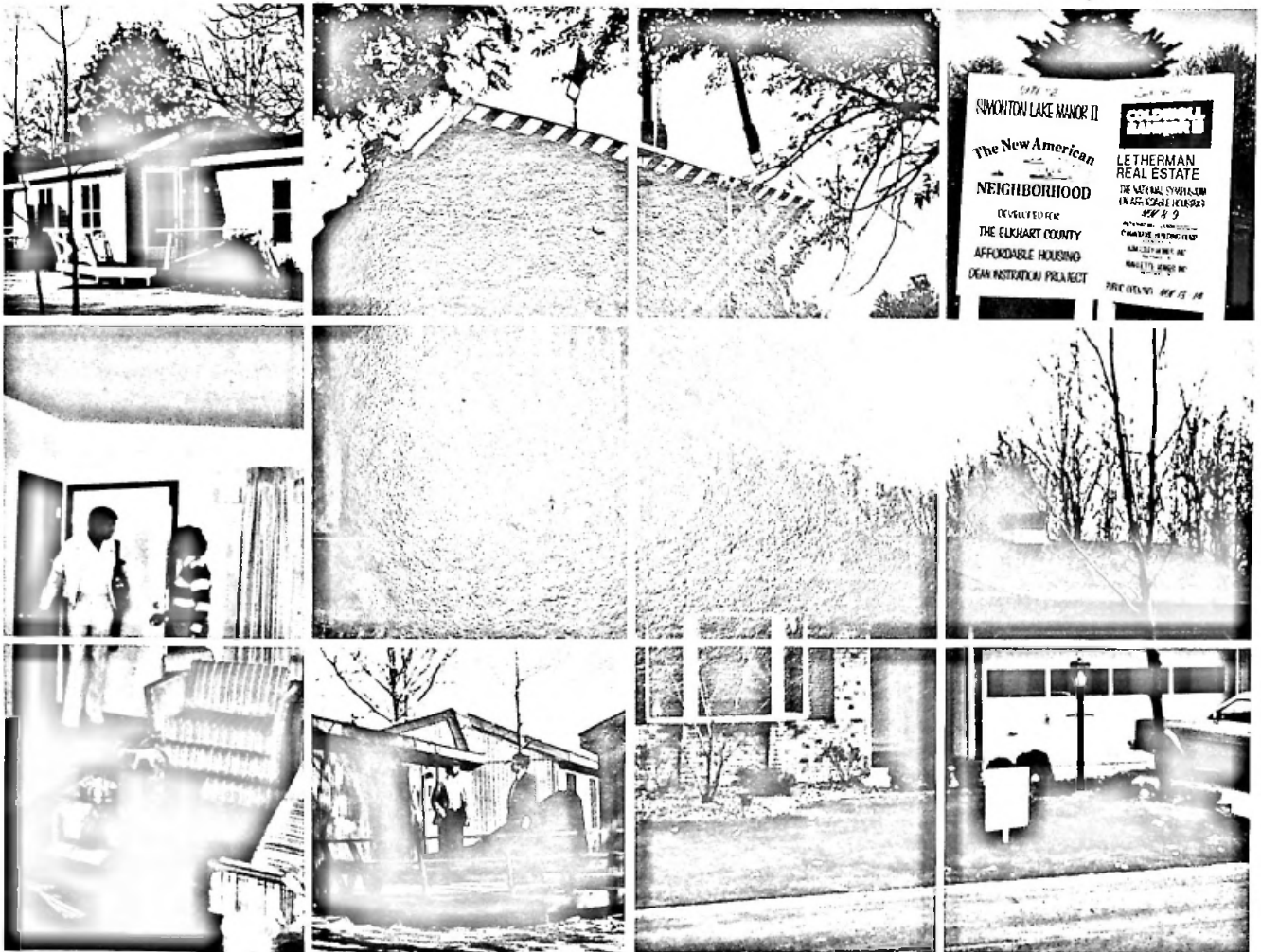




The Affordable Housing Demonstration

Elkhart County, Indiana

a Case Study



The Joint
Venture for
Affordable
Housing

**The Affordable Housing
Demonstration**

A Case Study

Elkhart County, Indiana

Prepared for:
U.S. Department of
Housing and Urban Development



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Housing affordability in the Elkhart County, Indiana, housing market meant producing single family units priced below \$50,000 in 1982. This may seem like a tall order when the average single family detached home in Elkhart County was selling for \$57,500. However, the Affordable Housing Demonstration showed not only that affordability was attainable but that it was attainable with existing building industry "know how."

