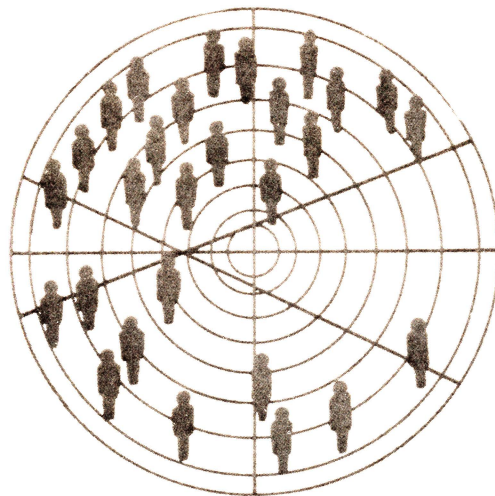


UNIVERSITY OF MISSOURI-COLUMBIA

Missouri Local Government Administrative Guide Series

Manufactured Housing: Overcoming Public Resistance



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Henry Galetschky

Preface

“The United States mobile home industry is the most efficient building industry in the world”, says Massachusetts Institute of Technology Architecture Professor, Arthur Bernhardt, who just completed an in-depth study of the mobile home industry. This statement confirms studies and research conducted over the past ten years by the author of the following research project.

After publication of “Mobile Homes: Challenges for Today and Tomorrow” in 1974, local government officials, representatives of the mobile home industry and individual mobile home dwellers began to use this publication as a guide to overcome and solve the problems created by the proliferation of mobile homes. As a result, slow but significant progress has been made in Missouri to gain acceptance for mobile homes. However, during the last three years the country went through an energy crisis (which is still with us), inflation, recession and stagflation which crippled not only the home building industry but the mobile home industry as well. In addition, new state laws pertaining to mobile homes were passed and the federal government enacted construction and safety standards for mobile homes which became effective in summer of 1976.

In light of all this it became evident that a new study should be undertaken to not only up-date the 1974 study, but also to address issues which will exert pressures on local governments, financial institutions, private developments and last, but not

least, on the individual citizen, the ultimate consumer. **Intentionally, the problems of mobile home assessment and taxation are not covered in this study as these issues constitute a research project in themselves.**

Again, during 1976 surveys by mail and spot visits were conducted. In total, 340 municipalities with population over 1000 were contacted, 22 counties (with regulatory authority), 100 mobile home dealers and 300 mobile home parks. The response was almost 100 per cent. In addition, financing problems were discussed with lending institutions, and home builders were asked their views with regard to the housing market in Missouri and to mobile homes.

Also, over the past few years numerous inquiries were received by the Governmental Affairs Program on how to design a good mobile home subdivision (mobile home park). Therefore, one section has been added to this study to explain and emphasize good subdivision design.

The results of the 1976 study are presented in the sections that follow. Reflecting on the decades past, the “trailer” has come a long way; it is going to stay with us, better built, better designed, refined and more conventional in looks.

*HUD will publish the five-volume study by the end of 1976 under the title, *Structure, Operation, Performance and Development Trends of the Mobile Home Industry*. A condensed version of the study is planned late in 1977 by the M.I.T. Press.

Summary and Findings

*Over 85 per cent of homes sold under \$20,000 in 1976 were mobile homes. Furthermore, obtaining a mortgage on a new conventional home is considered out of reach for 75 per cent of all American families. By the end of 1976, the average price of a new home was \$50,500, and if this trend continues by 1980 a new home may well be priced at \$80,000.

*The new trend in housing is the return to the single-family house which is offered in a variety of sizes and design in the form of a double-wide mobile home. In 1976, 27 per cent of all mobile home shipments were double-wides.

*From 1970-76, the number of mobile homes increased from 50,878 to 115,000, a change of 126 per cent within six years.

*More than 65 per cent of Missouri families had an income of less than \$15,000 in 1976, and should housing needs arise, this income group will have to look for a mobile home in order to stay within their financial means.

*Rent and the number of homesites correlate with the quality of a mobile home park. Also, the vacancy rate decreases as the quality of the park increases. Reasonable regulation does not discourage new mobile home park development.

*In general, although there may be exceptions, the occupancy in mobile homes is about 1.75 persons per mobile home; there is one school age child or every 6¾ mobile homes.

*The traditional mobile home park concept has outlived its usefulness and should be replaced with good subdivision design principles, leading to full integration with conventional housing.

*Federal construction codes for mobile homes with strong safety and quality rules are now in effect. It will mean higher costs for consumers, but it replaces a network of state and local codes, permits a standardized national market and, most impor-

tantly, puts a federal quality seal of approval on mobile homes that could be translated into greater mobile home acceptance by the public at large.

*Missouri law now permits the treatment of a mobile home as real estate, provided the mobile home has been attached permanently to a foundation.

*The average price of a mobile home in 1976 was \$11,000 and a double-wide was \$14,000. Of the mobile homes sold, 63 per cent were placed on private, individual lots, and 37 per cent in mobile home parks.

*Problems facing the industry are long-term financing, too restrictive zoning, restriction on the movement of 14-foot wide units, and the need for 'nicer' parks.

*There is no consistency in regulating mobile homes or parks in the unincorporated areas of counties. Some have no restrictions, others require a 40-acre minimum park size, while others prohibit mobile home parks all together.

*Still about 68 per cent of Missouri communities seem to be unaware of our state law, enacted in 1973, that pertains to the regulations of mobile homes and supersedes local building, plumbing, heating and electrical codes.

*Contrary to common belief, mobile homes have a lesser incidence of fires than other structures. In 1975, only 3 per cent of fire losses were attributed to mobile homes with two deaths out of an overall of 33 deaths in Missouri.

*The classification of a mobile home as personal property for assessment purposes is a hinderance for long-term financing. Dual financing will become necessary; i.e., furniture will be financed on a short-term basis and the mobile home itself will be financed over longer periods of time.

Missouri Overview 1973 - 1976

In introduction, an overview of what has transpired since 1973 in regard to the housing market, which includes mobile homes in Missouri and the nation, appears to be in order.

The National Scene

Between 1973 and 1976, mobile home shipments in the United States decreased by about 53 per cent, whereas all single family housing starts, after substantial decreases in 1974 and 1975, regained the approximate level of 1973 (see Table 1.) Naturally, the performance of the conventional and manufactured housing industry is the result of inflation, recession and stagflation. However, this trend has been reversed and during the second half of 1976 both sectors, especially the manufactured housing industry, showed encouraging signs of recovery.

Mobile homes still comprised 85 per cent or more of all single family homes selling for less than \$20,000, according to the U.S. Department of Commerce. During 1975/76 the median price of a new home rose by 10.7 per cent, land values by 6.6 per

cent, and the cost per square foot of a conventional house went up from \$27.10 to \$28.80 or by 6.3 per cent;¹ the average purchase price of a new home by the end of 1976 rose to \$50,000,² suggesting if this trend continues by the end of the decade a new home may well be priced at \$80,000. This in turn means that probably less than 20 per cent of Americans will be able to afford this kind of housing.

But this is not all. Regardless of the construction of apartments and condominiums (in certain areas of the country even overbuilt), **the new trend in housing is the return to the single-family house.** According to the American Bankers' Association, "The long uptrend of apartment starts as a proportion of total activity is not only over but has already started to go in the other direction—shifting back to single family activity. This is the beginning of a trend that will continue for the next decade and a half."³

¹HUD Newsletter, 12-20-1976.

²Wall Street, 10-20-1976

³Jerome L. Howard, President MBA, 1976.

TABLE 1
*Housing Starts 1963-77
United States*

| Year | Single Family Housing Starts | Mobile Home Shipments | Total Housing Units | Mobile Homes as a % of Single Family Housing Starts |
|-------|---------------------------------|--------------------------|------------------------|---|
| 1963 | 1,144,940 | 150,840 | 1,148,040 | 13.2 |
| 1964 | 1,161,800 | 191,300 | 1,720,100 | 16.5 |
| 1965 | 1,180,300 | 216,500 | 1,689,400 | 18.3 |
| 1966 | 995,800 | 217,300 | 1,382,200 | 21.8 |
| 1967 | 1,084,200 | 240,400 | 1,531,900 | 22.2 |
| 1968 | 1,217,400 | 318,000 | 1,825,500 | 26.1 |
| 1969 | 1,223,300 | 412,700 | 1,879,400 | 33.7 |
| 1970 | 1,214,100 | 401,200 | 1,834,800 | 33.0 |
| 1971 | 1,647,600 | 496,600 | 2,548,800 | 30.1 |
| 1972 | 1,885,200 | 575,900 | 2,932,600 | 30.5 |
| 1973 | 1,699,000 | 566,900 | 2,612,200 | 33.4 |
| 1974 | 1,217,400 | 329,300 | 1,667,000 | 27.0 |
| 1975 | 1,104,900 | 212,700 | 1,373,100 | 19.3 |
| 1976* | 1,500,000 | 270,000 | 1,684,000 | 18.0 |
| 1977* | 1,800,000 | 350,000 | 2,109,000 | 19.4 |

Source: Housing Starts, Construction Reports, U.S. Department of Commerce October, 1976.

*Estimate, HUD Newsletter, 12-6-1976.

The developments in the conventional housing market have given the mobile home industry in its 40-year history a definite edge over the conventional housing market by mass-manufacturing housing that looks more like a home. In 1976, 27 per cent of all mobile home shipments were more costly double-wide homes, which consisted of two units 12 to 14 feet wide and 50 to 70 feet long joined together. Trends in mobile home sizes are presented in Table 2. This information may aid the public and private sectors in reaching decisions on revision of local ordinances and codes on one hand, and financing subdivision design on the other hand, to name only a few.

What Happened in Missouri

Turning now to Missouri, approximately 287,500 persons or 6 per cent of the population live in 115,000 manufactured or mobile homes as of 1976. This is an increase of 23 per cent over 1973⁴ and a 53 per cent increase in the total number of mobile homes as shown in the following table:

| Year | No. of Mobile Homes | Percent Change |
|-------|---------------------|----------------|
| 1950 | 5,444 | — |
| 1960 | 16,613 | 205 |
| 1970 | 50,878 | 206 |
| 1973* | 75,000 | 47 |
| 1976* | 115,000 | 53 |

Source: U.S. Census of Housing, 1950-70

*Estimates based on field survey, 1973, and mobile home shipments to Missouri 1973-76. Not included are mobile homes or trailers if vacant, used only for business or used only for vacation.

Again, the 1976 estimate should be on the conservative side but in the absence of any official count this estimate will serve the purpose of this study.⁵ The figures presented also indicate that regardless of restrictive or exclusionary practices the number of mobile homes has increased by more than 125 per

cent over the last six years, showing a greater societal acceptance and, more importantly, affordable housing for the majority of Missourians. The income distribution of Missouri households is indicative of this.

| Effective Buying Income | Percent of Households |
|-------------------------|-----------------------|
| \$0 - \$7,999 | 35.7 |
| 8,000 - 9,999 | 8.6 |
| 10,000 - 14,999 | 21.3 |
| 15,000 - 24,999 | 25.2 |
| 25,000 and over | 9.2 |
| | 100.0 |

Source: *Sales Magazine*, Survey of Buying Power, 1976.

The above figures indicate the median income of Missouri families or households was \$11,305 in 1976, or an average of \$13,274. Since the conventional housing market is not able to provide shelter low and middle income groups can afford, about 60 per cent of Missouri families will have to look for manufactured housing in order to stay within their financial means when housing needs arise.⁶

In light of the preceding discussion it becomes inevitable not only for local governments but, also for the private sector, especially lending institutions, to reassess their positions in order to overcome one of the last hurdles; namely, to accept manufactured housing in the same way as conventional housing. How to overcome these 'hurdles' will be discussed in the following sections of this study.

⁴"Mobile Homes: Challenges for Today and Tomorrow." By Henry Galetschky, 1974.

⁵For example, most counties in Missouri do not separate mobile homes from other trailers such as flat-bed, horse trailers, etc. for assessment purposes. Also, the Missouri Department of Revenue records show only that, as of February 1976, there were 276,076 trailers licensed. This figure includes mobile homes.

⁶Analogous, about 1,000,000 housing units in Missouri, or 60 per cent of the total housing stock, were built prior to 1950 and will have to be replaced. (U.S. Census of Housing, 1970.)

TABLE 2
Mobile Home Size Trends
1971 - 1975

| Width | Average Length | 1971 | 1973 | 1975 |
|-------------|----------------|--------|--------|--------|
| 12' | 60'-70' | 69.6% | 58.6% | 31.9% |
| 14' | 60'-75' | 16.2 | 21.6 | 41.5 |
| Expandable | 50'-70' | 1.0 | 1.3 | 0.4 |
| Double-Wide | 50'-70' | 12.0 | 18.4 | 24.9 |
| Other* | 35'-70' | 1.2 | 0.1 | 1.3 |
| | | 100.0% | 100.0% | 100.0% |

*8', 10' and 16' wide

Source: *First Annual Report to Congress on Title VI of the Housing and Community Development Act of 1974 (Mobile Homes)*.

Mobile Home Parks



An Arizona park

Woodall, a national organization, conducts detailed surveys of mobile home parks each year and publishes the results in its *Mobile Home and Park Directory*, also called the "Bible" of the mobile home industry. Of more than 24,000 parks in the United States, fewer than 13,000 meet the minimum requirements necessary for listing in the directory.

Woodall's directory for 1973 listed 349 mobile home parks in Missouri which met their standards and are rated on the basis of one to five stars.¹ This was an increase of 155 parks over 1970, when only 196 parks were listed. In 1976 only 337 parks were able to qualify due to added requirements in each

category of the rating system. In some cases, previously higher rated parks even lost a grade point but the number of homesites in these 337 mobile home parks increased by 1,040 over 1973. The table below gives an overview of rated parks in Missouri in order of rank.

Although Missouri does not have any five-star mobile home parks, it may be of interest to list the five-star criteria to point out that the manufactured housing industry is concerned about quality parks. So parks may become assets to the community instead of liabilities the five-star criteria could be used as guidelines. A five-star park must have the following:

1. Well-planned and spacious appearance.
2. Good location in regard to accessibility and desirable neighborhood; in some locations parks should be enclosed by hedge or ornamental fence.
3. Widely paved streets in perfect condition, curbs or lawns scrupulously edged to streets, sidewalks, street lights and street signs.
4. Homes set back from street.
5. Patios or porches at least 320 sq. ft. on all homes (except double wide units).
6. Paved two-car off-street parking.
7. All homes must have quality skirting.

¹Unfortunately, Woodall discontinued its directory with its 1976 edition. In the future only retirement and resort parks will be listed.

