ARTbarn | ART**farm**

Learn more: ***foragedesign.org/residential/artfarmecovillage***

ARTbarn**ART**farm Tiny House Artist Eco-Village

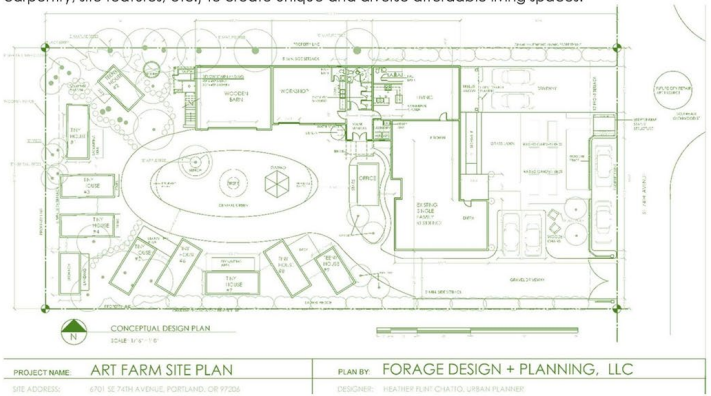
PURPOSE: An arts-focused community with a replicable model of affordability, context-sensitive urban density and infill, with the greenest design possible through efficient use of land, water and energy.

PROJECT OVERVIEW | Art Farm LLC is an artist collaborative focused on arts education and supportive creative programs. Working with a team of experts including Progressive Development Group, Forage Design + Planning, and Cascadia Clusters, the Art Farm collaborative is proposing to develop an affordable, tiny home courtyard cluster and artist ecovillage. This proposal includes adding up to nine residential units at the western half of an existing single-family residential property with zoned potential for up to ten units. The intent is to demonstrate creative approaches for affordable housing as well as a variety of innovative sustainable design features.

TNY HOUSE CONCEPT ILLUSTRATION

EXISTING SITE PLAN

AFFORDABLE HOUSING | In collaboration with Cascadia Clusters as the project contractor, the site would include a mix of permanent and flexible housing types, ideally including several Tiny Homes on Wheels (THOWS). Each residential unit would feature off-grid utilities including solar power and battery storage. Further, by providing a mix of unit sizes and options for rentals of some permanent tiny homes or flexibility for visitors to bring their artistic tiny house with them, it allows variety of housing options for different user needs. Options may also be available for work trade or rent offsets to for onsite artistry work (e.g. finished carpentry, site features, etc.) to create unique and diverse affordable living spaces.



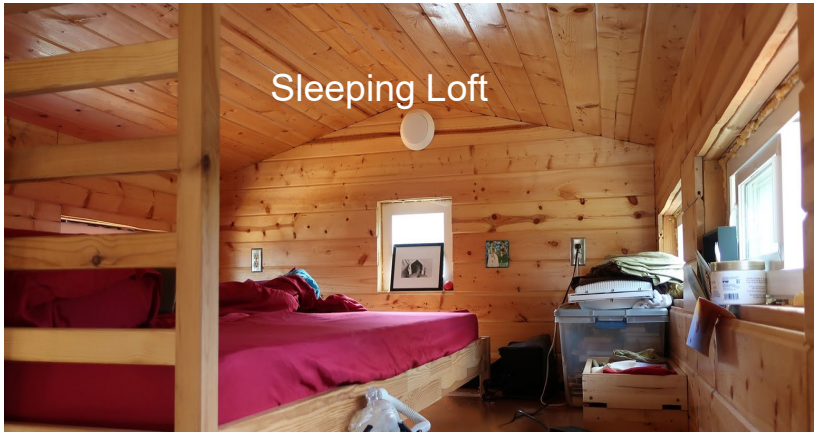
ENVIRONMENTAL PERFORMANCE | Environmental goals include net zero energy performance, onsite agriculture, a market stand, innovative stormwater management, rainwater capture and reuse through on-site cisterns, greywater filtration, and composting toilets. **The intent is to create a "triple-bottom line" approach to sustainability, equity and economy including low income housing, on-site energy generation for carbon-neutrality, with innovative stormwater management, agriculture, and arts education.**

