

## Home Builders' Guide to Manufactured Housing



PATH (Partnership for Advancing Technology in Housing) is a new private/public effort to develop, demonstrate, and gain widespread market acceptance for the "Next Generation" of American housing. Through the use of new or innovative technologies the goal of PATH is to improve the quality, durability, environmental efficiency, and affordability of tomorrow's homes.

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To learn more about PATH, please contact:

**PATH**  
PARTNERSHIP FOR ADVANCING TECHNOLOGY IN HOUSING

Suite B 133  
451 7th Street, SW  
Washington, DC 20410  
202-708-4250 (fax)  
e-mail: [pathnet@pathnet.org](mailto:pathnet@pathnet.org)  
website: [www.pathnet.org](http://www.pathnet.org)

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**Home Builders' Guide To  
Manufactured Housing**

*Prepared for:*

U.S. Department of Housing  
and Urban Development  
Office of Policy Development  
and Research  
Washington, D.C.

*Prepared by:*

NAHB Research Center, Inc.  
Upper Marlboro, MD

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## Disclaimer

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## Foreword

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Most new homes in the United States are site-built to State and local codes, but an increasing number are “manufactured homes,” designed and constructed to meet the requirements of the pre-emptive Federal Manufactured Home Construction and Safety Standards. For decades, manufactured housing has provided a low-cost alternative to conventional site-built construction. Evolution of the manufactured home is eliminating many of the differences with site-built homes, and changes in zoning laws are allowing use of manufactured homes outside of land zoned for parks in a growing number of States.

These developments are leading some home builders to consider using manufactured housing for entry-level product, often with significant site-built improvements or enhancements, instead of site-built homes. The result can be substantially lower production cost or other economic advantages for the builder and the consumer.

This Guidebook provides conventional builders and land developers with an introduction to manufactured housing, focusing on differences between manufactured and conventional homes that are likely to be encountered in practice. Chapters of the Guidebook describe various options for using these homes. The Guidebook covers finding a manufacturer, developing product specifications, potential contractual arrangements, local zoning and land-use planning considerations, installation and foundation options, site-built improvements, regulatory issues and consumer financing. Many references to more detailed resources are also included. Users of the Guidebook will find a wealth of information to assist in their business planning and support decisions about whether and how to make use of manufactured housing as part of a larger home building business.



Susan M. Wachter  
Assistant Secretary for Policy  
Development and Research

## A Quick Guide to the Guidebook

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*This book presents information for site builders and land developers about how they can use HUD-Code manufactured housing as part of their business operations.*

### **If You Need an Introduction...**

If you need an introduction to the subject you should start with Chapter One, which describes the evolution of manufactured housing from a market and design standpoint, and Chapter Two, which discusses market positioning and the different types of business opportunities you may want to consider pursuing with HUD-Code homes. These chapters will help you determine which other parts of the Guidebook to review.

### **If You Have a Project in Mind...**

If you are generally familiar with manufactured housing and already have a tentative business concept in mind, you can jump directly into the later chapters that present more detailed information about some of the key issues that may arise in connection with your project.

- Chapter Three goes into detail about identifying, selecting and working with a manufacturer to identify acceptable designs and strike an appropriate business relationship. Every builder who uses manufactured housing will need to address these issues.
- Chapter Four discusses special zoning issues that may arise in projects to use manufactured housing, including state-level requirements for using manufactured units on land zoned for single family houses that should help you work within the local system.
- Chapter Five covers unit installation and site-built improvements such as attached garages or decks, and how they differ from conventional site-built construction.
- Chapter Six covers consumer financing alternatives which are critical to any sale, including real and personal property financing.
- Chapter Seven presents case studies of some projects that have used manufactured housing.

### **If You Have Detailed Questions or Need More Information...**

The Appendices present other materials that you should find very helpful.

- Appendix A contains a list of manufacturing plants by state, city and manufacturer.
- Appendix B contains selected state-level market data and extensive information about state zoning requirements relating to manufactured housing.
- Appendix C contains a list of State Administrative Agencies that participate in enforcement of the HUD regulatory system and may regulate installation or site alterations.
- Appendix D presents information about typical development standards for land-lease communities of manufactured homes.
- Appendix E includes manufacturer contacts, producer web sites, state-level manufactured housing association web sites and other useful references.

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# Introduction

The U.S. home building industry is often described as consisting of a conventional or “stick-built” sector, that constructs new homes largely or entirely on site, and an industrialized or “factory-built” sector that assembles homes in a plant, ships them to a point of sale or use, and installs them on a prepared site. There are several different types of factory-built housing, but by far the most common is “HUD-Code” or “manufactured” housing. HUD-Code manufactured homes are so named because since 1976 they have been required to be designed and constructed to the pre-emptive federal Manufactured Home Construction and Safety Standards, administered by the U.S. Department of Housing and Urban Development (HUD). This legally distinguishes manufactured homes from factory-built “modular” homes as well as site-built homes, both of which are required to meet applicable state and local construction codes.

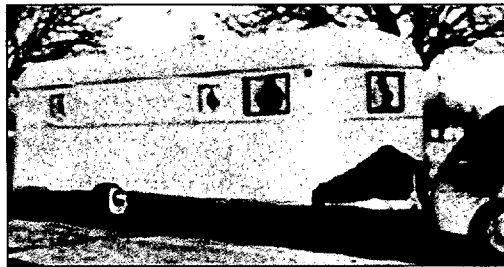
This Guidebook provides information about HUD-Code homes to an audience of site builders and land developers. A companion Guidebook aimed at HUD-Code producers and containing information about working with site builders and land developers is also available from HUD. Additional useful background information about the site-built, modular and HUD-Code segments of the housing industry appears in a 1998 study, *Factory and Site-Built Housing: A Comparative Analysis*, published by HUD.

### Why Should I be Looking at Manufactured Homes?

While both stick-built and manufactured homes provide shelter for the owners or occupants, there have historically been extensive differences between these two sectors of the industry in terms of product features, zoning, marketing, financing and the economic structure of production. Market overlap between the two sectors has been considered as minimal due to dissimilarities in the underlying products and many

builders have given little thought to using manufactured housing.

There is reason to believe the environment is changing. The traditional segmented view of the market dates back to the origins of today’s manufactured housing, the travel trailers and “mobile homes” of previous years, which were designed and sold as lightweight, self-contained living units that could readily be moved from one site to another over the highways. These products were uniformly viewed as a form of personal property, similar to the automobile, not as improved real estate.



*Pre-war Travel Trailer*

The appearances of mobile homes evolved and production grew dramatically through the 1960’s but the basic long rectangular shape and flat roof line remained. The industry underwent a regulatory transformation in the 1970’s and “mobile homes” became “manufactured housing.” Yet older products remain in use even today, and attitudes about manufactured housing sometimes reflect images of older trailer courts and mobile home parks where many such units are placed close together on small pieces of leased land, and owned or rented predominantly by lower-income households.

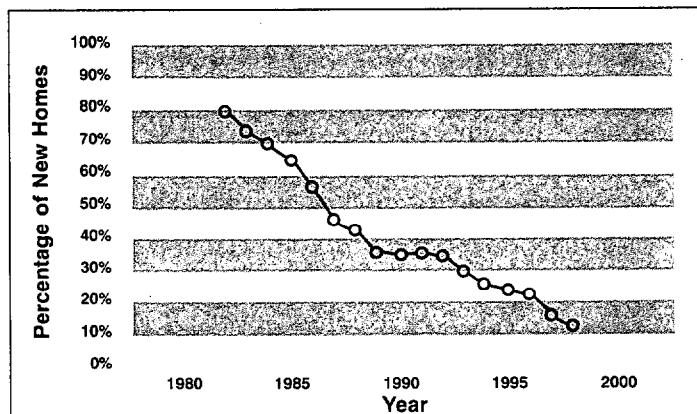


*1960's Mobile Home*

Designs and features of both site-built and manufactured homes have been changing over the decades. On the site-built side, economic and market forces have led new homes to become larger, better appointed and more expensive than ever before. At the same time escalating costs have made it much more difficult, even impossible in some areas, to build on-site for an affordable, entry-level market. Figure 1 shows the trend in the percentage of new homes priced below \$100,000. While much of this decline represents inflation, particularly during the 1980's, it also reflects a tendency for conventional builders who once produced starter homes for first-time buyers to target the move-up, luxury and custom marketplaces rather than concentrating on selling to a less affluent entry-level market.



*Mid-range double-section home with garage*



**FIGURE 1**  
Percentage of New Conventional Home Sales below \$100,000  
1982-1998

The pace of change has been even faster in the HUD-Code sector. In the early 1980's, nearly three-quarters of HUD-Code homes consisted of a single section, generally 12 to 14 feet in width. Most new units were sited on leased land in a community of similar homes. But by 1998 over 60 percent of new HUD-Code homes included two or more sections designed to be joined at the site, and about 75 percent of new multi-section homes were located on private land rather than in a park. Shipments of single-section and multi-section HUD-Code units from 1980 through 1999 are plotted in Figure 2 (1999 shipments are projections based on half-year data). The Figure clearly shows the substantial growth in multi-section shipments during the 1990's.

The shift towards multi-section homes has marked a fundamental transition for manufactured housing. Not only do two sections greatly increase living space, but the resulting structure has the rectangular footprint and aspect ratio of a modest starter home or tract home of a previous era. At the same time there have been changes in interior finishes, siding, appliances and other products and materials that bring HUD-Code homes closer to what is standard in the site-built sector.



*1990's multi-section home with site-built garage and roof section*

Some other innovations are equally significant. Steeper roof pitches are becoming available, as well as chassis/floor systems designed for perimeter support as would be provided by a site-built basement or crawl space,

rather than on rows of piers under chassis I-beams. The technology has led a few producers all the way to two-story HUD-Code units, something that could only be imagined a few years ago.

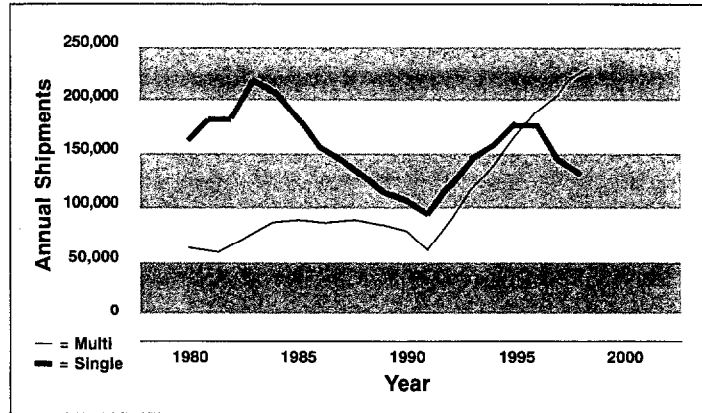
Even as some manufactured homes take on more of the look and feel of some site-built homes, data from the Bureau of the Census indicates that the average HUD-Code unit retails for around \$30 per square foot, and the average double-section home sold for about \$52,000 in 1998. These selling prices include the cost of production, manufacturer's profit, cost of shipping, taxes, the retailer's margin and the basic set-up but do not include land, site improvements or the added cost of a permanent foundation or perimeter chassis design. The prices must be interpreted cautiously since they are for average units that would generally require upgrades to be comparable to site-built starter homes, but they are evidence of production cost economies. It is this combination of technical product improvement and low cost of production and distribution that is fueling growth in sales and presenting new opportunities.



*Two-story HUD-Code homes, Howard County, Maryland, 1997*

### What Does the Market Look Like Now?

On a national basis, there were a reported 353,377 HUD-Code homes shipped in 1997, (including 204,568 multi-section units) and 372,843 shipped in 1998 (including 228,515 multi-section units). For comparison, there were 1.03 million single-fam-



**FIGURE 2**  
Annual Shipments of Single Section and Multi-Section HUD-Code Homes 1980-1998



*Row of 2-story units nearing completion in Orange County, California*

ily detached housing starts in 1997 and 1.16 million in 1998. Yet the shipment data also shows that the current market environment for HUD-Code homes varies significantly across the United States. Detailed factory shipment data indicates considerable variation between regions, as well as across states within any given region.

Many sources compare total HUD-Code shipments to site-built housing starts, but for purposes of this Guidebook it is more relevant to limit this comparison to multi-section HUD-Code units versus conventional homes. This is because the single-section market is far different and has significantly less overlap with the market for site-built homes. Therefore, the map in Figure 3 shows the ratio of multi-section HUD-Code homes to total new homes (conventional starts plus

multi-section HUD-Code placements) by state for the years 1997-98. This ratio ranges from 1 percent or less in four U.S. states to 35 percent or more in other states.

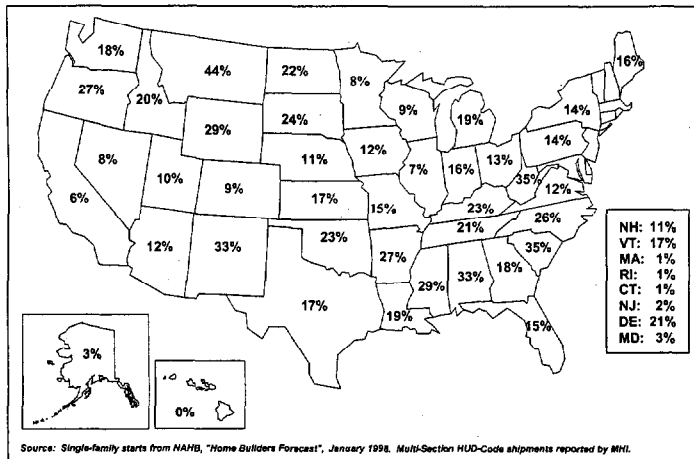


FIGURE 3  
Multi-Section HUD-Code share of Conventional Starts and Multi-Section Home Sales, 1997-1998

In areas where multi-section manufactured housing has a high share, this is good evidence of a receptive market from the consumer demand side. However, the high share might also indicate some level of saturation as well as the potential for strong competition from an established HUD-Code retailing segment. On the other hand, a low share for multi-section manufactured housing may indicate buyer resistance, zoning and land use impediments, or other causes. While a low share may be evidence that using manufactured housing is not appropriate or viable in a given area, it can also be viewed as a sign of potential opportunity and unmet needs. Each builder must consider the implications of this statistic in any given market environment.

In addition to data in the map, there are several basic generalizations that can be made about the HUD-Code segment in different parts of the U.S.

- The HUD-Code market has been growing in practically every state since 1991, except in California where shipments actu-

ally peaked in 1990 and dropped more than 50 percent by 1996 before starting to increase again.

- The HUD-Code market in the West Coast states and Nevada is more than 90 percent multi-sections. This area has a long history of preferring multi-sections compared to other parts of the country.
- HUD-Code units are a large fraction of total starts in the mountain states, but overall sales are not large because total housing production in those states is often very low.
- Southern, South Atlantic and Midwestern states show a high penetration of multi-section shipments as a fraction of total housing starts.
- Over half of all HUD-Code shipments to the South Central states were single-section units.
- There are very few HUD-Code shipments to any of the New England states except for Maine and Vermont. Modular construction is relatively stronger throughout this region.

### Who Should Use the Guidebook?

This Guidebook is written as a resource for site builders and builder/developers that want to know more about how they may be able to take advantage of manufactured housing as part of their ongoing business operations. Different builders inevitably will have different motivations for investigating a new strategic direction. The Guide can only summarize the kinds of business approaches that have been or could potentially be used by conventional builders interested in substituting a factory-built home for a site-built one.

While the use of manufactured housing strikes many home builders as a fundamental change in operations, this is not necessarily so. Most home building companies already rely extensively on subcontractors to perform construction work. Substituting factory built units for site-built homes can be seen as another step in the same direc-

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tion, where most aspects of unit construction, code compliance and delivery to the site are handled by the manufacturer. The building company may retain responsibility for building a suitable foundation, on-site installation and utilities, finish work, construction of site-built amenities, marketing, consumer financing and closing of sales, as well as local zoning and environmental approvals. Depending on the project, the builder or land developer also may need to arrange for any necessary subdivision development, utility infrastructure, community facilities and lot development.

Not every firm will be interested in such a change in their way of doing business. Some will conclude that obstacles in their market areas, characteristics of their buyers, or essential features in the homes they want to market are not consistent with substituting manufactured product for site-built housing. But there is a growing body of experience showing that with careful planning and a cooperative manufacturer, HUD-Code homes can be an economical alternative to certain types of site-built construction.

The Guidebook presents a comprehensive introduction to the technical, market and business issues relevant to the use of manufactured housing. It identifies the key questions to be asked and choices to be made, and includes various types of information that can be used in developing a specific business model and evaluating opportunities for using manufactured homes. Various specific projects illustrating different ways builders have used manufactured housing are listed elsewhere in the Guidebook, along with references to further information about each project.

### **How Do I Use the Guidebook?**

The Guidebook is broad and general in coverage, designed to be useful to various types and sizes of building firms. Users are assumed to be generally familiar with

the materials and methods used in site-built housing construction, as well as the basics of residential land development, zoning and mortgage finance. Much of the information in the Guidebook revolves around similarities and differences in these areas that are likely to be encountered where manufactured housing is used in lieu of site-built construction. The overall focus is on multi-section units installed on permanent foundations and upgraded with site-built amenities, to be sold as fee-simple properties eligible for conventional mortgage financing. Several variations on this approach including land-lease developments are also addressed.

Most builders who use the Guidebook should continue by reviewing Chapter 2, which describes alternative ways to use manufactured homes, discusses product selection and general market positioning, and identifies key issues that arise under each alternative relating to product technology, zoning, land or site development, and financing. This information can help the builder to think about specific projects that might make sense for their housing market and target base of customers, and to begin considering about the desired product design features and types of site amenities.

Once a project concept is tentatively selected, users will want to review the more detailed materials appearing in Chapters 3, 4, 5 and 6 in the context of that project. Of course, not all of the material in those chapters is relevant to every project. Chapter 3 discusses the process of identifying and working with a producer to arrive at specifications for HUD-Code units that meet your needs and expectations, and entering into an appropriate business arrangement. Chapter 4 covers local zoning and land use issues that can make or break any project involving manufactured homes. Chapter 5 covers site planning, foundation construction, the transportation, delivery, installation and

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finishing processes, and issues relating to site-built improvements. Chapter 6 reviews the various methods available for consumer financing of manufactured home purchases.

*Using the Guidebook:*

1. *Determine Desired Market Positioning Strategy*
2. *Select Tentative Project Concept*
3. *Identify Producer and House Designs*
4. *Review Zoning and Land Use Restrictions*
5. *Plan for Foundation Construction, Unit Installation and Site-Built Improvements*
6. *Review Financing Alternatives*
7. *Prepare Business Plan, Review, Proceed or Stop*

Other resource materials also appear in the Guidebook. Chapter 7 identifies a series of selected projects that have used manufactured homes with innovative designs or in unusual ways, or that otherwise combine elements of site-built construction with manufactured housing. Appendix A gives a list of specific plants, sorted by state, city and

company. Appendix B has detailed state-level information on shipments, housing stock and zoning laws relating specifically to manufactured housing. Appendix C is a list of State Administrative Agencies that participate in the HUD regulatory program on the state level, including contact names and phone numbers. Appendix D is a description of the types of development criteria applied to land-lease manufactured home communities, and Appendix E lists printed and on-line resources that will be of assistance to you as you get further into the subject.

Building upon a review of the Guidebook, users will be in a position to develop more comprehensive plans for specific project opportunities, and can follow up by working actively with manufacturers, local officials and others to complete the plans and assess their viability and economic potential. If the planning shows the project is viable then execution of the plan can proceed. Otherwise the user may wish to return to Chapter 2 of the Guidebook, evaluate other available project approaches, and pursue those as appropriate through the Guidebook.

The potential for expanded use of manufactured housing by today's site builders rests largely on the possibility of realizing significantly lower production cost, higher margins, improved market share or some combination of these potential competitive advantages through the adoption of a substitute production and supply technology. Other factors that ultimately can contribute to achieving a competitive advantage include shorter cycle-time, less waste at the site, minimizing labor supply problems, reduction of the need to find and coordinate subcontractors, shifting of warranty responsibility for the factory-built unit, and reducing the burden of multiple local code inspections required for site-built units.

### How Can I Position Myself in the Market?

A simplified framework can provide a basis for planning and market research. Under this framework, there are three alternative possible ways a builder can take advantage of manufactured housing technology within an existing business orientation:

- offer a comparable product at a lower price,
- offer a better product at a similar price, or
- offer a less desirable product at a significantly lower price.

Each of these approaches to market positioning is discussed in this section.

#### *Offer a comparable product at a lower price*

This is a straightforward substitution approach, in which the builder's current target market of buyers would largely be retained, but more sales could be made to such buyers based on price competition. The buyer market would also be expanded to some degree because lower-income customers at or near the margin of qualification would become eligible purchasers. Dollar margins will drop at lower selling prices even if percentage margins can be preserved, so growth in sales

may be necessary to preserve or improve profitability. The principal issues under this approach are the technical problems of achieving product comparability, the financing problems experienced by buyers with lower incomes and less perfect credit records, and availability of suitably zoned land for any expanded sales.

#### *Offer a more desirable product at a similar price*

Under this approach the existing target market of buyers would be retained and more sales could be made based on improved appeal of the product. The buyer market would also be expanded to include purchasers that are attracted to added features or amenities that can be included in the manufactured home without raising the cost above pre-existing levels. Product desirability can be enhanced by specifying higher quality products, appliances and finishes and by providing attractive site-built amenities. The profitability implications depend on whether per-unit margins can be preserved or increased. The principal issues under this approach are the technical challenges of producing a more desirable product without sacrificing margins, and availability of suitably zoned land for any expanded sales. Financing issues are less important under this approach, since the target buyer market is not really changing.

#### *Offer a less desirable product at a significantly lower price*

This strategy represents a clear shift towards supplying more basic, affordable housing particularly suitable for first-time buyers and others whose incomes cannot support the expense of conventional homes. While the product will typically be smaller and more economically appointed than other new homes built today, it will probably resemble entry-level site-built homes that were the mainstay of the home building industry for much of the last 50 years. Technical issues are the least significant under this approach,



and financing problems are potentially the greatest when doing expanded business with a significantly less affluent buyer group more likely to have sub-par credit and less access to market-rate mortgage money. Availability of suitably zoned land is also a major issue under this approach, because expanded sales will be needed to compensate for lower margins on lower-priced product and because the product characteristics are most likely to trigger community opposition to any required zoning approvals.

#### What Other Basic Choices Must I Make?

Another basic issue you will face is between focusing on selling homes together with the land as fee simple properties, versus selling homes on leased land. Most site builders will be far more familiar with fee simple transactions, and this approach to selling homes can be applied to manufactured homes. However, experience shows that there are clear opportunities for land-lease manufactured home community development as well. This decision has many implications that you should consider. The demographic and economic characteristics of potential customers will differ significantly between fee simple and land lease sales, and this may affect your thinking about appropriate product design, amenities and marketing. Zoning restrictions are sometimes less stringent for homes sold as real property while homes on leased land may only be permitted in communities zoned for HUD-Code homes. Conventional mortgage financing may only be available for fee-simple transactions, while personal property loans with shorter terms, higher interest rates and quicker borrower qualification are the norm for homes on leased land. Standards for land development in a land-lease park can be significantly less stringent than the subdivision development standards with which many builders are familiar. Owners of homes on leased land may pay far less in local taxes than owners of homes classified as real property. And where the home owner does not

own the underlying land, the question remains: who does?

#### What Types of Business Opportunities Are Available?

Experience suggests there are several different types of business opportunities for site builders considering the use of manufactured homes. The most appropriate opportunities depend on factors such as the builder size, market location, target customer market and current way of doing business. Guidebook users should review the six approaches listed and discussed in this section to see which, if any, are applicable and of interest to them. The list is diverse but not exhaustive; over time additional business models and applications are very likely to develop.

*Builder places manufactured homes on individual building lots, as an alternative to site-built or modular homes. The builder provides the foundation (whether classified as permanent or not) and the site improvements, installs the delivered unit and constructs any exterior improvements or amenities. The lot may be owned by the buyer, or packaged and sold along with the home.*

#### **Approach #1:** *Manufactured Homes on Scattered Rural or Suburban Sites*

This approach can be used by any size of building firm, but is best suited for smaller builders that commonly use single lots. The approach is similar to that generally used in marketing modular homes. It is the easiest to implement in those states or localities where zoning permits use of manufactured homes on any residential building lot, but can be used in other areas unless prohibited by the zoning.

The scattered-site approach has seen its widest use in rural areas where ranch-house type construction is already common and zoning restrictions are less stringent. From a practical standpoint, in this type of small volume application, the builder has few op-

portunities to negotiate product customization with the manufacturer outside whatever range of options is already available from the factory.

HUD-Code retailers currently sell substantial amounts of product onto private land using a related business model, although usually the customer owns the land before buying the home. A 1996 survey reported that this land-home package market was increasing in all but two of the 25 states that responded, as shown on the map in Figure 4.

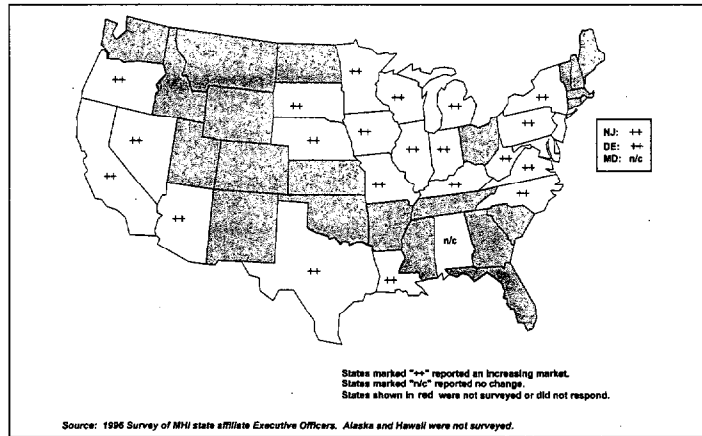
**Approach #2:**

*Manufactured Homes on Urban Infill Sites*

Urban infill projects represent a substantial opportunity for manufactured housing, particularly in older cities, though experience using HUD-Code homes in this application is relatively limited. Not only are public utilities readily available, but the ability to place and secure a finished unit quickly can be especially advantageous in urban areas where site-built homes face prolonged exposure to theft of materials and vandalism. Special financial incentives may be available for qualifying construction in older cities through the federal HOME program or other state or local sources.