Missouri Rated Mobile Home Parks in Order of Rank

| Rank | Number | | Percent of Total | | Number of Homesites | |
|-----------------------------|--------|------|------------------|-------|---------------------|--------|
| | 1973 | 1976 | 1973 | 1976 | 1973 | 1976 |
| 5 Star | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 Star | 21 | 3 | 6.0 | .9 | 3,726 | 642 |
| 3 Star | 71 | 49 | 20.3 | 14.5 | 6,652 | 6,292 |
| 2 Star | 111 | 131 | 31.8 | 38.9 | 6,089 | 9,195 |
| 1 Star | 104 | 125 | 29.8 | 37.1 | 4,812 | 7,436 |
| New (unable to rate) | 25 | 20 | 7.2 | 5.9 | 1,934 | 1,905 |
| Rebuilding (unable to rate) | 5 | 1 | 1.4 | .3 | 487 | 18 |
| Under Construction | 12 | 8 | 3.5 | 2.4 | 1,693 | 945 |
| Total | 349 | 337 | 100.0 | 100.0 | 25,393 | 26,433 |

Source: Woodall's Mobile Home and Park Directory, 1973 and 1976 editions.

8. Awnings or cabanas and carport on all homes.
9. Uniform storage sheds at all homes.
10. All hitches and jack posts concealed—no tanks or bottles.
11. Beautifully equipped recreation hall with kitchen—room for community gatherings.
12. Recreation with some or all of the following: swimming pool, shuffleboard, horseshoe pitching, golf course, hobby shop, hobby classes, games, dances or natural recreational facilities.
13. All late model homes in excellent condition.
14. At least 75 per cent occupancy in order to judge quality of residents which indicates park's ability to maintain a five-star rating between inspections.
15. All empty lots grassed, graveled, or well maintained.
16. If pets or children allowed, there must be a place for them to run and play without cluttering the streets and yards.
17. Superior on-duty management interested in comfort of residents and maintenance of parks.

During fall of 1976, about 300 Missouri mobile home park operators were contacted in order to obtain information pertaining to rent, vacancy and major problems encountered in the operation of a mobile home park. One hundred fifty operators responded making additional comments at length. The results of this survey are quite revealing and should be shared with mobile home park operators, mobile home park developers, local government officials and lending institutions. Table 3 presents some selected findings of Missouri mobile home parks.

So that we may have a certain yardstick in interpreting the survey returns, all mobile home parks were grouped in their respective one-, two- or three-star category and by their location, inside or outside the city units. The figures presented in Table 3 lead to the following conclusions:

1. Rent and the number of home sites is correlated to the quality of a mobile home park.
2. The vacancy rate in a mobile home park decreases as the quality of the park increases.

Parks with less than 50 home sites in unincorporated areas charge more for rent than larger mobile



A well-planned appearance



Homes set back from streets

home parks. This seems to bear out an accepted standard that, "The mobile home park, if it is to perform its function properly, must be a sizable operation. It cannot be a shoestring enterprise. To support the facilities and services needed, the minimum number of spaces provided ought to be at least 50, and probably should be closer to 100."² Since, evidently, smaller parks feel the operational cost pinch much more than their larger counterparts, the off-setting factor appears to be higher

²*Mobile Home Parks and Comprehensive Community Planning* by R. Bartley and Frederick H. Bair, Jr., 1960. Also, *Mobile Homes: Asset or Liability*, by Henry Galetschky, 1969.

Park Operators Complaints

In Unincorporated Areas

Missouri Clean Water Commission
 Environmental Protection Agency (EPA)
 Absence of zoning
 Conflicting ordinances in metropolitan areas
 Collecting rent

In Incorporated Areas

Collecting rent
 Dogs running loose
 Federal Government regulations

rents. Nevertheless, rents in unincorporated areas are somewhat lower than in a municipality, probably to remain competitive.

With only two exceptions, no complaints were voiced in regard to zoning regulations; some even criticized the absence of adequate regulations. This kind of attitude is indicative of the thoughtful mobile home operator who is well aware of his responsibility toward his tenants and the community. It also indicates that reasonable regulations do not discourage new developments of mobile home parks. The major problems expressed by park operators are reviewed in the table below.

In comparing the above summary some inferences may be drawn. Because of the EPA regulations, all mobile home parks (even individual homes on individual lots) must see to it that an adequate potable water supply is available and no sewage is permitted to discharge into creeks, ponds, rivers, etc. Since most of the mobile home parks in unincorporated areas were built prior to those regulations and are now forced by law to comply, substantial hardships are encountered by these mobile home park operators and owners. Mobile home parks within corporate limits can hookup to the municipality's water and sewer system.

Many statistics are now available regarding mobile home parks and occupants. Whether or not they also apply to Missouri is difficult to say so a well-kept, typical mobile home park in Missouri has been singled out to serve as an example.*

| | |
|----------------------------|-----------|
| Number of lots | 90 |
| Number of homes | 90 |
| Number of cars | 109 |
| Retired occupants (single) | 21 or 24% |
| Semi-retired | 7 or 8% |
| Singles | 23 or 26% |
| Couples with children | 15 or 17% |
| Couples without children | 22 or 25% |
| | 100% |

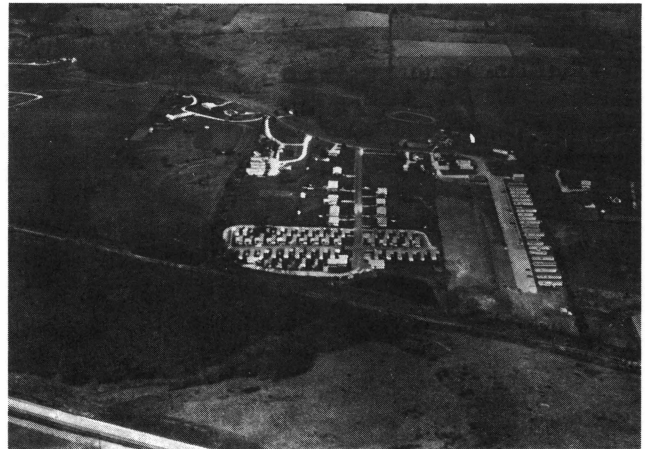
*Source: Courtesy of Bropf's Mobile Home Park, St. Charles, Missouri, May 1976.

The above described park has a total of 29 children with 14 pre-schoolers, 12 grade-schoolers and 3 high-schoolers. Some children attend a parochial school and 13 children go to public schools. There is one public school-age child for every 6¾ mobile homes or 1.75 persons per mobile home. The statistics presented may not hold true in every instance, therefore each area in Missouri should conduct its own fact finding survey.

What to do with an outdated mobile home park

Missouri has many old mobile home parks which were built right after World War II or prior to incorporations of communities that insist on enjoying "grandfather rights." Naturally, these situations create problems, especially in light of the following factors:

1. During the 40s and 50s mobile homes were smaller.
2. Mobile home parks, or trailer courts as they were called, located at the least desirable places, in part for financial reasons and public rejection.
3. Lot sizes were very small, barely able to accommodate a "trailer."
4. No design standards to speak of were utilized in developing a "trailer park."



A poorly planned design

TABLE 3
Selected Characteristics of Mobile Home Parks

| | Inside City Limits | | | Outside City Limits | | |
|--------|-------------------------|---------------------------|----------------|------------------------|---------------------------|----------------|
| | Average Rent Per Months | Average No. of Home Sites | Percent Vacant | Average Rent Per Month | Average No. of Home Sites | Percent Vacant |
| 1 Star | \$39.80 | 69 | 12 | \$41.33 | 48 | 20 |
| 2 Star | 42.41 | 80 | 11 | 38.00 | 55 | 18 |
| 3 Star | 48.11 | 185 | 5 | 47.92 | 114 | 4 |
| New | 68.37 | 179 | — | 52.00 | 75 | — |

Source: Survey 1976, Governmental Affairs Program, UMC.

5. Adequate utilities were lacking and overall safety did not even enter the picture.

Many more reasons could be added to the list but this should suffice. In the meantime, dramatic changes within the mobile home industry have occurred with better mobile home park and subdivision principles being applied. This has made many of the old "trailers" obsolete and the park courts outdated, while adding a burden to the general public and making it almost impossible for local government to protect adequately the health, safety and general welfare of the community at large. So what can be done? Obviously, we cannot eradicate these old parks by decree; besides, they still give shelter to people who live on small, fixed incomes. Two situations may offer solutions.

Situation 1: A mobile home park ("trailer camp" as it was called) was built in 1946 on a one-acre lot in the center of a city. The park is still there after 30 years, including about 30 per cent of the original mobile homes. The park, operated by an elderly lady, is well-kept, has concrete walk ways and a service building. The tenants are retired people, widows who have lived there for more than 10 years and some single persons working in the city. The supervision of the park is strict, and, as the writer found out for himself, the tenants police the park by keeping the operator informed about strangers or anything else which might affect their own peace of mind. The park complies with city requirements the best it can; surrounding conventional neighborhoods have no complaints, and evidently, neither has local government.

Conclusion: A few lessons can be learned from this example which in no way should be construed as an isolated case: (1) An old mobile home park, if properly operated and supervised, is no different than any other conventional neighborhood of similar composition. (2) The appearance and operation of an old mobile home park is a mirror of management. (3) The mobility rate of tenants is lower than their counterparts in conventional dwellings. (4) The life expectancy of a mobile home, when properly maintained, is equal to that of conventional housing. (5) Since nothing lasts forever, even an old mobile home park will have to give way to new development eventually.

Situation 2: This writer enjoyed the privilege of assisting the city of Hazelwood in finding solutions on how to bring up to minimal standards certain old mobile home parks which were in existence prior to incorporation. After lengthy and heated discussions with the park owners and operators, the parties involved agreed on a mobile home park ordinance which in essence stipulates that over a three-year period certain minimum standards have to be met, otherwise no license will be issued and penalties will



Providing adequate parking



Lanes for pedestrian traffic

be imposed. Here are some highlights of the ordinance:*

Immediately: All administrative details such as licenses, permits, inspection, etc., are required. Adequate mobile home stands, refuse handling, insect and rodent control, fire protection and responsibilities of management and occupants are necessary.

*The City of Hazelwood gave permission to utilize the Hazelwood experience and the city's code in this study.

After one year: Compliance with certain environmental conditions, screening, separation between mobile homes, street improvements and lighting.

After two years: Fuel supply and storage are needed.

After three years: Setbacks, buffer strips, screening and off-street parking for one car at each mobile home.

The above ordinance is a supplement to the ordinance governing the construction of new mobile home parks and has been in effect since December, 1974. The lessons to be learned from this example are (1) Although litigation at the time became imminent, a “**common sense**” approach brought the two opposing sides together. (2) Local government fulfilled its duty to protect the safety and general welfare of the community. This will benefit the occupant who will be protected. (3) The park owner and operator has a better chance to protect his investment and its fair rate of return. An old park will never be up to par with a new one; however, further deterioration is avoided, and neither city or operator will suffer from undue hardships. Does this approach work? Yes, and the city of Hazelwood should be commended for solving problems of that nature in a business-like manner.

It should become clearer that the mobile home with all its intricacies is no longer a strange housing concept but is emerging as a futuristic home for a majority of Americans. Manufactured homes will



In the developing stages

further be improved so ultimately the difference between a stick-built and mobile home will become minimal. **The manufactured housing industry knows how to build homes efficiently, economically and in volume. The real estate industry with its developers, financiers and related fields knows best how to develop. A close union of the two will result in solving our housing problem in the future.**

In order to give the public and private sectors a workable tool for blending manufactured homes into communities, the following chapter will discuss some of the principles involved in designing mobile home subdivisions.

Mobile Home Subdivision Design

By Claire Avis

Many of the early mobile home subdivisions were designed as parking and storage lots: level sites were selected and minimum improvements made. The "parking lot" layout that permitted the maximum number of mobile homes was considered the best. Appearance of the area was not important and if any extras were provided, these were often a play area for children or a laundry facility.

The early mobile units were generally "look alike"; the size of the units and the exterior design were all much the same. During the past ten years this has changed with a variety in width and length of units, in materials used and in added features such as porches, decks and patios. Owners of these new mobile homes are usually pleased with their purchase and want it to be placed on a site where the attractiveness of the mobile home can be appreciated. The recently developed mobile home subdivisions are similar to other single-family residential subdivisions and there are no longer any major differences between the design of a mobile home subdivision where lots are sold and one where lots are rented.

An example of the magnitude of change that has occurred since the early "parking lot" concept to new subdivision design is the Oak Forest, California area.¹ This subdivision has lot sizes ranging from 4,400 square feet to one-third of an acre with a total of 162 lots on a total subdivision area of 120 acres. Lots are leased on a three-year basis with rents ranging from \$135 to \$300 per month; and the overall development is so organized that the entire subdivision could be sold to the residents as condominiums.

General

Before site selection and certainly before subdivision design is started, it is important to verify with state, county and local governmental officials about possible ordinances or regulations regarding minimum standards for spacing of mobile homes, road widths and road construction, anchoring of units, lighting, screen planting, etc. Even though there are no specific regulations for mobile home subdivisions, the developers may be required to comply with certain general subdivision or de-

velopment regulations such as location of entrance roads, storm water detention, location of utility distribution lines and requirements set forth by local police and fire protection districts.

Site Factors Influencing Design

There are not two subdivision sites that are the same; each site has certain attributes and limitations and the design for the subdivision must recognize these, otherwise the maximum potential and long-range operational efficiency of the subdivision will not be realized. The following is a discussion of certain factors that need consideration on nearly every site.

Topography, Geology and Soils The slope of the site and the lands adjoining can have considerable influence on the design of the subdivision. Grading can be expensive as can the cost to reestablish ground covers (grass and other vegetation) on disturbed slopes. Minimum disturbance to the site is often the best solution in planning future uses.

It is necessary to identify those areas where rock is on the surface or might be encountered within three to four feet below the existing ground surface. If the site is located in an area where soils have unstable or limited bearing characteristics, then location of these soils should be noted on maps.

Drainage It is unusual to have a site that is located where there is not storm water entering or leaving the site. It is important to identify the natural storm drainage ways and forecast possible increases in storm water runoff due to future development upstream. It is necessary to verify with local authorities the possible requirements relating to storm-water runoff due to future development upstream and the possible requirements relating to stormwater detention. Development of the subdivision will entail the construction of impervious sur-

*Editor's note: Ms. Claire Avis is a noted landscape architect and designer of mobile home subdivisions. She is an associate partner with Harland Bartholomew and Associates in St. Louis, Missouri.

¹*House and Home*, December, 1976, "This Park Gives the Mobile Home Image a Big Boost," McGraw-Hill, pages 84-85.

aces (roads, parking areas, the mobile homes, patios, etc.) which will increase the runoff, and may require increased runoff be impounded on the site and be released to the stream at a stated rate of discharge.

Natural Features An interesting rock formation, a stand of mature trees, and an extraordinary view can be assets to the site and should be incorporated into the subdivision plan. Existing trees on residential sites are assets and can aid in the overall visual appearance of the entire area.