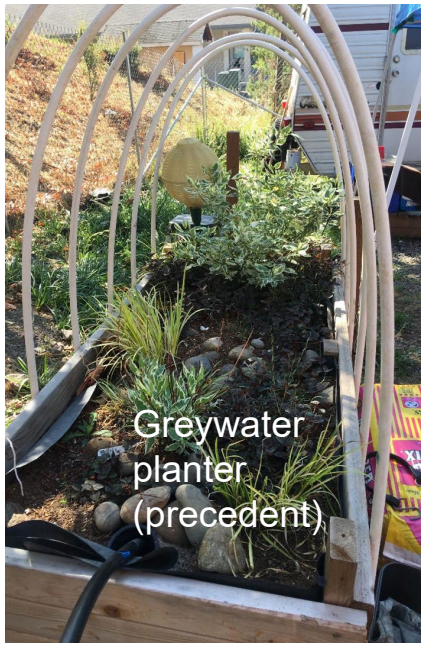
ARTbarn | ART**farm**

Tiny House/THOW Living

Compact, low-impact, affordable

(Images from Art Farm existing Tiny House on Wheels)





Tiny Homes/THOW & Climate Benefits

- Efficient space living translates into environmental benefits in energy, water, waste and purchasing
- Significant reductions in GhG
- 93% reduction of energy of traditional houses
- 45% decrease in ecological footprint

Source: https://ipropertymanagement.com/research/tiny-home-statistics

Smaller Carbon Footprint

Living in a smaller home means less electricity or natural gas usage; it costs less to heat or cool a smaller space. Many tiny home builders also install energy-saving items like solar panels and washer/dryer combos that do the work of two machines in one.

On a related note, tiny house owners tend to use more fresh foods than pre-packaged or frozen. This is partially due to smaller fridge/freezer space, but it's also a part of the "tiny home cultre." The early interest in tiny homes was, after all, to get away from big city life and get back to nature, living as cleanly and simply as possible.

Other common behavioral changes among new tiny house dwellers include greater conservation of water, increased composting, more purposeful purchasing habits, and less housekeeping and maintanence.

- A tiny home uses about 7% of the energy that a traditional house does.
- Moving to a tiny home can decrease a household's ecological footprint by 45%.
- Tiny homes emit an average of 2,000 pounds of greenhouse gasses each year; traditional homes emit 28,000 pounds.
- Tiny homes use an average 914 kilowatt hours (kWh) each year while traditional homes use 12,773 kWh.
- The ecological footprint of the average tiny home is 3.87 global hectares (gha); a traditional home's footprint is 8.4 gha.
- 85% of tiny homes operate at above-average energy efficiency.

Tiny Homes & Affordability

-fraction of cost of typical housing

-increases availability of sites and providers to partner in the solution

- adds to the diversity of housing choices in an expedited low-impact way

- increases pathway to ownership model

that spaces are designed to be multi-purpose. Additionally, because tiny homes are generally so much more personalized than traditional homes, you really do get more bang for your buck, so to speak, in terms of usage. Plus, a smaller price tag means less loan interst to pay; it's not uncommon for mortgage holders to end up paying an additioal 50% of what their home is worth in interest alone.

- 60% of tiny homeowners have no credit card debt.
- On average, a tiny home costs less than one-fifth what a traditional home would cost.
- The average sales price of a newly-built single-family home is $383,900.
- The average listing price of a home on Zillow is $275,000.
- The average cost of a built-to-suit tiny house is $59,884.
- The average cost of a DIY home build is closer to $23,000.
- The most luxurious tiny homes top out at $180,000.
- One couple built their own 192-square-foot tiny home for less than $8,000.
- 78% of tiny home dwellers own their home compared to 65% of traditional home dwellers.