There is a clear need, but there are also special difficulties in this application. One of the obstacles to infill projects is that most homes in urban environments are on small lots and are at least two stories in height. The limited availability of manufactured home designs that will blend gracefully with adjoining buildings in urban areas is a major impediment to this type of project. Nar-

*Builder places manufactured homes vacant lots located in urban areas. The building lots may be purchased commercially or made available through city tax authorities. Lot constraints and the need to maintain reasonable compatibility with surrounding housing units can complicate design.*



**FIGURE 4**  
Reported Trends in HUD-Code Land/Home Package Market, 1996

row lots may require single-section homes. Shipping large floor sections for infill use into otherwise crowded urban areas can raise uniquely difficult logistical issues. Zoning in urban areas may also prohibit the use of manufactured housing outside of land zoned for rental communities or parks, so special zoning approvals may be required.

Infill applications are reported to have been going on over the last two decades on the west coast, but there is much less experience in most eastern cities. The Manufactured Housing Institute and other organizations have been collaborating for several years on an "Urban Design Project" with demonstration homes in five different cities, discussed in a subsequent Case Study. HUD has also sponsored research into development and prototype production of a "Next Generation" of manufactured home designs, including single section designs intended for urban environments. This work is documented in research reports published by HUD, and some of the results have been used in the Urban Design Project.

Figure 5 summarizes survey data indicating that as of 1996, HUD-Code home usage on infill sites was expanding in 13 of 25 states that responded, and constant in the other 12 states.

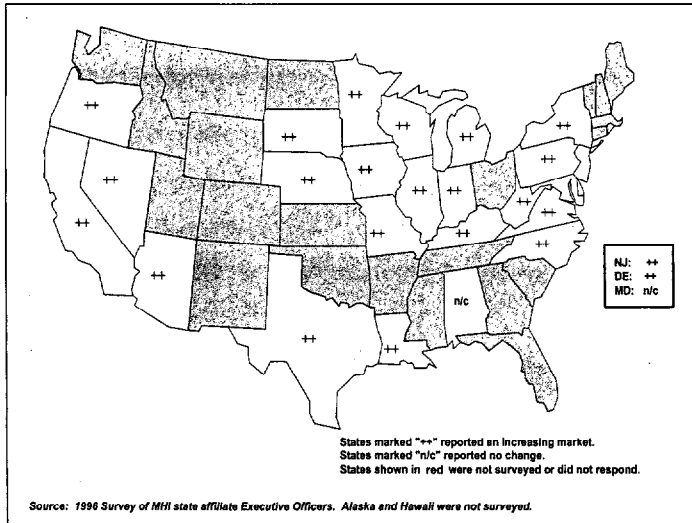


FIGURE 5  
Reported Trends in HUD-Code Infill Market, 1996

**Approach #3:**  
Fee Simple  
Manufactured  
Home  
Subdivisions

Some of the innovative recent projects that use manufactured homes involve entire subdivisions of HUD-Code homes installed on permanent foundations and sold as fee-simple real estate. These projects range from small subdivisions with a handful of lots to larger subdivisions with shared community facilities. Building firms with experience in land development and subdivision planning are the logical firms to pursue these opportunities.

Lot sizes and densities in a fee-simple subdivision of manufactured homes ordinarily will be required to be the same as for site-built homes, meaning there will be little

*A subdivision is planned from the ground up for use of HUD-Code homes. The houses are placed on permanent foundations and sold as a fee simple package with the underlying land, allowing them to be financed with conventional 30-year mortgages. Marketing is done through model homes located on site.*

or no savings on land or infrastructure. However, economies in unit construction may still lead to production cost savings, and cycle-time can be reduced. Larger subdivisions can also justify some design revisions or enhancements at the manufacturing level based on the anticipated volume of production and fill rate.

There are variations on this approach where the builder mixes HUD-Code, modular and/or site-built homes within a single subdivision. This offers more product choice to buyers and potentially expands the marketability of the subdivision, but presents more logistical issues to the builder similar to those associated with site-built subdivisions in general.

**Approach #4:**  
Subdivision  
Development and  
Lot Sales

One of the principal impediments to growth in manufactured housing is the high cost of land and scarcity of suitable sites. As a result, most sales in the current HUD-Code market are made to buyers who own their own land, or in connection with an available for-rent space in a land-lease community.

The approach described here is a pure land development approach. It provides an alternative to retailers by offering lots in a development that may have superior appeal to manufactured home purchasers compared to either a leased park site or an undeveloped piece of rural property that happens to be available. It is suited for the land developer who would ordinarily sell finished lots to builders or consumers, particularly in a market with ample land supply. The

*Builder/Developer creates a new subdivision for the use of HUD-Code homes, and markets finished lots to or through retailers of manufactured homes that do business in the same market area. Marketing can be done on-site through model homes, or off-site at retailer facilities.*

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terrain in the development must be suitable for manufactured homes, which is somewhat more restrictive than for site-built homes, and the zoning must allow fee simple manufactured homes.

The developer pursuing this approach will likely want to record a set of covenants that impose technical and aesthetic restrictions on the types of homes that will be allowed in the subdivision, similar to most other subdivisions. Permanent foundations may or may not be required. The main difference compared to other approaches is that under this pure land-development approach the responsibility for customer marketing, factory orders, installation and financing rests with the manufactured home retailer. This means the developer loses the opportunity to capture the retailer's margin as part of the overall business plan. In areas with a competitive retail environment for manufactured homes it may be most effective to make lots available through multiple retailers. In other cases it may be better to work more closely with a single retailer.

*Builder/Developer designs a new community of HUD-Code homes on leased land. Infrastructure is built and community amenities may be included. Individual homes may be sold on order or constructed for sale. The homes may come with a transferrable long-term lease. The developer/landowner retains title to the entire parcel and ongoing responsibility for community management, or sells the community to an investor once it is operational.*

**Approach #5:**  
*Development of New Land-Lease Communities*

Part of the affordability advantage of manufactured housing reflects the continuing practice of selling homes separate from any interest in land, and placing the homes on leased land. This practice does not necessarily reduce the

ongoing costs of debt service plus land rent, but it can greatly reduce the up-front cost of down payment, loan origination fees and other closing costs associated with real property transactions that constitute a substantial barrier to achieving home ownership.

A second advantage of land-lease development reflects special development standards that often apply in land-lease communities. These include density limits that are considerably higher than in fee simple subdivisions, as well as relaxed infrastructure requirements for street widths, unit setbacks and related facilities. These differences can substantially reduce the per-unit cost of community development.

One major downside of the land lease approach is that many potential buyers will not seriously consider purchasing a home without also buying the land on which it sits. This may reflect concern about rent increases over time or opportunities for resale, as well as a desire for a more traditional ownership arrangement. Another problem is that in some states manufactured homes on leased land are not eligible for real property mortgages, because they do not constitute real property. In other states this is not a problem. In addition, this approach requires "patient capital" since the builder must buy and improve the land but does not sell it. The long-term returns can be very high, but the builder/developer loses the chance to cash out of the property and use the proceeds to move on to another deal.

From a design standpoint, land lease communities can range from the subdivision-like "neo-traditional" design found in New Colony Village in Howard County, Maryland, all the way to a more conventional mobile home park design and appearance. At one extreme the homes would be installed on permanent foundations, sited and equipped to resemble site-built homes, and sold together with a transferable long-term lease. At the other extreme, non-per-

manent foundations and short-term land leases can be used. Many special zoning issues arise in considering land-lease developments and approvals can be difficult or impossible to obtain in communities that do not relish additional "mobile home parks." In effect the site must be zoned (or rezoned) for ownership as a single parcel eligible to be used for manufactured homes.

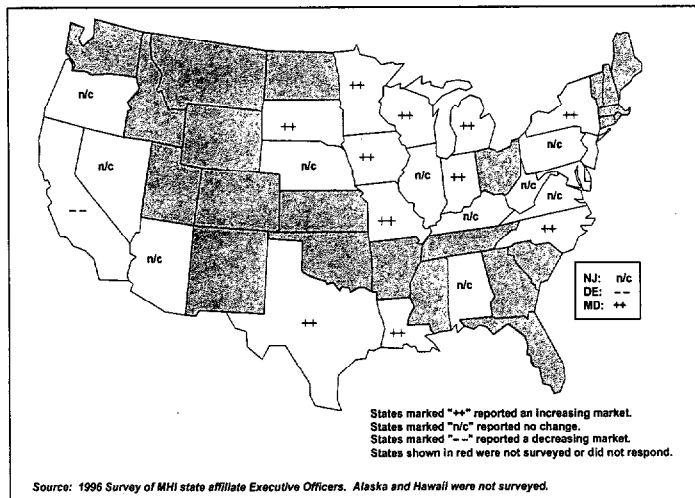
The manufactured housing industry and certain Real Estate Investment Trusts (REITs) are actively pursuing development of new rental parks on "greenfield" sites. Producers thereby seek to expand the sup-

is more similar to multifamily properties than to production and sale of site-built homes.

**Approach #6:**  
*Redevelopment or Expansion of Existing Land-Lease Parks*

Tens of thousands of land-lease parks exist around the United States and millions of homes occupy rental sites in these parks. California alone is reported to have over 4,000 parks. Many existing parks are older facilities located in the suburban fringes of major metropolitan areas. Appearance standards, target customer market and amenities vary widely. Some existing parks may currently be zoned for expansion. While most parks are located in less desirable locations, communities also change as they grow, so this is not always the case.

*Builder/developer buys an existing land-lease park or works with current owner to expand the park with additional homes, or to install new homes for sale on rental sites throughout a community as they become vacant. Park infrastructure (electricity, gas, water, sewer, stormwater drainage, streets, sidewalks, etc.) and community facilities may need to be upgraded. Adjoining lots can be consolidated to allow multi-section homes.*



**FIGURE 6**  
 Reported Trends in HUD-Code New Community Development  
 1996

ply of home sites, while the REITs are interested in the very attractive long-term returns for investors in successful parks. A map showing reported trends in community development by state is in Figure 6.

There are additional issues associated with the ongoing management of a land-lease community that need to be considered. These include most of the usual landlord-tenant considerations, rent controls in some areas, and other regulations unique to the operation of manufactured housing parks. In many respects this type of development

There is a slow but steady turnover of rental sites in most land-lease parks. The high cost of relocating a home usually leads to houses being sold in place, but some homes are moved to other sites upon termination of the land lease. While many park owners engage in retailing within their own rental communities, others do not.

The phased redevelopment of existing land-lease parks offer excellent opportunities for use of new HUD-Code products, with the type of product dependent upon the nature of the park and the surrounding community. The land is, by assumption, zoned for HUD-Code homes so there is little or no controversy over land use. Com-

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munities that resist permitting new park development might be expected to welcome park redevelopment. Upgrading the park will support higher rents, particularly if there is little competition from affordable new home or apartment construction in the area.

You will need to work with the current park owner or acquire the property in order to pursue this approach. You will also need to deal with existing tenants and leases during the redevelopment process. The opportunities are greatest for parks located in the fringes of expanding urban areas where new site-built homes are relatively expensive.

### **How Do I Plan For a Project Using Manufactured Homes?**

Once you have tentatively chosen a basic approach to using manufactured housing and identified a site where the project might be located, you can begin looking at the specifics in more detail in order to see if your concept is feasible. A feasibility assessment will help to screen out projects with little chance of success before substantial resources must be invested in planning or execution. Ultimately you will need to develop a comprehensive business plan for a project of any significant size. The business plan needs to address many things, including the sequence of activities required to bring the project to market. This series of activities is presented here as four key steps that must be addressed in most cases. Further chapters cover these topics in more detail.

#### **Step 1:**

##### *Identify Basic Product Characteristics and Select Manufacturer*

Unless your sole interest is land development, you will need to review potential sources of supply and identify a suitable HUD-Code product or products that meet your basic requirements. This calls for in-

vestigating manufacturers within the region, selecting a specific manufacturer and manufacturing facility, and negotiating a suitable business arrangement addressing a range of issues. If you cannot identify a willing manufacturer and suitable product design, then there obviously can be no project. See Chapter 3 for information about identifying manufacturers, product specification and business arrangements.

#### **Step 2:**

##### *Identify Suitable Building Sites*

You will need to identify or develop building sites that are suitable for use with HUD-Code homes. Most single-family lots will be technically suitable, except those on steep terrain or where access to haul in and place the unit is problematic. The usual development constraints relating to traffic, easements, availability of water and sewer, wetlands, storm water runoff and other federal, state and local environmental regulations will apply here as for any other single-family housing. In addition, it is very important to review the local zoning and land use requirements as they apply to the site, along with any covenants or deed restrictions of record, to ensure that manufactured homes are a permissible use or to identify specific legal restrictions on their use. If HUD-Code units are not permitted by the zoning then a rezoning, special exception or variance would be required in order for the project to proceed. Chapter 4 includes information about zoning and land use regulations as they apply to manufactured homes on land zoned for residential use.

#### **Step 3:**

##### *Plan for Foundation Construction, Installation and Site-Built Improvements*

You will need to decide on the type of foundation construction to be used for the home. Several alternatives will usually be available, but typical foundations used in

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site-built homes are often not suitable for most HUD-Code units. Most foundation designs should be engineered for the specific unit design, soil type and local frost depth. Either you or the manufacturer will need to arrange for transportation of the unit from the factory to the building site. You will need to have a qualified crew place the unit on the foundation, connect multi-section units and perform various other exterior and interior finishing tasks associated with installation. A local installation permit may be required for this purpose. You will also need to develop designs and secure required local permits for any site-built improvements to the unit other than routine installation work.

Examples of work requiring permits would be site-built attached porches, garages, fireplaces and other improvements that attach to or impose loads on the HUD-Code unit. Such improvements may need to be designed jointly with or reviewed and approved by the manufacturer's engineering staff and third-party design approval agency in order to ensure acceptable performance and avoid disputes over warranty coverage. Chapter 3 covers the design issues and Chapter 5 covers foundations, delivery, installation and site-built improvements.

#### **Step 4:**

##### *Plan for Marketing and Financing of Sales*

You will need to market the units to consumers, help arrange financing for the purchaser and settle the transaction, unless you are partnering with a retailer who performs these functions. In principle, manufactured housing can often be financed with mortgage instruments similar to those used for site-built homes. In practice, financing manufactured homes often differs substantially from financing site-built homes. Financing options often depend on whether the unit is on a permanent foundation and is classified as real property by state law. Chapter 6 describes the types of available financing and some considerations relating to different financing alternatives.

#### **Completing a Business Plan**

In order to complete a business plan for a specific project, you will also need to do market studies in order to understand the size and nature of the HUD-Code market in the area, and you will ultimately need to estimate unit selling prices, development costs and other hard and soft costs, along with absorption rates, in order to develop cash flow projections and estimate the project return on investment. These tasks are similar in nature to those required for any home building project.

## Selecting and Working with a Manufacturer

Every builder who uses manufactured housing will be dealing with a specific manufacturer and specific production facility. Selecting the right manufacturer and factory is a critical decision. Individual producers may vary widely in their interest, experience, market orientation and capability for working with builders rather than through the existing retailer network. Individual factories will also differ in their production capacity, overall utilization, product mix, and technological capabilities.

### Who Are the Major Producers?

As of 1999 there are nearly 100 U.S. firms that manufacture HUD-Code homes using a total of over 300 manufacturing facilities located around the country. Some regions and states have far more production facilities and competing manufacturers than others. This segment is dominated by a relatively small number of large firms that each operates multiple plants and does business in many states. There are many other manufacturers that do only regional or even state-level business.

In recent years, four companies accounted for more than 50 percent of shipments and 10 companies accounted for about 70 percent. A total of twelve manufacturers are publicly traded, accounting for nearly 270,000 units in 1998 as shown at the right. Considerable business and financial information about these publicly held firms is available in annual reports to shareholders or filings to the Securities and Exchange Commission. Many of the largest companies also have subsidiaries that handle financing and insurance, and there is a growing trend towards selling homes through company-owned retailers. The Internet web sites of most firms list plant locations, retail outlets and contact names. Additional information is available from the Manufactured Housing Institute (MHI) and state-level MHI affiliates. See Appendix E for various types of contact information.

Name	HUD-Code		
	Units	Plants	Retailers
Fleetwood	65,500	38	1,470
Cavalier	24,400	23	1,000
Skyline	17,800	19	1,300
American Homestar	12,300	14	520
Southern Energy	8,900	9	588
Kit Manufacturing	800	1	167

Note: Data compiled from annual reports and SEC 10-K filings. Fiscal years reflected vary between firms. Production figures are rounded and some figures are estimates.

TABLE 1  
Publicly Traded Manufactured Home Producers: 1998 Data

### How Do I Find Out My Supply Options?

As an interested builder you don't need to know everything about the industry, but at an early stage you will need to identify and learn more about all the manufacturers and the production facilities located within a reasonable shipping distance of your target market. The more firms and plants that meet this criteria the more they are likely to compete for your business, and the more opportunities you will have to work out product designs and business arrangements that are acceptable to both of you.

The map in Figure 7 shows the approximate locations of HUD-Code production facilities around the United States as of late 1999. Individual plants are marked with stars. Most plants tend to be located in rural areas with good access to major transportation routes. Areas where many production facilities are concentrated are shown in Figure 7 as ovals (e.g., northern Indiana, northwest Alabama and southern Georgia), along with an approximate count of plants in the



area. Fully 80 percent of all plants are located in the oval regions shown on the map. Builders near such areas will have many alternative sources of product. There are also large areas with few or no manufacturing facilities, particularly in some of the western states. There are no plants in Alaska or Hawaii but there are several in Canada and one in Mexico.

Ultimately you will need to do some investigation to identify names and addresses of producers and factories that are your can-

didate sources of supply. Appendix A lists production facilities shown on the map, sorted by state, city and manufacturer name. You can use the list in conjunction with the map to track down more information about plants within a reasonable distance of the market where you operate. Note that some of the facilities shown in the map or listed in the Appendix may include multiple production lines at one address, others only produce single-section units; others produce both modular and HUD-Code homes, and

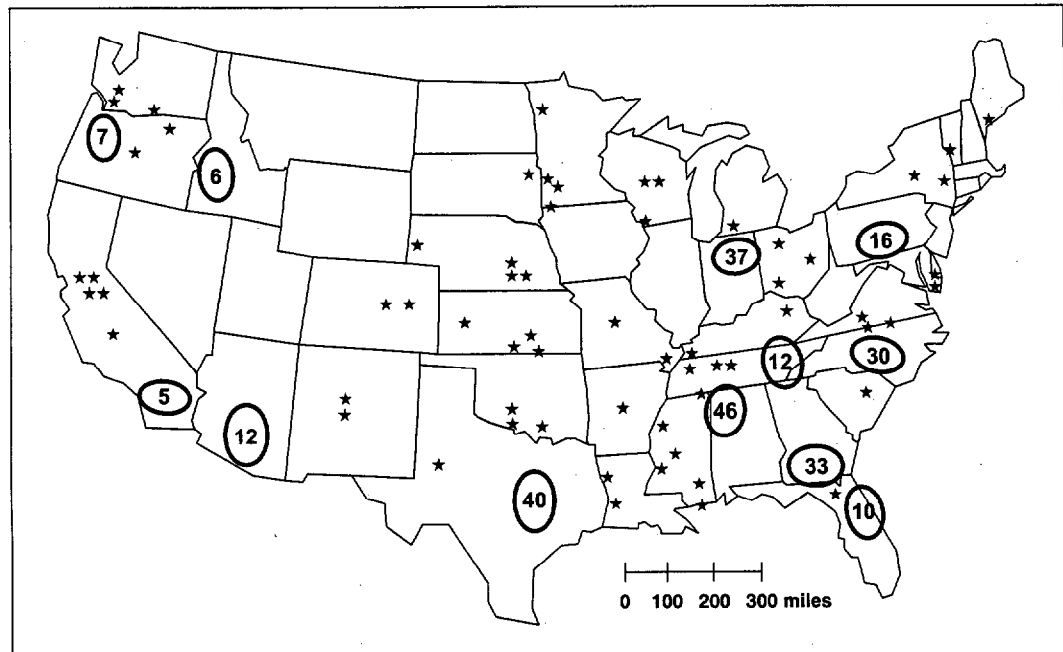


FIGURE 7  
U.S. HUD-Code Manufactured Housing Plant Locations, 1999

production facilities are periodically added or shut down so the map will change over time.

Even with good highways, a reasonable shipping distance would probably not extend much beyond 250 miles except in some of the Western states. For maximum efficiency in transportation the plant would be located relatively close to the building site. Longer shipments add transportation cost in the range of \$3 - \$4 per mile per floor section. Shipments that cross state lines face addi-

tional complications in the form of variable wide load permit requirements and maximum widths and heights as well as escort requirements by state. Shipping constraints are typically greater in the eastern and northeastern U.S. than in the western states, largely a reflection of the age of highway infrastructure.

While your investigation logically should start with the companies and manufacturing plants located nearest to you, it probably should not stop there. You should plan to

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check out all the companies producing HUD-Code homes in the area. A more distant production facility operated by a different company may have more excess capacity, or greater technological ability to produce the kind of home you want to use. Distant manufacturers may be willing to absorb the excess freight charges in order to get your business. You should ultimately plan to take time to visit one or more factories where you can observe the production process, take note of the types of materials being used, talk to the engineering staff and find out about locations of completed homes you can look at. This will help you make more intelligent decisions and prepare you to work closely with the plant as your homes are produced.

Some firms may refer your inquiries to company-owned retail outlets or independent retailers. Keep in mind that most producers have historically relied extensively on third-party retail outlets to sell their homes, and may have little experience working directly with builders or may be reluctant to enter into direct sales that could alienate their retailing partners. You may need to keep trying to find the right producer.

Whether or not you choose to involve a retailer as part of your business plan, you will probably want to research the retailer market in your area. Retailers have historically played a critical role in marketing, ordering, installing, arranging financing for and closing sales of HUD-Code homes, and retail margins typically range between 15 and 25 percent of consumer cost.

There are clear long-term economic advantages to working directly with the manufacturer, since builders who do so have the opportunity to recoup some or all of the margins earned by retailers in exchange for performing retail functions. But even though many builders prefer to work directly with the factory, some find it advantageous to work with local retailers. Keep in mind that most retailers are independents, but a growing number are company-owned as

manufacturers move towards greater vertical integration. Working with a company-owned retail outlet may prove more efficient for builder and manufacturer alike. And regardless who owns them, retailers not only have established factory contacts, they work regularly with local installers and possibly with foundation contractors to address issues that you will also face. Many retailers are looking for land to use in land-home deals or may be willing to market homes into a subdivision you develop. Retailers also are experts in traditional consumer financing of manufactured homes, which may or may not play a part in your business strategy.

Note that if you choose to deal directly with the manufacturer, your firm may be classified as a retailer by the state and may therefore be subject to requirements for licensure, certification or bonding. More information about this can be obtained through the State Administrative Agencies or other contacts listed in Appendix C.

### What Are My Choices For Design?

Once you have identified candidate manufacturers, you need to define the kind of product that interests you and approach the manufacturers to see what they can provide. Some builders may do this through a formalized "request for proposals" process, in which product specifications are submitted to several area manufacturers along with instructions on submitting bids. Other builders will probably use a less formal approach, relying on review of the manufacturer's specifications and personal contact with the right technical and marketing staff at the plant.

Naturally at this point you will have ideas about the size, style and appearance of home as well as the interior finishes and amenities it should contain. Producers will also have standard designs and option packages that they are set up to manufacture. This kind of information is often included in sales litera-

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ture and selected floor plans may also appear on producer web sites. But while the factory production process is relatively efficient, it is not nearly as flexible as site-built construction. The challenge will be to define a design that meets your needs and can be produced within the constraints of a factory environment. This process will usually require some give-and-take in order to succeed. Keep in mind that the factory's willingness to accommodate your particular requests will depend in part on the potential volume of purchases you represent.

The most readily available manufactured homes suitable for use by conventional builders would be double-section units in a one-story rectangular or nearly rectangular footprint, typically around 28 feet in depth, with a standard I-beam chassis design and a roof pitch up to about 3:12. Exterior walls are typically 2 x 4 and sometimes 2 x 6 studs, but interior walls may be 2 x 3 studs. Walls sometimes use OSB panels for bracing but may incorporate other bracing systems. Floor decks are frequently particleboard rather than OSB or plywood as typically used in site-built homes. Drywall interiors are usually an upgrade, and where drywall is used it may be less than 1/2" in thickness. Roof trusses often use smaller members than found in site-built homes. As a builder you should readily understand these differences and will want to review detailed specifications for the unit at an early stage.

Most conventional builders would probably want or insist on modifications to the readily available designs to bring them closer to the kind of homes they are accustomed to building. Some modifications are obvious while others are more subtle. It may be advisable to use an architect, engineer or consultant who has knowledge of manufactured housing in working with the manufacturer to arrive at a final design.

#### Basic Modifications

Several typical modifications add cost

and complexity to unit construction and/or installation, but could be arranged with most manufacturers. Examples include:

- steeper roof pitch
- roof overhangs at eaves
- gypsum drywall interior finish, or thicker drywall
- kitchen and bath upgrades including countertops, cabinets and fixtures
- skylights or bay windows
- carpeting and flooring upgrades
- interior door styles, heights, widths and hinge hardware used in site-built homes
- upgraded wiring for telephone and cable TV

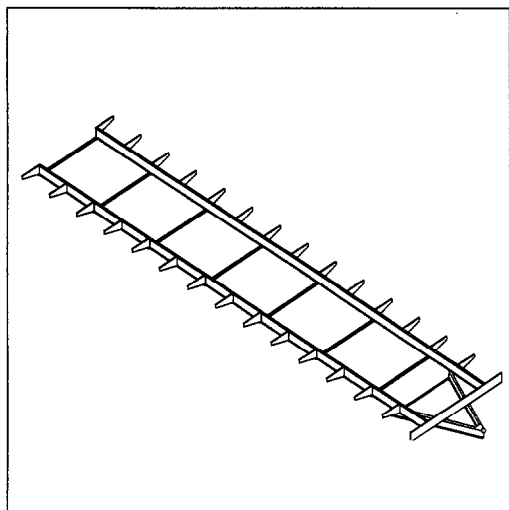
You may also want to investigate availability of higher ceilings since many manufactured homes come with 7'-6" standard ceiling heights while few site-built homes have ceilings lower than 8'. A factory-installed fireplace is another possible option. Some builders have arranged for site-installed exterior stucco finishes as an alternative to standard hardboard or vinyl siding. Energy-related upgrades such as thermally improved windows or high-efficiency HVAC equipment are other possibilities to consider.