The strategy for attaining affordability in the production of homes was to bring together the special talents of real estate professionals, developers, home manufacturers, conventional builders, and local officials. Each of these building industry sectors possesses certain knowledge and expertise that makes it more efficient at its specialty than the other sectors. It was the purpose of the Elkhart County demonstration to show how these various talents could be organized and coordinated to produce affordable housing. Since Elkhart County, Indiana, is regarded as the manufactured housing industry capital of the nation, it is natural that housing manufacturers would play a key role in the program.

Two previously platted sites were selected for the demonstration, and were replatted as Residential Planned Unit Developments. The Simonton Lake Manor II site was approved for fifteen lots, the Mark VII West site for ten lots. The Planned Unit Development approval for these sites allowed reductions in set back and front footage requirements making it possible to reduce lot sizes.

Housing units constructed for these sites were manufactured by various

home manufacturers in Elkhart County. Double-wide units were erected on the Mark VII West lots; single-wide units on the Simonton Lake Manor II lots. Conventional builders were called upon to perform the on-site construction tasks, such as foundations, garages, decks, and entryways. Once completed, the two sites provided a showcase for the nation to illustrate just how far the manufactured housing industry had come in producing attractive and durable homes which would appreciate in value and which could be afforded by the first time home buyer.

The third site, Country Acres was added to the demonstration for the purpose of illustrating the compatibility of manufactured housing with existing, conventionally built neighborhoods. Two lots were selected in this existing, partially built, subdivision. One lot was used for the erection of a manufactured unit; erected on the other lot was a comparable, conventionally built home.

The Affordable Housing Demonstration began in Elkhart County in April 1982. Site planning was approved by the county in July and construction was completed for the seventeen units in the demonstration by November. All manufactured units built for the demonstration, including lot, were listed for sale below the Elkhart County 1982 average price of \$57,500.

A National Symposium on Affordable Housing was held in Elkhart County on November 8-9, 1982, which utilized the demonstration sites and homes as its showcase. The success of the Elkhart County demonstration was noted in a congratulatory letter received from President Reagan.

Preface



THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410

In January 1982 I announced the formation of the Joint Venture for Affordable Housing, a public-private partnership established to combat the problem of high housing costs. The President's Commission on Housing and the HUD Task Force on Affordable Housing both found that this problem results largely from outdated and unnecessary building and land use regulations.

One of the most important elements of the Joint Venture program is the series of affordable housing demonstrations now under way in twenty States. These demonstrations are being carried out through the cooperative efforts of builders, developers, and local officials to show how regulatory reform can cut housing costs.

This case study reports on one of the first group of demonstration projects to have units ready for sale. Each project has its own story to tell. The individual case studies describe various ways that innovative site planning and development, and new methods and materials of construction, have cut the cost of the demonstration housing by as much as twenty percent. I urge you to read these studies and to use the ideas described in them to reduce the cost of housing in your communities. It can be done ... we've proved it!

Very sincerely yours,

A handwritten signature in cursive script that reads "Samuel R. Pierce, Jr.".

Samuel R. Pierce, Jr.

Introduction

The Joint Venture for Affordable Housing

Association
National Association of Counties
National Conference of State Legislatures
National Governors' Association
Urban Land Institute
National Association of Home Builders and the NAHB Research Foundation
U. S. Department of Housing and Urban Development

Through conferences, workshops, demonstrations, publications, and similar activities, each of these organizations is helping to identify ways to cut construction costs through more effective and efficient planning, site development, and building procedures, and to provide this information to its members.

The Affordable Housing Demonstrations

Home builders learn from other builders; successful ideas are copied and used in new ways by other builders in many different areas of the country. The affordable housing demonstrations have been developed to test ideas for reducing housing costs in real projects and to provide information on the cost savings that resulted.

