fixtures, roll-in showers, low threshold entry doors, and thoughtfully planned spaces throughout. The MICRO 144 offers accessibility on the ground floor but due to the loft, it cannot be considered fully accessible.

INNOVATIVE CONSTRUCTION / DESIGN
Our buildings offer customizable finish options, including cabinets, interior paints, and floor or wall textures. This flexibility extends to exterior wall materials, such as stucco, metal, or cement fiberboard, as well as roof options like metal or shingles. This feature facilitates construction in varied contextual styles and historic areas.

Our permitted drawings follow standard wood frame construction (2x6 walls, 2x12 roof joists) with concrete slab-on-grade foundations. The buildings are all carefully designed to industry standard material modules to limit waste during construction. All openings are designed to fit standard windows and doors, with many specified at 6'-0” wide for easy customization or downsizing.

Additionally, our designs allow for the use of alternative building materials with City approval. We are currently overseeing the construction of two buildings using SIPS panels, and we offer engineered shop drawings for the LUMEN and the MICRO 144 to homeowners interested in this option.

We partner with local businesses to streamline the construction process. A lumber supply, appliance company, and cabinet manufacturer all offer complete material packages including pricing and quantities specific to our designs. We’re collaborating with a production home builder and several small-scale contractors for future projects and we are aligning ourselves to a future of off-site construction manufacturing for turn-key ADU units.

AESTHETIC AND CONTEXTUAL INTEGRATION
We offer solutions for residential lots of all sizes. A range of square footages and floor plan options accommodate various lot sizes, configurations, and functional needs. Flexible detailing lets homeowners select exterior finishes to match surrounding context, including historic areas. Design adjustments include doors/window swaps, resizing or re-positioning openings, and rotating or mirroring plans in response to specific site conditions.

The LUMEN features a boxy design with a hip roof that yields wall heights that meets 6'-0” setback requirements while still providing ample lighting and high ceilings. The ROOST is a long and narrow structure, ideal for areas with limited space in one direction. It boasts open vaulted ceilings for a spacious feel. The MICRO 144 is a compact, efficient Tiny House on a permanent foundation with a sleeping loft, suitable for any lot size or property configuration.

SUSTAINABILITY, ENERGY, AND WATER EFFICIENT
All buildings meet IRC energy standards for insulation R-values and door/window U-values and use cool-roof coatings. Each set of construction documents includes a cover page with General Design Guidelines, outlining best practices in High-Performance site planning and design, providing information about energy consumption, shading and solar access, integrating native vegetation, water conservation, and graywater infrastructure. All homes are all-electric and solar ready, require 100amps of power, and include graywater infrastructure, mechanical systems to be selected in the field - high efficiency mini splits are recommended.

UNIVERSAL DESIGN / ACCESSIBLE CASITAS
- ROOST
- LUMEN

LOW-COST / INNOVATIVE CASITAS
- ROOST
- LUMEN
- MICRO 144

FAMILY-FRIENDLY CASITAS
- ROOST 2-BEDROOM
- LUMEN 2-BEDROOM

GREEN OR NET ZERO CASITAS
- ROOST
- LUMEN
- MICRO 144
ROOST STUDIO
436 SQUARE FEET

1 COVERED PORCH
2 ENTRY
3 BATHROOM
4 KITCHEN
5 BEDROOM

FLOOR PLAN
ROOST ONE-BEDROOM
623 SQUARE FEET

1 COVERED PORCH
2 ENTRY
3 BATHROOM
4 KITCHEN
5 LIVING ROOM
6 BEDROOM
ROOST ONE-BEDROOM
623 SQUARE FEET

ELEVATION A

ELEVATION B

ELEVATION C

ELEVATION D
ROOST TWO-BEDROOM
768 SQUARE FEET

1 COVERED PORCH
2 ENTRY
3 BATHROOM
4 KITCHEN
5 LIVING ROOM
6 BEDROOM 1
7 BEDROOM 2
ROOST TWO-BEDROOM
768 SQUARE FEET

ELEVATION A

ELEVATION B

ELEVATION C

ELEVATION D
HIGH PERFORMANCE SITE PLANNING

GENERAL DESIGN GUIDELINES FOR SOUTHERN ARIZONA

01. The environmental performance of small structures such as accessory dwelling units is highly dependent on a few simple design choices that greatly improve general energy consumption and costs over the lifetime of the structure.