Naturally, the farther away your "ideal" product is from typical manufactured homes the less likely you will find it advantageous to use HUD-Code product, or the more closely you and the manufacturer will have to collaborate in order to develop acceptable product. And the time required for formal approval of complex changes by the manufacturer's third-party design review agency can rise substantially, along with the cost of production, as these features are added. Builders should identify their general needs and priorities and consider how flexible they can be with regard to these modifications. They need to listen to and work with manufacturers to identify changes that can be accommodated in the production process.

## What Kind of Foundation Systems Can I Use?

Various basic design issues arise in connection with foundations, and these issues must be worked out early in your planning. Since it is difficult or impossible to separate the question of foundation type and design from the chassis design, both topics are discussed in this section.

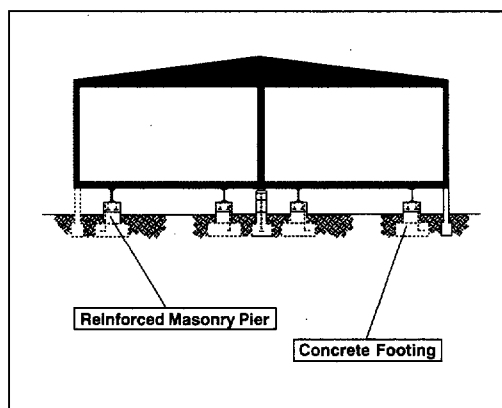
Most HUD-Code homes use a chassis consisting of two steel I-beams running the length of each section, reinforced with perpendicular outriggers, to support the home during transport and after installation. The least expensive installations use piers, sometimes without buried footings, to support the I-beams. A non-structural perimeter enclosure is also provided.



*Standard I-beam chassis (single section)*

Permanent foundations are frequently required for zoning approval of fee simple homes, and typically required for FHA or conventional mortgage financing. HUD has published a guide to permanent foundations (see the reference in Appendix E) that illustrates several alternative approaches to design and identifying systems suitable for use in areas of high wind or seismic activity. One example system using piers on

footings to support an I-beam chassis is illustrated here.



*Permanent foundation with reinforced piers*

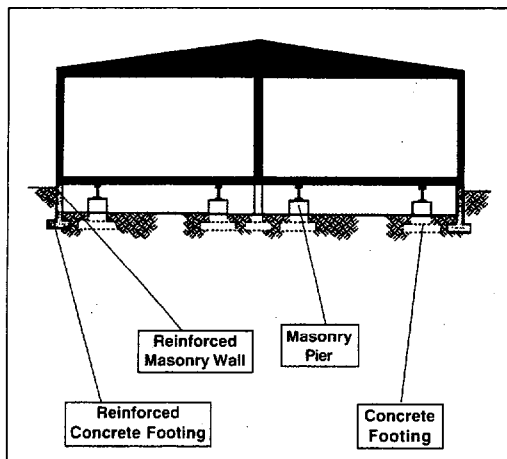
Setting a floor directly on a slab should not be considered, as it creates a shallow crawl space that is impossible to enter and repair. However, setting a floor on piers that are set in turn on a slab creates an excellent and economical foundation, provided that the crawl space created is insulated and not ventilated to the outside, that the slab is supported below the frost line, and that the slab is poured on a vapor barrier. The proposed International Code allows such unvented crawl spaces, providing that the equivalent of the required vent area for the crawl space connects to the home rather than the outside.

This particular method of installation, like many others, elevates the floor of the home well above grade. Despite the fact that traditional homes nearly always had floor levels as much as four to five feet above grade, HUD-Code homes are often stigmatized because of their high floors, perhaps because the height is accompanied by economical vinyl skirting and prefabsteps commonly used with HUD-Code homes. The traditional height of HUD-Code pier-set homes can be turned to an advantage if the skirting is replaced with an attractive frost wall and well-designed stairs are provided. In this design, the home's exterior walls would

be supported on the perimeter walls, while the chassis could be supported by ordinary piers founded at grade level.

Designs with a partially buried crawlspace can also lower the home. This typically will require concrete or masonry perimeter walls that can withstand any lateral loads imposed by unbalanced fill. The chassis I-beams and outriggers will also have to be recessed from all the edges of the unit by about 10" in order to allow the floor joists to sit on the mud sill. Foundation anchor bolt placement must be carefully planned to avoid interfering with the floor joists.

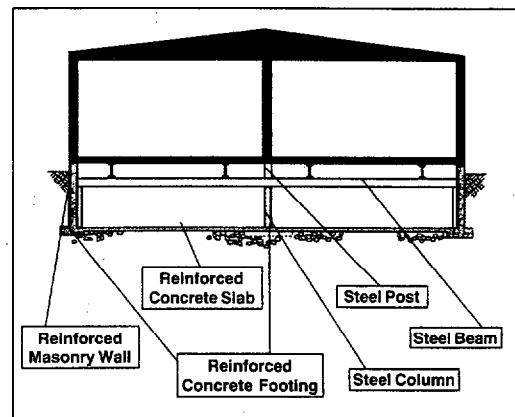
All of the permanent foundation systems discussed above require multiple rows of supporting piers underneath the home. This is suitable for use with a crawl space, but supporting a HUD-Code home over a usable basement space presents additional challenges. Providing a basement is likely to be a design goal for builders considering use of manufactured homes in large areas of the country where basements are *de facto* standard in site-built single-family homes, even if this adds cost and other systems would qualify as permanent foundations. Providing a home on a basement emphasizes the similarity of HUD-Code and conventional homes in the mind of consumers and the community at large.



*Permanent foundation with reinforced perimeter walls*

A unit with a standard I-beam chassis can be installed over a basement by using additional steel beams to carry loads from the I-beams to the basement walls or center beam. This foundation concept is recognized by HUD and illustrated here. One significant drawback is the deep and relatively awkward floor system that results above the basement. The basement walls are subject to all the same design considerations for thickness and reinforcing as for site-built homes, and the steel cross-beams must be engineered to carry the load.

Many manufacturers address the basement issue in a different way. They offer optional chassis/floor systems that integrate or eliminate the I-beams and are specifically designed for perimeter support. One early example is the Lindsay floor system. Other



*Permanent foundation with basement wall and transverse beams*

chassis/floor designs use combinations of wood and steel, or may be constructed entirely of wood. The cost to produce the unit is higher, but the overall process may be easier and less expensive than using transverse steel beams to provide a usable basement underneath a unit with a standard I-beam chassis. Keep in mind that this is an active area of innovation. Some chassis designs are proprietary and not available from all plants.

Some other issues you will have to address with basement foundations include in-

stallation of the basement stairs, and insulation of the basement wall (assuming the basement is to be conditioned space). These items typically will be subject to local code regulation and approval.

You will definitely need to talk to the manufacturer about chassis design options and the types of permanent foundations they recommend. Manufacturers are only required to provide documentation of one installation method in their owners' manuals, but most can offer additional foundation design options, including drawings and construction details, that may meet your needs.

### What About Site-Built Additions and Improvements?

HUD-Code designs that compete in the market with conventional site-built homes, even entry-level homes, will often need to include site-built garages, porches or decks. You need to decide what kinds of site-built improvements you will plan to offer and discuss this with the factory to see how they can help. Of course, while you can build a free-standing garage without involving the factory at all, an attached garage would be less expensive and more marketable. But attaching a garage risks imposing additional loads on the HUD-Code unit that it may not have been designed for. The cost of an attached garage would also be minimized if the unit is delivered with drywall on the outside of an end wall that serves as one wall of the garage; the other three garage walls and the roof can be built on site. It is also possible to include floor framing for a deck or porch that is to be finished after the unit is placed, and the manufacturer can ship matching roofing and siding with the unit.

Some types of site-built improvements will be relatively straightforward to design and construct. At the other extreme are elaborate systems that are more expensive and change the look of the home substantially. For example, one of the homes shown in Chapter 1 is a double-section home with

a garage and roof facade. One of the two sections of that house is on the right-hand side of the picture, while the approximate location of the second section is outlined in black in this photograph. Both the garage and the remainder of the roof structure connecting the garage to the two sections of the home are site-built.



The roof facade changes the street appearance of the home markedly, but it only extends back for part of the length of the unit. This can be seen in the next photo, showing a double-section home with a very similar design as viewed from a different angle.

Identifying and planning for add-ons as the unit is designed is critical. It ensures that the factory-built unit is not compromised by the added construction, facilitates the work, and helps minimize the possibility of disputes about whether work performed on site invalidated the manufacturer's warranty. Your designer will need to work with



the plant engineer to develop these options. Ultimately you may need drawings with an engineer's stamp showing how the site-built elements are to be constructed, attached and

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supported in order to receive regulatory approvals. Of course you will also need to balance the cost of add-ons against your pricing targets for the project.

From a regulatory standpoint, there are two ways to deal with improvements constructed at the site and attached to the home. In some circumstances it may be possible to have the work included as part of the HUD approval for the unit under what is known as an "Alternative Construction" (AC) letter. This letter grants permission for a unit to leave the factory without being in full compliance with the HUD-Code. It can cover some kinds of finishing work at the site while preserving the pre-emptive effect of the HUD-Code. You will have to work closely with the factory if site improvements are to be covered under an AC letter. The second way, which is probably more common, is to seek some form of alteration permit covering the work from state or local government. This may require engineering review by the state, which may bring the manufacturer and its regulators into the picture. It does not require HUD approval or an AC letter, but it does bring the work within the purview of the state or local inspector. States that have programs regulating the installation of HUD-Code units should also have procedures for dealing with typical unit improvements performed on site. Retailers are sometimes required to notify the state if alterations are being performed in connection with installation. Localities in other states may also have procedures for this situation. Whether or not this type of work is regulated, you should use good practice for design and construction of any elements built on site.

#### **What About Two-Story Units?**

If a builder considers designs with two stories above grade to be essential for the target market then HUD-Code homes probably are not yet the answer, at least not unless the builder is willing to work extensively with the manufacturer and sacrifice

some of the potential cost advantages. While this is an active area of interest and two-story HUD-Code homes have been produced both in "stackable" and vertically oriented modules, such products are only available from a few leading edge manufacturing facilities at this time. Builders who have used two-story product have relied on specialized architectural and/or engineering consultants working on their behalf with the producer's engineering staff, and have also had to work closely with local code authorities to address items not covered in the HUD-Code.

Limited experience to date indicates that square foot costs of two-story units tend to be much higher than for other HUD-Code homes due to factors such as complexities in production and low levels of output, so applications to date have been limited to small-sized lots where adding a story may be the only practical way to add square footage. Of course other plants may set up for this purpose and two-story designs may become more widely available in the future, but thus far unique design, production and distribution arrangements between individual manufacturers and builders have been necessary to bring two-story designs to market.

#### **What Are Important Contractual Issues to be Addressed?**

Once you have selected a manufacturer and worked out a satisfactory design you will need to make some kind of business arrangement with the factory. There are numerous issues that can be and often should be covered in an agreement between your firm and the manufacturer. The appropriate degree of detail depends in part on the volume of production called for in your plans.

Some of the more important topics to be addressed as part of a contract include:

- What home designs or models, with what specifications, are covered by the agree-

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ment? What factory will produce them? What project will they be located in?

- What is the factory pricing for the models and for factory options? Can this pricing be changed over the course of the agreement, and, if so, when and how can it change?
- What quantities of what materials (siding, roofing, carpeting, flooring, paint, etc.) will be shipped loose with the unit?
- Will the manufacturer provide or approve engineered drawings for permanent foundations and site-built improvements?
- What is the procedure for placing and confirming an order with the plant? When and how can the order be modified once it is placed?
- What production times will the manufacturer commit to once an order is received?
- What are the terms of payment for a home that is ordered and produced? Is a deposit required at the time of ordering? What form of funds are acceptable for payment?
- Who is responsible for any state or local sales tax on the home?
- How many units will the builder commit to purchase over what period of time? What happens if sales are lower than specified?
- Who owns the designs of models that are jointly developed? Under what terms can the manufacturer sell them to other builders? Under what terms can the builder use them with other manufacturers?
- Once a home is ordered, produced and available for shipment, how soon must the builder be prepared to accept delivery?
- Who arranges or contracts for transportation, pays freight, and bears the risk of loss or damage in transit?
- Will the manufacturer provide installation? If not, will the manufacturer train the builder's crews in proper installation procedures?
- Will the builder agree not to sell homes from other manufacturers into the project?

Will the manufacturer agree not to sell homes to other projects in the area?

- What are the terms of the manufacturer's warranty on the home, and how will the builder relate to the manufacturer with respect to warranty claims? Which warranty items are pass-throughs? Does the manufacturer offer an extended warranty?
- Can the manufacturer provide a furnished model home for use in the project?
- What happens when the manufacturer changes specifications for products, materials, fixtures, appliances etc. in the home over time, so that newly produced units differ from the model homes being used to sell the units? How can the manufacturer keep the builder informed and how can both parties avoid frustrating legitimate buyer expectations as the product evolves?
- What kinds of rebates, promotional allowances, cooperative advertising, marketing materials or other assistance will the manufacturer make available to the builder, and on what conditions? Will the manufacturer quote "net" pricing rather than participation in rebates?
- How will the parties represent their working relationship to home buyers or others?
- When does the agreement expire, what is the procedure for early termination, and what are the penalties for the terminating party? How will disputes be resolved?

These are obviously not the only issues, and there is no "right" or "wrong" form of contract or set of provisions. The ultimate contents of an agreement will depend on the needs, wants and bargaining power of both parties. It is important, however, that the contract be legally enforceable, and it is highly recommended that your legal counsel play an active role in drafting the contract or reviewing its provisions to help make sure you understand them and they meet your needs.



Local zoning regulations play a critical part in planning for the use of manufactured housing. You may have a site, a market, a house design and even a business plan, but the bottom line is that without zoning approvals, you have no project. While home builders are generally familiar with the zoning and land use planning systems in jurisdictions where they do business, the local system must also be reviewed and understood specifically as it relates to the use of manufactured housing. This should take place very early in the planning of any project involving manufactured housing.

It is very important to recognize that HUD-Code homes are usually not a solution for a tight market in land and building lots, or for land use controls that generally restrict opportunities for new home construction. In fact, in many cases manufactured homes will face land use restrictions going beyond those applying to conventional site-built or modular homes. These restrictions may preclude the use of single-section homes or homes not on permanent foundations, and may impose size and aesthetic requirements that need to be planned for.

### **How Does Zoning Work for Manufactured Housing?**

Zoning requirements generally flow from the police power of the state to promote public health, safety and welfare through the regulation of all types of land use. They are written and enforced at the local level (city, county, township, municipality, borough, parish, etc.), usually under state enabling legislation or state constitutional authority.

Manufactured housing and the mobile homes that preceded them have historically been classified as a separate type of land use, distinct from other single-family housing, and the treatment of such units under local zoning systems has often proven more restrictive than the treatment of site-built homes. While this is changing, it continues to limit

the opportunities for using HUD-Code homes in some cases. There can be significant variation from one state to another, but there are often common features and regional patterns in the applicable systems as well. These systems also have evolved over time as new state laws are passed, and as cases in the state and federal courts have occasionally set boundaries on the range of requirements or prohibitions that can legally be enforced by local authorities. This evolution will inevitably continue into the future.

Many states and localities have a long tradition of limiting the placement of mobile homes and manufactured housing to designated areas, dating back to requirements from the 1930's that all travel trailers and mobile homes be located in trailer courts or mobile home parks. The effect was to rule out the opportunity to place individual units on land zoned for general residential development, or in some cases even on agricultural or other rural land. At the same time it was often difficult to have land zoned for use as a multi-unit park or land-lease community, and some communities passed rules effectively prohibiting park development. Although these approaches to regulation were frequently challenged and occasionally struck down as violative of substantive due process or for other reasons, most courts upheld such laws as rationally related to various legitimate public purposes such as preservation of property values, special health and safety concerns and risks, and the need for orderly provision of public services to a population that was widely perceived as more transient than other community residents.

### **What Are the Recent Trends in Zoning Manufactured Homes?**

The restrictive approach to zoning has been legislatively reconsidered in many places with the advent and increasing production of multi-section homes and the imposition of improved construction standards through

the HUD-Code. The result has been a trend in the 1980's and 1990's for states to limit the authority of local governments either to exclude all manufactured housing, or to confine all such homes to designated parks through zoning. Some amended state zoning laws require that manufactured housing meeting certain appearance, size, installation and/or age criteria be permitted in most or all single family districts. Others specifically recognize and regulate manufactured housing subdivisions or overlay districts as a new type of use subject to unit and development criteria that may differ from other single-family housing. These changes have opened the door to broader use of manufactured housing outside of traditional parks or land-lease communities and thereby expanded potential markets.

Year Enacted	States
1997	Iowa
1995	Maine, Virginia
1993	Oregon
1989	Mississippi
1987	Michigan, Minnesota, New Mexico

TABLE 2  
States Adopting Revised Zoning Standards for Manufactured Housing  
1987-1999

### How Does the HUD-Code Impact Local Zoning Rules?

While the construction and safety standards in the HUD-Code specifically pre-empt inconsistent local standards or the application of local building codes, they do not address zoning or pre-empt local systems of land use regulation, except to the extent that the zoning criteria specifically exclude manufac-

tured homes unless they comply with the local building code.

There have been only a few zoning cases focused on pre-emption under the HUD-Code. No cases have reached the U.S. Supreme Court. Lower federal courts have relied on pre-emption to strike down local Florida and Colorado requirements that excluded HUD-Code homes unless they met the Standard Building Code, or the Uniform Building Code. Other federal cases have upheld local zoning requirements for a minimum 4:12 roof pitch, and for residential-type siding and roofing on manufactured homes, as aesthetic requirements that were not pre-empted by the HUD-Code. In addition, the federal pre-emption was held not to invalidate a Texas city's prohibition of all manufactured homes from areas other than mobile home parks.

### What About Restrictive Covenants?

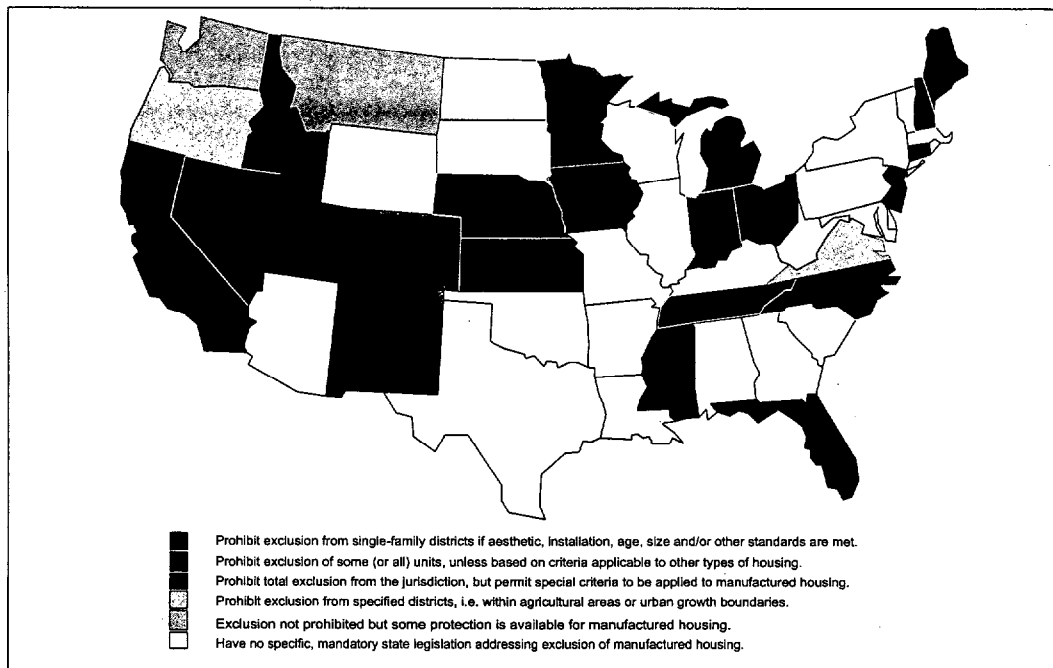
Recorded covenants or deed restrictions may also restrict or rule out the use of manufactured housing on vacant residential lots in existing subdivisions, or sometimes elsewhere. Many of the newer state laws that limit exclusion through local zoning include language stating that the creation and enforcement of valid covenants running with the land is not prohibited. However, there are exceptions such as California where such covenants may not be enforceable. In addition, where the language in a particular restrictive covenant is unclear or ambiguous, a court may construe it not to apply in a specific case.

### How Do Different State Laws Regulate the Zoning of Manufactured Homes?

Any builder who is considering the use of manufactured housing should investigate and understand the applicable zoning and land-use requirements in the jurisdiction where the project is located. You are probably familiar with the local office in charge

of zoning in the area where you build, which should be able to provide you with the relevant law or ordinance and any regulations. But you may be less familiar with the state law environment under which local systems are created and to which they must conform. The map that follows gives an overview of the legal environment across

the United States as it relates to siting manufactured homes in areas zoned for residential construction. Appendix B presents more details on individual state laws as of mid-1999. Some prominent or significant cases from the state and federal courts are listed in the Appendix as well.



**FIGURE 8**  
State Laws Regulating Local Zoning of Manufactured Housing  
1999

The various classifications in the map represent different approaches to and degrees of inclusion.

- The most inclusionary statutes state that manufactured housing can be installed as a matter of right on land zoned for single-family homes, often reciting particular requirements for unit width or minimum number of sections, permanent foundation, roof pitch, age or date of manufacture, etc.
- A second and very similar approach is to prohibit exclusion of certain units (e.g. those over 22 feet wide), or prohibit exclusion of manufactured housing generally, except on the basis of zoning criteria that

apply to all single-family housing in the same zoning district.

- A third category of state law prohibits jurisdiction-wide bans on manufactured housing, but leaves flexibility to designate specific areas within each jurisdiction where manufactured homes will be permitted and fashion criteria for application to manufactured housing which need not apply to all homes.
- A fourth category of state law prohibits exclusion from specified parts of the jurisdiction, i.e. agricultural areas (Virginia) or within urban growth boundaries (Oregon).

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- A fifth category offers some level of procedural protection but does not mandate inclusion or equality of treatment.
  - Finally, there are still many states without any mandatory or significant state legislation specifically addressing the subject (shown in white).

In addition to state laws, there are a variety of state and federal court cases that have upheld or struck down specific laws and thereby help to give some idea about the range of options legally available to communities that implement zoning programs. More information at the state level appears in the maps and annotations of Appendix B. Given the rapid pace of change in state legislation it is important to note that there can be significant time lags between adoption of a new state law and revision of zoning systems at the local level. If you believe the local zoning system is inconsistent with state law, you may want to raise the matter with the county attorney's office.

The foregoing map together with the more detailed information in Appendix B provides a starting point for investigation of a specific project. If you live in a state where there is no state statute or case law specifically addressing zoning of manufactured homes, you should probably assume that local zoning systems have broad power to fashion various prohibitions or requirements specifically directed at manufactured housing. Of course this does not mean that the local systems will actually be highly restrictive. The final result will depend on the specific law that is actually adopted in a given jurisdiction, the specific project that is proposed to be constructed or zoned, and the specific requirements that the courts will uphold. And a situation that seems straightforward may turn out to be more complicated upon close examination. For example, statutes that restrict placement of mobile homes may turn out to apply only to units built before the HUD-Code, depending how the term "mobile home" is

defined. Or localities that prohibit mobile homes in certain zoning districts, regardless of date of manufacture, may actually classify multi-section HUD-Code units as "modulars" for zoning purposes so the prohibition would not apply to a double-section home.

Many states have other statutes and case law relating to zoning of land-lease park communities that are not specifically addressed in this discussion or in Appendix B, but would need to be considered as part of any project requiring the zoning or rezoning of land for use as a park or multi-unit development under common ownership. The ongoing operation of a land-lease community is also subject to licensing and additional regulatory requirements in most areas. Finally, remember that information in this Guide is only a summary and is subject to change. You are well advised to seek professional assistance familiar with local practices in connection with planning and executing specific projects.

#### **What if I Need a Rezoning?**

Where the current zoning of a parcel you own or are interested in buying does not permit use of manufactured homes, you may want to pursue a rezoning in the same way you might need to for site-built homes. Rezoning of land is both a political issue and an exercise in proper land use controls. The time and expense of justifying and presenting a case for rezoning or approving a project for manufactured housing frequently are more burdensome than for conventional housing subdivisions, can add substantially to cost, and may discourage development. You need to take these factors into account as you negotiate the purchase of land or think about timetables for any project you are considering.

Builders that find themselves seeking a rezoning to use manufactured homes, particularly for subdivision or land-lease community development, need to be prepared to answer the following types of questions:

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- Will the new housing place a burden on schools and pay a proportionate share of education costs?
  - Will the development result in new traffic and congested local streets?
  - What will be the impact of the project on community services and will taxes be sufficient to bear the cost?

In addition, many of the following issues relate specifically to manufactured housing and have a social undertone that make them particularly onerous for manufactured housing developments:

- What will be the character of the residents and will they be an asset or harmful to the community?
- How similar is the look of manufactured housing to site-built housing and will it be compatible with local architecture?
- What will be the impact of manufactured housing on surrounding land values?

- Although providing affordable housing is a good idea, why provide it in my back yard?