Source: https://ipropertymanagement.com/research/tiny-home-statistics

Benefits of Tiny Homes of Wheels Cluster Housing

- Adds to diversity of affordable housing choices (both rental and owned)
- Low impact development infill
- Adds density that fits in with existing residential neighborhoods - turns more neighborhoods into density supporters with positive examples
- Transitionary development approach on the housing continuum
- Housing dignity for low-income residents is not only gained but a source of pride in their uniqueness
- Makes home ownership much more in reach for many more people
- Increases equity and accessibility of who can own/build/create housing

- Provides much needed low-cost housing with greater flexibility at a price point and market category currently missing

Innovative Housing Demonstration Pilot Program

Precedent: City of Redmond

Innovative Housing Demonstration Pilot Policy – City of Redmond
https://www.codepublishing.com/WA/Redmond/CDG/RCDG20C/RCDG20C3062.html - ideally using language like this as a base, the housing examples could include those models we want to encourage but are challenging to do now (e.g. Tiny Houses and Tiny Houses on Wheels on larger existing developed sites as infill,).

Encourage the City to provide to test out some innovative housing pilots that meet minimum standards to explore this housing option more in the future while still supporting innovation to continue now.

20C.30.62-030 Submittal of Innovative Housing Demonstration Project.

(1) Timing. Upon the effective date of the ordinance codified in this division, the City shall immediately begin accepting applications for innovative housing demonstration project proposals. The Innovative Housing Demonstration Program shall expire five years following its adoption, or when five projects developed under this division are completed, whichever occurs first, unless extended by the City Council, or unless the City Council specifically authorizes additional projects as provided for in this division.

(2) Number of Developments. Except as described below, the City may approve up to five innovative housing demonstration projects, with no more than two projects demonstrating the same single housing type within any calendar

Innovative Housing Demonstration Code Policy – City of Redmond Precedent

- **Allows for 5 alternative housing projects** via an application process
- **Purpose:** Increase affordable housing supply, and demonstrate innovation in more diverse housing types, sizes and income mixes
- **Allows flexibility in site and design standards** to support and test models
- Process to **identify potential zoning code changes** to support more innovation
- **Outlines submittal & review requirements**
- **Evaluation report provision & 5 yr. sunset clause**

Purpose:

Allow development of a limited number of projects to evaluate opportunities to increase the availability of innovative housing in Portland neighborhoods.

Need: Until permanent ordinances regarding innovative housing projects can be implemented, there is a need to allow a limited number of regulated innovative housing projects.

Benefit:

Small set of pilots provides a pathway to test innovative housing models, study code barriers, and demonstrate viability with low risk

Benefits of the Innovative Housing Pilot Approach

Innovation

- Small set of pilots provides a pathway to test innovative housing models, study code barriers, and demonstrate viability with low risk
- Opportunity to be a leader in continuing Portland's Legacy of Innovation

THOW Climate-responsive approach

- MATERIAL REDUCTION: Less material use with smaller houses means less cost and carbon
- HABITAT: Greater opportunity to preserve habitat, open space and carbon-sequestering mature trees
- INCREASED EFFICIENCY OF URBAN LAND: Unlocks greater number of sites to be developed without demolition and loss of naturally-occurring affordable housing (NOAH)

Transitionary approach

- Low-impact development can happen NOW while retaining future higher intensity development potential without demolition

