Introduction to Manufactured Housing

A GUIDE FOR STATE, LOCAL AND TRIBAL HUD GRANTEES

CAPITAL ACCESS

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Welcome!

Introduction to Manufactured Housing Webinar
Wednesday, November 1, 2023, 3:00-4:00 pm ET

Housekeeping:

- All attendees will be muted with cameras off.
- Please use the Chat feature for all troubleshooting issues. Address your message to “Host.”
- Please use the Q&A feature for all questions. Address your questions to “All Panelists.”
- This webinar will be recorded. The video, transcription and Q&As will be available after the webinar.

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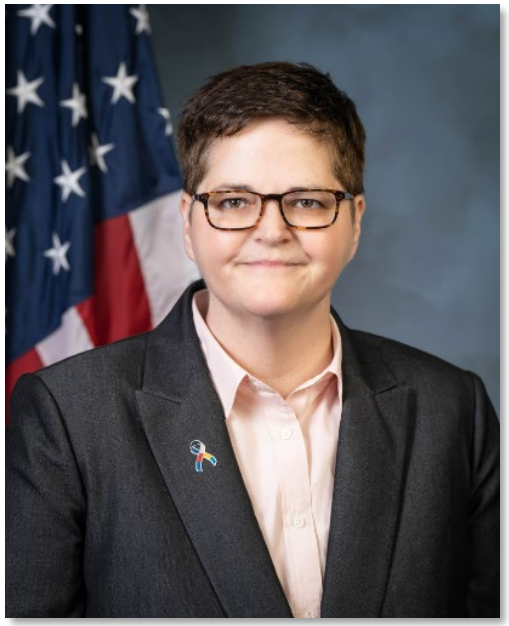
Agenda

1. Introduction
2. What is Manufactured Housing?
3. What are the Benefits of Manufactured Housing?
4. Ownership and Governance of Manufactured Housing Communities (MHCs)
5. How Does Manufactured Housing Address Community Needs?
6. Manufactured Housing Challenges and Solutions
7. Expert Insights: Innovations in Manufactured Housing
8. Q & A

INTRODUCTION



MARION MOLLEGEN MCFADDEN

Principal Deputy Assistant Secretary for Community Planning and Development

U.S. Department of Housing and Urban Development

WHAT IS MANUFACTURED HOUSING?

Manufactured Housing At a Glance

- Factory-built housing units constructed on a permanent chassis and transported to designated sites to be set up and connected to utilities
- Must be constructed to HUD's Manufactured Home Construction and Safety Standards (24 CFR Part 3280)
- Built after June 15, 1976

What are the Various Types of Factory Built Housing?

Manufactured Housing

- Factory built housing that is constructed to HUD's Manufactured Home Construction and Safety Standards ("HUD Code", 24 CFR Part 3280)
- Refers to homes built after the HUD Code's adoption on June 15, 1976

Pre-1976 Factory Built Housing

- Built under a patchwork of state and voluntary standards with few provisions for ensuring safety or quality
- Referred to as "mobile homes" by the industry and the various codes that regulated their construction

Modular Housing

- Factory-built housing constructed to the same state and local building codes as stick-built homes
- Must be installed on a permanent foundation
- Not subject to the HUD code
- May include shipping container homes