Preparing to answer these questions, whether to staff at the zoning office or to elected officials as part of a public hearing, is critical. You will need detailed documentation about your project plans, which may have to be supplemented by engineering studies, statistical data and other information. You may need to work cooperatively with surrounding landowners or others in the community to address their concerns and minimize opposition. The time it takes to get a staff recommendation for approval of the project prior to any hearing is well spent. Attempts to secure a rezoning are best pursued with the aid of local experts who know the law and political climate in the community as well as the technical issues that must be addressed as part of the community design.

## Installation, Foundations and Site-built Improvements

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The HUD-Code does not regulate the installation of manufactured homes at the site nor does it specify how the individual sections are to be joined and set-up at the site. When the HUD-Code was written, almost all placements were single section units, so regulations regarding joining and the finishing or customization required at the site were generally non-existent. Home manufacturers are required to provide installation instructions as part of the owner's manual provided with the home, and this is a topic you will need to explore in depth with the producer.

### How is Installation Regulated?

State and local building code officials inspect and approve the installation of a home on a foundation. The manufacturer's installation instructions are generally considered authoritative for this purpose, although some locations may have adopted their own standards for installation. Any conflicts between the two sources must be investigated and reconciled in order to avoid future disputes between manufacturer, builder, installer and purchaser.

The regulation of installation depends to some extent on the type of foundation system used. Information about state-level installation programs should be available from the State Administrative Agencies listed in Appendix C. These programs usually focus on homes placed on non-permanent foundations. About half the states have adopted installation standards and some 28 states have adopted some kind of program for regulating installations of this type. Twenty of these programs include licensing of installers as well as education and training programs. The degree of enforcement is reported to be variable. Nevertheless, you should expect the installation to be inspected, as well as any site-built alterations or improvements. The regulation and inspection of permanent foundations may differ, and will usually be carried out by

local code officials based on local requirements. You should pay close attention to this subject and take pains to do a proper job. Installation and set-up of manufactured homes at the site have been said to generate the majority of consumer complaints about manufactured housing.

### Are There Other Requirements I Should Know About?

Although the HUD-Code pre-empts local regulation of manufactured home structures regarding matters within its scope, state and local jurisdictions have authority to regulate development of sites for new manufactured home communities. Aside from obtaining proper zoning, developers and builders will be required to secure the same permits from local, state and federal agencies that they require from conventional builders.

All community engineering and architectural plans will have to be approved where required by local community planning staffs and the fire department, before permits for construction are issued. Many local communities have a tree ordinance that requires a permit before cutting any trees. Permits for soil and erosion control may be under the jurisdiction of a local, county, or state government.

The State Board of Health or a comparable agency will often review the development plan to see that it conforms to state regulations before issuing a permit. That department, or a State Department of Environmental Regulation (DER), may require the issuance of a separate permit for the water supply and distribution system. The DER may also require permits to meet other requirements, particularly those relating to sewer facilities or septic systems. The state may also oversee the U.S. Army Corps of Engineers' requirements in regard to wetlands.

As with conventional construction, homes located within the 100-year flood plain may be required to be installed on

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elevated foundations and to comply with related requirements in communities participating in the National Flood Insurance Program (the vast majority of jurisdictions around the United States).

### **What Steps Are Involved in Installation of the Home?**

As previously noted, manufacturers are required by the HUD-Code to provide an owners manual including installation instructions along with the home, and the builder should obviously review the owners manual thoroughly.

An illustrated generic guidebook for installers of manufactured homes, *Manufactured Home Installation Training Manual*, was published by HUD in 1999. That guide covers all aspects of installation on typical pier foundations, and identifies many areas where things can go wrong. It should be reviewed by builders who will be responsible for performing or plan to contract for installation work. Note that if your own crews will be performing installation work, you may need to be specifically licensed, certified and/or bonded as a manufactured home installer. The contractor performing installation is also responsible for providing an "installation warranty" to the purchaser that may cover defects in foundation design or construction, the joining of units, the connection of utilities, and related finishing work.

Generally speaking, the installation of manufactured homes proceeds in four basic steps:

- preparation of the home site for installation
- transport of the home from the factory to the home site
- set-up of the home on the foundation, finish work and connection of utilities, and
- addition of on-site accessories.

Installation varies depending upon whether a home is to be installed with non-permanent or a permanent foundation.

Installations on non-permanent foundations usually occur with manufactured homes in land-lease communities and on many owners' lots in rural areas. Such homes are usually financed as personal property with shorter-term chattel mortgages. Home installations on permanent foundations, on the other hand, may be considered real property eligible for a 30-year conventional mortgage. Such homes are found in fee simple manufactured housing subdivisions, on individual lots, or occasionally in land-lease communities.

### *Preparation of the Home Site*

The home site should be graded as necessary to slope away from the footprint of the home and allow proper drainage. All utilities should be in place and ready for connection prior to placement. Utility locations should be coordinated with the terminations in the manufactured unit. In a land-lease community a pedestal will be provided for electrical service and, depending upon the locality, either an electrician or a licensed manufactured home installer will be required to connect the home wiring to the pedestal. Soils in the site should be sufficiently dry and stable to support the weight of the transport vehicle. Sites with steep slopes, unstable soils or high groundwater levels will impact foundation design.

### *Transportation of the Home*

Procedures for transport of the home will differ according to whether the developer or builder deals directly with the manufacturer or purchases homes from a retailer. Developers or builders dealing directly with the manufacturer may receive the home F.O.B. from the factory. Generally, when the home leaves the factory, ownership will pass to the developer or builder, but this is subject to agreement between the parties. If the unit is financed, proof of ownership in the form of a Manufacturer's Statement of Origin (MSO) is sent to the lender that finances the home. If the developer or builder

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buys the home for cash, the MSO will go directly to the developer or builder. The transporter should specialize in transportation of manufactured homes. The builder should inspect homes prior to shipment from the factory, if possible, to ensure that everything in the home is in accordance with the sales order.

In situations where retailers deal with developers or builders, retailers or the lending institutions that finance the retailers' inventory will have assumed ownership of homes after they leave the factory. Developers or builders should make inspections of homes before they are transported from retail centers to developers or builders' lots. Retailers will commonly include the cost of transportation in retail prices of homes within a fixed distance (e.g., 100 miles) from the retail center.

The transporter is generally responsible for providing a "transportation warranty" against damage sustained during transportation.

### **Home Installation and Set-Up:**

#### *Permanent Foundations*

Foundations that are designed for safety and long term performance are considered permanent. According to the HUD *Permanent Foundation Guide for Manufactured Housing*:

Permanent foundations must be constructed of durable materials; i.e., concrete, mortared masonry, or treated wood - and be site-built. [A permanent foundation] shall have attachment points to an anchor and stabilize the manufactured home to transfer loads, herein defined, to the underlying soil or rock. The permanent foundation shall be structurally developed according to this document or be structurally designed by a licensed engineer for ... vertical and lateral stability.

Permanent foundations differ from other types of foundations for manufactured homes in that they are engineered for a particular house design, according to site-specific wind, seismic, and soil conditions.

The various editions of the CABO *One and Two Family Dwelling Code* (now published by the International Code Council as the 1998 ICC *One and Two Family Dwelling Code*) include an appendix chapter with provisions covering permanent installations of manufactured homes.

Anchorage provided in a permanent foundation must be of sufficient rated capacity to resist uplift or overturning due to wind, as well as lateral displacement due to seismic forces. The footing must be of concrete, possibly with reinforcing steel, sized large enough to avoid soil settlement and not exceed the soil bearing capacity. The base of the footing must be below the frost line. The footing must enclose a basement or crawl space with a bearing or non-bearing wall to separate the space beneath the home from backfill, vermin, and water.

The supports in a permanent foundation are the points where gravity loads and other forces experienced by the home are transferred through the foundation and to the soil. Single section or multi-section units are usually supported by piers spaced along their chassis beams, by exterior longitudinal walls, or both. Multi-section units may have additional pier supports along continuous marriage walls. Pier spacing is based on the weight of the unit, the anticipated loads, the size of the pier and the bearing capacity of the soil, all according to the manufacturer's installation instructions. Marriage walls may have openings with posts at the ends of each opening and piers under these post locations. Other permanent foundation designs are possible, as discussed in Chapter 3. You should look to the manufacturer to provide you with documentation of acceptable types of permanent foundation systems for any given unit.

#### *Nonpermanent Foundations*

The majority of manufactured homes are installed on foundations classified as non-permanent. The most common approach involves placing a series of piers un-



derneath the chassis I-beams at intervals specified by the manufacturer in the installation instructions for the unit. Depending upon soil conditions or local regulations, the piers will rest on a base of treated wood, concrete or other durable material. The piers themselves consist of two or three 8"x 8"x 16" concrete blocks stacked together. Steel stands preconstructed to varying heights are often used in western or southwestern states. Specially designed steel piers may be necessary in areas subject to seismic activity.

Steel augurs or some other type of earth anchors are also used in the installation, spaced according to the manufacturer's instructions, where potential exists for high winds. One end of the anchor is screwed into the soil, either manually or mechanically. A poured concrete slab can provide a base for supports and anchors, but this procedure adds cost. An alternative method is to pour a number of round concrete piers, on which the supports will rest. The diameter and depth of the piers depend on the floor plan and the frost line. At a minimum, in areas with a low frost line such piers are 18 inches deep. A non-structural skirting is usually installed from the top of the footing to the bottom of the external walls to cover the supports and enclose the underfloor area.

#### *Set-Up at the Site*

Set up at the site includes removing such transportation materials as the hitch, taillights, cables, springs, axles and wheels from the home, positioning the unit in the exact location, and leveling it for installation on the piers, which are positioned on their wood or concrete bases. The individual sections of a multi-section unit must be fitted together and secured, and utilities must be connected between the sections. In accordance with local regulations, either the setup crew or a utility crew may hook up the utilities for service.

The amount of work at the site can vary

with the operating procedures established by the producer. In situations where a unique structure or a permanent foundation is to be installed, the manufacturer may provide the builder or its own set-up crew with engineered drawings and an instruction sheet on how to construct and install the foundation. If a manufacturer uses its own set-up crew for installation, it can better control the installation and monitor quality, providing immediate feedback if something does not go right. Set up can involve attaching roof shingles, eaves, shutters, siding on end walls, finishing drywall at the marriage walls, and related work.

In more elaborate installations designed to be similar in appearance to a site-built home, the home is shipped with a hinged roof, which is put into place at setup. Such roofs with engineered roof trusses hinged in place can produce a roof with up to a 9/12 pitch. A hinged roof can produce a second story room that is about half the size of the home footprint.

#### **What Kinds of Issues Must Installers Deal With?**

Some of the issues that must routinely be dealt with by the installer include:

- sizing footings and piers based on soil at the site and other factors
- moving each section from the street to the lot and dealing with impediments such as trees, curbs, overhead wires and soft soils
- positioning each section above the foundation and lowering it into place
- aligning sections and leveling the floors after the unit is placed on the foundation
- correcting any racking and ensuring proper window and door operation
- installing structural connections between the home and the foundation, between the floor sections, and at the roof ridge
- installing sealants or gaskets to weatherproof the connection between sections

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- lifting and structural completion of a tilt-up roof, using a crane if necessary
  - ensuring adequate clearance underneath the unit (typically at least 12" below I-beams and 18" elsewhere)
  - installation of any flues and vent terminations through the roof
  - utility service hookups including gas, electricity, water, sewer and telephone
  - crossovers between sections for natural gas supply, HVAC ductwork, electrical supply, water and sewer
  - installing trim or other finish to cover the interior marriage line between sections
  - patching flooring, carpeting, roofing and siding between the sections
  - repairing drywall cracks or other incidental damage sustained during transportation
  - air conditioner installation.

Major problems arising in installation that result from problems with the unit as built in the factory (i.e. inability to achieve a level installation even though the foundation is level) should ordinarily be handed back to the manufacturer for advice. A factory representative may be necessary to correct certain problems. It is important for the installer to avoid taking steps that would void the manufacturer's warranty without prior authorization.

#### What About the Construction of Accessory Features?

A number of accessory features that can be put in place during set up add cost along with consumer appeal. These include uncovered or covered porches, decks, bay windows, garages and roof dormers. A porch as large as eight feet can be built in the factory and shipped as part of a section. Many porches and decks, however, continue to be site-built. Most manufacturers also indicate that it is less expensive to build an attached garage on-site than in a factory, but there is experience both ways. Some items that cannot be shipped are either panelized in the factory for setup on-site, or are entirely site-built. Permits must be secured under state or local codes for site-built porches and garages as well as many other types of work that go beyond basic unit installation.

The builder who performs or arranges for the accessory construction must provide a warranty that covers whatever elements are built on site. This complements the warranties provided by the manufacturer and the installer.

Other issues associated with design, construction and approval of accessory elements are discussed in Chapter 3 on working with the manufacturer, since these activities run more smoothly and cost less if the builder and manufacturer plan for them in advance.

Consumer financing for manufactured homes has unique features that distinguish it from the types of mortgage financing that site builders know and understand. The financing procedures for most manufactured housing sold today are holdovers from the origin of a manufactured home as a mobile vehicle or trailer. Historically such homes have been financed as personal property, with a retail installment loan contract or chattel loan secured by an interest in the financed goods. Increasingly, however, manufactured homes are being financed together with land as real property.

The legal distinctions between real property and personal property represent an abstraction inherited from the common law and further evolved under state law in all 50 states. Real property has traditionally included land and all that is permanently affixed to the land. Personal property includes everything that is subject to ownership but is not real property. Legal rights and remedies concerning real property have traditionally been enforced differently in court than rights and remedies concerning personal property. Security interests in real property typically take the form of a mortgage or deed of trust that is enforced through foreclosure. Security interests in personal property are regulated under the Uniform Commercial Code and are enforced through repossession. Real property is usually taxed differently than personal property as well, and tax revenues may be divided differently between state and local governments.

Both government-sponsored and private programs are available for personal property financing or real property financing. In reality the government-sponsored programs are rarely used, and a wide variety of private sector programs dominate financing. However, the government programs are discussed at some length in this chapter because they are well documented and because their requirements provide insights into many of

the more flexible programs available from private sources.

This chapter begins with a discussion of real property or real estate financing, since it is expected that most site builders will be drawn towards fee-simple transactions for homes that can qualify for mortgages. The remainder of the chapter discusses the personal property financing system that continues to be widespread in the manufactured housing sector.

### How Does Real Estate Financing Work for Manufactured Homes?

When a manufactured home is attached to the underlying land by a permanent foundation, and the home and the land are treated as a single real estate package under state law, they are eligible for financing with a conventional 30-year real estate mortgage. The market for real estate loans includes government programs run by FHA, VA and RECD (formerly the Farmers Home Administration) and applicable to all single family housing, as well as conventional mortgages eligible for purchase and securitization by Fannie Mae (formerly the Federal National Mortgage Association) and the Federal Home Loan Mortgage Corporation (Freddie Mac). There is also a very active market in asset-backed securities consisting of pools of mortgage loans on manufactured homes. This section discusses the government-run programs first, followed by the other mortgage lending options.

#### *Government Real Property Financing*

Manufactured homes that are classified and owned as real property are eligible for mortgage financing under several government-run programs. Major features of these programs are summarized in Table 4. FHA-insured mortgage loans are available to any purchaser under the "Title 2" program, while eligibility for VA-guaranteed mortgage loans is based on military service. RECD loans are limited to low-income rural purchasers.

Topic	FHA Title 2	VA	RECD (Farmers Home)
Regulations	24 CFR Sec. 203 contains the general requirements for single-family mortgage insurance, while Section 203.43f has special criteria for loans on manufactured homes.	38 CFR Sec. 36.4300 covers the VA real property loan guaranty program. Other provisions appear in Sec. 36.4200.	Section 510 (Rural Housing) and Section 512 (Rural Rental Housing). Specific regulations that apply to loans on manufactured homes appear in 7 CFR Sec. 1924.12 and 3650.73.
Coverage	Home and site. Home must be at least 400 square feet and must comply with HUD-Code.	Home permanently affixed to a site owned by the veteran.	Home and site.
Term	Up to 30 years.	Up to 25 years for a one-section home and 30 for a two-section home.	Up to 30 years.
Down Payment and Loan Limits	Same as for other FHA single-family insured properties.	See Sec. 36.4204 for loan limits; no down payment but see Sec. 36.4312 for allowable fees.	Loans may be up to full appraised value, except 10 percent down payment is required in some instances.
Tax Status	The property must be classified and taxed as real estate.	The property must be considered to be real property under laws of the state where it is located.	Property must be classified and taxed as real estate.
Installation	On a site-built permanent foundation complying with HUD Minimum Property Standards. A continuous perimeter enclosure of suitable material is required. Finished grade below the home shall not be below the 100-year floodplain.	On a site-built permanent foundation.	On a site-built permanent foundation.
Warranty	Must cover the home, foundation, anchoring, and site improvements; must cover hidden damage during transportation and proper joining of multi-section units.	Manufacturer's warranty must be in the form and content prescribed by the Secretary of Veterans Affairs.	The contractor must warrant its work as required in 7 CFR Section 1924.12.
Other	There are additional criteria for mortgage loans on existing manufactured homes. Pre-HUD-Code units are not eligible.	Eligibility is limited to veterans with loan guaranty entitlement available for use.	The program is designed for low and moderate-income buyers. Borrowers must not exceed specified income limits or be able to obtain credit from other sources. New rental housing also can be covered.

TABLE 3  
Summary of FHA, VA and RECD  
Real Property Loan Programs  
for Manufactured Homes

### Conventional Mortgage Lending

Manufactured homes also can technically be eligible for financing with the same

kind of "conventional" mortgage loans that have become standard throughout the site-built sector. This eligibility hinges on two factors: first, the specific criteria for "conforming" mortgages eligible for purchase by the two largest secondary market makers, Fannie Mae and Freddie Mac (neither organization purchases personal property loans on manufactured homes), and second, the willingness of individual lenders to originate such loans with the expectation of resale (just because a loan is theoretically eligible for sale on the secondary market does not require a lender to make the loan). Builders who anticipate using conventional mortgage loans for customer financing are well advised to confirm the availability of such loans from the local financing institutions they will be dealing with. It is also recommended to confirm that borrowers will be able to obtain private mortgage insurance when required to meet secondary lender criteria.

Conventional mortgages are relatively uncommon on manufactured homes since most purchases are still financed with personal property loans, but they may become more important as a source of market rate loans. A 1996 survey of lenders revealed that 30 percent were currently active in the secondary market for manufactured home loans in 1996 and, although most still keep their loans, almost half of their loans were sold in the secondary market. Current criteria from Fannie Mae and Freddie Mac for conforming loans on manufactured homes are in Table 5 to your right. More information can be obtained from the sellers and servicers guides published by each organization.

Conventional lending has proven itself to be the cornerstone of a healthy site-built housing market, and the criteria set by Fannie Mae and Freddie Mac are widely observed in the industry. However, the underwriting criteria used by those organizations are less forgiving of sub-par buyer credit histories than FHA criteria, or finance company criteria for personal property loans.

It remains to be seen whether Fannie Mae and Freddie Mac will play a significant role in the financing market for manufactured housing.

#### Asset-Backed Securities

A large private-sector market has emerged to provide capital for loans on manufactured homes even when the loans do not conform to Fannie Mae or Freddie Mac criteria. This begins when institutions specializing in financing manufactured housing (such as Green Tree Financial, GreenPoint Financial, Associates Housing Finance, Chase Financial and CIT) originate mortgage loans on manufactured homes. The loans are pooled into asset-backed securities (ABS) that are rated for quality by a rating agency and then sold to investors in offerings underwritten by Wall Street brokerage firms. There are various reasons the underlying loans might be deemed nonconforming. Some of the loans are for single-section homes, while others may involve borrowers with unusually high debt-to-income ratios. Since private mortgage insurance firms have reportedly been reluctant to write coverage on manufactured home loans, mortgages with loan-to-value ratios greater than 80 percent but no PMI may also find their way into ABS pools. Borrowers with low credit scores who would simply not be eligible for conventional mortgages may also find themselves in this market. Mortgages that are packaged and sold as ABS pools generally carry an interest rate of about 200 basis points higher than conforming loans, depending on the quality of the overall pool of loans.

The ABS market also includes hybrid loans in which land owned by a purchaser is mortgaged and cross-collateralized as security for a personal property loan used to buy a manufactured home. The interest rate on such a loan is usually higher than on a mortgage covering home and land, but significantly lower than on a personal property loan.

Topic	Fannie Mae	Freddie Mac
Regulations	Mortgage eligibility is covered in the Selling Guide, Part V, Chapter 2, Section 225, "Manufactured (and Factory-Built) Housing Unit Mortgages" (11/18/94). Special appraisal considerations are in the Selling Guide, Part VII, Chapter 3, Section 304, "Manufactured (and Factory-Built) Housing Units" (12/31/94).	Single-Family Seller/Service Guide, Part V, Chapter 2, Section 22.21, "Manufactured Homes" (6/31/88).
Construction Standards	Must comply with the HUD-Code	
Types of Homes	Single-section or multi-section, except that single-section homes must be located in a Fannie Mae approved project (typically a Planned Unit Development but not on an individual site).	Single-section or multi-section.
Classification	The land and home must be purchased in a single transaction, must be classified as real property under state law, and must be subjected to a recorded mortgage or deed of trust in favor of the lender.	
Home Insurance	The fire insurance policy must be written on the home and the land as constituting real property.	
Coverage	Includes home, land, kitchen and laundry appliances, and carpeting. Cannot include furniture or any type of insurance.	
Foundation	The home must be on a permanent foundation that extends below the frost line. Plans must be recorded in accordance with the manufacturer's installation requirements. Foundations must be designed by an engineer for local soil conditions.	
Underwriting	Standard qualification ratios (28 percent front-end, 36 percent back-end). Appraisals must address marketability and comparability with other manufactured and site-built homes.	Standard qualification ratios (28 percent front-end, 36 percent back-end).
Land Tenure	Does not address eligibility of homes on leased land.	Prohibits loans on land that is leased or otherwise owned by a third party. Appraisals must be based on the value of the home and land, not just the value of the home. Appraisals must be based on the value of the home and land, not just the value of the home. Appraisals must be based on the value of the home and land, not just the value of the home.

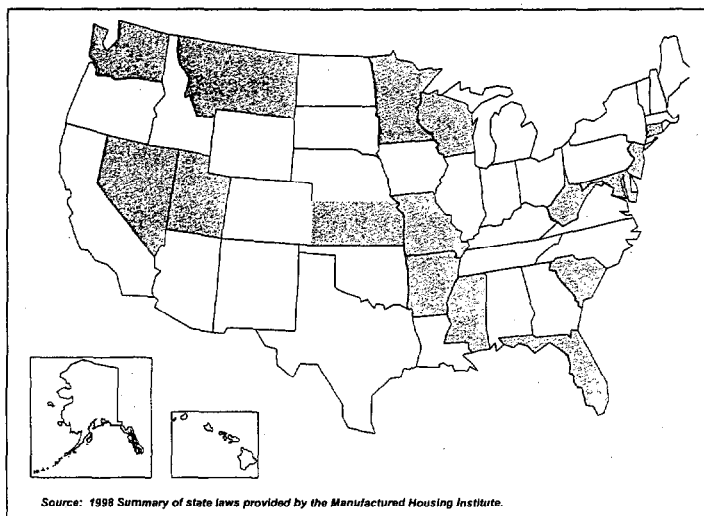
TABLE 4  
Summary of Secondary Market Criteria for Conforming Mortgages on Manufactured Homes

#### Can I Use Real Property Financing in a Land-Lease Community?

Builders considering the sale of manufactured homes on leased land face a potentially important financing constraint in some states. Under current rules, in order to be eligible for an FHA-insured mortgage or a conforming conventional mortgage, a manufactured home on leased land must meet specific criteria. For this discussion the most

important requirement is that the home be technically classified as "real property" or an "improvement" affixed to real property under applicable state or local law. This means FHA or conforming mortgages cannot be written on manufactured homes located on leased land in certain states, because the homes can never constitute "real property." This limitation is enforced by requiring a title opinion stating that the home and land constitute real property as a condition of originating the mortgage.

The financing constraint arises because manufactured homes by their very nature begin as personal property. They are assembled and owned by the manufacturer who ultimately transfers title to a retailer or purchaser, similar to the title to a motor vehicle. While a few states deem essentially all manufactured homes to be real property, and many other states deem them to be real property or permit a formal conversion or transformation to real property once they are permanently affixed to land that is owned by the home owner, there are also states where manufactured homes on leased land are not permitted to be recognized as real property.



**FIGURE 9**  
States Classifying Manufactured Homes on Leased Land  
as Personal Property

This status typically lowers the owner's tax burden, but it also severely limits access to market-rate mortgage financing of purchases.

Figure 9, at bottom left, shows states filled in with black whenever obtaining FHA or conventional 30-year mortgages for manufactured homes on leased land (i.e., land not owned by the owner of the home) may be difficult because all such homes are taxed or otherwise classified as personal property under state law. The underlying requirement is designed to protect the lender by ensuring that the mortgage is only applied to real property, regardless of how it is constructed or owned. However, the effect is to rule out FHA and conventional mortgages for manufactured homes on leased land in those states. Financing options are thereby limited to personal property loans that typically have lower loan ceilings, shorter terms and higher interest rates than real property mortgages.

### What About Personal Property Financing?

Personal property loans have been the mainstay of manufactured housing finance for many years. There are conventional private sources as well as publicly sponsored programs that originate personal property loans for purchasing manufactured homes, and the loans frequently are securitized through the ABS sector, sometimes in pools that include mixtures of real property, personal property and "hybrid" loans. Personal property loans are typically much smaller in amount than mortgage loans, but are quick and easy to originate from the many finance companies that specialize in this sector. Loan amounts are usually calculated from wholesale invoice prices without the need for an appraisal, and a title search is not necessary. Moreover, the loans are readily available to many borrowers with sub-par credit histories that would rule out a conforming mortgage loan. Since personal property

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loans are not governed by the federal Real Estate Settlement Procedures Act, retailers can and frequently do earn commissions, rebates or other payments on loan originations, credit life insurance, property insurance, and other services arranged for at the time the loan is closed.