Affordability

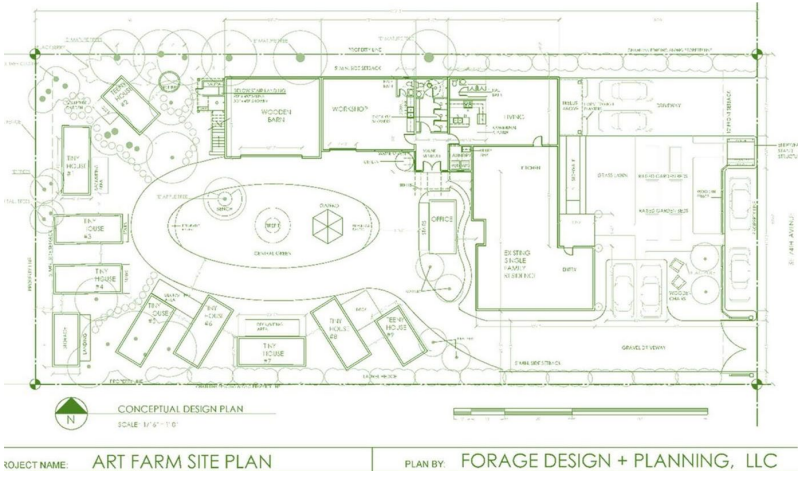
- Makes home ownership in reach for many more people
- Allows more small developers and property owners to be part of the solution
- Provides much needed low-cost housing with greater flexibility at a price point and market category currently missing

ARTbarnARTfarm EcoHousing

A Tiny House Artist Eco-Village

A proposed arts-focused tiny house community with a replicable model of affordability, context-sensitive density and adaptive infill, with the greenest design possible

Learn more: [***foragedesign.org/residential/artfarmecovillage***](foragedesign.org/residential/artfarmecovillage)



ARTbarn | ART**farm**

Affordable Artist Housing

- 20,000 s.f. multi-family zoned property on SE 74th in Brentwood Darlington
- **Goal to create low-cost tiny house village as a replicable model of affordable housing**
- Single family residence surrounded by higher density 1-2 story multi-family housing. Existing historic barn, small workshop, and 1 tiny house on wheels (THOW).
- **Multifamily zoning for up to ten units** - aiming for THOW project now, higher intensity use 10-15 yrs
- **Deep green, sustainable design:** net zero energy, green roof, onsite stormwater management, food production

ARTfarm | Existing Site Plan

ARTfarm Conceptual Design Plan

FORAGE DESIGN | PROGRESSIVE DEVELOPMENT GROUP

- TINY HOUSES
- BATHROOMS & SHOWERS
- COMMON SPACES (Office, Kitchen, Living Room, Storage, Laundry)

Challenge

- The current system does not equitably allow the participation by the significant number of people who want to contribute to the solution.
- There are many sites around the city that are ripe for similar interim development.
- Tiny homes and THOW supports higher intensity interim use for affordable rental housing and can provide an alternative low-bar to entry home ownership
- Retains future potential of higher intensity uses without demolition.

Recommendations

- **Allow Multi Family Residential zoned properties parity with Commercial and Institutional properties**
- **Allow non-profits and CDCs to act as sponsor of an affordable alternative housing under S2H**
- Consider as tiny homes as part of Group Living housing options
- **Modify the Tiny Home as ADU specification to allow multiple tiny homes on sites**
- **Set up a Low-Cost Innovative Housing Demonstration Project option as part of the S2HC** project that would allow for a limited number of Pilot Projects to move forward to demonstrate the viability of alternative options.
  (See City of Redmond Innovative Housing Demonstration ordinance https://www.codepublishing.com/WA/Redmond/CDG/RCDG20C/RCDG20C3062.html

20C.30.62-030 Submittal of Innovative Housing Demonstration Project.

(1) Timing. Upon the effective date of the ordinance codified in this division, the City shall immediately begin accepting applications for innovative housing demonstration project proposals. The Innovative Housing Demonstration Program shall expire five years following its adoption, or when five projects developed under this division are completed, whichever occurs first, unless extended by the City Council, or unless the City Council specifically authorizes additional projects as provided for in this division.

(2) Number of Developments. Except as described below, the City may approve up to five innovative housing demonstration projects, with no more than two projects demonstrating the same single housing type within any calendar