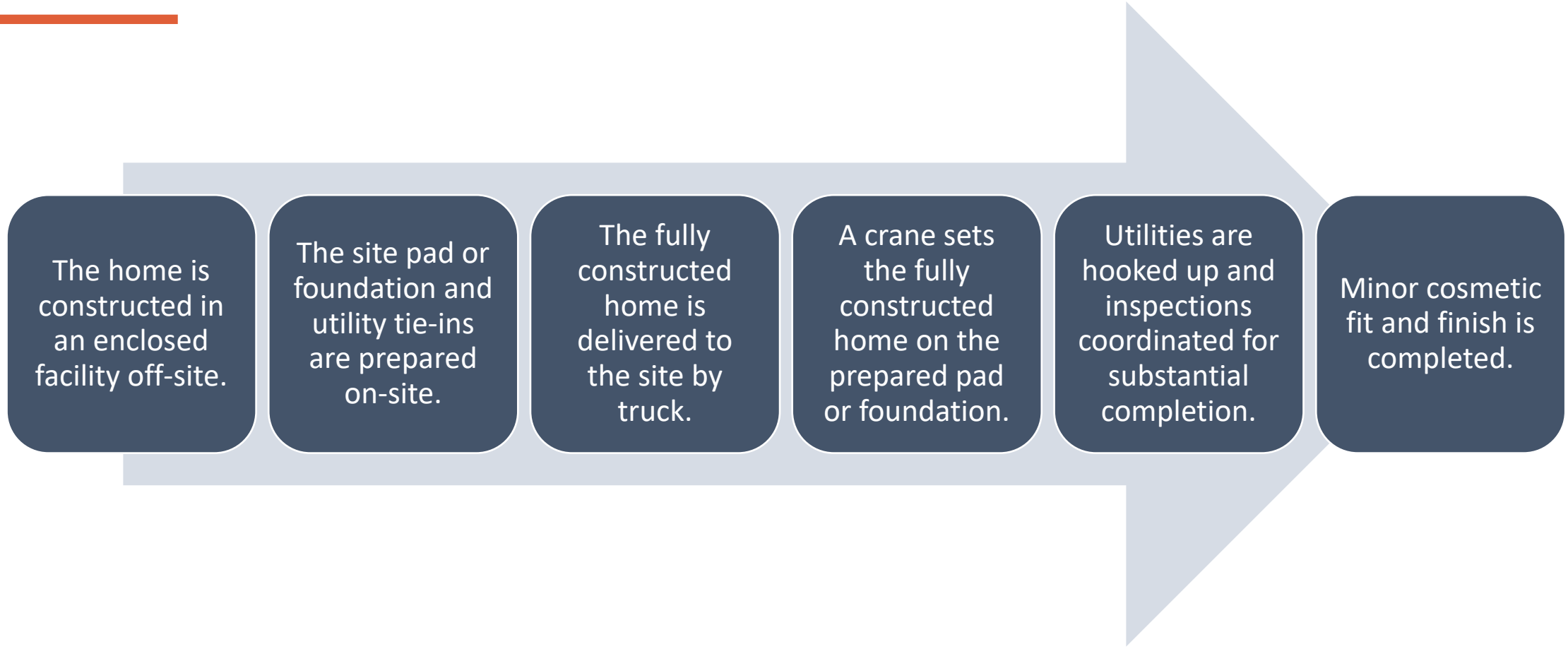
Panelized Housing

- Wall panels are factory-built and shipped to a site for assembly
- Constructed to state and local building codes

Site-Built Housing

- Homes built on-site to applicable state and local building codes
- May or may not include panelized construction or other factory-built components
- Also referred to as "stick built" housing

How is Manufactured Housing Constructed and Installed?



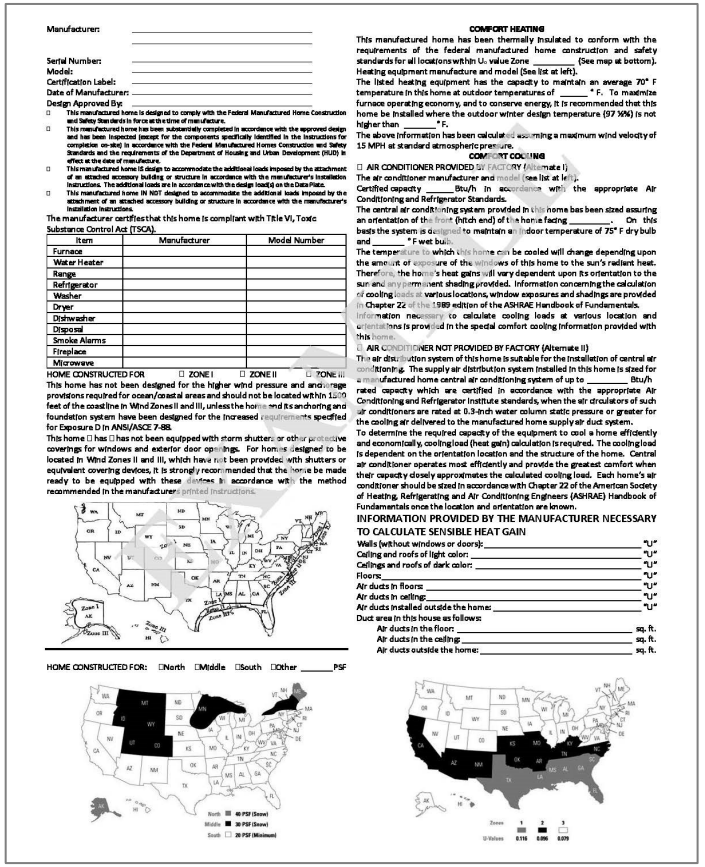
How to Tell if a Manufactured Home is Built to the HUD Code: Certification Label