#### *Conventional Personal Property Financing*

Most financial institutions and many states do not ordinarily consider manufactured homes placed on non-permanent foundations or on leased land as real property. The absence of a permanent foundation indicates they are not legally "attached" to the land, which may be necessary for an improvement to become a part of the real estate, and as previously discussed, state law simply may not provide any way for a home on leased land to be classified as real property. While Freddie Mac will repurchase loans on homes with permanent foundations and long-term leases not subordinated to any mortgage, so long as they are classified as real property, the fact remains that such homes are most often financed as personal property with a chattel loan.

Interest rates on personal property loans are typically anywhere from three to five percentage points higher than conventional mortgage loans for site-built homes. This spread reflects the smaller average size and higher cost of servicing the individual loans, as well as the likelihood that manufactured homes ordinarily attract lower income buyers who are greater credit risks.

At the level of the individual consumer chattel loans are less complicated to process and much quicker to close than conventional mortgage loans. Credit checks are limited, no title search is required and there is no deed to record in the land records. Terms are usually 15 years, much shorter than conventional mortgage loans, in keeping with the small average value of chattel loans which rarely exceed about \$60,000 in face value.

With the increasing popularity of larger multi-section manufactured homes, some of which are sold with land, lenders have extended the term of some loans to as long as 25 years. As such multi-section homes become more elaborate and costly, however, they become increasingly difficult to finance with chattel loans because the high interest rates make financing of such homes very expensive or impossible without exceeding overall limits on size of the loan.

Many retail dealers who sell new manufactured homes execute installment contracts on personal property loans for the lender by qualifying the buyer and agreeing to receive interest payments for the term of the loan. About 75 percent of loans for manufactured home financing used this indirect method of financing. The lender often has recourse against the retailer in the event of a borrower default.

The maximum loan amount on a conventional personal property loan is usually 125 percent of the wholesale invoice price, including cost of transportation to the retailer and any extras that the retailer might provide such as air conditioning or other appliances. The manufacturer's certified invoice, in effect, substitutes for an appraisal in a conventional mortgage. Maximum size of the loan depends on the financial institution. The buyer usually must pay ten percent down plus additional expenses not eligible for financing such as prepaid interest at settlement, taxes, and filing fees. Banks will also finance installation, up to a limit of around \$1,400 for a single-section home and \$3,200 for a multisection home. If the cost of installation exceeds this amount, the retailers may need to absorb it as part of their expenses.

#### *Government Sponsored Personal Property Loan Programs*

FHA- and VA-sponsored personal property loans were first initiated for manufac-

Topic	FHA Title I Loan	VA Personal Property Loan
Regulations	24 CFR Section 201	38 CFR Section 36.4200
Program Type	Insures lender against borrower default up to 90 percent of loan.	Guarantees lender against loss up to the lesser of 40 percent of the loan or \$20,000.
Maximum Loan Amount	Up to 125 percent of the wholesale price, plus transportation, sales tax, set-up and anchorage not exceeding \$750 per module, foundation, floor, up to \$500 cost of garage, patio or similar appendances, cost of air conditioner or heat pump, borrower's taxes, hazard insurance, credit report (each a separate fee). Maximum loan is \$40,500 for a home, \$54,000 for a home and site, or \$13,500 for site alone.	Up to 120 percent of manufacturer's invoice, adjusted for retail options, plus recording fees, documentary stamps, state and local taxes, property insurance, transportation costs. Up to \$400 (single section) or \$600 (multi-section) installation and set-up not exceeding \$400 (single section) or \$600 (multi-section), plus a 1 percent guaranty fee.
Term of Loan	20 years for home loan 25 years for multi-section home and site 15 years for site alone	20 years: single-wide home or home/lot 15 years: lot only 23 years: double-wide home alone 25 years: double-wide home and lot
Down Payment	5 percent of the first \$5,000 and 10 percent of the balance for a home loan or home-plus-land loan.	No down payment, but costs specified in Sec. 36.4232 may be imposed on the veteran borrower.
Borrower Eligibility	Borrower must be the owner of the home. If the home is realty it must be owned in fee simple. If the loan includes the home site it must be owned in fee simple or under a cooperative.	Borrower must have a statutory home loan guaranty entitlement, typically based on service in the U.S. Army, Navy, Marines, Air Force or Coast Guard.
Credit Guidelines	Front end ratio not above 29 percent. Back end ratio not above 41 percent.	Back end ratio not above 41 percent and borrower residual income must meet regional minimum based on family size and loan amount.
Home Site Requirements	Site must have adequate public or private water and sewage. Land lease sites must comply with minimum standards for access, utilities, drainage and landscaping.	Rental sites must be approved by VA or certified to be in compliance with zoning, served by water, sewer and roads, and acceptable from a health, safety and environmental standpoint.
Retailers	Lenders must document approval of retailers for reliability, financial responsibility, and ability to perform contractual obligations with buyers.	No guidelines for approval, but retailers, manufacturers or community operators may be suspended for cause.

TABLE 5  
Summary of FHA and VA Personal Property Loan Programs

access to funding for home buyers. The FHA program (referred to as "Title I") is generally available, while the VA personal property loan program is limited to eligible veterans.

FHA and VA loans are securitized through bonds issued by the Government National Mortgage Association (Ginnie Mae). Federal programs represent a potentially important source of financing but loans from finance companies or banks are much more common and the government-sponsored personal property loans have never become as popular as the FHA and VA mortgage programs for site-built housing. The volume of FHA Title I loans, for example, reached a peak of almost 50,000 in 1983, then steadily declined to only about 3,000 in 1996. The volume of VA lending is even smaller. The chief reasons cited for this low utilization have been the large administrative burden and resulting delays in loan approvals, as well as the difficulty of obtaining payment in cases of default. Site builders who are more experienced with government-backed loans may not be deterred by such obstacles; moreover, the explicit rules and procedures of these government-sponsored loans are said to parallel the proprietary standard operating procedures of private lenders. Consequently, the procedural requirements of these loans are explained in more detail below.

Several key features of the HUD FHA Title I insurance program for manufactured home loans and the corresponding VA loan guarantee program are summarized in Table 6 below, as applicable to loans for new homes. Builder/developers interested in using the FHA Title I program can get more information from HUD-approved Title I lenders or the FHA Title I staff at HUD. More information about regulations for the VA program is available from VA lenders or the VA staff.

tured housing in the early 1970's. Like other federal mortgage programs, the idea is to reduce the risk to lenders through insurance or a guarantee, and thereby expand



## Example Projects

7

The next Table summarizes information about fourteen different example projects around the United States, each of which involves the innovative use of manufactured homes. Each row entry in the Table presents the following information documenting a specific project in a standardized format, displayed at right.

A key to the references appears at the end of the Table.

**Project Name and Location** - name of the subdivision, development or project, city and state

**Housing Types** - type of home(s) and surrounding environment (urban/suburban/rural, infill, etc.)

**Technology and Design** - number of stories, type of foundation system, significant site built features and other notable aspects of the design

**Project Size** - total number of units built or planned, square footage per unit

(with or without land)

**Financing** - type of loan program, local, state or federal, type of land lease (if applicable)

**Manufacturers** - name of manufacturer(s)

**Developer** - the firm that planned, developed and managed the project

**Reference** - sources for additional information about the project

Project Name and Location	Housing Types	Technology and Design	Project Size	Selling Price	Financing	Manufacturer	Developer	Reference
New Colony Village Jessup, MD	Detached Single-Family, Suburban	Two- and one-story, HUD-Code on permanent foundations, garages, porches, decks	416 units average, 1,300 sf	\$100,000, \$81/sf without land	Conventional, long-term land lease	Schult Home Corp. (Middlebury, IN)	Corridor 1, LLP, Inc., Wayne Newsome and Marc Levy	<i>Innovations at the Cutting Edge</i> , p. 24
Canterbury Communities Raleigh-Durham, NC	Detached Single-Family, Suburban, with some two-story modular units	Single- and multi-section HUD-Code, novel configurations, permanent foundation, porches, garages	350 units on 4 development sites	\$90,000, \$55/sf	Conventional, Developer pays closing costs	R-Neel Custom Homes, Inc., (Denver, NC)	Canterbury Communities, Inc., a subsidiary of Pulte Corp.	<i>Innovations at the Cutting Edge</i> , p. 27
Lido Peninsula Resort Newport Beach, CA	Detached Single-Family, replacements in old mobile home park on Newport Bay	Two-story units, pitched roofs, carport, zero lot line on 30 x 50 lots	214-unit park, 730 sf	\$80,000-\$90,000 without land; Land lease: \$1,000-\$2,000 per month	Personal Property Loan, existing land lease, community	Silvercrest Western Homes Corp., (Corona, CA)	RGC, Ltd. (Rural Homes, LLC), Peninsula	<i>Innovations at the Cutting Edge</i> , p. 25
Laurel Courts Oakland, CA	Detached Single-Family, urban setting	Single- and double-section on zero lot line on metal stands within poured perimeter foundation	30 units: 13 @ 2br, 840 sf, 17 @ 3br, 1,200 sf	\$77,000 and \$90,000	Conventional with local government and non-profit support	Silvercrest Western Homes Corp., (Corona, CA)	Paul Wang and Associates, architect/developer, Berkeley, CA	<i>Innovations at the Cutting Edge</i> , p. 22
Elmhurst Oakland, CA	Detached Single-Family, Urban Infill	Single-section, garages, pitched roofs, porches, patios, permanent foundation	7 units on scattered sites, 775-840 sf	\$80,000	Conventional with local government and non-profit support	Silvercrest Western Homes Corp., (Corona, CA)	Paul Wang and Associates, architect/developer, Berkeley, CA	<i>Innovations at the Cutting Edge</i> , p. 22
Hillcrest Uncasville, CT	Detached Single-Family on individual lots, suburban	Lindsay Unified Floor system on permanent perimeter foundation, garages, porches, sunrooms	208 units, 1,290 sf	\$112,000 without land	Conventional, new land lease community	New Era Building Systems, (Clarion, PA)	Jensen's Inc., Southington, CT	<i>Innovations at the Cutting Edge</i> , p. 26
Urban Design Project Wilkesburg, PA	Detached Single-Family, Urban, Turnkey infill housing	Floor with perimeter girders, two-story, pitched gable and hip roofs, porch	4 units on scattered sites, 1,472 sf	Just under \$100,000 \$87/sf	Conventional with local subsidies of land cost	New Era Building Systems, (Clarion, PA)	PA Dept. of Community Affairs, Wilkesburg Borough Council, New Era Building Systems, ACTION Housing, Inc., Clarion, PA	<i>Innovations at the Cutting Edge</i> , p. 20
Urban Design Project Louisville, KY	Detached Single-Family, Urban, Turnkey infill housing	Two story home, pitched roof, on narrow 21 foot lot, one-story in front and two-story in back, permanent foundation	6 units on scattered sites, 1,356 sf	Unknown	Conventional	New Era Building Systems, (Clarion, PA)	Neighborhood Development Corp., non-profit, Louisville Economic Opportunity Corp., KY MHI	Sanders, p. 64
Urban Design Project Marshall Heights, Washington, DC	Detached Single-Family, Urban, Turnkey infill housing	One-story 3BR bungalow and two-story 3BR home on full basement	2 units on scattered sites, 1,400 sf one-story	\$115,000 one-story, \$128,000 two-story	Conventional	Schult Home Corp. (Middlebury, IN)	Marshall Heights Community Development Corporation, Federal Urban Renewal, Puma, CA	Sanders, p. 63
Santiago Estates Los Angeles, CA	Detached Single-Family, Urban	One-story, CAC, Two-car garages	1,250-1,625 sf	\$94,000-\$113,900, \$466/month lease	Conventional, new land lease community	Unknown	Watts Industries, Inc.	Sanders, p. 60
Carson View Estates Santa Clara, CA	Detached Single-Family, Urban	One-story, 2BR and 3BR	400 units, 1,190-1,000 sf	\$79,000-\$101,000	Personal property loan, new land lease community	Unknown	Carson View Partnership	Sanders, p. 60
Wisteria Petaluma, CA	Detached Single-Family, suburban	Garages, entryways, permanent foundations, landscaping, zero lot line	28 units, 1,269-1,386 sf	\$136,000	Conventional, public, private, non-profit, city made land available	The Karsten Co.	Northbay Ecumenical Homes, non-profit, Burbank Housing Development Corp.	<i>Building Innovation for Homeownership</i> , p. 26
Longview Longmont, CO	Detached Single-Family, suburban	Raft slab foundation, garages, porches	400 units, 1,450 sf	\$68,000	Personal property loan, "lifetime" land lease	Fleetwood Enterprises	McClain Enterprises, Inc.	<i>Building Innovation for Homeownership</i> , p. 38
High Meadows Florence, CA	Detached Single-Family and site-built, suburban	Permanent concrete foundations, garages, porches, decks	158 units, 1,100-1,650 sf	\$104,000	Conventional, low down payment program, rural housing assistance	America Homestar Corp.	High Meadows Development Co., LLC	<i>Building Innovation for Homeownership</i> , p. 40

**Key to References:**  
*Innovations at the Cutting Edge*: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Innovations at the Cutting Edge - New Ideas in Manufactured Housing*, August 1999.  
 Sanders: Sanders, Wellford, *Manufactured Housing: Regulation, Design Innovations and Development Options*. American Planning Association, Planning Advisory Service Report Number 478. Chicago, IL, July 1998.  
*Building Innovation for Homeownership*: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Building Innovation for Homeownership*. 1998.

TABLE 6  
 Manufactured Housing Projects with Exemplary Design or Site Characteristics

# List of HUD-Code Manufacturing Facilities by State and City, 1999

A

<u>Alabama</u>			<u>Colorado</u>		
Cavalier Homes	Addison	AL	Champion/Summit		
Southern Energy Homes	Addison	AL	Crest Homes	Berthoud	CO
Southern Lifestyle Homes, Inc.	Addison	AL	Golden West Homes	Fort Morgan	CO
Crimson Homes	Bear Creek	AL	<u>Delaware</u>		
Chandeleur Homes	Boaz	AL	Pawnee Homes, Inc.	Greenwood	DE
Homes of Legend, Inc.	Boaz	AL	<u>Florida</u>		
Brilliant Homes	Brilliant	AL	Fleetwood Homes of FL	Auburndale	FL
Southern Homes Co.	Double Springs	AL	Homes of Merit of FL	Bartow	FL
Autumn Homes, Inc.	Douglas	AL	Nobility Homes, Inc.	Bellevue	FL
Redman Homes, Inc.	Eastaboga	AL	Homes of Merit of FL	Lake City	FL
Brilliant/Carriage Homes	Guin	AL	Chariot Eagle, Inc.	Ocala	FL
Champion/Advantage	Guin	AL	Liberty Homes, Inc.	Ocala	FL
Champion/Gateway	Guin	AL	Nobility Homes, Inc.	Ocala	FL
Indes House, Inc.	Hackleburg	AL	Skyline Corp.	Ocala	FL
River Birch Homes, Inc.	Hackleburg	AL	Palm Harbor Homes, Inc.	Plant City	FL
Crimson Industries, Inc.	Haleyville	AL	Redman Homes, Inc.	Plant City	FL
Riverchase Homes	Haleyville	AL	Jacobsen Homes	Safety Harbor	FL
Buccaneer Homes of AL	Hamilton	AL	<u>Georgia</u>		
Liberty/Waverlee Homes, Inc.	Hamilton	AL	Sunstate/Peach State Homes	Adel	GA
Patriot Homes/Southridge	Hamilton	AL	Bellcrest/Adrian	Adrian	GA
Brilliant/Silhouette	Lynn	AL	Fleetwood Homes of GA	Alma	GA
Sunshine Homes, Inc.	Red Bay	AL	General Manufactured Housing Inc.	Baxley	GA
Franklin Homes, Inc.	Russellville	AL	Fleetwood Homes of GA	Broxton	GA
Spiral Industries, Inc.	Russellville	AL	Homestead Homes	Cordele	GA
Pinnacle Homes/Patriot	Sulligent	AL	Fleetwood Homes of GA	Douglas	GA
Liberty/Waverlee Homes	Tuscumbia	AL	Horton Homes	Eatonton	GA
Buccaneer Homes	Winfield	AL	Fleetwood/Valuhomes	Fitzgerald	GA
<u>Arkansas</u>			Pioneer Housing System, Inc.	Fitzgerald	GA
Spirit Homes/Central	Conway	AR	Palm Harbor Homes	Lagrange	GA
<u>Arizona</u>			Southland Housing Systems	McRae	GA
Palm Harbor Homes, Inc.	Boaz	AZ	Bellcrest Homes	Millen	GA
Schult Homes	Buckeye	AZ	Destiny Industries	Moultrie	GA
Palm Harbor Homes, Inc.	Casa Grande	AZ	Sweetwater Homes, Inc.	Ocilla	GA
Redman Homes, Inc.	Chandler	AZ	Fleetwood Homes of GA	Pearson	GA
Clayton Homes	El Mirage	AZ	Redman Homes, Inc.	Richland	GA
Fleetwood Homes of Arizona	Glendale	AZ	Craftmade Homes	Sylvester	GA
Cavco Industries, Inc.	Goodyear	AZ	Grand Manor Homes	Thomasville	GA
Cavco Industries, Inc.	Phoenix	AZ	Clayton Homes/Waycross Homes	Waycross	GA
Chariot Eagle West, Inc.	Phoenix	AZ	General Manufactured Housing Inc.	Waycross	GA
Palm Harbor Homes, Inc.	Tempe	AZ	Fleetwood/Spring Hill	Willacochee	GA
<u>California</u>			<u>Idaho</u>		
Western/Silvercrest Homes	Corona	CA	American Homestar	Boise	ID
Champion Home Builders	Lindsay	CA	Nashua Homes of Idaho	Boise	ID
Hallmark-Southwest Corp.	Loma Linda	CA	Kit Mfg. Co.	Caldwell	ID
Golden West/Homes by Oakwood	Perris	CA	Fleetwood Homes of ID	Nampa	ID
Fleetwood Homes of CA	Riverside	CA	Champion Homes/Tamarack	Weiser	ID
The Karsten Company	Sacramento	CA	Redman Home Builders	Weiser	ID
Skyline Corp.	San Jacinto	CA			
Fleetwood Homes of CA	Woodland	CA			
Skyline Corp./Buddy	Woodland	CA			
Western Homes/Silvercrest	Woodland	CA			

<u>Indiana</u>			<u>Missouri</u>		
Hi-Tech Housing, Inc.	Bristol	IN	Fuqua Homes, Inc.	Boonville	MO
Skyline Corp./Hillcrest	Bristol	IN	Patriot/Heritage American	Sikeston	MO
Fall Creek Housing	Elkhart	IN	<u>Mississippi</u>		
Patriot Homes	Elkhart	IN	Pinnacle Homes	Amory	MS
Skyline Homes Elkhart	Elkhart	IN	Belmont Homes	Belmont	MS
Schult Homes	Etna Green	IN	Spiral Industry, Inc.	Burnsville	MS
Fleetwood Homes	Garrett	IN	Belmont/Delta Homes	Clarksdale	MS
Commodore/Brookwood	Goshen	IN	Redman Homes, Inc.	Gulfport	MS
Skyline Homes Goshen	Goshen	IN	Free State Mobile Homes	Laurel	MS
Skyline/Sunset Ridge Homes	Howe	IN	Fleetwood Homes of MS	Lexington	MS
Dutch Housing	Lagrange	IN	American Homestar	Vicksburg	MS
Four Seasons Housing	Middlebury	IN	Cappaert Manufactured		
Patriot Homes	Middlebury	IN	Housing	Vicksburg	MS
Schult Homes	Middlebury	IN	<u>North Carolina</u>		
The New Holly Park	Middlebury	IN	Palm Harbor/Masterpiece	Albemarle	NC
Fairmont Homes, Inc.	Nappanee	IN	Southern Energy	Albemarle	NC
Shamrock Homes	Plymouth	IN	Gold Medal Homes, Inc.	Cherryville	NC
Champion Home Builders	Ridgeville	IN	R-Anell Custom Homes	Denver	NC
Rochester Homes	Rochester	IN	Clayton Homes, Inc.	Henderson	NC
Patriot Homes/Lincoln Park	Shipshewana	IN	Heartland Homes/Am.		
Commodore Corp.	Syracuse	IN	Homestar	Henderson	NC
Liberty Homes, Inc.	Syracuse	IN	Crestline Homes	Laurinburg	NC
Redman Homes, Inc.	Topeka	IN	Champion Homes	Lillington	NC
Hart Housing Group	Wakarusa	IN	Fleetwood Homes	Lumberton	NC
<u>Kansas</u>			Redman Homes, Inc.	Maxton	NC
Skyline Corp.	Arkansas City	KS	Skyline Corp./Homette	Mocksville	NC
Skyline Corp.	Halstead	KS	Fleetwood Homes of NC	Mooreville	NC
Schult Homes	Plainville	KS	Brigadier Homes of NC	Nashville	NC
Liberty Homes	Yoder	KS	Clayton/Oxford Homes, Inc.	Oxford	NC
<u>Kentucky</u>			Fleetwood Homes of NC	Pembroke	NC
Fleetwood Enterprises	Benton	KY	Homes by Oakwood	Pinebluff	NC
Bluegrass Housing/Champion	Flemingsburg	KY	Clayton/Fisher Homes	Richfield	NC
<u>Louisiana</u>			Homes by Oakwood	Richfield	NC
Skyline Corp.	Bossier City	LA	Mansion Homes, Inc.	Robbins	NC
Pioneer Housing Systems of LA	Leesville	LA	Homes by Oakwood	Rockwell	NC
<u>Maryland</u>			Fleetwood Homes of NC	Roxboro	NC
Pawnee Homes	Salisbury	MD	Redman Homes, Inc.	Sanford	NC
<u>Maine</u>			Palm Harbor/Villa Park East	Siler City	NC
Burlington Homes of Maine	Oxford	ME	Liberty Homes, Inc.	Statesville	NC
Oxford Homes	Oxford	ME	<u>Nebraska</u>		
<u>Michigan</u>			Chief/Bonnavailla	Aurora	NE
Dutch Housing, Inc.	White Pigeon	MI	Atlantic Homes	Central City	NE
<u>Minnesota</u>			American Homestar/Magnolia	Gering	NE
Friendship Homes of MN	Montevideo	MN	Champion Home Builders	York	NE
The Homark Co.	Red Lake Falls	MN	Chief/Bonnavailla	York	NE
Schult Homes	Redwood Falls	MN	<u>New Mexico</u>		
Highland Manufacturing			Karsten Company of NM	Albuquerque	NM
Co., Inc.	Worthington	MN	Cavco Industries of NM	Belen	NM

New York

Champion Homes/Titan	Sangerfield	NY
Empire Homes	Valatie	NY

Ohio

Manufactured Housing Enterprises	Bryan	OH
Palm Harbor/Villa Park East Skyline Corp.	Sabina	OH
	Sugarcreek	OH

Oklahoma

Elliott Homes/Duncan	Duncan	OK
Elliott Homes, Inc.	Madill	OK
Elliott Mobile Homes	Waurika	OK

Oregon

Golden West Homes	Albany	OR
Fuqua Homes, Inc.	Bend	OR
Schult/Marlette Homes	Hermiston	OR
Skyline Corp./Homette	McMinnville	OR
Palm Harbor Homes	Millersburg	OR
Homebuilders Northwest, Inc.	Salem	OR
Liberty Homes, Inc.	Sheridan	OR
Redman Homes, Inc.	Silverton	OR
American Homestar	Stayton	OR
Fleetwood Homes of OR	Woodburn	OR
Western Homes/Silvercrest	Woodburn	OR

Pennsylvania

Commodore Corp.	Clarion	PA
Champion Homes/Atlantic	Claysburg	PA
Fleetwood Homes of PA	Elizabethtown	PA
Redman Homes, Inc.	Ephrata	PA
Skyline Homes, Inc.	Ephrata	PA
Castle Housing of PA	Knox	PA
Liberty Homes, Inc.	Leola	PA
Skyline Corp./Hillcrest	Leola	PA
Schult/Marlette Homes	Lewistown	PA
Ritz-Craft Corp.	Mifflinburg	PA
Schult/Crest Homes	Milton	PA
Commodore/Manorwood Homes	Pine Grove	PA
Pine Grove Mfg. Homes, Inc.	Pine Grove	PA
Astro Mfgr.	Shippensville	PA
Colony Factory Crafted Homes	Shippensville	PA
New Era Building Systems, Inc.	Strattanville	PA

South Carolina

Mascot Homes	Gramling	SC
General/Lamar Housing	Lamar	SC

South Dakota

Medallion Homes	Watertown	SD
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Tennessee

Clayton/Appalachia Homes	Andersonville	TN
Clayton Homes/Ardmore	Ardmore	TN
Norris, Inc.	Bean Station	TN
Fleetwood Homes of TN	Gallatin	TN
Champion Homes/Atlantic	Henry	TN
Clayton Homes/Halls Division	Knoxville	TN
Fleetwood Homes	Lafayette	TN
Clayton Homes/Maynardville	Maynardville	TN
Giles Industries of Tazewell	New Tazewell	TN
Homes by Oakwood	Pulaski	TN
Clayton Homes/Rutledge	Rutledge	TN
Clayton Homes/Savannah	Savannah	TN
Fleetwood Homes of TN	Westmoreland	TN
Clayton Homes/White Pine	White Pine	TN

Texas

Redman Homes	Athens	TX
Palm Harbor Homes, Inc.	Austin	TX
Fleetwood Homes of TX	Belton	TX
Signal Homes, Inc.	Big Spring	TX
Clayton Homes	Bonham	TX
Crest Ridge Homes	Breckenridge	TX
Palm Harbor/Masterpiece	Buda	TX
American Homestar of Burleson	Burleson	TX
Palm Harbor Homes	Burleson	TX
Redman Homes, Inc.	Burleson	TX
Homes by Oakwood	Ennis	TX
American Homestar/Oak Creek	Fort Worth	TX
Cavalier Town and Country	Fort Worth	TX
Palm Harbor/Masterpiece.	Fort Worth	TX
Southern Energy Homes of TX	Fort Worth	TX
Saturn Housing/Schult	Gainesville	TX
Cavalier Town and Country	Graham	TX
Silver Creek Homes	Henrietta	TX
Homes by Oakwood	Hillsboro	TX
Great Texas Homes	Houston	TX
Homes by Oakwood	Killeen	TX
American Homestar of Lancaster	Lancaster	TX
Cavalier Town and Country	Mineral Wells	TX
Schult Homes, Inc.	Navasota	TX
Cavco Industries LLC	Seguin	TX
Clayton Homes	Sulphur Springs	TX
Clayton Homes of Waco TX	Waco	TX
Fleetwood Homes of TX	Waco	TX
Patriot Homes of Texas	Waco	TX
Fleetwood Homes of TX	Wichita Falls	TX

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Virginia

Virginia Homes, Inc.	Boydton	VA
Commodore Corp.	Danville	VA
Fleetwood Homes of VA	Rocky Mount	VA

Vermont

Skyline Corp.	Fair Haven	VT
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Washington

Moduline International Valley Manufactured Housing, Inc.	Chehalis	WA
Fleetwood Homes of WA	Sunnyside Woodland	WA WA

Wisconsin

Liberty Homes, Inc.	Dorchester	WI
Skyline Corp./Homette	Lancaster	WI

Canada

Kent Homes	Bouchouche	NB
Maple Leaf Homes	Fredericton	NB
SRI Homes/Winfield	Kelowna	BC
Moduline/New Horizon Homes	Medicine Hat	AB
Moduline Industries (Canada)	Penticton	BC
Prestige Homes	Sussex	NB

Mexico

Rice Manufacturing/B and R	Matamoros
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## Market Information and Zoning Laws by State

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This Appendix gives detailed state-level information to assist in performing a market assessment and in reviewing the applicable laws that govern local zoning of manufactured housing. Data is presented on separate pages for different regions of the U.S.

