#### TINY HOME MARKET GROWTH

The tiny home market is growing, and Georgia is considered one of the best states for tiny home ownership:

### Market growth

The tiny home market is expected to grow, with a projected \$3.57 billion increase in market size between 2021 and 2026.

#### Demand

Demand for tiny homes is increasing as the housing market becomes more competitive.

### Affordability

Tiny homes can be a lower-risk investment for first-time buyers, with prices ranging low-end pricing between \$44,000 and \$80,000.

## Environmental sustainability

Tiny homes are eco-friendly, requiring fewer materials and offer lower maintenance and energy cost. To meet government lending requirements we only offer 400Sqft and larger homes.

#### Georgia

Georgia is the top state for tiny home ownership, with an average price of around \$80,000 -\$190,000 depending on options selected.

• Georgia is followed directly on the list by Texas, Kansas, Florida and California.

## **Upgrade Options:**

#### **Granite Counters**

LVP Flooring

#### **Energy Savings**

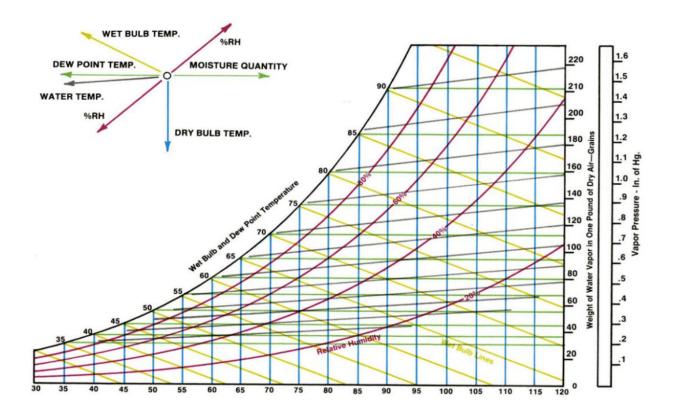
Low-E glass to help reduce energy cost

#### **Spray foam insulation**

Fire retardant metal roofing

FHA lending requirements can be met with 400Sqft and larger Tiny homes.

# Vented Crawl Spaces and the Psychrometric Chart Are Not Friends



Really, the argument about whether you should vent a crawl space in a humid climate is over. <u>Advanced Energy's research project</u> from 2002 proved that closed crawl spaces outperform vented crawl spaces. A quick look at the psychrometric chart shows that the argument should never have existed in the first place.

I know it's a bit hard to read, but if you click the image, you can see an <u>enlarged</u> version.

What's going on here is that we're starting at the blue dot to the right of the arrow. It's a summer day, the outdoor temperature is 90° F and the relative humidity (RH) is about 53%. I chose that RH because here in Atlanta, we have a good number of hours with the dew point at about 70° F. By looking all the way

to the left of the chart, where the relative humidity is 100%, you can read the dew point.

The point of that blue dot is that when that air comes into the crawl space, it cools down. I chose 80° F as the temperature it reaches in the crawl space. By looking at the relative humidity curve it lands on, you can see that it went from 53% to about 70% RH.

That is NOT a good number to keep your RH at because it's where mold can start taking off. The more time your crawl space spends at 70% RH or higher, the more likely you are to have mold growing.



Vented crawl spaces can also get cooler than 80° F. I took the photo of the hygrometer above on a warm August day here in the Atlanta area, and you can see that the air was about 70° F with 92% RH.

And then there's the evidence, of course. If you've spent any time in vented crawl spaces, you know—and your lungs and nose know—that they have problems. The photo below is from one I was in last month. Duct leakage exacerbates the problem here.

The cost to encapsulate the crawl space of a 3,000 square foot house typically ranges from \$5,000 to \$15,000, depending on factors such as the size and accessibility of the crawl space, the need for repairs or moisture mitigation, and the quality of the encapsulation materials and installation.

Encapsulating a crawl space can be worthwhile for several reasons:

- Moisture and mold control: Crawl space encapsulation creates a sealed, conditioned space that prevents moisture, humidity, and the growth of mold and mildew, which can improve indoor air quality and protect the home's structure.
- 2. Energy efficiency: By sealing and conditioning the crawl space, it can reduce air leaks and help regulate the temperature in the living spaces above, potentially leading to lower heating and cooling costs.
- 3. Pest control: The sealed environment makes it more difficult for pests, such as rodents and insects, to enter the home through the crawl space.
- 4. Increased usable space: In some cases, an encapsulated crawl space can be converted into a storage or utility area, providing additional usable square footage.

However, the decision to encapsulate a crawl space should be based on a careful evaluation of the specific conditions of the home, the potential benefits, and the overall cost-benefit analysis. A professional inspection and recommendation can help determine if crawl space encapsulation is the best solution for a particular property.

## **Energy Star Certification**

There is no fee to apply for ENERGY STAR certification for a home, but the application must be verified by a registered architect or professional engineer. The cost of verification is usually around \$1,000–\$1,500, but some offer free or discounted services. The EPA can help building owners find licensed professionals who offer cost-free verification.

The verification process includes: Reviewing energy data, Visiting the site to ensure indoor air quality standards are met, and Documenting operating characteristics.

Some tips for finding low-cost verification include:

- Checking the "Cost-free verification offered" box when filtering results in the Licensed Professional Finder
- Using someone in-house to verify the application
- How to Apply for ENERGY STAR Certification | ENERGY STAR



**Energy Star** 

Cost-Free Verification of ENERGY STAR Applications | ENERGY STAR



**Energy Star** 

• Top 8 Reasons to Pursue ENERGY STAR Certification

There's no cost\* All of EPA's tools and resources, including Portfolio Manager and Target Finder, are free to use. That means you ...



**Energy Star** 

Show all

For homes that use 41 gallons or less of hot water daily, demand water heaters can be 24%–34% more energy efficient than conventional storage tank water heaters. They can be 8%–14% more energy efficient for homes that use a lot of hot water -- around 86 gallons per day. In some cases you may be able to achieve even greater energy savings if you install a demand water heater at each hot water outlet.

## **Site Prep**

Site preparation is the process of preparing a construction site before construction begins. It's an important step to ensure a project is executed well. Some tasks involved in site preparation include:

- Demolition: If there's an existing structure, demolition is usually the first step.
- Soil testing: This is a critical step to determine if the soil is suitable for construction, including its ability to absorb water and support structure.
- Land clearing: This involves cutting down trees, removing shrubbery, and removing any other obstructions.
- Building pad preparation: This involves removing the top layer of organic material to prepare a stable foundation for the building.
- Grading and leveling: This ensures that the foundation is stable and level.
- Soil compaction testing: This ensures that the soil matrix is consolidated and potential settlement is eliminated before construction of the slab.
- Site security: This includes proper lighting, perimeter fencing, signage, and security personnel.

Other tasks involved in site preparation include: Surveying, Drainage, Excavation, and Locating and marking utilities