Homes built to HUD's Manufactured Home Construction and Safety Standards (those constructed after June 15, 1976) are required to have a metal Certification Label like this attached to the exterior of the home:

Image credit: https://www.hud.gov/program_offices/housing/rmra/mhs/mhslabels

How to Tell if a Manufactured Home is Built to the HUD Code: Data Plate

- Homes built to HUD's Manufactured Home Construction and Safety Standards (those constructed after June 15, 1976) are also required to have a paper "Data Plate" affixed inside of the home
- Size of a standard sheet of paper (8 ½" x 11") and typically found in kitchen cabinet, electrical panel or bedroom closet
- Contains map of U.S. that shows the wind zone, snow load and roof load of the home
- Contains name and address of the manufacturing plant as well as serial number, model type and the date the unit was manufactured



Manufacturer: _____

Serial Number: _____
Model: _____
Certification Label: _____
Date of Manufacture: _____
Design Approved By: _____

☐ This manufactured home is designed to comply with the Federal Manufactured Home Construction and Safety Standards in force at the time of manufacture.
☐ This manufactured home has been substantially completed in accordance with the approved design and has been inspected (except for the components specifically identified in the instructions for completion on-site) in accordance with the Federal Manufactured Homes Construction and Safety Standards and the requirements of the Department of Housing and Urban Development (HUD) in effect at the date of manufacture.
☐ This manufactured home IS design to accommodate the additional loads imposed by the attachment of an attached accessory building or structure in accordance with the manufacturer's installation instructions. The additional loads are in accordance with the design load(s) on the Data Plate.
☐ This manufactured home IN NOT designed to accommodate the additional loads imposed by the attachment of an attached accessory building or structure in accordance with the manufacturer's installation instructions.

The manufacturer certifies that this home is compliant with Title VI, Toxic Substance Control Act (TSCA).

Item	Manufacturer	Model Number
Furnace		
Water Heater		
Range		
Refrigerator		
Washer		
Dryer		
Dishwasher		
Disposal		
Smoke Alarms		
Fireplace		
Microwave		

HOME CONSTRUCTED FOR ☐ ZONE I ☐ ZONE II ☐ ZONE III

This home has not been designed for the higher wind pressure and anchorage provisions required for ocean/coastal areas and should not be located within 1,500 feet of the coastline in Wind Zones II and III, unless the home and its anchoring and foundation system have been designed for the increased requirements specified for Exposure D in ANSI/ASCE 7-88.

This home ☐ has ☐ has not been equipped with storm shutters or other protective coverings for windows and exterior door openings. For homes designed to be located in Wind Zones II and III, which have not been provided with shutters or equivalent covering devices, it is strongly recommended that the home be made ready to be equipped with these devices in accordance with the method recommended in the manufacturer's printed instructions.

HOME CONSTRUCTED FOR: ☐North ☐Middle ☐South ☐Other _____PSF

COMFORT HEATING

This manufactured home has been thermally insulated to conform with the requirements of the federal manufactured home construction and safety standards for all locations within U- value Zone _____ (See map at bottom).
Heating equipment manufacture and model (See list at left).
The listed heating equipment has the capacity to maintain an average 70° F temperature in this home at outdoor temperatures of _____ ° F. To maximize furnace operating economy, and to conserve energy, it is recommended that this home be installed where the outdoor winter design temperature (97 %%) is not higher than _____ ° F.
The above information has been calculated assuming a maximum wind velocity of 15 MPH at standard atmospheric pressure.

