

# Northern New Mexico IceBox Challenge 2025

## What is the IceBox Challenge?

The IceBox Challenge is a global project and an innovative experiment that illustrates the effectiveness of environmentally friendly standards compared to traditional construction. Three tiny houses, equipped with approximately one ton of ice each, will be placed outdoors in the summer heat to test and demonstrate how environmentally friendly buildings can contribute to climate crisis solutions. After a set period of time with exposure to the summer sun, the houses will be opened to reveal the amount of ice that remains. The result? The project provides tangible proof of the importance of energy efficiency and sustainable insulation in buildings.



### Winter 2024/2025

Planning and Building  
Science Workshops



### Spring 2025

Construct four tiny homes  
with different building standards  
at local building sites



### Summer 2025

Public demonstration  
of energy-efficient  
performances

- Youth workers will receive hands-on experience with energy-efficient building practices by working alongside construction professionals.
- The community will benefit by learning about energy-efficient building practices and developing attainable housing solutions.
- After the challenge, the tiny homes will provide safe housing for Esperanza Shelter.



Contact us for volunteer and partnership opportunities:  
505-982-1774 or [INFO@BuildNewMexico.com](mailto:INFO@BuildNewMexico.com)



Santa Fe Area  
Home Builders Association  
Northern New Mexico  
Builders Association



# IceBox Challenge Firsts!

**Santa Fe joins 10 other US cities and 8 other countries as participants in the IceBox Challenge!**

**Youthworks Youth-Build Participants and Students from Early College Opportunities High School will be the first high school-age students to participate in the challenge anywhere in the world!**

---

## IceBox Challenge History

**The first IceBox Challenge was conducted in 2007 in Brussels, Belgium, to test passive house construction. For six weeks in the spring of 2007, two 1,300 kg blocks of ice (nearly 3 tons) were stored in constructed boxes.**

**The first box was designed with standard construction regulations of Belgium, and the second one with passive house standards. In the first box, the ice melted in 11 days but in the second box, which was checked after 44 days in the sun, there remained a 456 kg block of ice (1/2 a ton).**

2025: Santa Fe, New Mexico, USA  
2024: Oslo, Norway  
2024: Delhi, India  
2023: New York, Pratt Institute, USA  
2023: Denver, USA  
2023: Fort Collins, USA  
2023: Louisville, USA  
2021: Glasgow, UK  
2021: Santiago, Chile  
2019: Melbourne, Australia

2018: New York, USA  
2018: Los Angeles, USA  
2018: Philadelphia, USA  
2018: Washington, USA  
2018: Pittsburg, USA  
2017: Vancouver, Canada  
2017: Seattle, USA  
2016: Darmstadt, Germany  
2009: Brussels, Belgium  
2007: Brussels, Belgium



**A hands-on public installation event  
to open career pathways for our youth while  
demonstrating the power  
of energy-efficient home design & construction.**

# IceBox Challenge Features

---

## 3 Tiny Houses

**High-Performance Passive House Enclosure**  
YouthWorks/Habitat for Humanity

**New Mexico 1950s Era Construction Practices  
With Energy Performance Upgrades**  
Santa Fe Community College

**New Mexico Residential Building Codes (NMBC) 2021**  
Early College Opportunities High School



“Passive House is a design and construction standard, focused first on the enclosure, that produces dramatic reductions in building energy use and carbon emissions. It’s the best tool to drive carbon emission reductions proportional to what the climate crisis demands.”

- Passive House

# Team YouthWorks/Habitat

## High-Performance Passive House Enclosure

Tiny Home ONE will use Passive House-style super-insulated prefabricated panels for the walls, ceiling, and floor. Passive House is an internationally recognized building standard for ultra low-energy buildings. Developed in the 1990s, it focuses on maximizing energy efficiency and indoor comfort while minimizing environmental impact.



Working with partners like Habitat for Humanity, YouthWorks Youth Build participants find direct pathways into employment through stipend-based construction training. Rigorously trained youth crews deliver residential energy retrofits for vulnerable households.

Other youth crews learn how to mitigate wildfire dangers, protect local watersheds, and increase climate resilience, and complete restoration and beautification projects along the Santa Fe River.