02. The main environmental factors that affect energy and utility bills in Southern Arizona are:
   a. Sunlight & shade (specifically, winter sun access provides heat and summer shade reduces heat)
   b. On-site rainwater harvesting
   c. On-site greywater used for watering landscape

03. Cooling costs in winter, summer, and fall are minimized due to a few simple design choices:
   a. Orient the building such that the long elevations are facing north and south, and the short elevations are facing east and west.
   b. Shade the east and west elevations of the building with tall trees and/or trellises.
   c. Design for additional orientation of the building with overhangs, fins, shaded or other overhead shading devices designed to maximize shading during the hot summer months and to allow for direct solar access during the cold winter months.

04. Heating costs in the winter are minimized due to a few simple design choices:
   a. Avoid sunlight to avoid overheating windows by keeping overhead shading devices within 10' of the building elevation of 10' of the building.
   b. Avoiding sun-drenched spaces but not directly south, as this will prevent sunlight from heating structure in winter, and prevent solar fans from capturing maximum sunlight.

05. Mechanical cooling and heating costs can be further diminished by choosing efficient ventilation or heat pumps and using dual pane (low-e) windows on all north, west, and east facades.

06. Site plan design is heat-inclusive in the ADU model building plans. Site plan design, including vegetation and water management, are critical to a high-performing and low-consumption structure.

07. High-performance site plan resources for building sites in Southern Arizona can be found online, including:
   a. B Six (https://www.bsix.com/)
   b. Watershed Management Group (https://www.wmgusa.org/)

08. Drought-tolerant and native vegetation species thrive in Southern Arizona’s heat, soil, and water conditions. Resources for water-efficient flowers include:
   a. Tucson B 6 and Beaumurles Trees for Tucson Initiative (https://www.beaumurles.org/tucson-initiative/)
   b. Drought Tolerant (https://www.walsworth.com/)

09. Observation of the existing primary structure on the site may provide much of the information needed to plan a high-performance site design for the accessory dwelling unit, including areas of shade, vegetation, exposed heat, excessive soil, and more.

10. If you need further assistance to draw a site plan, please contact the Urban Plant Project @ additional fee applies.
*Note: Schematic site exploration determines which units fit within the square footage requirements of the ADU code, and show how each unit fits in context of existing structures, vegetation, and site dimensions. All drawing resources to conduct this sort of early discovery are available for download on infillproject.com to any homeowner or builder.
EXAMPLE SITE PLAN: LUMEN STUDIO - 50'X150' (7,500 SF) MID-BLOCK, NO ALLEY, R-2

INCLUSIVE HOME DESIGN NOTES - GENERAL

MODEL PLAN NOTES DEVIATIONS
EXAMPLE SITE PLAN: LUMEN 1-BED + MICRO 144 (NO KITCHEN) - 80'X120' (9,600 SF) CORNER LOT, R-1

MODEL PLAN NOTES:
1. ONE MINIMUM ADU TO BE CONSTRUCTED WITH DRAWINGS APPROVED BY CITY UNDER MODEL PLAN PERMIT # MDP-2022-00416. NO PROPOSED CHANGES TO APPROVED CONSTRUCTION DOCUMENTS.
2. ARTIST'S STUDIO TO BE CONSTRUCTED WITH DRAWINGS APPROVED BY CITY UNDER MODEL PLAN PERMIT # MDP-2022-00416. STUDIO KITCHEN TO BE REMOVED. DOMESTIC WATER AND SANITARY SERVICE TO SERVE BATHROOM ONLY.
3. EXTERIOR ENCLOSED TO BE BUILT USING SPC PANEL SYSTEM IN LIEU OF WOOD FRAME. SPC SHOP DRAWINGS TO BE DEFERRED SUBMITAL TO COT.

NO KITCHEN ALLOWED IN STUDIO. MAY HAVE A SINGLE BOWL, BAR TYPE SINK AND UNDER COUNTER REFRIGERATOR.