COMFORT COOLING

☐ AIR CONDITIONER PROVIDED BY FACTORY (Alternate I)
The air conditioner manufacturer and model (see list at left).
Certified capacity _____ Btu/h in accordance with the appropriate Air Conditioning and Refrigerator Standards.
The central air conditioning system provided in this home has been sized assuming an orientation of the front (hitch end) of the home facing _____. On this basis the system is designed to maintain an indoor temperature of 75° F dry bulb and _____ ° F wet bulb.
The temperature to which this home can be cooled will change depending upon the amount of exposure of the windows of this home to the sun's radiant heat. Therefore, the home's heat gains will vary dependent upon its orientation to the sun and any permanent shading provided. Information concerning the calculation of cooling loads at various locations, window exposures and shadings are provided in Chapter 22 of the 1989 edition of the ASHRAE Handbook of Fundamentals.
Information necessary to calculate cooling loads at various location and orientations is provided in the special comfort cooling information provided with this home.

☐ AIR CONDITIONER NOT PROVIDED BY FACTORY (Alternate II)
The air distribution system of this home is suitable for the installation of central air conditioning. The supply air distribution system installed in this home is sized for a manufactured home central air conditioning system of up to _____ Btu/h rated capacity which are certified in accordance with the appropriate Air Conditioning and Refrigerator Institute standards, when the air circulators of such air conditioners are rated at 0.3-inch water column static pressure or greater for the cooling air delivered to the manufactured home supply air duct system.
To determine the required capacity of the equipment to cool a home efficiently and economically, cooling load (heat gain) calculation is required. The cooling load is dependent on the orientation location and the structure of the home. Central air conditioner operates most efficiently and provide the greatest comfort when their capacity closely approximates the calculated cooling load. Each home's air conditioner should be sized in accordance with Chapter 22 of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Handbook of Fundamentals once the location and orientation are known.

INFORMATION PROVIDED BY THE MANUFACTURER NECESSARY TO CALCULATE SENSIBLE HEAT GAIN

Walls (without windows or doors): _____ *U*
Ceiling and roofs of light color: _____ *U*
Ceilings and roofs of dark color: _____ *U*
Floors: _____ *U*
Air ducts in floors: _____ *U*
Air ducts in ceiling: _____ *U*
Air ducts installed outside the home: _____ *U*
Duct area in this house as follows:
Air ducts in the floor: _____ sq. ft.
Air ducts in the ceiling _____ sq. ft.
Air ducts outside the home: _____ sq. ft.

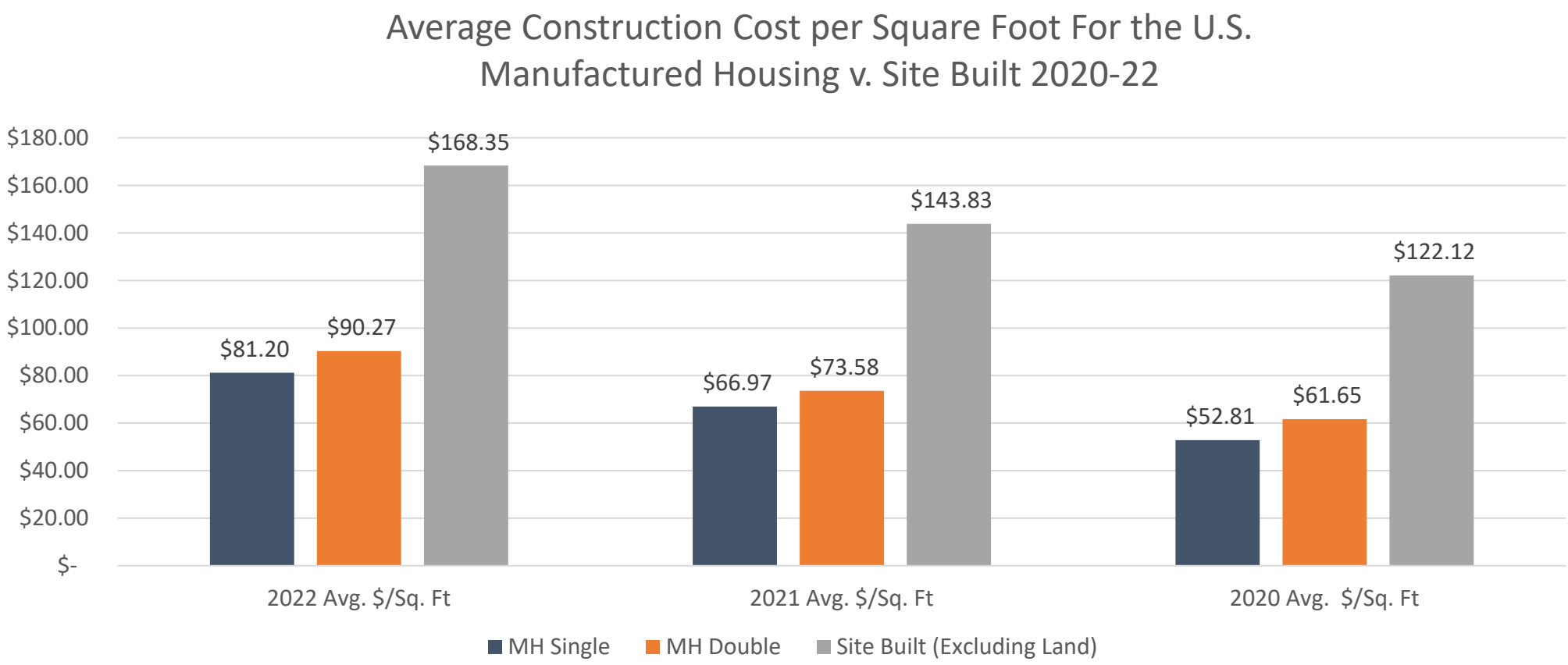
Image credit: https://www.hud.gov/program_offices/housing/rmra/mhs/mhslabels