Climate Consideration of the optimum orientation of mobile homes related to the site should be given. Exposure to winter and storm winds should be minimized. The subdivision site should be checked for these winds and often a sheltering hillside can modify wind currents or a valley can amplify winds. While it is usually not possible to provide each mobile home (or any other type residential unit) with the preferable orientation, at least the majority of units can be so located.

Access A careful inspection of public road(s) adjoining the site is needed to identify those areas that would permit safe egress and access for the residents of the subdivision. Check vertical and horizontal road alignment to be certain there is adequate sight distances both for the traffic of the subdivision as well as the traffic on the public road. Consideration should be given both in sight distances and in entrance roadway design so that the moving of the mobile home units into the site—wide, long and heavy loads—can be safely and easily accommodated.

Utilities Many tracts of land have easements that have been granted for utilities such as gas, water, electricity, oil, etc., that need to be recognized in the subdivision.

Major utilities that will in the future provide the services to subdivision need to be verified, so that in preparing a plan for the subdivision in the utility systems can be planned for efficient and economical construction.

Adjoining Lands How the adjoining lands are used can have considerable influence on the design of the subdivision. Attractive adjoining developments enhance the mobile home subdivision. If the adjoining uses are unsightly, generate noise, dust, fumes, or have high levels of night lighting, then the design of the subdivision should recognize these factors and incorporate measures to lessen the impact of these disturbing factors.

Subdivision Design Elements

A subdivision is composed of many design elements with each of the elements interrelated to all other elements as well as to the site. These elements and their interrelationships determine in large measure the operational and maintenance efficiency,

the convenience and the attractiveness of the subdivision. For purposes of this discussion, the various design elements are described.

Entranceways The design of the entry to the subdivision should first provide for the necessary pavements (width and type of construction) that are needed for safe entry and exit. The amount and speed of traffic on the boundary street should be evaluated to determine whether an additional pavement width is needed to provide for deceleration of the traffic wanting to enter the subdivision. The large vehicles bringing in mobile home units require large turning radius with a curb radius at the entrance should be at least 30 feet.

It is usual to provide for at least three lanes of traffic at the entrance which allows for one lane entering, and a right turn and a left turn lane for vehicles leaving. Most of the new subdivisions have only one entranceway, thus providing for security and control. In some subdivision, security is further augmented by providing a gate house or by locating the subdivision office near the entry.

The entranceways are often enhanced by walls, fences, extensive landscaping and by an identifying sign naming the subdivision. A well-designed and attractive entry area can be a major asset to the entire subdivision and for the surrounding developments. There is one warning regarding elaborate entry areas—be certain that funds and manpower are available to maintain it. Overgrown landscaping, unpainted fences, neglected walls and signs give a poor impression and usually indicate that the subdivision is becoming run-down and out-dated.

Streets In most mobile home subdivisions, the streets are private and not subject to public right-of-ways. Some of the newer subdivisions are designed so that right-of-ways could be dedicated in the future, allowing for operating flexibility to the owner or owners of the subdivision. Streets in the mobile home subdivision should provide pavements of sufficient width and alignments that will accommodate the delivery and the placement of mobile homes.

In planning streets, there is no limit on the maximum curvature allowable, except in big curves such as one with a radius of over 1,000 feet, cannot be perceived by the average person and a straight alignment would be easier to plot and construct. The minimum radius for a minor subdivision street should not be less than 100 feet. On this 100-foot radius, the safe speed for a passenger car is less than 20 miles per hour provided the road is relatively flat. It is preferable to use curving alignments that have radii of 300 to 600 feet.

The street system for the subdivision usually includes a “collector” which is the main street that provides access to all the areas of the subdivision;

individual areas are served by minor streets. Minor streets are often short loop streets or cul-de-sacs. The street plan that permits easy and safe movement of traffic through the subdivision and that discourages speeding traffic will best serve any residential area.

The grades of streets in a mobile home subdivision are important, again because of the need to haul the units through the subdivision and to maneuver for the placing of the unit. It is preferable to have grades of less than six per cent (a six-foot rise in a distance of 100 feet); a grade of 10 per cent is generally considered maximum. To assure positive drainage of pavements, the minimum grade of a street should be one per cent. At street intersections there should be a relatively flat grade so that a car can be stopped easily and the driver can look before turning into the intersection.

Street pavement widths average about 28 feet,² with minimums of 12 feet width for a one-way drive to over 50 feet width in an area where angle parking is allowed along the street. A pavement width of 28 feet allows for two lanes of moving traffic and a parking lane. In areas of possible congestion, a pavement width of 26 to 30 feet is desirable to

provide three traffic lanes with the center lane used for left-turning traffic.

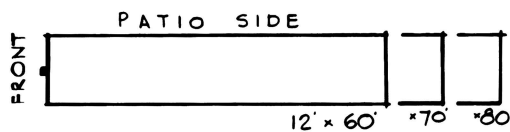
Lotting Dividing the subdivision area into mobile home sites and providing space around each of the mobile homes is a major task. Some decision is needed regarding the type of layout desired and to test this type of layout considering all of the site factors. Plates 1, 2 and 3 illustrate some of the possible siting and lotting arrangements. Each mobile home site and the lot that provides private space around the unit should have street frontage and off-street parking space for two automobiles.

Many of the recently developed mobile home subdivisions have tried to erase the image of a standardized or project layout. These subdivisions provide a variety of lots, some minimum in area and some lots that are very spacious.

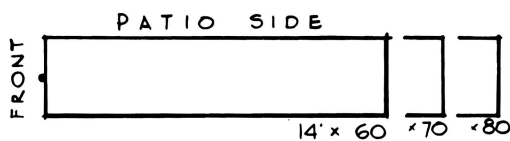
In preparing lotting plans consideration should be given to flexibility in arrangements, such as combining small lots to make larger lots. The market of the mobile home subdivision is dynamic and one of the changes is the increase of lot sizes to allow for

²Urban Land Institute, 1971. "Mobile Home Parks: Part 1, An Analysis of Characteristics," page 21.

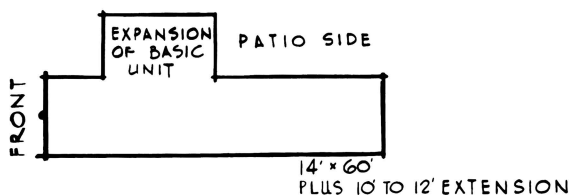
Mobile Home Sizes



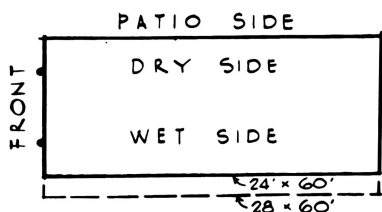
Single Unit 12' wide



*Single Unit 14' wide
14' x 60' current design standard*



*Expandable Unit
14' x 60' plus expansion unit*



*Double-wide Unit
24' x 60' current design standard*

the larger units and also to provide sites with a more appropriate setting for these units.

The lotting plan and the street plan have to be worked out as a one unit, and utilities that serve the lots also have to be considered at each step of designing the subdivision.

Utilities State, county or local codes, may require that all utilities be underground within the subdivision; even if not required the eliminations of overhead wires and poles does improve the overall appearance of the subdivision. Many of the older mobile home subdivisions have had major problems in providing adequate service to the new mobile home units because nearly all units now have central air-conditioning, many have electric heat, dishwasher, automatic washing machines and several bathrooms. Today the utility requirements of a mobile home subdivision should be based on the same standards used for other type single-family residences.

Recreation Most mobile home subdivisions provide some extra facilities including recreational facilities. The various types of facilities include swimming pools, tennis courts and other court games, childrens' play apparatus, open-lawn areas for ballgames, gardening areas and community buildings. Selection depends upon the developers' analysis of the market for the subdivision; obviously, children's play apparatus area would not be needed in a subdivision that is to serve retirees. Two facilities that often provided and are well-used in most subdivisions are: (1) a large open area; and (2) a community building (or clubhouse) that provides meeting rooms and some indoor recreation equipment.

Basically, all recreational facilities should be valued on marketing, initial cost, operation and maintenance costs. What facilities are needed to attract potential residents to the subdivision? How much do the facilities cost and how large an area is needed? What will be the costs of operation, maintenance and insurance (if needed)? How much does the cost of recreation add to the basis cost or

rental of a subdivision lot? Will the recreation facilities aid in insuring a successful subdivision over a period of many years?

If a community building is considered desirable, then it is possible that the building can also provide space for management offices, operation and maintenance areas. The location of the building should be prominent and accessible to all the residents of the subdivision and also to visitors to the area. To have the community building be an asset to the subdivision, the building should be well-planned, well-constructed and well-maintained; and the building's site should provide ample parking and service areas.

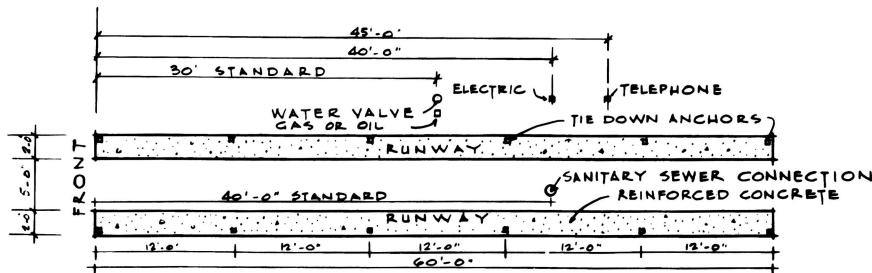
Services Storage areas for boats, campers and other recreational vehicles can be of great convenience to residents of the subdivision and can aid in the appearance of the subdivision. In addition to the open storage area, some subdivisions provide a storage building containing lockers where furniture, cartons, etc., can be stored by residents. Location for storage facilities should not be in a remote area where they can be vandalized, but in an area where some surveillance can be provided. Facilities should have adequate fencing and should be designed so that they are attractive and easily maintained. Use of the storage facilities can be included as part of the lot rental or can be on a fee basis.

The provision of facilities for trash and garbage collection should be considered during planning of the subdivision. If the collection system will provide service to each individual unit then protective restrictions can state where cans are to be located on the lot and what the collection process will be. If the collection system is to make use of facilities where large containers are provided for the use of many units then the design of these facilities should be incorporated into the plan. Area required, access for collection trucks, appearance of the facilities, are factors to be considered.

Subdivision Planning Process

This chapter has purposefully not included any

Mobile Home Stand



plans of subdivisions. Each subdivision plan solves a particular set of circumstances and relates to a given market of an area. Without complete data concerning all the factors related to a subdivision, review of plans can only be casual.

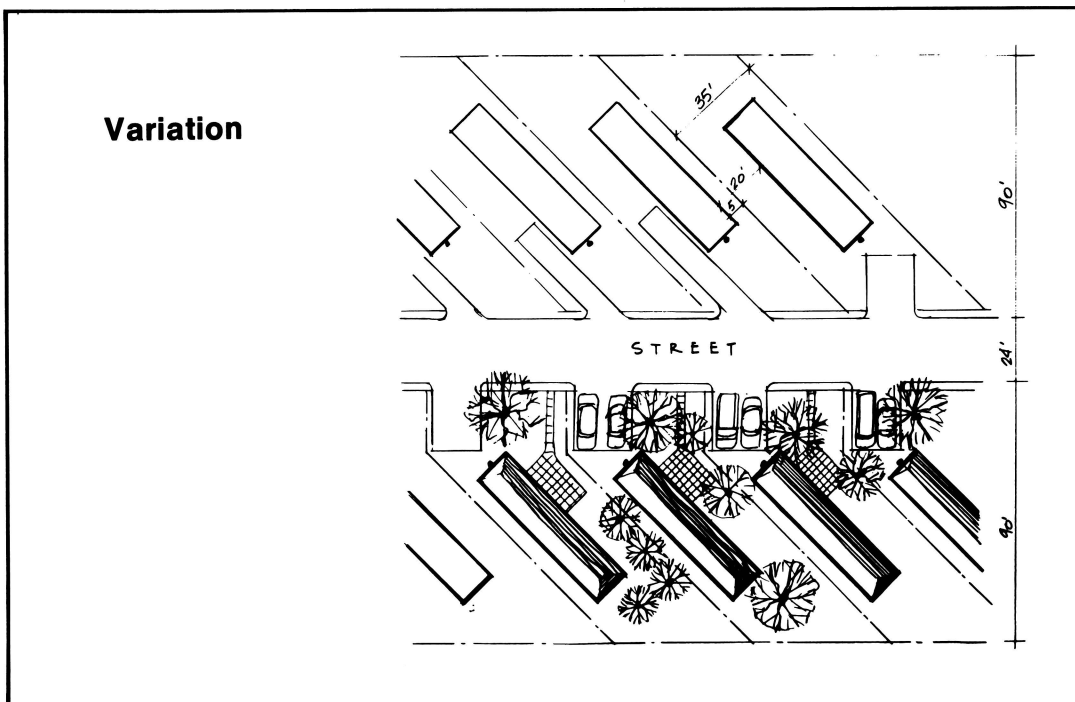
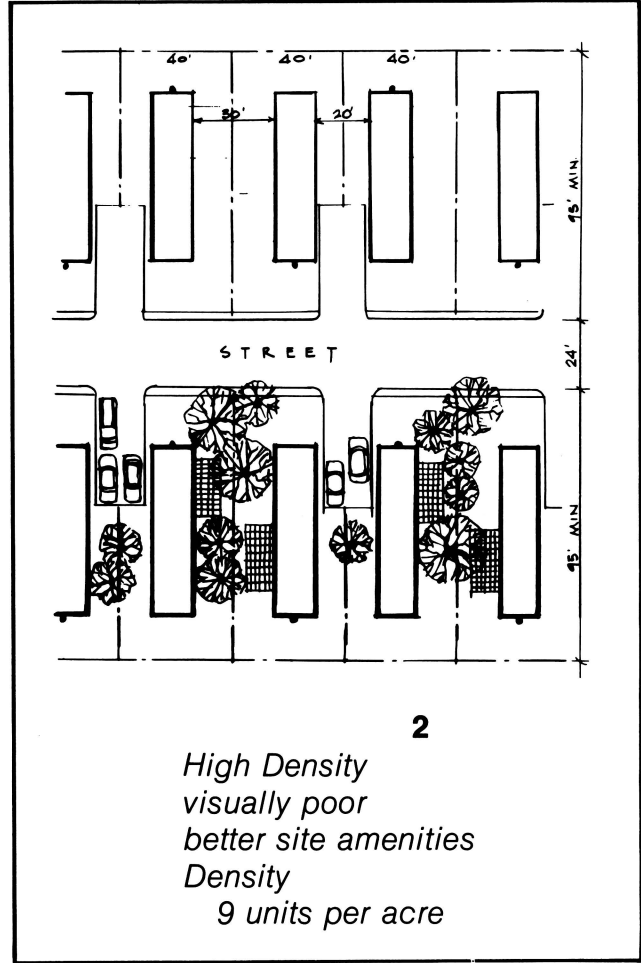
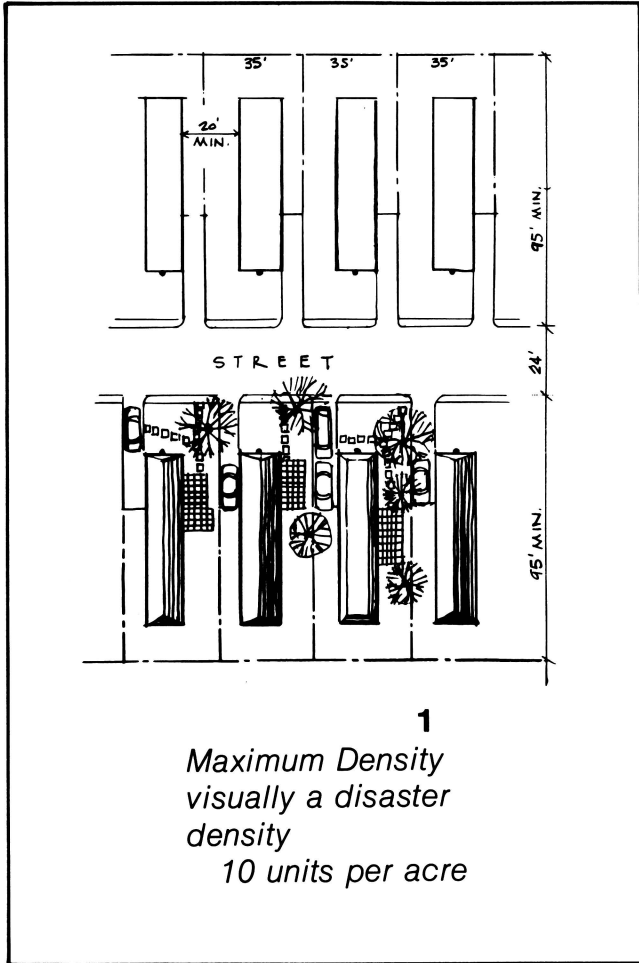
In addition to the site factors and the design elements, a program is needed before designing the subdivision can begin. The program complements the plan by stating whether the subdivision is to be constructed at one time or to be constructed in a series of stages. What size lots are needed? All double-widths, a mixture or what? What recreation facilities are desired? What other extra facilities are needed? After program has been generally formulated, it is then time to start preliminary plans for the subdivision.