The central theme of the demonstration program is that a builder and those local officials responsible for regulatory approval can, together, identify ways to reduce the cost of housing and to modify or interpret local building codes and site development regulations so that these methods can be used. In the demonstration program, no Federal funds are provided either to the builder or to the community to support the demonstration projects. HUD and the NAHB Research Foundation do provide technical assistance through various publications documenting previous

Housing costs have risen dramatically in recent years, so that many people have been unable to buy a home. Part of this cost increase was due to the high rate of interest on home mortgages, which reached almost 20 percent in some areas of the country before dropping under 14 percent in 1983.

A large part of the increase, however, was due to other factors -- inflation in the cost of materials and labor, a reduction in the amount of land available for housing which has drastically increased lot prices, and changes in market patterns leading to larger homes on larger lots. Recent studies by the President's Commission on Housing and by a special U.S. Department of Housing and Urban Development (HUD) Task Force on Housing Costs confirm the findings of earlier studies which show that ways exist to cut the cost of housing, if they are used. Too often, these studies show, out-of-date regulations and building practices prevent these ideas from being applied. In fact, the studies pointed out that many builders and local officials do not even know about many of the ways that exist to reduce housing costs.

The Joint Venture for Affordable Housing was initiated by HUD Secretary Samuel R. Pierce, Jr., to correct this situation. Since affordable housing is a problem which involves all levels of government as well as the rest of the housing industry, finding an answer requires the participation of all of these elements. The Joint Venture, therefore, is a real partnership of the following organizations, all of whom have an interest in making housing more affordable:

American Planning Association
Council of State Community Affairs Agencies
International City Management

Project Description

research studies and through suggestions to the project designers, but it is the builder's responsibility to develop a list of possible cost-cutting ideas and it is the responsibility of local officials to accept those which are reasonable for that community.

Participating builders and communities were selected for the demonstration program in several ways. Before the Joint Venture was announced in January 1982, HUD approached a number of communities which had already demonstrated, in other activities, a willingness to modify regulations and to take other steps to encourage local development. As these communities agreed to participate in the program, the National Association of Home Builders worked through its local associations to identify builders in the communities with reputations for quality and records of innovation. Following announcement of the first twelve communities and builders selected to participate in the demonstration program, many other communities and other builders expressed interest in joining the program. In each case, HUD required a formal commitment by the highest elected official that the local government would support the program.

Once a project was accepted, HUD and the NAHB Research Foundation assisted the builder to identify cost-cutting ideas and to develop a workable, attractive site plan. The cost-cutting measures used in the various demonstrations vary widely. In some projects, unit densities were increased to reduce the impact of land cost on the final price, while good site planning and design made this increased density acceptable to the community. In other

projects, street widths, street design standards, and utility system requirements were changed to reduce costs. Housing materials and construction methods were changed in many projects. In addition to these changes in materials and methods, many projects benefited from improvements in local administrative procedures which reduced the time and effort needed to obtain building and land use approvals.

The Case Study Approach

Each project undertaken as an Affordable Housing Demonstration during 1982 and 1983 as part of the Joint Venture for Affordable Housing is being described in a case study report. The case studies are intended to be learning tools to help homebuilders, local officials, and others concerned about affordable housing to recognize and seize opportunities to reduce housing costs through regulatory reform and the use of innovative planning and construction techniques.

Information on the changes and their impact on costs has been collected by the NAHB Research Foundation. Each case study describes the community, outlines the builder's experience, and discusses the specific project characteristics and history. Where possible, the cost savings resulting from the use of the various procedural, planning, development, and construction changes are calculated and reported in the case studies.

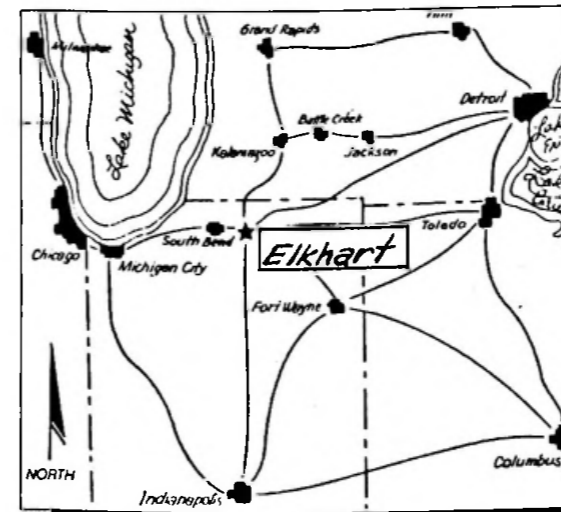
The following material provides this information on the Affordable Housing Demonstration project in Elkhart County, Indiana.