WHAT ARE THE BENEFITS OF MANUFACTURED HOUSING?

Manufactured Housing is Faster to Build and Install Than Site-Built

- It takes approximately 7.2 months to site-build a single-unit building from start to finish in the US
- Factory built housing can reduce construction time by 20 to 50 percent
- Why is factory built faster?
  - Weather delays and damage are avoided
  - Home construction and site preparation can happen concurrently
  - More control of scheduling during the construction process – since all trades are on-site, there is limited time spent waiting for subcontractors to schedule a job

Manufactured Housing is More Affordable to Build Than Site-Built



Source: U.S. Census MHS Annual Data, June 2023, https://www2.census.gov/programs-surveys/mhs/tables/time-series/sitebuiltvsmh.xlsx

Why is Manufactured Housing so Cost-Effective?

- Factories can break the construction process into repetitive tasks that can promote efficiencies and eliminate the need for subcontractors
- Quality control procedures reduce the need for (or time lost associated with) rework and more efficiently detect and remedy defects in materials
- Work schedules can be managed more efficiently and predictably by avoiding weather delays
- Factories can buy materials in bulk, typically at a savings
- Materials can be acquired directly from suppliers rather than through subcontractors

Image credit: https://www.hud.gov/program_offices/housing/rmra/mhs/mhdrp

Manufactured Housing is Energy Efficient and Sustainable

- The HUD Code established minimum energy efficiency standards in 1976
- Energy-efficient features including better insulation and thermal windows are installed to keep utility costs down
- Many manufacturers use eco-friendly materials such as reclaimed wood, recycled steel and low-VOC (Volatile Organic Compound) finishes to reduce the environmental impact of construction and promote sustainability
- Manufactured homes often come equipped with Energy Star appliances and high-efficiency HVAC systems to reduce energy consumption

OWNERSHIP AND GOVERNANCE OF MANUFACTURED HOUSING COMMUNITIES (MHCs)

3 Models of Ownership and Governance

1. **Land lease model** (most common in MHCs) – Homeowner owns the unit but rents the pad or parcel.
2. **Fee simple subdivision** (most common outside of MHCs) – Homeowner owns both the unit and the parcel.
3. **Resident owned communities** (less common in general) – Homeowner owns the unit. The land, amenities and infrastructure are collectively owned by residents.