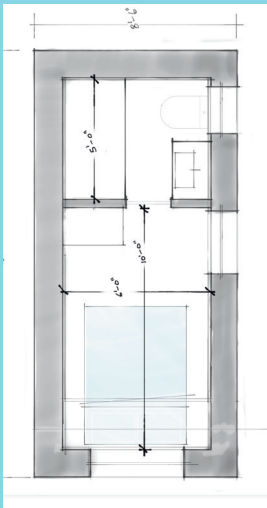


# Team ECO

## Early College Opportunities High School

### New Mexico Residential Building Codes (NMBC) 2021

Team ECO's Tiny Home will be constructed to New Mexico Residential Building Codes (NMBC) 2021. New Mexico adopts and amends building codes based on internationally recognized model codes developed by organizations such as the International Code Council. Current codes for NM homes are based on the 2021 International Building Code, 2021 International Energy Conservation Code, 2021 Uniform Mechanical Code, and others.



Located at 2301 W. Zia Road, Early College Opportunities High School offers a challenging curriculum designed to prepare students for higher education and careers in skilled trades and technology.

In Santa Fe, ECO partners with the Santa Fe Community College and the Institute of American Indian Arts. By enrolling in dual credit courses, high school students can earn college credits and high school credits at the same time, accelerating their educational journey.

ECO offers the following career technical pathways: Art & Design, Computer Science, Greenhouse, Construction, Welding, Auto & Motorcycle Tech, and Auto Collision & Refinishing

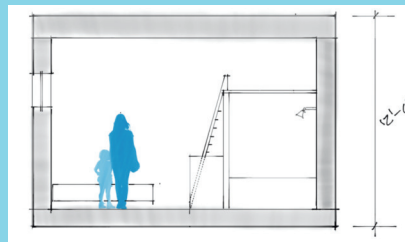
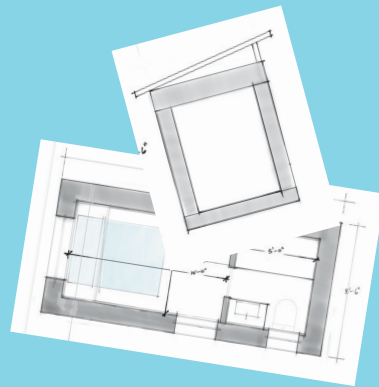


# TEAM SFCC

## Santa Fe Community College

### New Mexico 1950s Era Construction Practices With Energy Performance Upgrades

The Santa Fe Community College Team's Tiny Home will be based on common practices used in postwar residential homes in Santa Fe. At the time, local developers built large numbers of quality homes, but due to low-cost energy of the era, they were not well-insulated. Energy-saving retrofits will be installed to "modernize" this tiny home to demonstrate how older homes with great bones can achieve greater energy-efficiency performance.



Through hands-on learning, SFCC students cover all aspects of construction, including project management, safety procedures, use of building materials, masonry, framing, weatherproofing, and welding.

In addition, students learn how to build and maintain sustainable (green) housing, buildings, and communities and become proficient in adobe construction, HVAC and plumbing.

# ICE BOX CHALLENGE

# Northern New Mexico 2025



## Become a Team Sponsor!

Your tax-deductible donation of **funds or materials** to the Northern New Mexico IceBox Challenge will unlock imaginations and open career pathways for the next generation of trades people of Santa Fe. Sponsors at every tier will be recognized through signage, media, and marketing materials throughout this project. Contact organizers at 505-982-1774 for details.

### TEAM DEVELOPER \$5000+

Be the Banner Sponsor for a Build Team at one of the three build locations. Your partnership prominently displayed on the units during the project.

### CONTRACTOR \$2500

Be the Contractor and help outfit our Build Teams with the tools, training, and logistical support needed to execute all four builds.

**Donate  
Here**



### WORKFORCE \$1000

Support your build teams with the safety equipment, materials, lunches, refreshments, and the transportation they need to successfully complete the projects on time.

### COMMUNITY PARTNER \$500

Help tell the story of the IceBox Challenge in our community and how our young people are building the future of Santa Fe.

### NEIGHBOR \$50

Many hands make light work! Contribute and support a Build Team. Be recognized as part of the work to create true quality housing solutions.