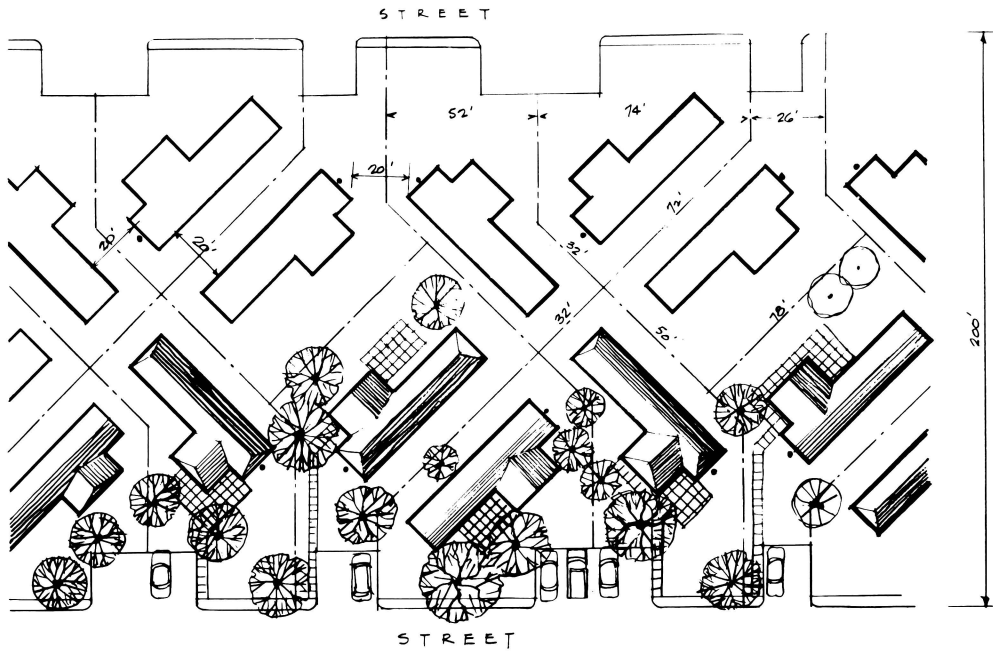
Nearly all mobile home subdivisions represent a sizable investment of money that is to be paid off over a number of years. The design of the subdivision cannot assure success but can contribute to the success. Time spent in designing and reviewing of plans can be beneficial to the whole development

including improvements, operations and attractiveness. Since the quality of the design is important, it is suggested that several alternative plans, including schematic plans of utilities, be prepared and that these plans be reviewed and evaluated in relation to the site and the developer's program. The alternative plans may suggest modification of the program and timing. Further, alternative plans may permit a variety of planning solutions that will permit flexibility and the postponing of final design of certain areas until after the first stage or stages are constructed.

Once a planning solution has been determined, then the subdivision design should be expanded to include all of the improvements needed to construct the development including grading, paving, utilities, landscaping and structures. This will permit obtaining the definitive estimates of materials and work items, so that the cost of the project can be determined and the economics of the total development package—land, improvements and operations—can be evaluated for potential sales and rentals.

Mobile Homes - Types of Arrangements

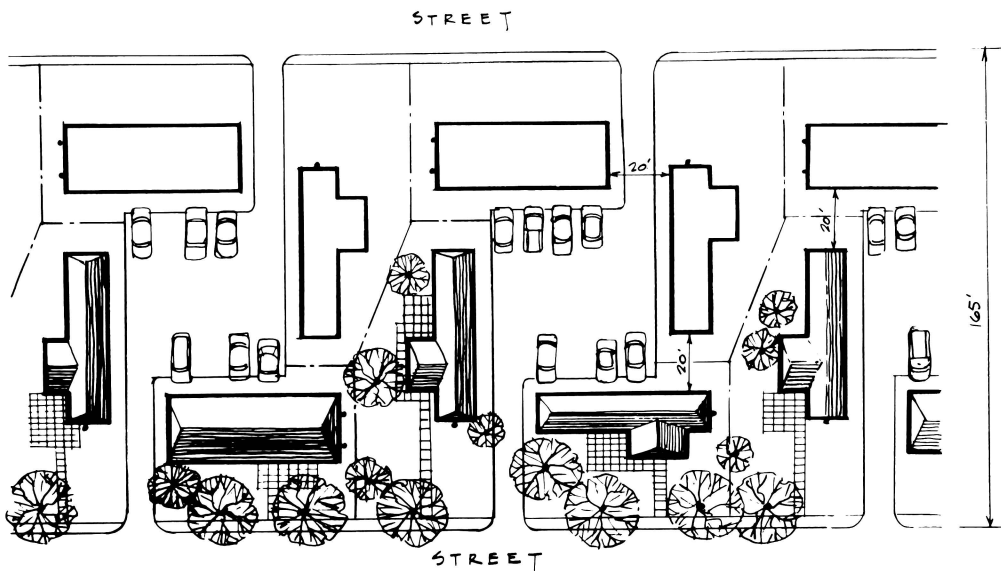




3

*Double-Loaded
Diagonal
Variation of sites
More interesting*

*All sites can accommodate
expandable units
Density
+ 6.5 units per acre*



4

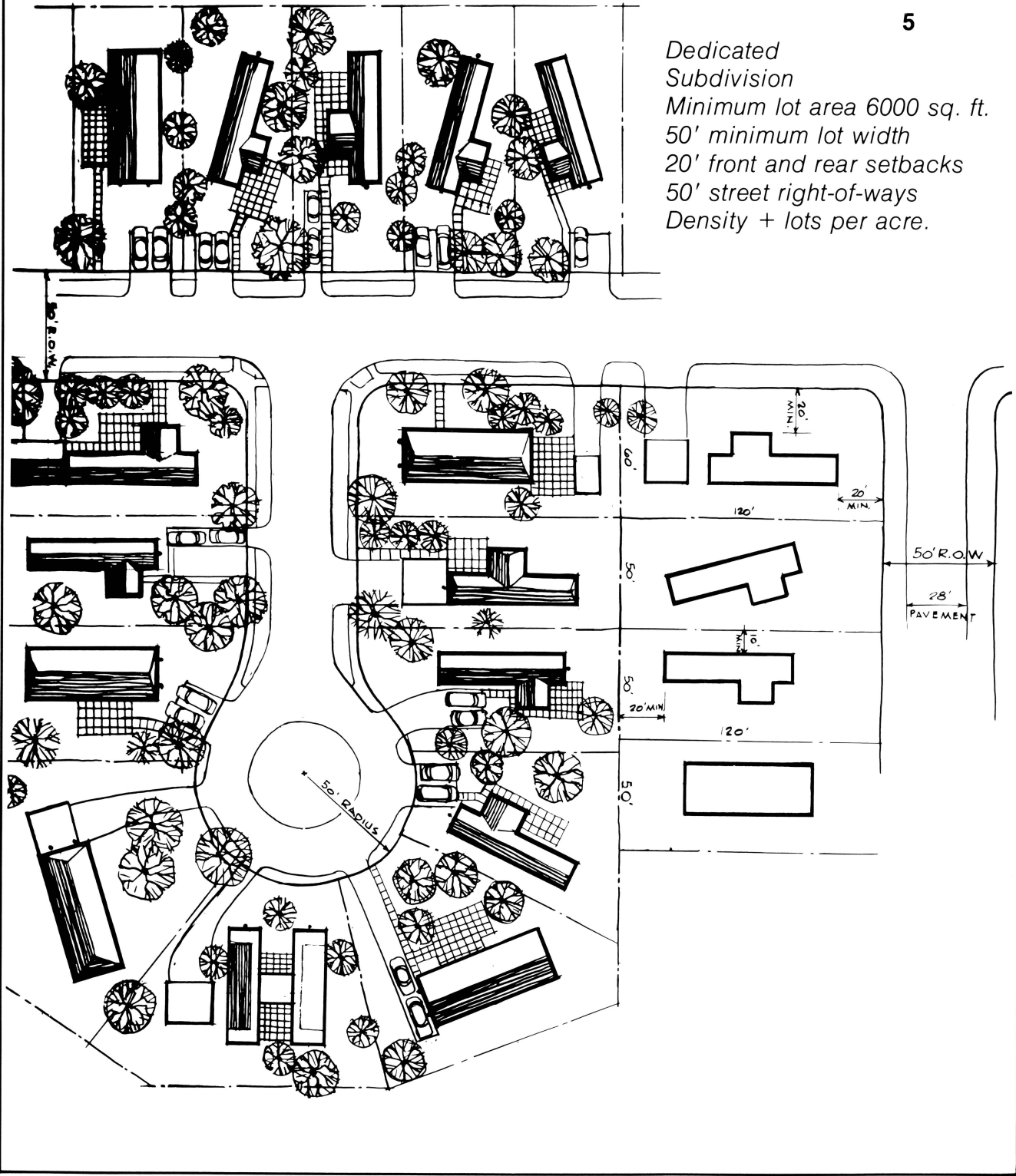
Four-Unit clusters

- *Parking and service area core.*
- *Varied arrangement of homes*

- *One-half sites can accommodate expandables, one-half double units.*
- *Density + 6.0 units per acre*

5

Dedicated
Subdivision
Minimum lot area 6000 sq. ft.
50' minimum lot width
20' front and rear setbacks
50' street right-of-ways
Density + lots per acre.



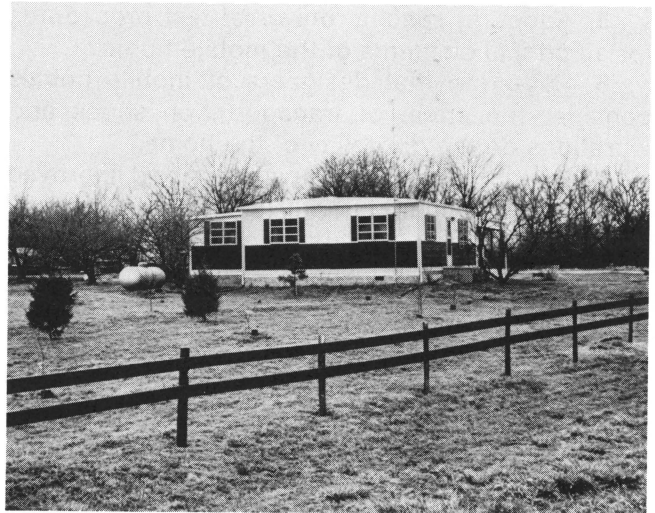
Laws Governing Mobile Homes

Over the years, numerous complaints, justified and unjustified, were voiced throughout our country in regard to the safety and construction of mobile homes, coupled with emotional rejections of a new housing concept. In recognition of these developments, the federal and many state governments have enacted legislation pertaining to the regulation of mobile homes.

Federal Regulations

“Consumers will have reasonable assurance in the near future that the manufactured home they buy is well built and safe to live in” states a news release of the Department of Housing and Urban Development (HUD.) Under the National Mobile Home Construction and Safety Standards Act of 1974, HUD promulgated federal mobile home construction and safety standards.¹ The federal standards cover the entire manufacturing process for all residential mobile homes intended for single-family occupancy, and incorporate planning, construction, durability and safety considerations. Mobile homes manufactured for sale in the United States on or after June 15, 1976, must be built in compliance with the standards and must bear a label in a conspicuous location indicating this. Each mobile home must have a data plate as well permanently affixed to its interior that provides the owner with specific information about the mobile home purchased. Mobile homes built prior to June 15, 1976, including those awaiting correction to any state or local standard in effect prior to that date are not covered by the standards. An add-on² unit, regardless of size, is covered by the standards only if it is designed and produced as an integral section of a new mobile home, and merely requires joining on-site to form the completed structure. The add-on as governed by the standards is then subject to all inspections and approvals required of the mobile home owner. An add-on not designed or produced as an integral part of a new mobile home is not covered by the standards.

If an add-on is sold simultaneously with a mobile home covered by the act causes the basic mobile home unit to become a noncomplying home and the unit is sold in that condition, the selling dealer is



Countryside housing

subject to criminal and civil penalties under the act.

The standards do not cover commercial units (e.g., offices and store house units) since HUD authority under Title VI is limited to residential mobile homes. The standards, at present, do not cover multi-family mobile homes or special units designed for the handicapped. The department is currently evaluating the feasibility of developing standards for these types of homes.