Land Lease Model

Homeowner

- Considered a homeowner by HUD even though they rent the land
- Experiences a higher likelihood of housing instability than when MH homeowner owns the land
- Homeowner's return on investment in their home depends on community owner's decision to continue community operation and maintenance

Community Owner

- Typically owns and maintains the infrastructure and any shared facilities
- Can increase land lease rents to an unaffordable amount
- Can sell the property and legally evict the residents who own their homes. In many states, this can occur with little notice and limited relocation assistance

Resident Owned Community (ROC) Model

- According to a 2019 Freddie Mac report, only about 1,000 of the 46,000 MHCs in U.S. are ROCs
- In this model, residents own their individual homes
- Residents also collectively own the community through a nonprofit, cooperative, or other similar framework and govern themselves
- The resident-controlled ownership entity owns the infrastructure, amenities and shared facilities
- As owners of the community, residents vote on major decisions and elect a board of directors to oversee the day-to-day operations

Fee Simple Subdivision Model

- Resident owns both the land and the home
- The MHC site is typically developed exclusively for manufactured housing
- Homes are typically on an engineered permanent foundation
- A Homeowners Association manages the common areas

HOW DOES MANUFACTURED HOUSING ADDRESS COMMUNITY NEEDS?

How Does Manufactured Housing Address a Community's Housing Needs?

- Manufactured housing is an important part of the Biden-Harris Administration Housing Supply Action Plan as well as HUD's FY2022-2026 Strategic Plan – this will be covered in greater detail in the second webinar in this series
- MHCs are lower-cost, unsubsidized affordable housing, which makes them a cost-effective solution to housing shortages
- Affordability and cost-effectiveness can provide an alternative path to homeownership for lower-income households
- Shorter construction timelines can more quickly increase the supply of housing in areas facing urgent shortages
- Post-1994 manufactured housing has greater wind- and earthquake resilience than pre-1994 manufactured housing

Manufactured Housing and HUD's Housing Supply Efforts

As outlined in its strategic goals, HUD supports and encourages the following efforts to increase housing supply:

- Include MHC residents in community planning processes
- Increase the supply of manufactured housing options and promote homeownership opportunities that make manufactured homes an available, affordable, and sustainable investment
- Advance sustainable homeownership by encouraging manufactured home and site acquisition, which provides stability to tenants and owner-renters of manufactured homes
- Rehab manufactured homes and MHCs to make them climate and hazard resistant

MANUFACTURED HOUSING CHALLENGES AND SOLUTIONS

Challenge: Outdated Perceptions

Community Ties – MHCs are neighborhoods like any other.

- MHC residents are no more transitory than other homeowners
- Estimates indicate that only between 1% and 7% of manufactured homes are ever moved

Quality – Manufactured Housing is built to high standards.

- The HUD Code and the amendments from 1994 onward set standards that ensure the quality of manufactured housing

Wealth Building – Manufactured homeowners can build equity.

- Manufactured homes on individually owned parcels can appreciate and evidence suggests that manufactured homes in resident owned communities also can gain value

Challenge: Disaster Resilience

Solutions:

- HUD Code adopted new wind load standards in 1994
- Additional features may be added during rehab or construction to further enhance resilience
- Tornado shelters and resilient community buildings can make MHCs more resilient while fostering a sense of community preparedness

Minor damage to post-1994 home after Charley

Destroyed pre-1976 home after Charley

Image credits: https://www.huduser.gov/portal/publications/destech/HurricaneCharley.html

Challenge: Mortgage and Insurance

Context:

- Buyer access to traditional mortgages requires completing a state-specific process to title manufactured housing as “real property”
- Homeowner insurance and NFIP require manufactured housing to be considered real property (not personal property) to issue insurance policies
- Personal property loans come with higher interest rates and fewer consumer protections

Solutions:

- Buyers should make informed decisions about whether to title and finance the home as real or personal property
- Homes manufactured according to the HUD Code (1976 and newer) have lower ownership costs

EXPERT INSIGHTS: INNOVATIONS IN MANUFACTURED HOUSING

MEET THE EXPERT

JASON MCJURY, PE, CQA
Deputy Administrator
HUD Office of Manufactured Housing Programs

As a licensed professional engineer and certified quality auditor, Jason has been involved in the regulatory aspects of the manufactured housing industry for more than 28 years. As Deputy Administrator, he is charged with leading the small but mighty staff responsible for administering all aspects of the nationwide manufactured housing program including implementation and oversight of the manufactured home installation program, dispute resolution program, and the construction and safety program.

Q & A

Thank you for joining us for today's webinar! What questions do you have about manufactured housing communities?

Please enter your questions in the Q&A box and send them to "All Panelists."