The first section of each page presents basic state-level market data for the region in a table showing (1) the total stock of conventional housing and mobile/HUD-Code housing units in the state as of 1990, and (2) 1998 site-built housing starts, multi-section HUD-Code shipments to the state, and single-section HUD-Code shipments to the state.

The second section of each page gives relevant language from state law that governs local zoning rules for HUD-Code homes, with an emphasis on the degree to which such homes can be placed on or prohibited from land that is specifically zoned for single-family residential use. Most, but not all, states have laws of this type.

The third section of each page identifies some of the important case law from the state courts or federal courts in the region. The cases included are those that have either upheld or overturned local zoning rules against constitutional or statutory challenges. The case law is most important where it interprets the currently applicable statute, as well as in states where there is no applicable statute.

This Appendix cannot not be relied on as the sole source of information about community zoning, since it only deals with state law. Individual communities will have their own systems for establishing and enforcing zoning, and these can vary widely within the state. The state laws and cases are important because they suggest the general climate within the state, they show the evolution of the zoning approaches applied to mobile and manufactured homes, and they set constraints on systems that can be legally adopted and enforced at the local level.



## New England States

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Connecticut	748,900	11,900	9,300	80	60
Maine	378,600	54,600	4,700	890	720
Massachusetts	1,228,800	24,700	16,100	180	80
New Hampshire	297,800	35,300	4,600	620	370
Rhode Island	216,900	4,800	2,700	20	10
Vermont	168,200	22,800	1,600	350	230
<b>TOTAL</b>	<b>3,047,000</b>	<b>156,000</b>	<b>39,000</b>	<b>2,150</b>	<b>1,460</b>

### State Zoning Laws:

**MAINE:** Municipalities shall permit manufactured homes on individual lots in a number of locations where single-family dwellings are allowed, subject to the same requirements as single-family dwellings, except that the homes may not be required to be greater than 14 feet in width. Design criteria may include a roof with a pitch of at least 2:12 which is covered with asphalt or fiberglass composition shingles or other materials but not corrugated metal roofing, a permanent foundation, and residential-type exterior siding. Less restrictive controls shall be permitted. Title 30-A, Sections 4358.1 and 4358.2 (1995).

**NEW HAMPSHIRE:** Municipalities shall afford reasonable opportunities for the siting of manufactured housing and shall not exclude such housing completely from the municipality. No zoning ordinance shall prohibit the owner-occupant of a residence damaged by fire or other disaster from placing a manufactured home on the lot and residing therein while the residence is being rebuilt but not more than 12 months. Section 674:32 (1983, 1993).

**VERMONT:** No relevant state zoning statute identified.

**MASSACHUSETTS:** No zoning ordinance or by-law shall prohibit the owner-occupant of a residence destroyed by fire or other natural holocaust from placing a manufactured home on the site of such residence and residing in such home for up to 12 months while the residence is being rebuilt. Chapter 40A, Section 3.

**CONNECTICUT:** A zoning commission shall not adopt regulations imposing conditions and requirements on manufactured homes at least 22 feet wide and built in accordance with the HUD-Code, or on lots containing such manufactured homes, which are substantially different from requirements imposed on single-family dwellings and lots, and shall not adopt regulations imposing conditions and requirements on developments to be occupied by manufactured homes at least 22 feet wide and built in accordance with the HUD-Code which are substantially different from requirements imposed on multifamily dwellings and lots, cluster developments or planned unit developments. Title 8, Chapter 124, Section 8-2(a) (1988).

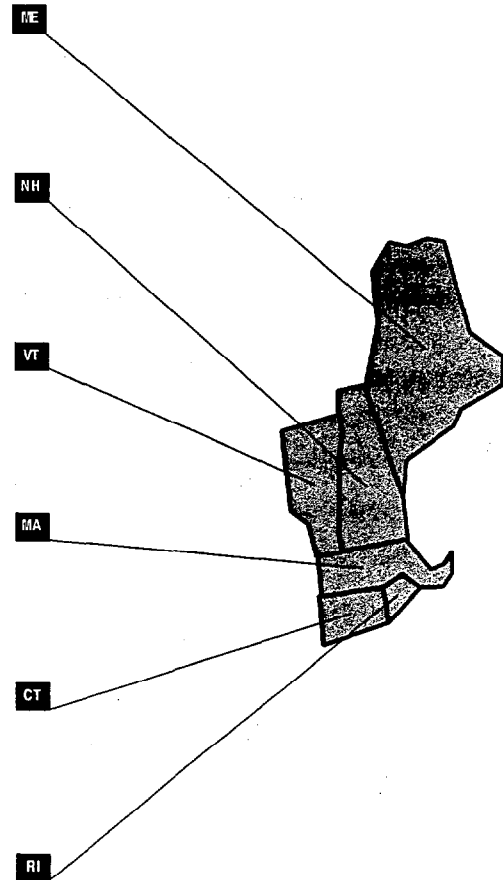
**RHODE ISLAND:** Any time a residential building is rendered uninhabitable by a casualty such as fire or flood, the owner shall be allowed to temporarily park a mobile and/or manufactured home or homes on the land for use and occupancy for a period up to 12 months, or until the building is rehabilitated and fit for occupancy. Section 45-24-37.

### Case Law:

**MA:** Supreme Judicial Court of Massachusetts, *Town of Manchester v. Phillips*, 180 N.E. 2d 333 (1962). Town zoning by-law excluding mobile homes from single residence district prohibited a mobile home, whether or not the unit is equipped with wheels or mounted on permanent foundation.

**NH:** Supreme Court of New Hampshire, *Town of Plaistow v. Nadeau*, 493 A.2d 1158 (1985). Town zoning ordinance permitting manufactured housing only on individually owned lots in residential zones was consistent with state law prohibiting total exclusion from the municipality.

**RI:** Supreme Court of Rhode Island, *Morin v. Zoning Board of Review*, 232 A.2d 393 (1967). Former mobile home which was placed on a block foundation, had wheels removed, and was connected to utility services, was not a "trailer" or "mobile home" prohibited by town zoning ordinance.







## Middle Atlantic States

### Case Law:

- NJ:** Supreme Court of New Jersey, *Southern Burlington County N.A.A.C.P. v. Mt. Laurel Township*, 456 A.2d 390 (1983) ["Mount Laurel II"]. Municipal land use regulations must provide opportunity to meet the municipality's fair share of the regional need for low and moderate income housing. Absolute bans of mobile homes are no longer permissible on grounds of adverse effect on real estate values. Total exclusion must be justified by the same doctrines that would justify total exclusion of apartments, townhouses or single-family residences. Subjective sensibilities of present residents are not a sufficient basis for total exclusion of manufactured housing.
- NJ:** Superior Court of New Jersey, Chancery Division, Cumberland County, *Luczynski, Zoning Official, v. Temple* 497 A.2d 211 (1985). Local zoning ordinance restricting manufactured homes to duly licensed parks without considering size, appearance or safety had no reasonable basis under the police power and was therefore unconstitutional.
- NY:** Court of Appeals of New York, *People v. Clute*, 278 N.Y.S.2d 231 (1966). A town zoning ordinance requiring trailers to be located in trailer parks prohibited placing a mobile home on a permanent foundation in a single-family residence district, and was not unconstitutional.
- PA:** Supreme Court of Pennsylvania, *Geiger v. Township of North Whitehall* 507 A.2d 361 (1986). Discrimination against a single-section unit, while permitting multi-section units, was arbitrary, capricious and unconstitutional.
- PA:** Commonwealth Court of Pennsylvania, *Appeal of Shore*, 496 A.2d 876 (1985). Township zoning ordinance which totally excluded mobile home parks, based on a finding that the Township was not a logical area for development and population growth, was not invalid.
- PA:** Commonwealth Court of Pennsylvania, *Borough of Malvern v. Jackson* 529 A.2d 96 (1987). Where borough zoning ordinance totally excludes mobile home parks the burden is on the borough to establish that the prohibition promotes general welfare; need for expensive homes to increase local tax base could not justify excluding mobile home parks.

### Market Data:

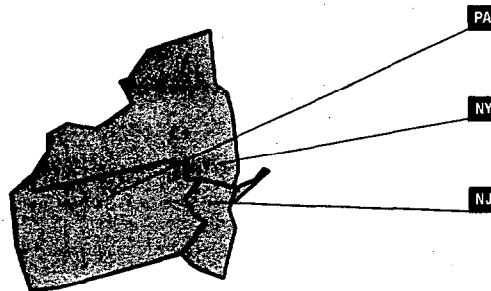
STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
New Jersey	1,835,100	33,600	23,360	420	190
New York	2,926,900	195,100	18,900	3,100	1,320
Pennsylvania	2,637,000	256,800	23,700	4,900	2,000
<b>TOTAL</b>	<b>7,208,700</b>	<b>487,700</b>	<b>65,900</b>	<b>7,520</b>	<b>3,530</b>

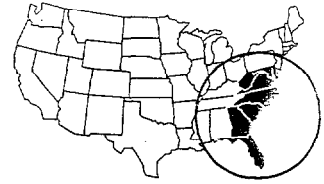
### State Zoning Laws:

**PENNSYLVANIA:** No relevant state zoning statute identified.

**NEW YORK:** No relevant state zoning statute identified.

**NEW JERSEY:** Municipal agencies shall not by regulation exclude or restrict manufactured homes not less than 22 feet wide on permanent foundations, on land owned by the home owner, unless those regulations apply equally to all buildings and structures of similar use. Section 40:55D-104 (1983).





## South Atlantic States

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Delaware	158,000	35,100	3,800	960	490
Florida	3,031,800	762,500	91,600	15,960	4,300
Georgia	1,830,500	308,100	70,200	15,040	7,200
Maryland	938,400	43,500	19,100	590	240
North Carolina	1,250,000	272,000	37,000	7,000	3,000
South Carolina	898,600	240,700	24,400	12,810	7,160
Virginia	1,352,700	158,900	35,700	4,300	2,890
West Virginia	546,100	118,800	4,500	2,530	1,820
<b>TOTAL</b>	<b>10,473,700</b>	<b>2,285,600</b>	<b>310,500</b>	<b>72,200</b>	<b>38,590</b>

### State Zoning Laws:

**DELAWARE:** Every owner of a farm of less than 50 acres shall be permitted to have 1 mobile home located on the farm and every owner of a farm of 50 acres or more shall be permitted to have 2 mobile homes located on said farm, such mobile homes to be used and inhabited by any persons so permitted by the owner. Title 9, Chapter 34, Subchapter 1, Section 313.

**MARYLAND:** No relevant state zoning statute identified.

**WEST VIRGINIA:** Every municipality shall have power and authority ... to prohibit with or without zoning the location of occupied house trailers or mobile homes in certain residential areas. W.Va.Code Section 8-12-5.

**VIRGINIA:** Localities with zoning ordinances shall permit the placement of manufactured houses with permanent foundations on individual lots in all agricultural, horticultural and forest zoning districts, subject to development standards equivalent to those for site-built homes in the same district. Section 15.2-2290 (1995).

**NORTH CAROLINA:** Cities may not adopt or enforce zoning regulations which exclude manufactured homes from the entire jurisdiction, but may adopt and enforce appearance and dimensional criteria for manufactured homes. Cities may also designate manufactured home overlay districts within residential districts, consisting of a defined area within which additional requirements or standards are placed upon manufactured homes. G.S. 160A-383.1 (1987).

**SOUTH CAROLINA:** No relevant state zoning statute identified.

**GEORGIA:** No relevant state zoning statute identified.

**FLORIDA:** Local jurisdictions may review and regulate architectural and aesthetic requirements for mobile homes (including HUD-Code homes), but any such requirements imposed on the mobile home structure itself may pertain only to roofing and siding materials. Local requirements and regulations for HUD-Code manufactured homes must be reasonable, uniformly applied and enforced without distinctions as to whether such housing is manufactured, located in a mobile home park or mobile home subdivision, or built in a conventional manner. Title XXIII, Chapter 320, Section 320.8285(5) (1994).

### Case Law:

U.S. Court of Appeals, 11th Circuit: *Grant v. County of Seminole*, 817 F.2d 731 (1987). Florida exclusion of single-section MH upheld.

U.S. Court of Appeals, 11th Circuit: *Scurlock v. City of Lynn Haven*, 858 F.2d 1521 (1988). Florida city building code requirement struck down because pre-empted by HUD-Code.

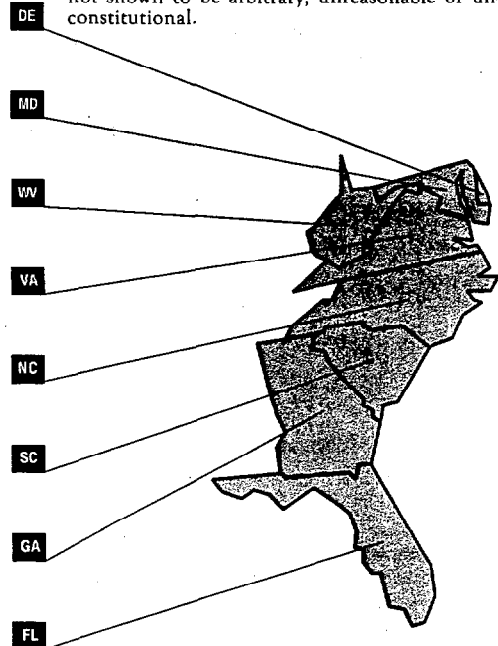
U.S. Court of Appeals, 11th Circuit: *Georgia MHA v. Spalding County*, 148 F.3d 1304 (1997). County zoning ordinance requiring minimum 4:12 roof pitch for manufactured homes is not pre-empted by HUD-Code and is not unconstitutional.

U.S. District Court, W.D. North Carolina, *CMH Mfg. Inc. v. Catawba County*, 994 F.Supp 697 (1998). County zoning ordinance requiring manufactured homes to have residential-type siding and roofing is not pre-empted by HUD-Code and is not unconstitutional.

**GA:** Supreme Court of Georgia, *Cannon v. Coweta County*, 389 S.E.2d 329 (1990). County zoning ordinance excluding manufactured homes from locations other than manufactured home parks held unconstitutional.

**SC:** Supreme Court of South Carolina, *Scranton v. Willoughby*, 412 S.E.2d 424 (1991). On a motion for summary judgment, exclusionary ordinance is presumed valid without evidence to the contrary.

**WV:** Supreme Court of Appeals of West Virginia, *Town of Stonewood v. Bell*, 270 S.E.2d 787 (1980). Municipal zoning ordinances restricting placement of mobile homes to designated areas within towns not shown to be arbitrary, unreasonable or unconstitutional.





## East North Central States

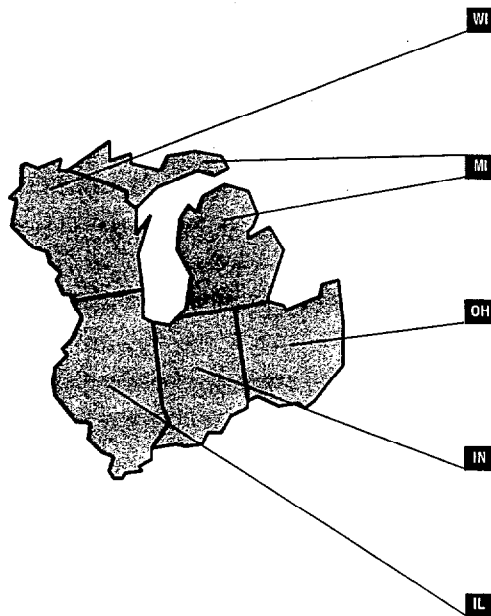
### Case Law:

U.S. Court of Appeals, 7th Circuit: *Clark v. County of Winnebago*, 817 F.2d 407 (1987). Illinois county requirement that mobile homes not be located outside mobile home districts is presumed constitutional and was not shown to be so arbitrary as to violate due process under the U.S. constitution.

**IL:** Supreme Court of Illinois, *People of Village of Cahokia v. Wright*, 311 N.E.2d 153 (1974). Zoning ordinance prohibiting trailers outside trailer parks and allowing trailer parks only in specified districts was not to be shown arbitrary, unreasonable or unconstitutional.

**IL:** Illinois Court of Appeals, 5th District: *Bach v. County of St. Clair*, 576 N.E.2d 1236 (1991). 14-foot minimum width requirement struck down as arbitrary, capricious and unconstitutional.

**MI:** Supreme Court of Michigan: *Robinson Township v. Knoll*, 302 N.W.2d 146 (1981). Per se exclusion of all mobile homes from all areas not designated as parks is unconstitutional, but exclusion based on failure to satisfy reasonable standards designed to assure favorable comparison to site-built housing is permissible.



### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Illinois	2,555,100	148,700	36,400	2,420	1,380
Indiana	1,574,500	157,200	33,500	6,350	3,040
Michigan	2,674,300	248,300	42,100	6,430	2,630
Ohio	2,898,600	205,500	34,500	5,020	2,990
Wisconsin	1,342,400	101,700	21,700	2,400	1,410
<b>TOTAL</b>	<b>11,051,200</b>	<b>868,400</b>	<b>167,000</b>	<b>25,450</b>	<b>11,440</b>

### State Zoning Laws:

**WISCONSIN:** No relevant state zoning statute identified.

**MICHIGAN:** Local government ordinances shall not be designed as exclusionary to mobile homes whether located inside or outside of parks, and shall not contain roof configuration standards or special use zoning requirements that apply only to, or exclude, mobile homes. Ordinances may include reasonable standards for mobile homes located outside of parks to ensure they compare aesthetically to site-built housing in the same residential zone. Section 125.2307 (1987).

**OHIO:** Counties and zoning boards have no authority to prohibit or restrict manufactured homes in any district or zone in which a single-family home is permitted, so long as the manufactured home is on a permanent foundation, measures at least 22 feet by 22 feet, has at least 900 square feet of living area, a minimum 3:12 roof pitch, conventional residential siding, a 6-inch minimum eave overhang and appropriate guttering, and was manufactured after January 1, 1995. Such manufactured homes may be required to comply with all zoning requirements that are uniformly imposed on all single-family residences in the district, except requirements specifying minimum roof pitch and requirements inconsistent with the HUD-Code. Counties may prohibit mobile homes not complying with the HUD-Code from any residential district or zone. Senate Bill 142, Section 303.212 (1999).

**INDIANA:** Local zoning plans and ordinances may subject manufactured homes and other dwelling units to identical standards and requirements including but not limited to setback, yard area, parking, square footage and underfloor space enclosure requirements, but aesthetic requirements for the home under this section are limited to roofing and siding materials. Standards and requirements may not totally preclude all manufactured homes constructed after January 1, 1981 and exceeding 23 feet in width and 950 square feet of occupied space from being installed as permanent residences on any lot on which any other type of dwelling unit may be placed. I.C. 36-7-4-1106 (1982).

**ILLINOIS:** No relevant state zoning statute identified.



## East South Central States

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Alabama	1,134,200	223,600	19,700	10,000	9,520
Kentucky	1,011,100	185,300	18,600	5,570	6,060
Mississippi	710,300	137,400	22,300	7,970	6,780
Tennessee	1,357,300	188,400	30,100	8,180	6,220
<b>TOTAL</b>	<b>4,272,900</b>	<b>734,700</b>	<b>90,700</b>	<b>31,720</b>	<b>28,580</b>

### State Zoning Laws:

**KENTUCKY:** No relevant state zoning statute identified.

**TENNESSEE:** Regulation of zoning and land use planning shall not exclude placement of residential dwellings with the same general appearance as required for site-built homes on land designated for residential use solely because the dwelling is partially or completely constructed in a manufacturing facility. This does not apply to mobile homes constructed as a single self-contained unit on a single chassis. Sections 13-24-201 and 13-24-202 (1980).

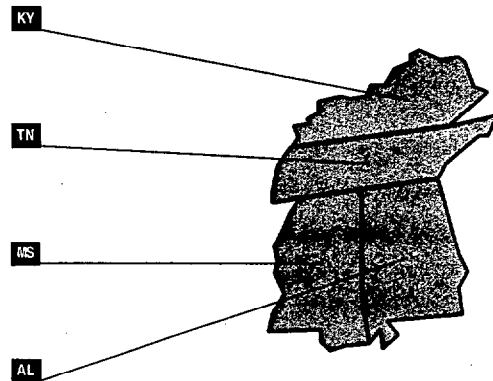
**MISSISSIPPI:** Counties and municipalities may adopt and enforce zoning requirements which establish reasonable appearance and dimensional criteria for factory manufactured moveable homes so long as the requirements do not have the effect of prohibiting such homes which otherwise meet applicable building code requirements from being lawfully located in at least some part or portion of the county or municipality. Section 17-1-39 (1989).

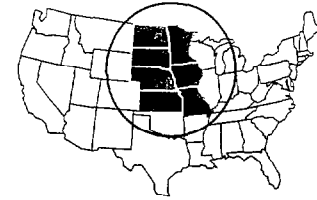
**ALABAMA:** No relevant state zoning statute identified.

### Case Law:

**MS:** Supreme Court of Mississippi: *Carpenter v. City of Petal*, 699 So.2d 928 (1997). Local prohibition of mobile homes in area zoned for agricultural use overturned, based on denial of due process at variance hearing and unconstitutionality of the underlying prohibition.

**TN:** Court of Appeals of Tennessee, Middle Section, at Nashville: *Tennessee MHI v. Metro Nashville* (1990). A double-section HUD-Code unit is not a mobile home constructed as a single self-contained unit on a single chassis as described in section 13-24-201 of the Tennessee statutes, and therefore cannot be excluded from a residential area under Tennessee state law.





## West North Central States

### Case Law:

**MO:** Supreme Court of Missouri, *State ex rel. Wilkerson v. Murray*, 471 S.W. 2d 460 (1971). Zoning ordinance prohibiting the occupancy of mobile homes outside mobile home parks was not clearly arbitrary and unreasonable and was not unconstitutional under Missouri or U.S. Constitutions.

**ND:** Supreme Court of North Dakota, *Gullickson v. Stark County Board of County Commissioners*, 474 N.W. 2d 890 (1991). Grant of a variance allowing a single-wide mobile home in a residential subdivision that was zoned to prohibit such structures was arbitrary and unreasonable absent a required showing that the land involved in the variance was uniquely affected by the ordinance.

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Iowa	653,200	57,200	7,900	1,080	980
Kansas	747,600	71,000	9,900	2,080	1,810
Minnesota	1,231,100	90,600	22,300	2,000	1,270
Missouri	1,488,800	164,900	24,500	4,050	4,000
Nebraska	379,000	37,800	6,100	710	410
North Dakota	173,000	27,100	1,700	480	290
South Dakota	202,100	31,300	2,900	1,010	650
<b>TOTAL</b>	<b>5,173,100</b>	<b>477,700</b>	<b>75,200</b>	<b>11,420</b>	<b>9,410</b>

### State Zoning Laws:

**NORTH DAKOTA:** No relevant state zoning statute identified.

**MINNESOTA:** County and municipal zoning ordinances must not prohibit HUD-Code manufactured homes that also comply with all other applicable zoning requirements. Sections 394.25, sub.3 (1979), and 462.357, sub.1 (1987).

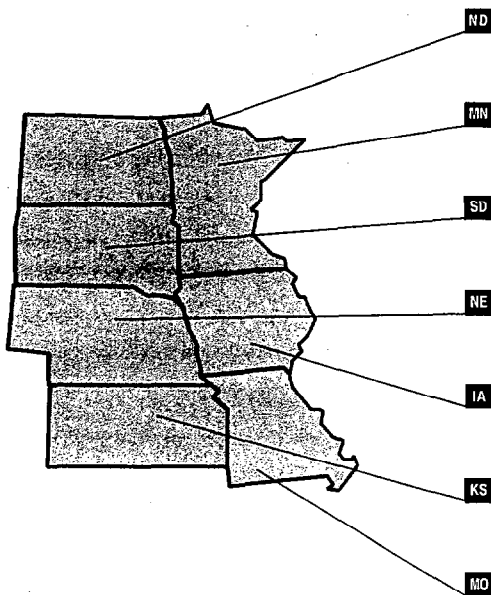
**SOUTH DAKOTA:** No relevant state zoning statute identified.

**NEBRASKA:** Localities may not adopt or enforce zoning ordinances that prohibit the siting of HUD-Code homes but may set requirements for foundation, utilities, setback and square footage and additional standards for width, roof pitch, siding and roofing.