A prevalent question coming mostly from public sources relates to the extent of HUD's authority over such matters as installation of the mobile home and onsite installation, including setting up the home on a proper foundation, tying it down and connecting it to the utilities. Currently, HUD has no authority to enforce on-site installation requirements, but is encouraging the states to become active in this area.

The federal standards provide greater protection to the mobile home owner than previous standards and also contribute to durability and livability of the home in several ways:

1. Requiring use of interior materials with limited flammability in those areas of the home where

¹Federal Register, Vol. 41, No. 94, May 13, 1976

²For the purposes of the Federal standards and Enforcement Regulations, an “add-on” is defined as any structure that, when attached to the basic mobile home unit, increases the living or storage area of the mobile home.

heat and flame increase the likelihood of inadvertent ignition.

2. Specifying minimum space requirements for livability.

3. Requiring improved egress windows or doors in any rooms used for sleeping. (The improvements in the egress windows and doors will allow easier operation in case of an emergency, thus increasing escape possibilities.)

4. Limiting accepted smoke-detecting systems to those that are most effective, and requiring systems be located where they are most effective.

5. Adopting specific universal test procedures for all critical elements of the mobile home.

6. Requiring that designers of mobile homes consider the effect of transportation shock and vibrations on the durability of the home.

7. Requiring additional insulation and improved methods of calculating heat loss or gain, thereby significantly increasing the energy-saving characteristics of mobile homes.

8. Requiring tie-down systems of strapping cable devices designed to tie the unit to an anchor.

While some problems in mobile homes have been caused by inadequacies in the standards, others have resulted from unsatisfactory enforcement of applicable standards. The proposed Title VI enforcement program provides the consumer additional protection and insures compliance with federal standards through the application of a uniform and universal system for approving mobile home designs and manufacturing processes and the inspection of mobile homes during the manufacturing process.

While the secretary of HUD has primary and ultimate responsibility for enforcement of the new standards, the act also requires the secretary to approve the plan of any state that desires to assume enforcement responsibility³ and meets specific statutory and other administratively prescribed requirements. The enforcement program tries to achieve three objectives:

1. To provide the consumer maximum protection with minimum cost, paperwork and delay.

2. To achieve reciprocity among the states ensuring unhindered movement of mobile homes from one state to another. Under the program, certification of a HUD-approved mobile home design will be valid nation wide. Also, the imposition of additional inspection fees by an importing state is prohibited.

3. To encourage states to expand their role in regulating⁴ the transportation, sale and set-up of mobile homes; to monitor dealerships within the state for transit damage, label tampering, and dealer performance, to require state approval of all dealer alteration to labeled mobile homes within the state; and to monitor the installation of mobile homes set-up in the state.



Urban manufactured housing

Of importance is the definition of a mobile home in the federal standards which reads as follows:

“Mobile Home” means a structure, transportable in one or more sections, which when erected on site measures eight body feet or more in width and designed to be used as a dwelling, with or without a permanent foundation, when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained therein.

Recreational vehicles (RV) do not fall within the definition of mobile homes and are not subject to the regulations. The new federal standards are somewhat stricter than the ones set by the American National Standards Institute (ANSI) and the National Fire Protection Association (NFPA). However, about 90 per cent of the standards of the ANSI code have been incorporated in the HUD standards.

How does the Federal Act affect the states? Section 3282.11 of the act pre-empts the states from establishing or continuing in effect mobile home construction and safety standards unless they are identical to the federal standards.

The positive effect of the HUD standards is that they will definitely improve the quality of the mobile home. On the other hand, since costs will increase, certain income groups may not qualify any longer to purchase a mobile home. This is very important to remember.

³In Missouri this responsibility has been assumed by the Mobile Home Division of the Public Service Commission.

⁴The new code, which went into effect June 15, pre-empts state codes already in effect. Some states say their codes are more rigorous than HUD's and have refused to become state administrative agencies for the federal code, even though the federal code is enforced by HUD. Aside from basic dissatisfaction with the HUD program, states have voiced concern over the inadequate fees HUD would provide to state administrative agencies, over the violation of state's rights, and over the lack of sufficient mobile home business in the states to warrant the effort.

The National Flood Insurance Program

The rules and regulations of the Flood Disaster Protection Act of 1973 affect mobile homes, mobile home parks and subdivisions. All new development in a flood fringe area (see Plate entitled Riverine Flood Hazard Area) needs to have a permit. The purpose of this requirement is not to disallow development but to make development compatible with the risk.

The regulations specify that all mobile homes in identified flood hazard areas be anchored to resist floatation, collapse or lateral movement by providing over-the-top and frame ties to ground anchors.

An evacuation plan indicating alternate vehicular access and escape routes must be filed with appropriate disaster preparedness authorities for mobile home parks and subdivisions located in flood prone areas.

All mobile home parks and subdivisions and individual mobile homes on individual lots where flood damage exceeds 50 per cent, must elevate the stands on compacted fill or pilings so that the lowest floor of the home will be at or above the base flood level.

The regulations prohibit the placement of any mobile homes, except in an existing mobile home park or subdivision, within the regulatory floodway (see Plate.)

To limit potential hardship for mobile home owners moving mobile homes into existing mobile home parks or subdivisions, elevation requirements have been eliminated. However, a permit must be obtained from the community for the placement of any mobile home in a flood-prone area.

Missouri State Laws

On August 9, 1973, former Governor Christopher (Kit) Bond signed into law Act 181, House Bill No. 98, establishing uniform standards for mobile homes and recreational vehicles and providing for inspection and fees, both with penalty provisions. The standards established in the act were promulgated by the American Standards Institute and identified as ANSI A119.1 relating to mobile homes and A119.2 relating to recreational vehicles. In light of the fast changes in the mobile home industry, the previously described new federal standards and a few shortcomings within the state law, several sections in the law were repealed in 1976 and 21 new sections added relating to the same subject. The new statute may be found under Section 700.010 et seq. and is reproduced as Appendix A of this study. Here are some of the highlights of the new Missouri mobile home statute.

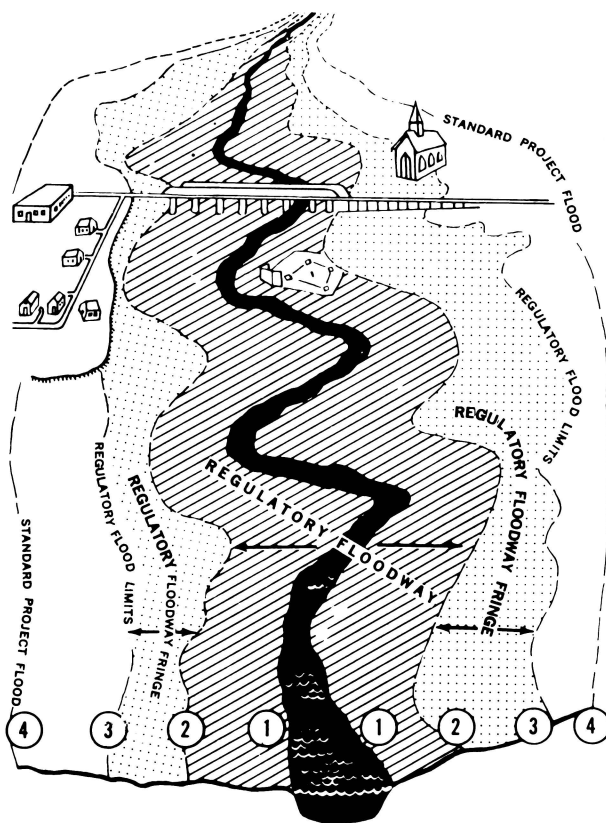
It gives the Mobile Home Division of the Missouri Public Service Commission the right to adopt the HUD rules and regulations. The jurisdiction pertaining to tie-downs was moved from the Division of Health to the Mobile Home Division. Also, all mobile home manufacturers and dealers are required to register with the Mobile Home Division.

One important Section (700.035), mostly disregarded by local government, was modified to read that **“...no agency of this state, nor any municipality or other local governmental body shall require such mobile home, recreational vehicle, or modular unit to comply with any other building, plumbing, heating or electrical code other than established by sections 700.010 to 700.240.”**

All mobile homes in Missouri must be anchored and tied-down in accordance with the standard set by the Mobile Home Division which are in compliance with federal standards.

Section 700.110 allows the owner of a mobile home to convert his home to real estate by attaching his mobile home to a permanent foundation render-

Riverine Flood Hazard Areas



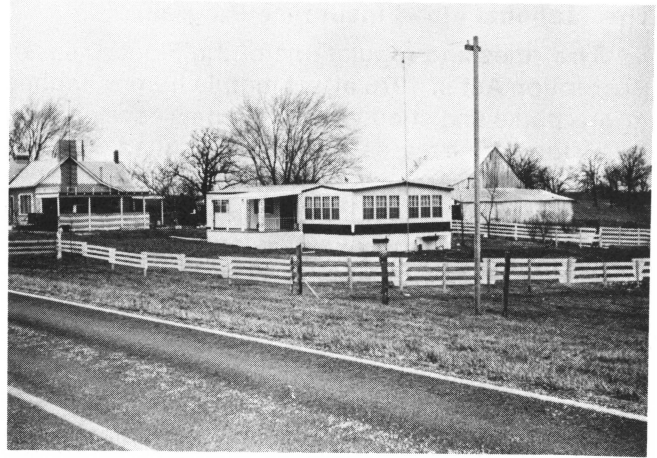
1. REGULATORY FLOODWAY—Kept open to carry floodwater—no building or fill.
2. REGULATORY FLOODWAY FRINGE—Use permitted if protected by fill, flood proofed or otherwise protected.
3. REGULATORY FLOOD LIMIT—Based on technical study—outer limit of the floodway fringe.
4. STANDARD PROJECT FLOOD (SPF) LIMIT—Area subject to possible flooding by very large floods.

g it impractical to reconvert the real property
eated to a mobile home.

Since the Missouri law pertaining to mobile
omes complements the federal standards, it is not
pected that conflicts will arise.

One other important state law should be em-
sized which is of great concern to mobile home
rk operators and developers in the unincorpor-
ed areas of our counties; namely, the regulations
the Environmental Protection Agency (EPA)
hich are administered and enforced by the Mis-
uri Clean Water Commission. Chapter 204.006
o. Rv. St., et seq., also known as the "Missouri
ean Water Law", sets public policies in regard to
ter conservation, among others to provide that no
ste be discharged into any waters without first
ceiving the necessary treatment and meeting the
uirements of the Federal Water Pollution Control
t as amended.

What it means is anyone contemplating to dis-
arge waste into creeks, rivers or lakes must obtain
discharge permit from the Missouri Clean Water



Housing on a farm

Commission. Also, anyone who wants to develop a
subdivision has to comply with the regulations for
the disposal of waste water in subdivisions as
promulgated by the Missouri Clean Water Commis-
sion. These regulations, because of their impor-
tance, have been reproduced in Appendix B.

Manufactured Housing and the Community

The preceding chapters set the stage for our last discussion—the local scene, for that is the place where the action is and the fireworks start. The discussion will begin with the position taken by mobile home dealers and their affiliates.

Our survey of this segment of the community may be summed up by the following comment one of the respondents made in reply to the question, “What is the major obstacle in your community in making mobile homes available to people?” He said, “Problems include a combination of acceptance of the product, lack of adequate areas where the customer can own his own lot, and the shortage of adequate long-term simple-interest financing, such as the purchaser of a ‘stick-built’ home enjoys.”

The survey showed that in 1976 the average price of a mobile home in Missouri was around \$11,000 and for double-wides \$14,000. Of the mobile homes sold 63 per cent were placed on private, individual lots and 37 per cent in mobile home parks. The biggest problems facing mobile home dealers are, in order of importance, the lack of long-term financing, excessively restrictive zoning, restriction on the movement of 14-foot wide mobile homes and the need for nicer parks. Four per cent of the respondents indicated their satisfaction with existing financing arrangements.

Turning to the attitudes and positions taken by local governments first consideration is given to the counties. There are 22 counties in Missouri with planning and zoning authority and 16 counties with planning authority only. Only the counties with zoning power were contacted during the survey because of their authority to zone, as well as to regulate the placements of mobile homes. A review of the policies of those counties suggests that regulation of mobile homes is rather arbitrary. Although most counties have a zoning ordinance in force, little is known about the quality of each ordinance and its effectiveness. Much more disturbing in the judgement of the writer is the reasonableness of restrictions imposed, varying from no lot minimum requirement to a minimum of 40 acres or more requirement. The same seems to hold true in the application of local building codes which in most cases are the BOCA¹ code. Unknow-



Manufactured housing in Columbia, Mo.



View from the pool

ingly (although with no excuse) local governments are in violation of state law (refer to Chapter 700 Mo. RvSt. in Appendix A). No comments were made by any county on whether or not mobile homes create problems in one way or another, though they were encouraged to do so. This overall indifference

¹Building Officials and Code Administrators International, Inc.

| <i>City</i> | <i>Zoning in Force</i> | <i>M.H. Parks Regulated</i> | <i>M.H. on Individ. Lots allowed</i> | <i>M.H. Must meet Local Bldg. Code</i> |
|-------------|------------------------|-----------------------------|--------------------------------------|--|
| Alton | yes | yes | yes | no code |
| Channahon | yes | yes | yes | no code |
| Deerfield | (in process) | | | |
| East Moline | no | no | yes | — |
| East Troy | yes | yes | no | yes |
| Easton | yes | yes | yes | no code |
| Easton | no | no | yes | no |
| Easton | yes | yes | yes | yes |
| Easton | yes | yes | yes | no |
| Easton | yes | yes | yes (1 acre) | yes |
| Easton | yes | yes | yes | no |
| Easton | yes | yes | yes | — |
| Easton | yes | yes | yes (40 acres) | — |
| Easton | no | no | yes | no |
| Easton | yes | yes | yes | yes |
| Easton | yes | yes | yes | yes |
| Easton | (not yet) | | | |
| Easton | no | no | | |
| Easton | yes | yes | no | — |

Source: GAP Survey, 1976.

own suggests that in the unincorporated areas of counties mobile homes and parks are either discarded, tolerated as long as they “don’t rock the boat” or out-rightly discouraged. The ramifications of this will be discussed in the concluding remarks of this chapter.

► Cities

“Regulation of mobile homes is a pain!”
 “Our city follows the 1970 BOCA Basic Building Code Section 425.0 “Mobile Dwelling Units.”
 “Mobile home parks can be established in either commercial or industrial zones.”