The Department of Housing and Urban Development (HUD) announced the selection of Elkhart County, Indiana, as a site for its Affordable Housing Demonstration program in August 1982. The selection was made because Elkhart County is the center of the manufactured housing industry and its elected officials had expressed their willingness to do what they could to reduce housing costs for county residents.

For the first time in the HUD Affordable Housing Demonstration program, Elkhart County provided the opportunity to bring together the features of both conventional and manufactured housing to produce affordable homes which reflected the strengths of these two industry sectors.

Looking at Elkhart County

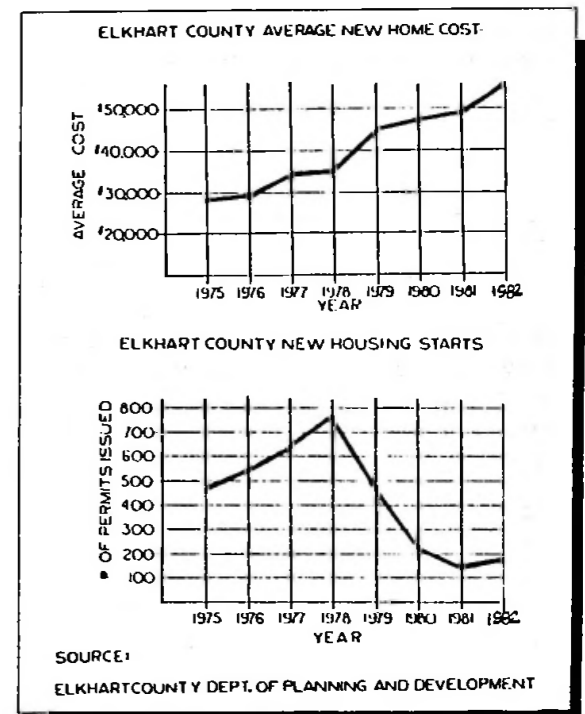
Elkhart County is located in extreme north central Indiana, just south of the Michigan border. The county covers 468 square miles and ranges from a flat terrain in the south to rolling terrain in the north. According to the 1980 Census, the county population stood at over 135,000 and had seven incorporated cities and towns located within its boundaries.



Elkhart Vicinity Map
Project Description

The county is Indiana's leading producer of dairy products but the principle indicator of economic growth and well-being is its industrial base. Manufacturing industries, including manufactured housing, account for over 60 percent of the total income of the county where the median annual family income is between \$20,000 and \$22,000.

The average price of a new home in Elkhart County has steadily increased since 1975 from about \$27,600 to nearly \$50,000 in 1981. New housing starts increased between 1975 and 1979, but declined through 1981 when only 164 permits were issued. The 1982 average selling price of a new home climbed to an estimated \$57,500; only 175 building permits were issued in 1982.



Elkhart County Housing Data Graph

In the Spring of 1982, the Elkhart County Commissioners took the initiative to encourage the production of affordable housing for the citizens of the county. The Affordable Housing

Demonstration was a result of this initiative.

One Developer and Several Builders

The Elkhart County Affordable Housing Demonstration developer was Letherman Real Estate. In response to the challenge from the Elkhart County government to produce more affordable housing, Mr. John K. Letherman proposed to combine the talents of home manufacturers, conventional home builders, land developers, real estate professionals, and government agencies. The objective of this proposal was to produce manufactured housing unit developments that were designed and built as attractive, durable, appreciating real estate investments that would be acceptable to both consumers and communities.