**IOWA:** Cities and counties shall not adopt or enforce requirements mandating width standards greater than 24 feet, roof pitch, or other design standards for manufactured homes built to the HUD-Code. Counties shall not mandate any width standards for single manufactured homes built to the HUD-Code and located on agricultural land. Sections 335.30 and 414.28, as amended 1997

**KANSAS:** Cities and municipalities may not totally exclude manufactured homes from the jurisdiction, and may not exclude manufactured homes at least 22 feet wide, with a pitched roof and residential-type siding and roofing, from single-family residential districts, but can set architectural and aesthetic standards for such homes to ensure compatibility with site-built homes. Sections 12-742 and 12-763 (1991, effective January 1, 1992).

**MISSOURI:** No relevant state zoning statute identified.





## West South Central States

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Arkansas	708,500	131,100	10,700	4,040	4,430
Louisiana	1,084,700	195,700	11,800	3,290	7,540
Oklahoma	1,005,600	120,400	13,100	3,930	3,660
Texas	4,387,600	546,700	103,400	21,800	23,470
TOTAL	7,186,400	1,003,900	138,900	33,060	39,100

### State Zoning Laws:

**ARKANSAS:** No relevant state zoning statute identified.

**OKLAHOMA:** No relevant state zoning statute identified.

**TEXAS:** Incorporated cities may permit HUD-Code manufactured homes as residential dwellings in areas determined appropriate by the city, including subdivisions, PUDs, single lots and rental communities. Such cities may prohibit installation of mobile homes (constructed before June 15, 1976) for use or occupancy within their corporate limits. Vernon's Civil Statutes, Article 5221f, Section 4A (1987).

**LOUISIANA:** No relevant state zoning statute identified.

### Case Law:

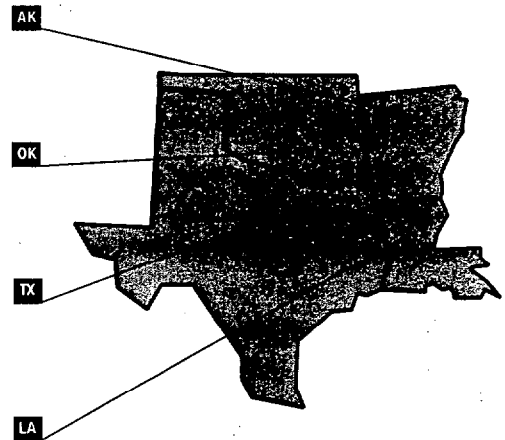
**LA:** Supreme Court of Louisiana, *Summerell v. Phillips*, 282 So.2d 450 (1973). Zoning ordinance which created a new type of zoning district for mobile homes but failed to include any objective standards for establishing such districts was unconstitutional.

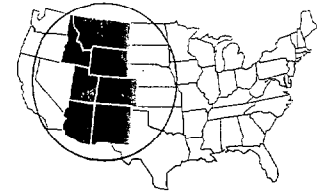
**TX:** Supreme Court of Texas, *City of Brookside Village v. Comeau*, 633 S.W.2d 790 (1982). Regulation of parks and restriction of location of mobile homes to parks are constitutional.

U.S. District Court, E.D. Louisiana, *Bourgeois v. Parish of St. Tammany*, 628 F.Supp 159 (1986). Ordinance excluding mobile homes from A-2 residential zones was arbitrary and unreasonable, and therefore was an invalid exercise of the police power.

U.S. Court of Appeals, 5th Circuit, *TMHA v. City of Nederland*, 101 F.3d 1095 (1996). Requirement that all manufactured homes be in parks was not unconstitutional and was not pre-empted by the HUD-Code.

U.S. District Court, S.D. Texas, Houston Division, *TMHA v. City of La Porte*, 974 F.Supp 602 (1996). Local exclusion of HUD-Code manufactured homes from certain residential districts is not pre-empted by federal law and does not violate due process, equal protection or the Commerce Clause of the U.S. Constitution.





## Mountain States (Except Nevada)

### Case Law:

- MT:** Supreme Court of Montana, *Martz v. Butte Silver Bow Government*, 641 P.2d 426 (1982). Remanded for proceeding to determine whether exclusion of mobile homes and mobile home parks was unconstitutional.
- CO:** Colorado Court of Appeals, Division 1, *CMHA v. Pueblo County*, 857 P.2d 507 (1993). HUD-Code pre-empts inconsistent local construction and safety standards.
- U.S. District Court, D.Colorado, *CMHA v. Pueblo County*, 946 F.Supp 1539 (1996). Local prohibitions of manufactured housing from certain residential areas in Salida, CO and Silt, CO unless the units comply with the Uniform Building Code are pre-empted by the HUD-Code.
- U.S. District Court, D.Colorado, *CMHA v. City of Salida et al.*, 977 F.Supp 1080 (1997). Local requirements that all manufactured housing in Fountain, CO and Frederick, CO be located in specified districts are not pre-empted by the HUD-Code, and do not violate due process or equal protection.

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
Arizona	867,900	250,800	49,200	6,670	1,950
Colorado	884,900	88,600	35,300	3,340	1,490
Idaho	266,000	51,000	3,000	400	500
Montana	237,600	54,200	1,400	1,240	680
Utah	393,100	34,700	13,700	1,640	350
Wyoming	125,200	33,900	1,700	580	100
<b>TOTAL</b>	<b>3,188,500</b>	<b>622,400</b>	<b>118,900</b>	<b>22,220</b>	<b>8,310</b>

### State Zoning Laws:

**IDAHO:** Local governments must allow manufactured homes on all land zoned for single-family residential use, but may require the homes be multi-sectional, enclose at least 1,000 square feet, have a foundation enclosed at the perimeter with the home not more than 12 inches above grade, have a minimum roof pitch of 3:12, have residential-type siding and roofing, and have a garage or carport. Section 67-6509A, effective July 1, 1996.

**MONTANA:** In a proceeding for a permit or variance to allow a manufactured home there is a rebuttable presumption that placement of such a home will not adversely affect property values of conventional housing so long as the manufactured home was built after 1989, is placed on a permanent foundation, includes at least 1,000 square feet, and has a pitched roof, roofing and siding customarily used on site-built homes. Sections 76-2-202 and 76-2-302.

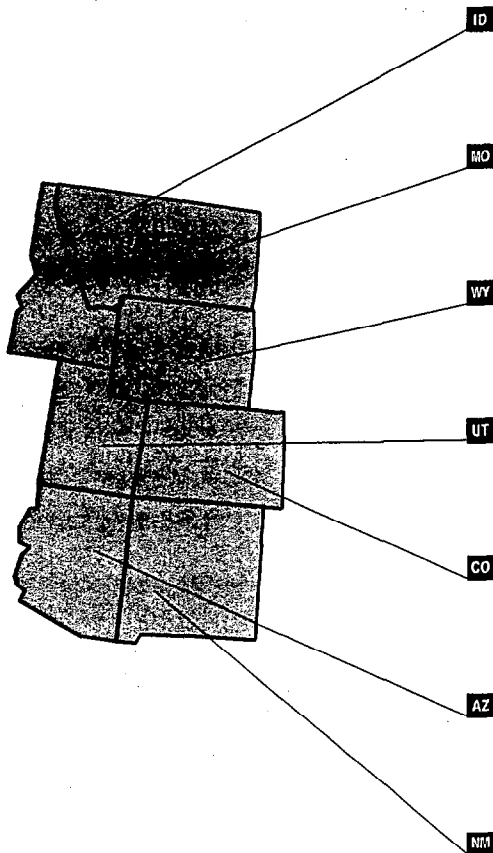
**WYOMING:** No relevant state zoning statute identified.

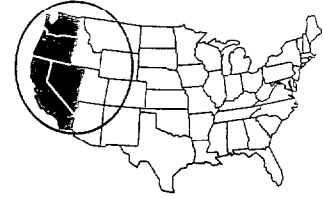
**UTAH:** Municipalities and counties may not exclude manufactured homes on permanent foundations from any zone or area in which a single-family residence would be permitted, subject to all local zoning, building code, and subdivision requirements applicable to single-family residences. Sections 10-9-106.5 and 17-27-105.5 (1996).

**COLORADO:** Counties and municipalities must not exclude manufactured homes that meet or exceed, on an equivalent performance engineering basis, standards established by the local building code, so long as the homes meet the HUD-Code, are at least 24 feet wide and 36 feet long, are installed on an engineered permanent foundation, and have brick, wood or cosmetically equivalent exterior siding and a pitched roof. Local requirements may address other requirements for manufactured homes, such as foundations, floor space, unit size, improvements, yards and setbacks, so long as the same requirements apply to other housing in the district. C.R.S. 30-28-115(3) and 31-23-301(5), effective January 1, 1985.

**ARIZONA:** No relevant state zoning statute identified.

**NEW MEXICO:** Manufactured homes may not be excluded from districts where site-built single-family housing is allowed, or subjected to more stringent restrictions, so long as the manufactured home meets the HUD-Code, has a heated area of at least 36 feet by 24 feet and is installed as required by New Mexico law. However such homes may be required to meet requirements other than original construction requirements applicable to site-built homes in the district, as well as applicable historic or aesthetic standards. N.M.S.A. 3-21A-3 (1987).





## Pacific States and Nevada

### Market Data:

STATE	Detached Housing Stock, 1990		Market Activity, 1998		
	Single-family detached	Mobile home, trailer or HUD-Code unit	SFD housing starts	Multi-section HUD-Code shipments	Single-section HUD-Code shipments
California	6,117,000	558,100	91,100	8,240	440
Nevada	236,100	69,500	24,400	1,960	170
Oregon	783,300	100,000	29,100	6,590	280
Washington	1,272,300	187,000	29,100	6,590	280
<b>TOTAL</b>					

### Case Law:

**WA:** Supreme Court of Washington, *Duckworth v. City of Bonney Lake*, 586 P.2d 860 (1978). Zoning code excluding mobile homes from single-family residence areas but permitting them in another area was not shown to be arbitrary, invalid or unconstitutional.

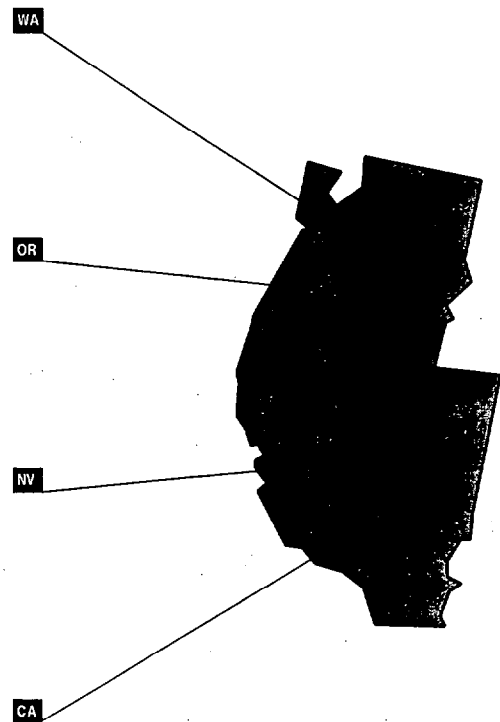
### State Zoning Laws:

**WASHINGTON:** Local prohibitions on siting manufactured homes on individual lots are permitted, subject to a review by the city. State law provides an optional reference to permit manufactured homes if they are built to the HUD-Code, include at least two sections, and have conventional siding and roofing with a minimum 3:12 roof pitch. R.C.W. 35.63.160 and 35A.63.145 (1988).

**OREGON:** Cities and counties may not by charter prohibit manufactured homes from all residential zones, and must permit them within urban growth boundaries on all land zoned for single-family residential use. However, jurisdictions may require manufactured homes outside parks to be multisectional, at least 1000 square feet in size, placed on an enclosed foundation not more than 12 inches above grade, with a roof pitch not less than 3:12, with compatible siding and roofing and a thermal envelope meeting the state energy code for single-family dwellings, and with a garage or carport. O.R.S. 197.307 (1981) and 197.314 (1993).

**NEVADA:** Zoning ordinances must define "single-family" residence to include manufactured homes, and must also require that such homes that will be placed outside a mobile home park be not more than 5 years old, have siding and roofing compatible with other nearby homes, contain more than one section and at least 1,200 square feet of living area, and have architectural masking of elevated foundations. Counties with populations below 25,000 are permitted to adopt less restrictive standards. Senate Bill 323 (1999) amending N.R.S. Chapter 278 (1999, effective January 1, 2000).

**CALIFORNIA:** Cities and counties shall allow the installation of manufactured homes meeting the HUD-Code with foundations meeting California requirements on lots zoned for conventional single-family dwellings, subject to the same development standards for setbacks, yards, parking, aesthetics and square footage, and subject to architectural standards for roof overhang, roofing material and siding material. Manufactured homes more than 10 years old may be excluded from coverage under this section at the option of the local legislative body. California Health and Safety Code, Section 65852.3 (1980).





## State Administrative Agencies

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C

### Alabama:

Mr. Jimmy Sloan, Administrator  
Manufactured Housing Commission  
350 South Decatur Street  
Montgomery, AL 36104  
334-242-4036

### Alaska: none

### Arizona:

Mr. N. Eric Borg, Director  
Department of Building and Fire Safety  
Office of Manufactured Housing  
99 East Virginia, Suite #100  
Phoenix, AZ 85004  
602-255-4072

### Arkansas:

Mr. Whit Waller, Director  
Arkansas Manufactured Home Commission  
523 South Louisiana Street, Suite 500  
Lafayette Building  
Little Rock, AR 72201  
501-324-9032

### California:

Mobile Home Complaints Center  
Department of Housing  
and Community Development  
Division of Codes and Standards  
Manufactured Housing Section  
1800 Third Street, Suite 260  
Sacramento, CA 95814  
916-323-9801

### Colorado:

Mr. Tom Hart  
Director, Housing Division  
Department of Local Affairs  
1313 Sherman Street, #323  
Denver, CO 80203  
303-866-2033

### Connecticut: none

### Delaware: none

### Florida:

Mr. John R. McDonald, Chief  
Bureau of Mobile Homes and R.V.,  
Division of Motor Vehicles  
Neil Kirkman Building  
2900 Apalachee Parkway, Room A-129  
Tallahassee, FL 32399-0640  
904-488-8600

### Georgia:

Mr. Chris Stephens  
Assistant State Fire Marshal  
Manufactured Housing Division  
State Fire Marshal's Office  
#2 Martin Luther King, Jr. Drive  
#620 West Tower  
Atlanta, GA 30334  
404-656-3687

### Hawaii: none

### Idaho:

Mr. Tom Rogers  
Division of Building Safety Bureau  
277 North Sixth Street, Suite #100  
Statehouse Mall  
Boise, ID 83702-7720  
208-334-3896

### Illinois: none

### Indiana:

Mr. David Fletcher  
Codes Enforcement Division  
Department of Fire and Building Services  
Indiana Government Center  
402 West Washington Street, Room W-246  
Indianapolis, IN 46204-2739  
317-232-6423

### Iowa:

Mr. David Linkletter, State Fire Marshal  
Iowa State Building Code Bureau  
Department of Public Safety  
621 East 2nd Street  
Des Moines, IA 50309  
515-281-5821

### Kansas: none

### Kentucky:

Mr. Charles R. Wiley, Chief  
Manufactured Housing Division  
Department of Housing, Building  
and Construction  
1047 U.S. 127 South Building  
Frankfort, KY 40601  
502-564-3626

Louisiana:

Mr. Michael Commarosano  
Administrative Director  
Manufactured Housing Division  
State Fire Marshal's Office  
5150 Florida Boulevard  
Baton Rouge, LA 70806  
504-925-4911

Maine:

Ms. Anne L. Head, Executive Director  
Manufactured Housing Board  
Department of Professional  
and Financial Regulation  
35 State House Station  
Augusta, ME 04333  
207-624-8603

Massachusetts: none

Maryland:

Mr. James Hanna, Director  
Department of Housing  
and Community Development  
Maryland Codes Administration  
100 Community Place  
Crownsville, MD 21032-2023  
410-514-7213

Michigan:

Mr. Kevin DeGroat  
Bureau Deputy Director for Manufactured  
Housing,  
Corporation, Securities, Land  
Development Bureau  
6546 Mercantile Way  
Lansing, MI 48911-5911  
517-334-6203

Minnesota:

Mr. Ray Karnuth, Director  
Minnesota Building Codes and Standards  
Division  
408 Metro Square Building  
St. Paul, MN 55101  
612-296-4639

Mississippi:

Mr. Millard Mackey, Chief Deputy  
Manufactured Housing Division  
State Fire Marshall's Office  
455 N. Lamar Street, Room 410  
Jackson, MS 39202  
601-354-6900

Missouri:

Mr. James Phillips, Director  
Department of Manufactured Housing, R.V.  
and Modular Units  
Public Service Commission  
P.O. Box 360  
Jefferson City, MO 65101  
573-751-7119

Montana: none

Nebraska:

Mr. Mark Luttich, Program Manager  
Housing and Recreational Vehicle Program  
Health and Human Services  
Regulations and Licensing  
301 Centennial Mall South  
Lincoln, NE 68509-5007  
402-471-0518

Nevada:

Ms. Renee Diamond, Administrator  
Department of Business and Industry  
Manufactured Housing Division  
2501 E. Sahara Avenue, Suite 204  
Las Vegas, NV 89104  
702-486-4135

New Hampshire: none

New Jersey:

Mr. Paul Sachdeva, Manager  
Department of Housing and Development  
Bureau of Code Services  
3131 Princeton Pike - CN 816  
Trenton, NJ 08625-0816  
609-530-8833

New Mexico:

Mr. John Wilson, Director  
Manufactured Housing Division  
Regulation and Licensing Department  
725 St. Michael's Drive  
Santa Fe, NM 87505  
505-827-7070

New York:

Mr. Arnold Byrd, Administrator  
Department of State  
Code Division, Room 1130  
41 State Street  
Albany, NY 12207-2839  
518-474-4073

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North Carolina:

Mr. C. Patrick Walker  
Deputy Commissioner  
Manufactured Building Division  
Department of Insurance  
410 N. Boylan Avenue  
Raleigh, NC 27603  
919-733-3901

North Dakota: none

Ohio: none

Oklahoma: none

Oregon:

Mr. Albert Andres, Administrator  
Department of Consumer and Business  
Services  
Building Codes Division  
P.O. Box 144700  
1535 Edgewater Drive, N.W.  
Salem, OR 97310  
503-378-5975

Pennsylvania:

Mr. John F. Boyer, Jr.  
Community Development and Housing Office  
Bureau of Housing and Infrastructure  
Division of Manufactured Housing  
Forum Building, #314  
Harrisburg, PA 17120  
717-720-7413

Rhode Island:

Mr. Joseph Cirillo, Commissioner  
Building Code Commission  
Department of Administration  
One Capitol Hill  
Providence, RI 02908-5859  
401-222-3033

South Carolina:

Mr. Gary Wiggins, Administrator  
Department of Labor, Licensing and Regula-  
tion  
Building Codes and Related Services  
110 Centerview Drive, Suite 102  
P.O. Box 11329  
Columbia, SC 29211-1329  
803-896-4600

South Dakota:

Mr. Dick Bowman, Director  
Commercial Inspection and Regulation  
Division  
Department of Commerce and Regulations  
118 West Capitol Avenue  
Pierre, SD 57501-5070  
605-773-3697

Tennessee:

Mr. Tim Garrington  
Director, Code Enforcement  
State Fire Marshal's Office  
500 James Robertson Parkway, Suite 301  
Nashville, TN 37243-1160  
615-741-7170

Texas:

Mr. Hersh E. Blankenship  
Director of Manufactured Housing  
Texas Department of Housing and Community  
Affairs  
507 Sabine Street, 10th Floor  
Austin, TX 78701-3737  
512-475-3983

Utah:

Mr. George Weiler, Manager  
Construction Trades Bureau  
Division of Occupational and Professional  
Licensing  
Department of Commerce  
160 E. 300 South  
Salt Lake City, UT 84111  
801-530-6628

Vermont: none

Virginia:

Mr. Curtis McIver, Associate Director  
Manufactured Housing Office  
Department of Housing and  
Community Development  
Jackson Center  
501 N. Second Street  
Richmond, VA 23219-1321  
804-371-7160

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Washington:

Ms. Pat McLachlan, Program Manager  
Office of Manufactured Housing  
Dept. of Community Trade and Economic  
Development  
906 Columbia Street, S.W.  
Olympia, WA 98504-8300  
360-586-0491

West Virginia:

Mr. Steven A. Allred, Commissioner  
West Virginia Division of Labor  
319 Building Three, Capitol Complex  
Charleston, WV 25305  
304-558-7890

Wisconsin:

Mr. Gary Ekes  
Program Manager, Manufactured Homes  
Safety and Building Division  
201 East Washington Avenue  
Madison, WI 53702-0006  
608-266-9946

Wyoming: none

All Other States:

U.S. Department of Housing and  
Urban Development  
Manufactured Housing and Standards Division  
Room 9152  
451 Seventh Street, S.W.  
Washington, D.C. 20410-8000  
202-708-6423  
800-927-2891

## Manufactured Home Community Developments

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D

This Appendix presents general information about community planning and site planning for manufactured housing. Planning for a manufactured home subdivision, whether it is a land lease community or fee simple subdivision, involves placement of homes on individual lots as well as the integration of a group of lots into the plan for the whole site. The planning will be driven by applicable local development standards as well as technical considerations relating to efficient use of the land. Therefore, information in this Appendix may not apply in any specific case.

The lot plan can be described in terms of lot size, lot width and frontage, lot coverage, unit setback and separation, and parking. On the other hand, the site plan as a whole is more concerned with minimum size of development, density, perimeter requirements, landscaping, streets, sidewalks, and common open space. A relationship exists between characteristics of lots and the site plan. For example, regulations regarding minimum lot size influence overall density, while parking regulations on-site can influence the nature of parking off-site.

### *Development Standards*

Several generalizations dealing specifically with development standards can be based on a survey of a geographic cross-section and demographic mix of 20 communities, sponsored by the American Planning Association. The survey revealed that a little more than half of the communities established development standards that apply only to manufactured housing land-lease communities, leaving fee simple manufactured housing subdivisions subject to the same subdivision regulations that governed site-built housing. Other communities promulgated two different sets of development standards, one for land-lease communities and another for fee simple manufactured housing subdivisions.

More than half of the surveyed communities enacted special zoning districts, which

allow manufactured housing developments by right. Most manufactured housing districts are intended for land-lease communities or developments that include units that do not meet established standards compatible with site-built residential districts. As noted above, however, a rezoning is often required to create a district, which can add a substantial cost to development and may actually discourage development.

### *Minimum Size of Development*

To permit more flexibility, it is considered desirable that a low or minimum parcel size be allowed for manufactured housing developments. Regulations in more than two-thirds of the surveyed communities permitted manufactured home developments smaller than ten acres, or had no requirement for minimum size. This may be particularly advantageous for developers or builders that desire to provide infill development in suburban areas.

### *Density*

Regulations in about half the communities surveyed place a density limit on manufactured housing developments. Densities in the range of six to eight units per acre were common and desirable, but a density of eight units per acre was thought to be the maximum especially if allowance is made for the development of common open space. Those communities not providing a density limit usually required that the density of the development be consistent with the requirements of the district in which the development is located. A density limit of eight units per acre may be impossible to achieve if a larger minimum lot size of 4,500 square feet is specified or common open space is required.

### *Lot Size*

The regulations in most of the surveyed communities specified minimum lot sizes, in the range of 4,000 to 5,000 square feet, although a minimum lot size of 3,500 square feet was appropriate in certain instances.

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Single section units can be placed on smaller, narrower lots than multi-sections. Larger lots are more suitable for subdivisions since they are more likely to be permitted in residential districts with larger homes.

#### *Lot Width or Frontage*

Regulations in three-quarters of the surveyed communities prescribe minimum lot widths that range from 20 to 85 feet. Most of the communities, however, require a minimum lot width ranging between 40 and 50 feet, which is incompatible with minimum lot sizes between 4,000 and 5,000 square feet.

#### *Lot Coverage*

Regulations in about a third of the communities surveyed have adopted maximum lot-coverage requirements. Most such requirements range between 40 to 50 percent, which is compatible with lot sizes between 4,000 and 5,000 square feet.

#### *Unit Setback and Separation*

Developers must scrutinize the regulations carefully because the set back is often measured from an imaginary right-of-way prescribed by regulations. Some regulations may require a right-of-way in a land lease development even though the local jurisdiction is not responsible for roads and utilities. The setback is usually measured from the edge of the pavement in the land lease community and from the edge of the right-of-way in a manufactured home fee-simple subdivision.

Regulations in almost all of the 20 surveyed communities prescribed minimum front, side, and rear setback requirements to ensure units are not too close to the street, some separation exists between units, and creation of yard areas. In more than half of the communities unit separation regulations apply only to land-lease communities. Most of the communities require separation between units of 10 to 20 feet and require a minimum 15 to 20 foot setback from the front lot line, with 20 feet the most common setback. A need for a setback to facilitate backing a car off a lot into a street dimin-

ishes if more street width is available. The amount of required setback could vary depending on the type of parking. Almost all of the communities prescribe side and rear yard setbacks. These range from five to ten feet for side yard setback, while most provide for a ten-foot rear setback. Some communities allow one side yard to be eliminated for zero lot line placements of homes.

#### *Common Open Space and Facilities*

Almost three-quarters of the surveyed communities mandate that manufactured housing developments contain common open space. Regulations prescribe common open space requirements either as a share of net or gross area, or based on an amount of open space per dwelling unit. The proportion of common open space ranged from five percent of net acreage to 20 percent of gross area, while the allocation common open space per dwelling unit ranged from 100 to 300 square feet per unit. Some regulations specify common open space requirements based on the number of lots in the development. Other regulations state common open space requirements in terms of a minimum absolute number of square feet, ranging from 4,500 to 7,500 square feet. Most communities apply improvement standards to common open space to ensure that it is usable. These may include pools, recreation centers, tennis or basketball courts.