These are some random comments received from the cities in our survey. All municipalities in Missouri with a population of more than 1000 were contacted in order to find out how they cope with problems of mobile homes. Eighty percent of the communities contacted responded and elaborated rather than the questions required. Statistics in Table 4 may be of help in understanding the discussions that follow. Part of the statistics is no surprise because, as the population increases, so do the pressures and problems, thereby calling for adequate regulation. The same holds also true for counties. More of concern to all parties should be the regulatory practices employed pertaining to mobile home parks which have become not so much a matter of regulation but of emotion.

Local building codes are controversial because in most cases they cannot be met by a mobile home, better, a manufactured home. Again, it becomes an emotional issue, especially when a local building inspector considers federal and state laws pertaining to mobile homes an abrogation of his right to

approve each physical property of a home. It is somewhat surprising to note 68 per cent of our communities still seem to be unaware of the state law enacted in 1973 pertaining to the regulation of mobile homes that supersedes local building, plumbing heating and electrical codes!

Another criticism expressed by local officials is fire safety. This aspect is often exaggerated because, whenever a mobile home catches fire, it makes the headlines. Admittedly, the older mobile homes built prior to 1972 create fire hazards. Therefore, let us take a look at fire safety. The previously mentioned First Annual Report to Congress cited two reports, one made by the National Fire Protection Association (NFPA) in 1974 and the other by the California Fire Incident Reporting System, also in 1974. The NFPA report cited a greater fire incidence in mobile homes than in conventional homes, whereas the California study shows that the frequency of fires occurring in mobile homes is about 3½ times less than the frequency occurring in other one- and two-family residences. Since both reports evidently contradict each other and no plausible explanation is given, let us turn to the Missouri State Fire Marshal’s Annual Report for 1975 as excerpted in Table 5 and Table 6.

Table 5 indicates that only 3 per cent of all fires reported involved mobile homes whereas the incidence of private single family dwellings was 37 per cent. The statistics in Table 6 are interesting. Electrical, heating and leakage were the main causes of fires in mobile homes which is not surprising because the older mobile homes are deficient in quality and workmanship in regard to wiring and piping. In spite of this, the extremely low injury and death rate is astounding when compared to private

TABLE 4
SELECTED MOBILE HOME CRITERIA
BY POPULATION CLASS
1976

| | <i>Population</i> | | | | | | | | | | | | <i>Total</i> | |
|---|--------------------|-----------|--------------------|-----------|--------------------|-----------|----------------------|-----------|----------------------|-----------|--------------------------|-----------|--------------|-----------|
| | <i>1,000-2,499</i> | | <i>2,500-4,999</i> | | <i>5,000-9,999</i> | | <i>10,000-14,999</i> | | <i>15,000-19,999</i> | | <i>20,000 & over</i> | | <i>Yes</i> | <i>No</i> |
| | <i>Yes</i> | <i>No</i> | <i>Yes</i> | <i>No</i> | <i>Yes</i> | <i>No</i> | <i>Yes</i> | <i>No</i> | <i>Yes</i> | <i>No</i> | <i>Yes</i> | <i>No</i> | | |
| Zoning in Force | 63 | 36 | 45 | 5 | 42 | 1 | 15 | — | 9 | — | 17 | — | 201 | 42 |
| | | | | | | | | | | | | | 83% | 17% |
| Mobile Home Parks allowed | 38 | 30 | 35 | 10 | 29 | 13 | 7 | 8 | 8 | 1 | 8 | 9 | 125 | 71 |
| | | | | | | | | | | | | | 64% | 36% |
| Mobile Homes allowed on individual lots | 45 | 50 | 14 | 35 | 11 | 33 | 3 | 11 | 2 | 7 | 1 | 16 | 76 | 152 |
| | | | | | | | | | | | | | 33% | 67% |
| Mobile Home to meet local Building Code | 44 | 23 | 24 | 11 | 25 | 4 | 6 | 4 | 6 | 1 | 3 | 8 | 108 | 51 |
| | | | | | | | | | | | | | 68% | 32% |

Source: GAP Survey of Communities, 1976

dwellings. The federal standards pay special attention to fire safety by requiring smoke detectors installed in each mobile home built after June 15, 1976.

Where do we go from here?

No one will challenge the right of local government to regulate property in order to protect and to promote the health, safety and general welfare of the community. But, as the writer pointed out in a previous publication, "When has regulation gone far enough to become an infringement on individual rights?"¹ In reading zoning ordinances and court cases pertaining to mobile homes across the nation, one begins to wonder whether common sense has become a virtue of the past. It serves no purpose to dwell upon past rulings, laws and regulations, but rather let us take a fresh look at our present situation so that we can meet the future with confidence. As a starting point for discussion a new planning law in the State of Vermont, known as Act 236 passed in 1976, is submitted. What the act outlines is that **in writing the plan, a municipality should consider population, income, employment characteristics and the housing needs, present and projected, for all economic groups within the municipality and the region. Specifically, no zoning regulation shall exclude mobile homes, modular homes, or prefab-**

ricated homes from the municipality, except on the same terms and conditions as conventional housing is excluded. Mobile home parks may not be prevented either.

In light of the above and the dramatic increase in the number of mobile homes in Missouri since 1970, local government officials are encouraged to take a new look at existing ordinances regulating mobile homes in order to find out if these ordinances promote the general welfare of the community. By doing so let us bear in mind that 68 per cent of Missouri families have an annual income of less than \$15,000; yet, the average price of a new conventional home is more than \$50,000 under present conditions. This is not to say that the mobile home should be accommodated indiscriminately within any corporate jurisdiction. Everyone, and especially the thoughtful mobile home owner, park operator and developer, will agree that regulation is needed, but the problem of equitable regulation depends on a realization by the community of the legitimate nature of a manufactured home as a permanent residence. What people think about a manufactured home is the factor that will influence the type of regulation that is put into effect. Today, the differ-

¹Mobile Homes: Challenges for Today and Tomorrow, page 12.

ce between a manufactured home and conven-
 nal home is simply that one is built in a factory,
 d the other one on site. These non-legal factors
 a important and should not be ignored in revising
 drawing-up ordinances. As one local official
 ated, "What is all the fuss about mobile homes?
 at is all we can afford anyway."

Therefore, it is suggested, that the public and
 obile home sectors start talking to each other so
 at both parties begin to understand each others'
 oblems. The mobile home sector is encouraged to
 ck beyond its present state of operations; namely,
 providing people with an abode that looks like a
 me and not like a tin box. The times of a mobile

home park are passing, and the public and mobile
 home sectors should look at the concept of a
 manufactured-housing subdivision because in the
 near future manufactured and conventional hous-
 ing will become indistinguishable. In other words,
 the mobile home industry knows best how to man-
 ufacture efficient and economical homes in volume,
 but the industry does not know how to merchandise
 its product attractively in subdivision developments.
 If subdivision developers and the mobile home
 industry could work together, and they will have to, it
 would be a big leap forward in solving the national
 housing problem.

TABLE 5
Missouri Fire Losses
1975

| Use | No. of Fires | % of Fires | % of Dollar Loss |
|-----------------------|----------------|------------|------------------|
| Single Dwellings | 3,287 | 37 | 41 |
| Multiple Dwellings | 1,264 | 14 | 10 |
| MOBILE HOMES | 256 | 3 | 3 |
| Trucks | 2,250 | 25 | 6 |
| Business | 699 | 8 | 24 |
| Manufacturing | 179 | 2 | 6 |
| Schools & Hospitals | 124 | 1 | 1 |
| Other Buildings | 531 | 6 | 6 |
| Gardens, Crops & etc. | 230 | 3 | 3 |
| Other | 116 | 1 | 0 |
| Total | 8,936 | 100 | 100 |
| | Injuries - 404 | | Deaths - 59 |

Source: Annual Report, 1975 Missouri State Fire Marshal

TABLE 6
Missouri Fire Losses
Selected Types
1975

| Cause | Private Dwellings | | Mobile Homes | |
|---------------------|-------------------|------------|---------------|------------|
| | No. of Fires | % of Fires | No. of Fires | % of Fires |
| Electrical | 623 | 19 | 23 | 9 |
| Children w/matches | 572 | 17 | 46 | 18 |
| Careless Smoking | 149 | 5 | 5 | 2 |
| Gasoline leakage | 296 | 9 | 13 | 5 |
| Natural gas leakage | 83 | 3 | 6 | 2 |
| Outside burning | 23 | 1/2 | 6 | 2 |
| Negligence | 25 | 1/2 | 7 | 3 |
| Defective equipment | 437 | 13 | 26 | 10 |
| Undetermined | 365 | 11 | 48 | 19 |
| Other | 518 | 16 | 62 | 24 |
| Total | 196 | 6 | 14 | 5 |
| Total | 3,287 | 100 | 256 | 100 |
| | Injuries - 190 | | Injuries - 12 | |
| | Deaths - 33 | | Deaths - 2 | |

Source: Annual Report, 1975 Missouri State Fire Marshal

Financing

One last subject deserves brief discussion—financing mobile homes. It would be presumptuous on part of the writer to express an expert opinion on the subject and therefore, only a layman's observation is presented. The survey of mobile home dealers indicates that, with the exception of three respondents, 97 were dissatisfied with their financial arrangements. Their main complaint is the lack of long-term financing. The average retail price of a mobile home has gone from about \$7,000 in 1973 to \$11,000 in 1976, an increase of 57 per cent in three years. The financing programs and policies offered by lending institutions, however, have remained mostly unchanged. Naturally, this puts a squeeze on the prospective mobile home buyer by requiring a larger down-payment and higher monthly payments. Certain income groups now are unable to afford an "affordable shelter." Another factor is most mobile home dealers are unable to obtain financing from their own local lending institutions and have to go as far as St. Louis or Kansas City to overcome this obstacle.

In talking and listening to bankers, a cautious, apprehensive attitude prevails. Although losses on outstanding loans and repossessions occurred mainly during the recent recession, the record on outstanding mobile home loans versus other loans is good. There is a hesitancy to extend loans over longer periods, say 15 to 20 years, because of the peculiar treatment of a mobile home as personal property, just like a car. And there is still the old image of a "trailer" subconsciously in the mind of many. Wayne F. Bengtson from the United States League of Savings Associations at a conference said, "If we say the old square box that looks basically the same as it did ten years ago is beautiful, all the advertising dollars in the world will not convince the customer that it is if, in fact, it is not." And he continues, "Until such time that the single-wide mobile home is built so that the dealer or owner can add to it in such a way that it does take on the appearance of a house, we cannot expect the owner or lender to accept it on the same terms as he does stick-built homes."

Some suggestions are offered for consideration to overcome the financing dilemma. The manufac-

tured housing market offers opportunities to financial institutions if they are willing to innovate.

With the new federal standards in force the average life expectancy of a mobile home will be increased through improved building specifications and new technology.

The problem of depreciation may be overcome by making dual financing available; for example, furniture could be financed separately from the mobile home on a two- or three-year loan basis with the mobile home on a long-term basis.

The manufactured housing industry underwent quite a cleansing process during the past few years leaving only the strong ones in the market place who were able to cope with inflation, recession and stagflation. Now is the time for lending institutions to study the manufactured housing market. For a starter, two federal programs should be looked into—FHA and VA insured loans.

Last year HUD proposed regulations to combine federal loan insurance for financing mobile homes and lots. The proposal, which appeared in the *Federal Register* on Aug. 3, 1976, would make loan insurance available in the separate financing of individual lots by the owners of mobile homes. Previously, FHA insurance was available in two forms—one for individual homes and the other for mortgages on mobile home parks financed by developers. Both programs will continue. The new regulations will include the following terms:

1. The maximum loan for a single-wide home and developed lot would be \$20,000 with a maximum loan term of 12 years and 32 days.
2. The maximum loan for purchase of a mobile home of two or more modules and developed lot is \$27,500 with a maximum term of 15 years and 32 days.
3. The maximum permissible interest rate would be 10½ percent.
4. The maximum insurable loan for purchase of an undeveloped mobile home lot would be \$5,000 with repayment in 10 years and 32 days.

Also, the benefits under the Veterans' Housing Act of 1974 have been extended to increase the maximum loan guaranty for a mobile home from 30

to 50 per cent of the home's value. Maximum maturity is extended from 15 to 20 years.

Better financing arrangements are demonstrated in the July 30, 1976, issue of the *Wall Street Journal* in an article stating "... about 75 per cent of the production of two of Fleetwood's 29 plants—in Georgia and Tennessee—is being conventionally financed. These are mobile homes built on privately owned land with permanent foundations, in essence competing with the low-cost end of

the regular housing market."

The writer is aware that in making manufactured housing acceptable to lending institutions, many legal obstacles and preconceived ideas will have to be overcome. In Missouri we seem to have taken one step in the right direction by treating a mobile home as real estate once it has been attached to a foundation permanently. (Section 700.110 Mo. Rev. St.).

Suggested Readings

Governmental Affairs Bulletin No. 10

"Mobile Homes: Asset or Liability," by Henry Galetschky
Governmental Affairs Program, 306 Watson Place
Columbia, Missouri 65201

Mobile Homes: Challenges for Today and Tomorrow
by Henry Galetschky, Ibid

First Annual Report to Congress on Title VI of the Housing and Community Development Act of 1974

(Mobile Homes)
HUD, Washington, D.C. 20410

Woodall's Mobile Home and Park Directory, 1976
Woodall Publishing Company
500 Hyacinth Place
Highland Park, Illinois 60035

Special Management Bulletin S #164, July 12, 1976
United States League of Savings Associations
111 East Waches Drive, Chicago, Illinois 60601

Federal Register, December 8, 1975

"Mobile Home Construction and Safety Standards"

"New Chance for Mobile Homes"
Business Week, June 28, 1976

Appendix A

HOUSE BILL NO. 1393 78th General Assembly

700.010. Unless clearly indicated otherwise by the context, the following words and terms when used in sections 700.010 to 700.240, for the purpose of sections 700.010 to 700.240, shall have the following meanings:

(1) "Authorized representative" means any person, firm or corporation, or employee thereof approved or hired by the commission to perform inspection services.

(2) "Code" means the standards relating to mobile homes, recreational vehicles, or modular units as adopted by the commission. The commission, in its discretion, may incorporate, in whole or in part, the standards codes promulgated by the American National Standards Institute, the United States Department of Housing and Urban Development or other recognized agencies or organizations.

(3) "Commission" means the public service commission.

(4) "Dealer" means any person, other than a manufacturer, who sells or offers for sale four or more mobile homes, recreational vehicles, or modular units in any consecutive twelve-month period.

(5) "Manufacturer" means any person who manufactures mobile homes, recreational vehicles, or modular units, including persons who engage in importing mobile homes for resale.

(6) "Mobile home" means a factory built structure or structures more than eight body feet in width and is thirty-two body feet or more in length, equipped with the necessary service connections and made so as to be readily movable as a unit or units on its or their own running gear and designed to be used as a dwelling unit or units with or without a permanent foundation. The phrase "without a permanent foundation" indicates that the support system is constructed with the intent that the mobile home placed thereon may be moved from time to time at the convenience of the owner.