#### *Perimeter Requirements*

Nearly all surveyed communities require a buffer between the manufactured dwelling units in the park and adjacent uses. Most communities prescribe a buffer area of between 20 to 50 feet in width from the structure to the perimeter of the community, but standards can vary depending on the nature of adjacent uses. Regulations sometimes specify options such as fencing or landscaping to implement the barrier. Flexible regulations would determine the need and the type of buffer based on an analysis of the specific site location.

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### *Landscaping*

In addition to landscaping of open spaces and buffer areas, some of the surveyed communities required landscaping throughout the subdivision to enhance privacy and improve appearance. In one case, for example, the community prescribed the number of trees based on a ratio to the number of lots.

### *Streets and Sidewalks*

Most of the surveyed communities prescribe local access or minor streets between 20 and 24 feet wide with no on-street parking. The most common width was 20 feet. Required widths increase to 27 to 30 feet with parking on one side of the street and to 32 to 42 feet with parking on both sides of the street. For most communities, a three-foot minimum sidewalk width was adequate.

### *Parking*

Regulations in most of the surveyed communities require that developers provide two parking spaces per dwelling unit in a manufactured home development. In most cases these spaces have to be provided on the lot they serve, but some communities require that one of the parking spaces be located off-site. Other communities require parking be pro-rated for guests, based on the number of dwelling units in the development. The amount of parking spaces on or off the lot can be flexibly determined based on the size of lots and the character of the community. A development for older retired persons, for example, may require less parking.

### *Other Site*

#### **Development Considerations**

##### *Minimum Size of Development*

The size of a project not only influences the traffic patterns and street design of a development, but it also impacts the type and amount of common open space and recreational facilities. In large projects, staging of access and egress in future phases of construction should be designed and planned

so that they do not disrupt residents already in place from earlier stages.

Taxes on land are likely to increase once a community approves rezoning for a development because its income potential is higher than in its previous status as open land. Also, many communities require that once a plan for a property is approved for subdivision, infrastructure must be installed within a specified period of time. To avoid paying taxes on idle land or constructing unused infrastructure, the size of the parcel in the initial purchase and subsequent phases should be carefully considered. For example, some suggest that market studies should justify a fill-rate of less than six years for large parcels providing 100 sites or more.

### *Density*

The majority of manufactured home communities range in density from five to seven homes per acre. A great variety of densities are possible in various types of plats using different lot sizes, street widths, and common amenities.

A grid plan in which every lot the same size and shape and the same distance from the street is the most economical subdivision because it is capable of providing the highest densities. The density of a manufactured housing project can vary, however, within the traditional grid pattern adopted in the site plan. For example, a project of 40 acres with a basic grid plat can achieve gross densities as high as seven units per acre. This is accomplished assuming no common facilities or open space and 20 percent of land in streets. Such a plat can provide a total of 281 units in 25 by 200-foot lots of 5,000 square feet. Some consider a lot size of 5,000 square feet no longer popular or practical with current larger and better multisection homes. A less dense grid pattern of 65 by 110 foot lots of 7,150 square feet can achieve gross densities of 4-1/2 units per acre, providing 108 lots, assuming that 56 percent of the land is in streets and common open space.

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The grid plan provides a dull, monotonous, crowded look reminiscent of the old "mobile home Park". A "neighborhood" subdivision plat of 40 acres that includes a slightly a curved main avenue that separates various part of the subdivision can be about five percent more expensive than the grid plat. It is less economical in terms of sewer and water requirements, but can be designed to consume less area for roads. Acurvilinear plat of the same size with curved streets and cul-de-sacs can be about 16 percent more expensive than a neighborhood or grid plat, because it is not as efficient in regard to cost and density.

A typical fee simple manufactured housing subdivision of 40 acres, on the other hand, can easily achieve a density of four units per acre. In such cases it is possible to have 7,500-foot lots 50 by 150 feet, assuming no common space, with 31 percent of land for 30-foot wide streets and a 60-foot right-of-way. This density is typically prescribed in ordinances, but 50-foot rights-of-way and lot sizes between 5,000 and 6,000 feet have been found acceptable in certain instances.

#### *Streets and Sidewalks*

Average daily traffic, the amount of lot frontage, the degree of on street parking, and the positioning of parking on the lot, are factors that determine street width for a specific site. Street widths in a land lease community with no parking allowed on the street are normally between 20 to 26 feet, and can be expanded to 30 feet with parking on one side of the street and 36 feet with parking on both sides of the street. Fee simple manufactured home subdivisions are built to local subdivision standards, generally requiring a paved road 36 feet wide.

#### *Parking*

Most residents prefer to park their cars close to their homes. Consequently, some lot concepts that increase open spaces by placing the parking in a less convenient location

on the lot or that require remote parking have not been appealing to homebuyers. Carports ten to 13 feet wide on the side of the house are popular in the South, while some communities in the North provide parallel parking in front of the home. Typically two parking spaces are provided on the site with off-site parking provided for guests.

#### *General Site Design Considerations*

Several site development characteristics that are important in planning site-built subdivisions also apply to the development of manufactured home communities. These include topography, soils, vegetation, drainage, utilities, easements, surrounding environs. This section focuses only on aspects of these characteristics that are particularly important or are applied differently to manufactured housing.

#### *Topography*

As with site-built housing, a slope on a property of between zero and three percent is of little consequence for manufactured homes, but slopes between four and eight percent begin to have an influence on how manufactured homes are sited. Grades of more than ten percent can have a significant influence on development costs.

In general, manufactured homes cannot adapt as easily to changing or steep grades as conventional multifamily or single family housing and the cost of grading can become a significant factor. In conventional housing, structures can become retaining walls and grades can be crossed much more easily than with a manufactured home. On the other hand, manufactured homes without a basement are more adaptable to land with high ground water levels than conventional housing with basements. The short dimension of the manufactured home, rather than its long dimension, can more easily adjust to sharp drops in grade. A five-foot drop across a 50-foot front of a HUD-Code home with its long side parallel to the contours can be more easily accommodated than when



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contours are parallel to the short dimension and the long side of the home bears the brunt of the drop in grade.

In a conventional subdivision, grading and drainage is normally accomplished within the right-of-way. Also, conventional foundation walls or crawlspaces walls can function as retaining walls depending upon how the home is placed on the site. This may be difficult or impossible with manufactured homes.

#### *Sewerage*

It is claimed that manufactured homes in land lease communities discharge less wastewater to treatment facilities, because they house a smaller average size of household, especially in retirement communities. This claim is not generally recognized by regulatory agencies, however, and both land lease communities and fee-simple manufactured home subdivisions are usually held to the same standards as site-built subdivisions. Average design flows per day range from 150 gallons to 400 gallons, based on a rule-of-thumb of 100 gallons per capita per day.

In a land lease community, the smallest service line to a home is usually four inches in diameter and the smallest collector line is eight inches in diameter. Since the sewer collection system in a land lease community is usually privately owned and maintained, there is more flexibility in layout than in a conventional subdivision. Sewer lines are usually run in the back of the home where they can serve the back third of two homes with short lateral runs, whereas conventional subdivision typically run the line in the street with longer lateral runs to individual homes.

Most land lease communities use prefabricated treatment plants rather than engineer-designed plants. The use of septic tanks and leach fields for effluent from manufactured homes usually occurs in low-density rural areas and is not feasible in high-priced urban land. Local jurisdictions typically require suitable soils and larger sites of a half-acre for such septic tanks and drainfields.

#### *Water Systems*

A municipality can operate and maintain a water system for the manufactured home community in accordance with its own standards and provide adequate pressure and storage to serve domestic needs and fire protection. If developers build a private water supply for a manufactured home community, they will usually be required to have a well(s), turbine pump and mechanical equipment, a standby power source, and pneumatic, elevated or ground water storage. Private systems have greater flexibility in pipe sizing than allowed by local ordinances, using two- or four-inch lines for domestic service instead of the six- to eight-inch lines required by local jurisdictions.

#### *Storm Drainage and Storm Water Management*

The requirements for storm drainage and water management vary greatly by local area and the characteristics of the specific site.

#### *Utilities*

The modern manufactured home community has electrical service that is entirely underground and the electric utility will usually design and install the primary and secondary distribution systems. In some cases, however, the utility may require the developer to install the secondary and even the entire distribution system. Natural gas and propane, commonly used in the North, are not generally provided in the South. In the interests of aesthetics, cable television is usually installed underground in most new manufactured home communities, sometimes along with telephone lines.

#### *Offsite Improvements*

Sometimes the developer is required to cooperate with the local jurisdiction or utility in the extension of water, sewer, storm sewer, or other utilities on the property and pay the costs of offsite improvements. As with any type of housing, developers must not only weigh the initial cost of such exten-

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sions against the cost of developing their own systems, but also evaluate the operating costs of such systems, especially water supply or sewage systems.

### Lot Planning

#### *Lot Size*

Manufactured home lots generally range from 4,500 to 6,000 square feet, with smaller home sites of about 3,500 square feet where special structural or zero lot-line techniques are used. Most manufactured homes in fee-simple subdivisions have lots that average between 7,500 and 15,000 square feet, although attractive communities with lots smaller than 7,500 square feet have been developed using innovative products and designs.

#### *Lot Width or Frontage*

Lot frontage or width is important influence on the cost of utility runs and can significantly affect development. About 75 percent of the hard development costs of a lot are reportedly accounted for by the amount of lot front footage. The lot width required could vary with the way the unit is placed on the lot, the lot size, building setback and the way parking is placed on the lot.

Placing a multisection home parallel to the street frontage provides an advantage in marketing because it has the potential to simulate the appearance of a site-built home. Increasing the front footage, however, increases the cost of development. To reduce

development costs and thereby reduce home prices or rents, homes are usually placed perpendicular to the street and lots are designed to be long and narrow. Some manufacturers have designed an architectural front entry facing the street, allowing the home to be placed perpendicular to the street, and improving appearance at a lower cost. Similarly, putting the parking or garage at the rear of the lot can reduce the required lot frontage and development cost.

#### *Lot Coverage*

The purpose of lot coverage requirements is to reduce crowding and increase the amount of open space on a lot. An open space or patio on the lot can be developed in variety of ways to reduce lot coverage. Various options in placement of screened porches, carports, and garages can create open space on the lot. The zero-lot line concept provides the most open space, but may not be economically feasible in some areas.

#### *Unit Setback and Separation*

Northern or Midwestern communities, where space is needed for snow removal, usually have ten-foot side setbacks, with a distance of 20 to 25 feet between homes and a 25-foot setback, if parking is placed in front. In moderate climates typical of the South, setbacks of five to ten feet from the edge of the pavement have been used. Although setbacks for manufactured homes in fee simple subdivisions vary, ten-foot side setbacks, 20-foot rear setbacks, and 25-foot front setbacks from the right of way line are typical.

## Resources

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This Appendix lists a variety of resources available to builders that want to learn more about manufactured housing in general, as well as for those who wish to study specific aspects of the market for HUD-Code homes in their business area.

The **Manufactured Housing Institute** (MHI), located at 2101 Wilson Boulevard, Suite 610, Arlington VA 22201 (telephone 703-558-0400), is the principal national trade association for the manufactured housing industry. MHI offers numerous publications for sale or free of charge, sponsors research, performs lobbying, and compiles and publishes a variety of statistics concerning the industry. The MHI web site is at [www.mfghome.org](http://www.mfghome.org).

MHI has state-level affiliates in many states around the U.S. Several of these affiliates maintain their own Internet sites, which are sources of state-level information about manufacturing plants, retailers and communities located in their territories. These sites include:

Alabama	<a href="http://www.amhi.org">www.amhi.org</a>
Arizona	<a href="http://www.mhiaz.org">www.mhiaz.org</a>
California	<a href="http://www.cmhi.org">www.cmhi.org</a>
Colorado	<a href="http://www.coloradohome.org">www.coloradohome.org</a>
Illinois	<a href="http://www.imha.org">www.imha.org</a>
Indiana	<a href="http://www.americas-home.com">www.americas-home.com</a>
Kansas	<a href="http://www.midwestpride.com">www.midwestpride.com</a>
Kentucky	<a href="http://www.kymanufhome.com">www.kymanufhome.com</a>
Louisiana	<a href="http://www.lmha.com">www.lmha.com</a>
Michigan	<a href="http://www.michhome.org">www.michhome.org</a>
Minnesota	<a href="http://www.mnmfghome.com">www.mnmfghome.com</a>
Montana	<a href="http://www.mtmha.org">www.mtmha.org</a>
Nevada	<a href="http://www.nmhcongress.org">www.nmhcongress.org</a>
New Mexico	<a href="http://www.nmmha.com">www.nmmha.com</a>
New York	<a href="http://www.nymha.org">www.nymha.org</a>
North Carolina	<a href="http://www.ncmhi.com">www.ncmhi.com</a>
North Dakota	<a href="http://www.ndmha.com">www.ndmha.com</a>
Ohio	<a href="http://www.omha-usa.org">www.omha-usa.org</a>
Oklahoma	<a href="http://www.mhao.com">www.mhao.com</a>
Oregon	<a href="http://www.omha.com">www.omha.com</a>
Pennsylvania	<a href="http://www.pmha.org">www.pmha.org</a>
South Dakota	<a href="http://www.sdmha.com">www.sdmha.com</a>
Washington	<a href="http://www.nwpride.org">www.nwpride.org</a>

The **Manufactured Housing Association for Regulatory Reform** (MHARR) is another industry trade association, located in Washington, D.C. (telephone 202-783-4087). The Housing and Building Technology division of the **National**

**Conference of States on Building Codes and Standards** (NCSBCS), located in Herndon, VA (telephone 703-437-0100), is actively involved in the HUD-Code program and can provide information about national and state-level regulatory issues relating to manufactured housing. The NCSBCS web site is at [www.ncsbcs.org](http://www.ncsbcs.org).

### *Periodicals, Newsletters and Magazines*

*Allen Letter*. Monthly newsletter. PMN Publishing, Indianapolis, IN.

*Automated Builder*. Monthly magazine. Ventura, CA.

*Crittenden's Manufactured Housing Community Report*. Monthly newsletter. Crittenden Publishing, Inc., Novato CA.

*Manufactured Home Merchandiser*. Monthly magazine. RLD Group, Inc., Chicago IL.

*Urban Land*. Monthly magazine. ULI-The Urban Land Institute, Washington, D.C.

### *Books and Reports*

Albern, William F. and M.D. Morris, Ed., *Factory-Constructed Housing Developments, Planning, Design and Construction*. CRC Press, Boca Raton, FL.

Allen, George, David Alley, and Edward Hicks with Joseph Owens, *Development, Marketing and Operation of Manufactured Home Communities*. John Wiley & Sons, Inc., New York, NY. 1994.

Goldman Sachs & Co., *U.S. Research: Manufactured Housing*. New York, NY, April 1997.

Manufactured Housing Institute, *Manufactured Home Financing in 1996*. Arlington, VA. 1997.

Manufactured Housing Institute, *Manufactured Home Financing in 1997*. Arlington, VA. 1998.

*The Manufactured Housing Zoning Forum*, Report. Sponsored by U.S. Department of Housing and Urban Development, American Planning Association and Manufactured Housing Institute.

Merrill Lynch & Co., *The Manufactured Housing and Recreational Vehicle Industries*. May 1996.

National Commission on Manufactured Housing, *Final Report*. U.S. Government Printing Office, Washington, D.C., 1994.

Sanders, Welford, *Manufactured Housing: Regula-*

- tion, *Design Innovations and Development Options*. American Planning Association, Planning Advisory Service Report Number 478. Chicago, IL, July 1998.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Factory and Site-Built Housing: A Comparative Analysis*. 1998.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Building Innovation for Homeownership*. 1998.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Innovations at the Cutting Edge - New Ideas in Manufactured Housing*. August 1999.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Manufactured Home Installation Training Manual*. April 1999.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Manufactured Home Producers Guide to Working in the Site-Built Market*. 1999.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Next Generation of Manufactured Housing - Design Phase*. April 1997.
- U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Permanent Foundation Guide for Manufactured Housing*. September, 1996.
- Vermeer, Kimberly and Josephine Louie, *The Future of Manufactured Housing*, Joint Center for Housing Studies of Harvard University, Cambridge MA. January 1997.
- Regulations and Financing Requirements*
- 7 CFR Part 1924: RHS rural housing loan program regulations
- 7 CFR Part 3550: RHS direct single-family loan program regulations
- 24 CFR Part 201: FHA financing rules for Title 1 (personal property) loans
- 24 CFR Part 203: FHA financing rules for Title 2 (real property) loans
- 24 CFR Part 3280: Manufactured Home Construction and Safety Standards
- 24 CFR Part 3282: Manufactured Home Procedural and Enforcement Regulations
- 38 CFR Part 36: VA personal property and real property loan programs
- Federal National Mortgage Association, *Selling Guide*
- Federal Home Loan Mortgage Corporation, *Single-Family Seller/Service Guide*
- Note: The Code of Federal Regulations (CFR) is accessible on-line at [www.gpo.gov/nara/cfr](http://www.gpo.gov/nara/cfr).
- Manufacturer Contacts*
- |   |              |
|---|--------------|
| American Homestar<br>Dave Whitson                                 | 208-890-5877 |
| Bluegrass Housing, Inc.<br>Art Archibald                          | 606-849-4119 |
| Buccancer Homes of<br>Alabama, Inc.<br>Dave Gilland               | 205-921-3135 |
| Burlington Homes of Maine<br>Tracy Millet, Jim Pereira            | 207-539-4406 |
| Cavalier Homes, Inc.<br>Phillip Privett                           | 256-747-1575 |
| Champion Enterprises, Inc.<br>Andy Scholz                         | 248-340-9090 |
| Chandeleur Homes, Inc.<br>David Bridges                           | 256-593-9225 |
| Chief Industries, Inc.,<br>d/b/a Bonnavilla Homes<br>Mike Newmann | 402-694-5250 |
| Clayton Homes, Inc.<br>Jim Miller                                 | 423-380-3000 |
| Commodore Corporation<br>Bill Glick                               | 219-533-7100 |
| Crest Ridge Homes, Inc.<br>Bob McNatt                             | 254-559-8211 |
| Crestline Homes<br>Mike Walters                                   | 910-276-0195 |
| Dutch Housing, Inc.<br>Stacy Swihart, Jerry Brown                 | 219-463-7502 |
| Fall Creek Housing Corporation<br>Doug Lantz                      | 219-523-1444 |
| Fleetwood Enterprises, Inc.<br>Bob Jordan, Mallory Smith          | 909-351-3500 |
| Fortune Homes, Inc.<br>Joe Kimell, Bob Miller                     | 616-483-7000 |
| Franklin Homes, Inc.<br>D.L. "Bones" Creel, Bruce Falkner         | 205-332-4510 |
| Grand Manor, Inc.<br>Jerry Milligan                               | 912-228-0023 |

Hi-Tech Housing, Inc. Steve Schultz	847-441-6612
Homes of Legend, Inc. Kevin Sims	256-593-9630
Kit Manufacturing Company Wade Butler, Harold Breech	208-453-2500
Manufactured Housing Enterprises, Inc. Nathan Kimpel	419-636-4511
Moduline Industries, Inc. Ron Stine	360-748-8881
New Era Building Systems, Inc. Ryan Bish	814-764-5581
Oakwood Homes Corporation R.D. Harvey, Sr.	336-664-2400
Destiny Division Donnie Edwards	912-985-6100
Golden West Division Bruce Stoyer	541-926-8631
Schult/Marlette Division Dale Kase	219-825-5881
Patriot Homes, Inc. Steve Reyenga	219-524-8600
R-Anell Custom Homes, Inc. Darrell Mullinix	704-483-5511
Gold Medal Homes, Inc. Buddy Clark, Jon Gandy	704-445-9610
Redman Homes, Inc. Andy Scholz	248-340-9090
Rochester Homes, Inc. Kenny Anderson	219-223-4321
Signal Homes, Inc. Bud Ledingham	915-263-2300
Silvercrest Homes, Western Homes Corp. Craig Fleming, Darko Rapotez and Steve Truslow	909-734-6610
Skyline Corporation Terry Decio	219-294-6521
Taylor Made Homes, Inc./ American Family Homes Gin Carver	417-845-3311
Virginia Homes Mfg. Corporation Danny Herion	804-738-6107
Wick Building Systems, Inc. Butch Berg	608-795-4281

#### Manufacturer Internet Sites

Virtually all large manufacturers maintain Internet sites containing information for consumers, retailers and in some cases for investors. Most offer the ability to search for plants or dealers by geographic location or provide this information in the form of maps or lists. Some sites show floorplans and pictures of model homes. The web sites for some of the largest publicly traded producers include copies of annual financial reports, which generally contain a great deal of information about the firm, its divisions, its operations and its finances. Many divisions of large firms have their own web sites, new sites are coming on line, and mergers, acquisitions and consolidations of the industry are constantly taking place, so this list may rapidly go out of date.

American Homestar  
www.americanhomestar.com

Astrohomes (Cavalier)  
www.astrohomes.com

Bellcrest Homes, Inc.  
www.bellcrest.com

Belmont Homes (Cavalier)  
www.belmont-homes.com

Brigadier Homes of North Carolina (Cavalier)  
www.brigadier.com

Buccaneer Homes (Cavalier)  
www.buccaneerhomes.com

Burlington Homes  
www.burlingtonhomes.com

Cavalier Homes  
www.cavhomesinc.com

Cavalier Homes of Alabama  
www.cavalier-homes.com

Cavco Industries, Inc.  
www.cavco.com

Clayton Homes  
www.clayton.com

Champion Enterprises  
www.champent.com

Commodore Corporation  
www.commodorehomes.com

Crestline Homes (Commodore)  
www.crestlinehomes.com

Fairmont Homes  
[www.fairmonthomes.com](http://www.fairmonthomes.com)  
 Fall Creek Housing Corp.  
[www.fallcreekhomes.com](http://www.fallcreekhomes.com)  
 Fleetwood Enterprises  
[www.fleetwood.com](http://www.fleetwood.com)  
 Four Seasons Housing  
[www.fourseasonshousing.com](http://www.fourseasonshousing.com)  
 Fuqua Homes, Inc. [Oregon]  
[www.fuquahomes.com](http://www.fuquahomes.com)  
 Fuqua Homes, Inc. [Missouri]  
[www.fuquahomes-mo.com](http://www.fuquahomes-mo.com)  
 Hi-Tech Housing, Inc.  
[www.hi-techhousing.com](http://www.hi-techhousing.com)  
 Homestead Homes (Cavalier)  
[www.hmstead.com](http://www.hmstead.com)  
 Horton Homes  
[www.hortonhomes.com](http://www.hortonhomes.com)  
 Jacobsen Homes  
[www.jachomes.com](http://www.jachomes.com)  
 Kit Manufacturing  
[www.kitmfg.com](http://www.kitmfg.com)  
 Liberty Homes  
[www.libertyhomesinc.com](http://www.libertyhomesinc.com)  
 Mansion Homes  
[www.mansionhomes.com](http://www.mansionhomes.com)  
 Marlette Homes, Inc. (Schult)  
[www.marlettehomes.com](http://www.marlettehomes.com)  
 New Era Building Systems  
[www.new-era-homes.com](http://www.new-era-homes.com)  
 Nobility Homes, Inc.  
[www.nobilityhomes.com](http://www.nobilityhomes.com)  
 Oakwood Homes  
[www.oakwoodhomes.com](http://www.oakwoodhomes.com)  
 Palm Harbor Homes  
[www.palmharbor.com](http://www.palmharbor.com)  
 Patriot Homes  
[www.patriohomes.com](http://www.patriohomes.com)  
 Pine Grove Manufactured Homes, Inc.  
[www.pinegrovehomes.com](http://www.pinegrovehomes.com)  
 Redman Homes (Champion)  
[www.redmanhomes-nw.com](http://www.redmanhomes-nw.com)  
 Ritz-Craft Corporation, Inc.  
[www.ritz-craft.com](http://www.ritz-craft.com)  
 Riverchase Homes (Cavalier)  
[www.riverchase-homes.com](http://www.riverchase-homes.com)  
 Rochester Homes, Inc.  
[www.rochesterhomesinc.com](http://www.rochesterhomesinc.com)  
 Schult Homes (Oakwood)  
[www.schulthomes.com](http://www.schulthomes.com)  
 Silvercrest (Champion)  
[www.silvercrest.com](http://www.silvercrest.com)

Skyline Corporation  
[www.skylinehomes.com](http://www.skylinehomes.com)  
 Spirit Homes, Inc. (Cavalier)  
[www.spirithomes.com](http://www.spirithomes.com)  
 Taylor Made Homes, Inc.  
[www.taylormadehomes.com](http://www.taylormadehomes.com)  
 Town & Country Homes (Cavalier)  
[www.tcmh.com](http://www.tcmh.com)  
 Titan Homes (Champion)  
[www.titanhomes.net](http://www.titanhomes.net)  
 Wick Building Systems  
[www.wickmarshfield.com](http://www.wickmarshfield.com)

*Financial/Investment Institution Internet Sites*

GreenPoint Financial  
[www.greenpoint.com](http://www.greenpoint.com)  
 Green Tree Financial  
[www.gtfc.com](http://www.gtfc.com)  
 Associates Housing Finance, Inc.  
[www.theassociates.com](http://www.theassociates.com)

*Professional Industry Consultants*

The following is a selected list of firms that specialize in providing consulting services to address engineering, design, financing and/or marketing issues, both to land-lease community developers and to builders seeking to use manufactured housing.

Mr. David Alley  
 Alley & Associates  
 727-447-1700  
 Palm Harbor, FL  
 Mr. Steve Hullibarger  
 The Home Team  
 916-965-5153  
 Fair Oaks, CA  
 Mr. Roderick Knoll  
 Manufactured Housing Resources, Inc.  
 303-442-4402  
 Boulder, CO  
 Mr. Joseph E. Link  
 MarketWise  
 410-750-7373  
 Ellicott City, MD  
 Mr. Donald Westphal  
 Donald Westphal & Associates  
 248-651-5518  
 Rochester, MI  
 Mr. David Wolff  
 Real Estate Diagnostics, Inc.  
 732-505-9552  
 Toms River, NJ

Additional information about specialists in these and related areas is available from MHI.

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special interest, bimonthly publications (best practices, significant studies from other sources);  
access to public use databases; hotline 1-800-245-2691 for help accessing the information you need.

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