(7) "Modular unit" means a factory fabricated transportable building unit designed to be used by

itself or to be incorporated with similar units at a building site into a modular structure to be used for residential, commercial, educational or industrial purposes.

(8) "Recreational vehicle" shall mean a vehicular unit mounted on wheels, designed to provide temporary living quarters for recreational, camping or travel use and of such size or weight as not to require special highway movement permits when drawn by a motorized vehicle, and with a living area of less than 220 square feet, excluding built-in equipment (such as wardrobes, closets, kitchen units or fixtures) and bath and toilet rooms.

(9) "Person" means a person, partnership, corporation or other legal entity.

(10) "Seal" means a device or insignia issued by the public service commission, consumer services program or its agent to be displayed on the exterior of the mobile home, recreational vehicle, or modular unit to evidence compliance with the code.

(11) "Premises" means a lot, plot, or parcel of land including the buildings, structures, and/or mobile homes thereon.

(12) "Set up" means the operations performed at the occupancy site which renders a mobile home or modular unit fit for habitation, which operations include, but are not limited to, moving, blocking, leveling, supporting, and assembling multiple or expandable units.

700.015. 1. No person shall rent, lease, sell or offer for sale any mobile home, recreational vehicle, or modular unit within this state, manufactured after January 1, 1974, unless such mobile home, recreational vehicle, or modular unit complies with the code.

2. After January 1, 1974, no person shall manufacture in this state any mobile home, recreational vehicle, or modular unit for rent, lease or sale which does not comply with the code.

3. No person shall rent, lease, sell or offer for sale to anyone in this state any mobile home or modular unit manufactured after January 1, 1974, unless it bears a seal used by the commission evidencing that the said mobile home or modular unit complies with the code.

4. Unless otherwise required by federal law or

gulations nothing in this act shall apply to a mobile home, recreational vehicle or modular unit being built expressly for export and sold for use solely outside this state.

700.021. Seals may be issued by the commission when applied for with an affidavit certifying that the person applying will not attach a seal to any mobile home, recreational vehicle or modular unit that does not meet or exceed the code. Any registered dealer who has acquired a preowned mobile home, or modular unit without a seal may apply for a seal with an affidavit certifying that the preowned mobile home, or modular unit was brought up to or otherwise meets the requirements of the code. No person may manufacture in this state any mobile home, or modular unit unless it bears a seal and certification certifying that the mobile home, or modular unit meets or exceeds the code. The certificate as to each mobile home, or modular unit shall be displayed in a manner to be prescribed by the commission.

700.025. No person shall alter or cause to be altered any mobile home, recreational vehicle, or modular unit to which a seal has been affixed, if such alteration or conversion causes the mobile home, recreational vehicle, or modular unit to be in violation of the code.

700.030. Upon showing by a registered manufacturer or dealer that another state provides for the sealing of mobile homes, recreational vehicles, or modular units in compliance with standards which are at least equal to those provided in the code and upon determination by the commission that such standards are being adequately enforced, the commission shall provide that a seal affixed under the authority of such state shall have the same effect as a seal affixed under authority of this state. The commission may make any such approval contingent upon such other state granting reciprocal effect to seals affixed under authority of this state and shall maintain a list of such states which shall be available on request.

700.035. If a mobile home, recreational vehicle, or modular unit carries a seal as provided in sections 700.010 to 700.240, no agency of this state, nor any municipality or other local governmental body shall require such mobile home, recreational vehicle, or modular unit to comply with any other building, plumbing, heating or electrical code other than the code established by sections 700.010 to 700.240.

700.040. 1. The commission shall, through its own inspection service or through a public or private inspection service acting as its authorized representative, perform sufficient inspections of manufacturing and dealer premises and mobile homes, recreational vehicles, and modular units to assure that the provisions of the code are being complied with. The commission shall approve the

designation of any public or private inspection service as an authorized representative. The commission shall establish a comprehensive inspection system, including a determination of the extent to which its own inspectors or authorized representatives are used. The inspections may include all books, records, performance and technical data of a manufacturer related to the subject matter of this act.

2. The commission shall establish reasonable fees for seals or inspection, or both, which are sufficient to cover all costs incurred in the administration of sections 700.010 to 700.085. Fees for inspections made by private inspection services may be paid directly to the inspection service.

3. The commission may appoint such employees within its department as it may deem necessary for the administration of the provisions of this Act.

4. The commission may issue and promulgate rules and regulations which are necessary to make effective the code provisions and servicing of mobile homes, recreational vehicles and modular units.

5. The commission may remove seals from any mobile home, recreational vehicle or modular unit of any manufacturer in violation of the provisions of section 700.045 of this Act.

6. Notwithstanding any other provisions of this Act, the commission shall have the authority to enter into any contract or agreement necessary to comply with the statutes and regulations enforced and under the authority of the United States Department of Housing and Urban Development relating to mobile homes, recreational vehicles and modular housing.

7. The commission may require manufacturers and dealers to file reports with the secretary of the United States Department of Housing and Urban Development as may be required under the provisions of the Mobile Home Construction Act (42 U.S.C. 5402, et. seq.).

700.045. It shall be a misdemeanor for any person:

(1) For a manufacturer or dealer to manufacture, rent, lease, sell or offer to sell any mobile home, recreational vehicle or modular unit after January 1, 1977, unless there is in effect a registration with the commission.

(2) To rent, lease, sell or offer to sell any mobile home, recreational vehicle, or modular unit manufactured January 1, 1974, which does not bear a seal as required by the provisions of this Act;

(3) To affix a seal or cause a seal to be affixed to any mobile home, recreational vehicle, or modular unit which does not comply with the code;

(4) To alter a mobile home, recreational vehicle, or modular unit in a manner prohibited by the provisions of this Act;

(5) To fail to correct a code violation in a mobile home, recreational vehicle, or modular unit owned, manufactured or sold within a reasonable time not to exceed ninety days after being ordered to do so in writing by an authorized representative of the commission, if the same is manufactured after January 1, 1974; or

(6) To interfere with, obstruct, or hinder any authorized representative of the commission in the performance of his duties.

700.050. The issuance of seals to any manufacturer in violation of the provision of this act may be suspended by the commission and no further seals shall be issued to any such manufacturer except upon proof satisfactory to the commission that the conditions which brought about the violation have been remedied. Seals remain the property of the state and may be removed by the commission from any mobile home, recreational vehicle, or modular unit which is in violation of the code.

700.055. From and after January 1, 1974, the manufacturer shall cause a serial number to be stamped on the front cross member of the lefthand side so that it may be easily read. It may not contain more than fifteen digits. Any multiple units shall contain the same serial number which letters of the alphabet designating that each is a different separate unit. Starting with "A" each additional unit shall be in alphabetical order. The letters shall be stamped at the end of the numbers.

700.056. Every dealer of a mobile home offered for sale in this state shall at the time of sale provide the purchaser with a bill of sale containing at least the following: The total price of the unit and its contents, a list of all furniture and appliances in the mobile home, any other costs which will be assessed to the purchaser such as transportation, handling, or such other costs, and the sales tax payable for such mobile home.

700.060. As used in sections 700.060 through 700.240, the term "mobile home" shall also include units defined in section 700.010 if such units are in two or more separately towable components designed to be joined into one integral unit capable of being again separated into the components for repeated towing and includes two mobile home units joined into a single residential or business unit which are kept on separate chassis for repeated towing. For the purposes of sections 700.060 through 700.240, a mobile home shall not include a recreational vehicle.

700.065. All mobile homes located in this state shall be anchored and tied down in accordance with the standards promulgated by the commission pursuant to the provisions of this act.

700.070. 1. Effective November 27, 1973, all purchasers of mobile homes shall, within thirty days from the date of occupancy, anchor and secure the

mobile home in accordance with the standards promulgated by the commission pursuant to the provisions of this act.

700.076. (1) The owner of a mobile home shall secure the mobile home to the ground by the use of anchors and tiedowns so as to resist wind overturning and sliding. However, nothing herein shall be construed as requiring that anchors and tiedowns be installed to secure mobile homes which are permanently attached to a permanent structure. A permanent structure shall have a foundation and such other structural elements as assure the rigidity and stability of the mobile home.

(2) The commission shall have authority to promulgate regulations relating to mobile home or modular unit tiedowns or anchors setting minimum standards for both the manufacture and installation of tiedowns and anchors.

(3) (a.) Persons licensed in this state to engage in the business of insuring mobile homes that are subject to the provisions of this section against damage from windstorm shall issue such insurance only if the mobile home has been anchored and tied down in accordance with the provisions of this section.

(b). In the event that a mobile home is insured against damage caused by windstorm and subsequently sustains windstorm damage of a nature that indicates that the mobile home was not anchored or tied down in the manner required by this section, the person issuing the policy shall not be relieved from meeting the obligations specified in the insurance policy with respect to such damage on the basis that the mobile home not properly anchored or tied down.

(4) Whenever a person who engages in the business of installing anchors, tiedowns, or over-the-roof ties or who engages in the business of manufacturing such devices for use in this state does so in a manner not in accordance with the minimum standards set forth by the commission, a person aggrieved thereby may bring an action in the appropriate court for actual damages and attorneys fees. In addition, the court may provide appropriate equitable relief including the enjoining of a violator from engaging in further violations. Whenever it is established to the satisfaction of the court that a willful violation has occurred, the court shall award punitive damages to the aggrieved party.

(5) Any violation of the provisions of this section shall constitute a violation of the provisions of section 407.020, RSMo.

700.080. The commission shall approve or have approved, prior to being sold, being offered for sale or being installed, any anchor or tiedown system designed and intended for mobile homes. Before any such system shall be sold, offered for sale, or installed, a letter of approval from the commission

or its authorized agent approving the particular system or complying with the Missouri standards shall be prominently displayed at each place of business selling, offering for sale, or installing such system, and a copy shall be furnished each person purchasing the anchor or tiedown system.

700.085. The provisions of sections 700.060 through 700.085 do not apply to any mobile home unit being offered for sale and parked temporarily on the sales lot of any person, firm, or corporation regularly selling or offering for sale mobile homes as part of his or its usual business operations.

700.090. 1. Every manufacturer or dealer of mobile homes who sells or offers for sale, on consignment or otherwise, a mobile home, recreational vehicle or modular unit from or in the state of Missouri shall register with the commission.

2. The commission shall issue a certificate of registration to a manufacturer who:

(1) Completes and files with the commission an application for registration which contains the following information:

(a) The name of the manufacturer.

(b) The address of the manufacturer and addresses of each factory owned or operated by the manufacturer, if different from the address of the manufacturer.

(c) If a corporation, the state of original incorporation, a list of the names and addresses of all officers and directors of the corporation, and proof of the filing of all franchise and sales tax forms required by Missouri law.

(d) If not a corporation, the name and address of the managing person or persons responsible for overall operation of the manufacturer.

(2) Files with the commission an initial registration fee of fifty dollars in the form of a cashier's check or money order made payable to the state of Missouri.

(3) Is in compliance with the provisions of subsection 4 of this section.

3. The commission shall issue a certificate of registration to a dealer who:

(1) Completes and files with the commission an application for registration which contains the following information:

(a) The name of the dealer.

(b) The business address of the dealer and addresses of each separate facility owned and operated by the dealer from which mobile homes, recreational vehicles or modular units are offered for sale if different from the business address of the dealer.

(c) If a corporation, the state of original incorporation, a list of the names and addresses of all officers and directors of the corporation, proof of the filing of all franchise and sales tax forms required by Missouri law.

(d) If not a corporation, the name and address of the managing person or persons responsible for the overall operations of the manufacturer.

(2) Files with the commission an initial registration fee of fifteen dollars (\$15.00) in the form of a cashier's check or money order made payable to the state of Missouri.

(3) Is in compliance with the provisions of subsection 4 of this section.

(4) Files with the commission proof of compliance with the provisions of Section 301.250, RSMo, and Section 301.280, RSMo.

5. The registration of any manufacturer or dealer shall be effective for a period of one year and shall be renewed by the commission upon receipt by it from the registered dealer of a renewal fee of twenty dollars for manufacturers and five dollars for dealers and a form provided by the commission upon which shall be placed any changes from the information requested on the initial registration form.

6. The commission may stagger the renewal of certificates of registration to provide for more equal distribution over the twelve months the number of registration renewals.

700.100. 1. The commission may refuse to register or refuse to renew the registration of any person who fails to comply with the provisions of section 700.090 or this section. Notification of unfavorable action by the commission on any application for registration or renewal of registration must be delivered to the applicant within thirty days from date it is received by the commission. Notification of unfavorable action by the commission on any application for registration or renewal of registration must be accompanied by a notice informing the recipient that the decision of the commission may be appealed as provided in chapter 386, RSMo.

2. The commission may consider a complaint filed with it charging a registered manufacturer or dealer with a violation of the provisions of this section, which charges, if proven, shall constitute grounds for revocation or suspension of his registration, or the placing of the registered manufacturer or dealer on probation.

3. The following specifications shall constitute grounds for the suspension, revocation or placing on probation of a manufacturer's or dealer's registration:

(1) If required, failure to comply with the provisions of section 301.250, RSMo, or section 301.280, RSMo.

(2) Failing to be in compliance with the provisions of section 700.090 of this act.

(3) If a corporation, failing to file all franchise or sales tax forms required by Missouri law.

(4) Engaging in any conduct which constitutes a violation of the provisions of Sections 407.020, RSMo Supp. 1975.

(5) Failing to comply with the provisions of Sections 2301-2312 of Title 15 of the United States Code (Magnuson-Moss Warranty Act).

(6) As a dealer, failing to arrange for the proper initial setup of any new or used mobile home or modular unit sold from or in the state of Missouri, unless the dealer receives a written waiver of that service from the purchaser or his authorized agent and an amount equal to the actual cost of setup is deducted from the total cost of the mobile home or modular unit.

(7) Requiring any person to purchase any type of insurance from that manufacturer or dealer as a condition to his being sold any mobile home, recreational vehicle or modular unit.

(8) Requiring any person to arrange financing or utilize the services of any particular financing service as a condition to his being sold any mobile home, recreational vehicle or modular unit provided, however, the registered manufacturer or dealer may reserve the right to establish reasonable conditions for the approval of any financing source.

(9) Engaging in conduct in violation of section 700.045 of this Act.

(10) Failing to comply with the provisions of section 301.210, RSMo.

700.110. 1. The owner of a mobile home may convert his mobile home to real estate by:

(1) Attaching his mobile home to a permanent foundation; and

(2) The destruction or modification of the vehicular frame rendering it impractical to reconvert the real property thus created to a mobile home; and

(3) If a lien is noted on the certificate of title, tendering to the secured party a deed of trust or mortgage on the real estate upon which the mobile

home is to be located in the unpaid amount of the secured debt, and with the same priority as or a higher priority than the secured party's lien, or obtaining written consent of the secured party to the conversion.

2. After complying with the provisions of subsection 1 the owner shall notify the assessor of the county in which the mobile home has been converted to real estate who may inspect the new premises for compliance. If a lien is noted on the certificate of title, the assessor shall require an affidavit from the mobile home owner, declaring that the owner has complied with subsection 1, paragraph (3). of this section, and shall send notice of the proposed conversion to the secured party by regular mail not less than ten days before the conversion becomes effective. When the mobile home is properly converted, the assessor shall then collect the mobile home vehicle title, registration, and license plates from the owner and enter the property upon the tax rolls.

3. The assessment of a mobile home as real estate by the method provided in subsection 1 of this section shall prohibit any political subdivision of this state from declaring or treating that mobile home as other than real property for tax purposes.

700.115. A violation of the provisions of this act shall constitute a violation of the provisions of Section 407.020, RSMo. In addition, to the authority vested in the Attorney General to enforce the provisions of that section, he may petition the court and the court may enter an order revoking the registration certificate of the defendant or defendants issued pursuant to the provisions of Section 700.090 of this act.

Appendix B

**Missouri Clean Water Commission
Regulation for the Disposal of
Wastewater in Subdivisions
Effective Date: June 30, 1974
Revised Date: June 27, 1975**

Section I

.01 Definitions as set forth in the Missouri Clean Water Law and Clean Water Commission Definition Regulation shall apply to those terms when used in this regulation, unless the context clearly requires otherwise or as noted in Subsections 1.01 A, B, and C below.

- A. *Construction* - The meaning of the word "construction" shall be as defined in the Clean Water Commission Definition Regulation, except that for the purposes of this subdivision regulation, construction shall not include interior remodeling of single-family residences or commercial buildings which will not result in a substantial change in wastewater volume, nature, or strength, of the discharge therefrom.
- B. *Developer* - The meaning of the word "developer" shall be as defined in the Clean Water Commission Definition Regulation, and also any person who subdivides, owns or controls land as set forth in Subsection 1.02 herein. However, unless specifically provided otherwise, this regulation shall not apply to any licensed broker or licensed salesman who is not a full time employee of a developer, when working on commission or salary to sell subdivided land in which he has no legal or equitable interest, unless in the exercise of reasonable care he knows of violations of the Missouri Clean Water Law and this regulation, and does not disclose them, in which case he shall be liable only for any civil penalties which may be incurred under the Missouri Clean Water Law.
- C. *Subdivision* - The word "subdivision"

means any land which is divided or proposed to be divided into ten (10) or more lots, whether contiguous or not, for the purpose of sale or lease or rental or the construction of dwelling(s) on lots, as part of a common promotional plan; or where subdivided land is offered for sale or lease, or where dwellings are constructed by a single developer or a group of developers acting in concert and where such lots or land or dwellings are contiguous or are known, designated, or advertised as a common unit or by a common name, such lots or land and dwellings shall be presumed, without regard to the number of lots or dwellings covered by each individual offering, as being offered for sale or lease as part of a common promotional plan.

- 1.02 Unless specifically provided otherwise herein, this regulation shall apply to any developer who:
 - A. develops or divides land into a subdivision, or constructs dwellings which constitute a subdivision; or
 - B. resubdivides land into more lots, adds additional lots to, or constructs additional dwellings in an existing subdivision; or
 - C. resubdivides land into more lots, adds additional lots to, or constructs additional dwellings which, when added to an existing group of lots or dwellings which are contiguous, or which are known, designated, or advertised as a common unit or by a common name, will in total constitute a subdivision; or
 - D. owns or controls at least any ten lots or dwellings in an existing subdivision.
- 1.03 Existing subdivisions which received exemptions and new subdivisions whose engineering reports were approved by this agency under the subdivision regulation which was effective June 30, 1974, are not required to apply for registration or to resubmit engineering reports.

Section II

- 2.01 The developer(s) of any subdivision(s) or part thereof, definable by watershed, phased construction or sales plans, or substantially different geological conditions, covered under Section I above, for which control of less than twenty (20) percent of the lots has been permanently relinquished before July 1, 1974, shall, prior to the sale, rental, or lease of any land or any lot or dwelling comprising such subdivision or part thereof, to any person(s), or the commencement of any construction on any such lot by the developer(s) or any person(s), comply with Sections III and IV herein.
- 2.02 Any developer who has sold or entered into a contract for deed in which he has permanently relinquished control of twenty (20) percent or more of the lots in a subdivision prior to July 1, 1974, or any developer(s) of subdivisions covered under Subsection 3.03 A below, shall register the subdivision with the agency prior to the sale, rental or lease of or construction on the remaining lots. All applicants for registration shall submit the following:
- A. a copy of the recorded plat(s) encompassing said subdivision, denoting lots sold, with date, book, and page of recording of said plat(s);
 - B. a written agreement from the developer(s) that additional lots or land shall not be added to said subdivision, and that there shall be no resubdivision into smaller lots in said subdivision, without complying with the requirements of Sections III and IV herein and the Missouri Clean Water Law and Regulations;
 - C. in subdivisions consisting of fifty (50) or more lots, the jurisdictional number for the subdivision as established by the Office of Interstate Land Sales Registration (OILSR), the effective date of the filing, and a copy of the current property report, or a statement of exemption approved by OILSR;
 - D. where the subdivision is not subject to Subsection 2.02 C above, a copy of all restrictive covenant(s) applicable to the subdivision;
 - E. specification of current wastewater disposal practices used within the subdivision, and
 - F. specification of the methods or practices the developer(s) propose(s) for wastewater disposal on remaining unsold lots.
- 2.03 Within thirty (30) days before filing an application for registration, the applicant shall provide notice of such application by publishing one (1) notice per week for three (3) consecutive weeks in a newspaper of general circulation in each county where the subdivision is located or planned. Proof of publication shall accompany all applications for registration. The public notice shall specify the following:
- A. that the subdivision is being registered with the agency;
 - B. name of the subdivision;
 - C. name(s) of the owner(s);
 - D. location, size of development, and planned number of and size of lots;
 - E. current wastewater disposal practices used within the subdivision;
 - F. methods or practices the developer(s) propose(s) for wastewater disposal on the remaining unsold lots, and
 - G. the fact that registration information will be a matter of public record at the appropriate regional office of the agency.
- 2.04 Within thirty (30) days of receipt of a completed application for registration, the agency shall notify the applicant in writing that the subdivision is registered, or if registration is denied, the reasons for denial. Failure by the agency to respond within the thirty (30) day period shall result in automatic registration.
- 2.05 Any developer(s), owner(s), or person(s) controlling any single-family dwelling wastewater treatment facilities on or after the effective date of this regulation, whether then in existence or installed in the future, shall eliminate such facility and connect the dwelling to a municipal or public sewer district sewer system or a sewer system regulated and certificated by the Missouri Public Service Commission, at any time any part of such system is located within one hundred (100) feet of a dwelling or facility, whichever is closer, unless, in the opinion of the agency, connection thereto is not feasible, provided that such sewer system is in compliance with the Missouri Clean Water Law and Regulations. Connection(s) to the sewer system shall be made in accordance with the provisions and requirements of local ordinances, laws or Public Service Commission regulations governing the available sewer systems. In addition to weighing considerations regarding protection of waters of the state, the agency, in any determination of feasibility under these subdivision regulations, shall consider economics as a factor in determining feasibility. A determination of non-feasibility shall not prevent the agency from requiring some other action to eliminate violations of the Missouri Clean Water Law and Regulations. Where the cost of such a connection would exceed 7.5 percent of the appraised loan value or insured value of the land and dwellings, whichever is higher, a

specific present showing of violation of the Missouri Clean Water Law and Regulations shall be required in order for the Clean Water Commission to require the connection. Where the connection is not required hereunder, nothing contained in this regulation shall be construed to prevent the local controlling agency from requiring connection.

- .06 Nothing herein shall preclude any local, municipal, county, or other properly designated authority from establishing subdivision regulations and ordinances equal to or more stringent than those contained herein. The agency encourages and supports such local controls and where possible in the administration of this regulation will utilize local review and approval to the maximum possible extent.
- .07 The agency shall investigate complaints concerning subdivisions and take whatever action is determined appropriate under the Missouri Clean Water Law to prevent or abate pollution of waters of the state from any wastewater treatment facilities serving such subdivisions or located therein. Nothing in these regulations shall excuse any developer(s) from any liability for violation of or responsibilities and duties under the Missouri Clean Water Law and Regulations, or any other laws of the State of Missouri.

Section III

01 Any person subject to the requirements of Subsection 2.01 above shall submit to the agency a report prepared by an engineer, outlining his plans for the disposal of wastewater within the subdivision, and this report shall be approved in writing by the agency in accordance with Section IV herein. Such report shall meet the requirements as outlined in Subsections A, B, C, and D below.

- A. Where a person proposes centralized sewage collection and treatment systems to satisfy the requirements herein, the engineering report shall be considered acceptable, provided that all other requirements of the Missouri Clean Water Law and Regulations can be satisfied.
- B. For subdivisions with lots of three (3) acres or more on which construction of single-family dwellings is proposed, single-family dwelling wastewater treatment facilities may be used on such lots if the engineering report shows that such facilities shall be designed in accordance with the agency's latest revision of "A Guide For the Design of Small Sewage Works" (CWC 3.012), and that the effluent shall be contained on the lot and handled in such a manner that there

will be no violation of the Missouri Clean Water Law and Regulations. All single-family dwelling wastewater treatment facilities and all dispersal lines and outfall points appurtenant thereto shall be located at least twenty-five (25) feet from the nearest property line.

- C. For subdivisions with lots of less than three (3) acres but 15,000 square feet or more on which construction of single-family dwellings is proposed, centralized sewage collection and treatment systems shall be provided and single-family dwelling wastewater treatment facilities may not be used on such lots unless:
 - 1. the report clearly demonstrates to the satisfaction of the agency that centralized sewage collection and treatment systems are not feasible, in which case the engineering report shall show that single-family dwelling wastewater treatment facilities shall be designed in accordance with the agency's latest revision of "A Guide For the Design of Small Sewage Works" (CWC 3.012), and that the effluent shall be contained on the lot and handled in such a manner that there will be no violation of the Missouri Clean Water Law and Regulations, and
 - 2. all single-family dwelling wastewater treatment facilities and all dispersal lines and outfall points appurtenant thereto shall be located at least twenty-five (25) feet from the nearest property line.
 - D. For subdivisions with lots or tracts of less than 15,000 square feet, only centralized sewage collection and treatment systems are acceptable on such lots.
- 3.02 Where centralized sewage collection and treatment systems are proposed or required, single-family dwelling wastewater treatment facilities may be used as an interim measure for a maximum of thirty (30) percent of the planned lots, area, or dwellings within the subdivision, provided that the engineering report clearly demonstrates to the satisfaction of the agency the necessity for such interim use as opposed to immediate development of the central system and clearly demonstrates the feasibility of this method for the project, and that such interim use will not cause or permit any discharge of water contaminants into waters of the state or any other violation of the Missouri Clean Water Law and Regulations.
- 3.03 *Recreational Subdivision.* A subdivision may be considered recreational only if develop-

ment plans, present operations, and promotional materials provide that less than forty (40) percent of the lots are or will be occupied by permanent residents and there are restrictions as to the type of structures which are permitted, as provided for below in this subsection. Developers of recreational subdivisions shall comply with Subsection 3.03 A and B below as applicable. A person shall be considered a permanent resident if he, or any other person(s) with his permission, occupies the premises subject to his control within the subdivision for more than one hundred and forty (140) days of any one calendar year. For the purposes of this provision, the occupancy times of all such persons are totalled together to determine whether occupancy exceeds one hundred forty (140) days.

A. Developers of existing recreational subdivisions in which construction has commenced prior to July 1, 1974, shall file for registration as provided in applicable portions of Section II above.

B. Developers of new recreational subdivisions, on which construction commences after July 1, 1974, shall provide the following information and meet the following requirements prior to the sale, rental or lease of any land or any lot(s) or dwelling(s), comprising such subdivisions, to any person, or the commencement of any construction on any lot by the developer or any person:

1. Developers of recreational subdivisions with lots of 15,000 square feet or more shall comply with Subsection 3.01 above.

2. Developers of recreational subdivisions with lots of less than 15,000 square feet need not provide centralized sewage collection and treatment systems for such lots, provided that:

a. an engineering report is submitted to the agency, providing the information requested in Subsection 3.01 C above or specifying an alternate method of wastewater collection and disposal;

b. more than forty (40) percent occupancy is not promoted, encouraged or indicated;

c. lots are subject to restrictions running with the land, limiting the types of habitations used to motor homes, mobile homes not affixed to foundations (wheels remaining on mobile homes), travel trailers or campers;

d. a copy of any restrictions and promo-

tional material is submitted to the agency;

e. the developer submits other information as requested by the agency, and

f. the report provides that the effluent shall be contained on the lot and handled in such a way that there will be no violations of the Missouri Clean Water Law and Regulations.

3.04 Neither a construction nor an operating permit shall be required for a single residence's wastewater treatment facilities.

Section IV

4.01 The developer of any subdivision covered under this regulation shall obtain written approval of the required engineering report from the agency and comply with all conditions and requirements set forth in writing by the agency or contained in the Missouri Clean Water Law and Regulations promulgated thereunder, prior to the sale, rental or lease of any lot or the commencement of construction on any lot therein by any developer(s) or owner(s).

4.02 There shall be no significant deviation or change from the proposed methods of wastewater disposal for a subdivision following agency approval of the engineering report without first securing written approval of the changes from the agency.

4.03 Within sixty (60) days of the receipt of the completed engineering report and any other documents or information required herein by the agency, the agency will approve or disapprove the subdivision wastewater disposal plans, and attach any conditions to an approval which it deems necessary to protect waters of the state in accordance with the Missouri Clean Water Law and Regulations.

4.04 Any developer or person owning any subdivision or subdivision lots covered by this regulation who has a proposal for wastewater disposal denied or whose reports or actions covered hereunder are otherwise disapproved by the agency may appeal to the Clean Water Commission in accordance with Section 204.051.6 of the Missouri Clean Water Law.

Section V

5.01 Nothing in this regulation shall excuse any person from complying with, or liability for violations of, the Missouri Clean Water Law and Regulations, or other laws of the State of Missouri. Damages, penalties and any other agency action for violation of this regulation shall be as provided in the Missouri Clean Water Law.

Section VI

01 If any section, paragraph, sentence, clause or phrase of this regulation, or any part thereof, be declared unconstitutional or invalid for any reason, the remainder of this regulation shall not be affected thereby and shall remain in full force and effect.

Section VII

7.01 This regulation becomes effective immediately upon adoption and compliance with the requirements of Subsection 204.036.3 of the Missouri Clean Water Law.

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