The approach taken by Letherman Real Estate was to select and develop one or more sites on which the demonstration homes would be built. Housing manufacturers in the county were then solicited to purchase one or more of the developed lots for the purpose of erecting their manufactured units. In order to participate in the demonstration, the manufacturers had to agree to comply with certain site development and construction guidelines in order to insure the aesthetic compatibility of the completed homes. The manufacturers participating in the demonstration were:

- ✓ All-American Homes, Division of Coachman Industries
- ✓ Commodore Home Systems, Inc.
- ✓ Friendship Industries, A division of Fairmont Homes, Inc.
- ✓ Kingsley Homes, A division of Fairmont Homes, Inc.
- ✓ Marlette, Division of Coachman Industries

- ✓ Miller Brothers, Inc./ Symphony Products, Inc.
- ✓ Nanticoke Homes of Indiana
- ✓ Schult Homes Corporation

The manufactured homes produced by these participants were built in accordance with either the Federal Manufactured Housing Construction and Safety Standards or Indiana Public Law 360, Acts of 1971. The Federal Manufactured Housing Construction and Safety Standards is a single, national standard administered by the U.S. Department of Housing and Urban Development. The Indiana Public Law 360, Acts of 1971, is an Indiana state building code pertaining to homes that are, to varying degrees, constructed in a factory and completed at the building site.

The Demonstration Sites

Letherman Real Estate identified several sites in Elkhart County but selected only two for the demonstration:

- ✓ a 4.35 acre site called Simonton Lake Manor II on which single-wide manufactured units would be erected; and
- ✓ a 3.58 acre site called Mark VII West on which double-wide manufactured units would be erected.

A third site was ultimately added in which two lots were used as part of the demonstration.

The Simonton Lake Manor II site was proposed and approved for development as a Residential Planned Unit Development. The homes erected there ranged in size from 890 square feet to 1,183 square feet and ranged in price from \$37,500 to \$49,950. All lots included water wells and septic systems.

The Mark VII West site was also proposed and approved for development

as a Residential Planned Unit Development. The homes erected there ranged in size from 1,056 square feet to 1,632 square feet and ranged in price from \$44,900 to \$54,920. All lots included water wells and septic systems.

The two lots in the Country Acres subdivision included one manufactured home and one conventionally constructed home for comparison purposes. Both units had 1,120 square feet of finished floor area. The conventionally constructed home, however, included 880 square feet of planned expansion area in the basement.

Before proceeding with the design and construction of the homes, Letherman

Real Estate conducted a market study to characterize the Elkhart County home buyer. The results of this study were used to guide the selection of house designs to insure that the finished homes were not over-priced for the market.

The schedule for the development of the Affordable Housing Demonstration in Elkhart was established in April 1982. It called for approval of the site plans by early July, work on land development in August, and house construction during September and October. The goal of this schedule was to be prepared to show the completed homes during a National Symposium on Affordable Housing planned for early November 1982.

Project History

It was at the April 1982 meeting of the Elkhart Home Builders Association that Thomas Wickert, association president, introduced Thomas W. Romberger, chairman of the Elkhart County Commissioners, as the guest speaker. During his talk, Mr. Romberger challenged the builders to produce affordable housing units for the citizens of Elkhart County. In support of this challenge, he offered the cooperation of the county government in granting relief from regulations for builders wishing to demonstrate an innovative method or material as long as the innovation did not present a safety hazard. It was noted that the granting of regulatory relief to the home manufacturers was not possible for the county government since their products were regulated at either the state or national level.

One impetus for this attitude on the part of Elkhart County was its consideration for selection by the National Association of Counties (NACo) as one of three counties nationwide to participate in a zoning and building deregulation study. Included among the program objectives were isolating the components of housing cost, determining the potential cost savings in each component through deregulation, producing a program that could be followed by other communities across the country, and monitoring program results.

Another factor contributing to this spirit of deregulation was the existence of the Elkhart County Technical Committee, formed eight years earlier. This committee was organized by the Elkhart County Plan Commission to assist both the commission and developers/builders in obtaining approvals from various departments involved in the subdivision process. Mr. Letherman, developer of the Affordable Housing Demonstration sites, said, "When we were able to get the department heads from health, highway, zoning, drainage,

and planning together in the same room with developers and representatives from utility companies, we really began saving the county and the developer a lot of time."

John Letherman, real estate agent and developer, responded to Mr. Romberger's presentation with the idea of combining the various talents available in the Elkhart area to produce affordable housing. He suggested that real estate professionals and developers, home manufacturers, conventional builders, and local government officials should form a coalition with the goal of producing affordable homes. Each member of the coalition would be called upon to contribute that which each does best in reaching this goal.

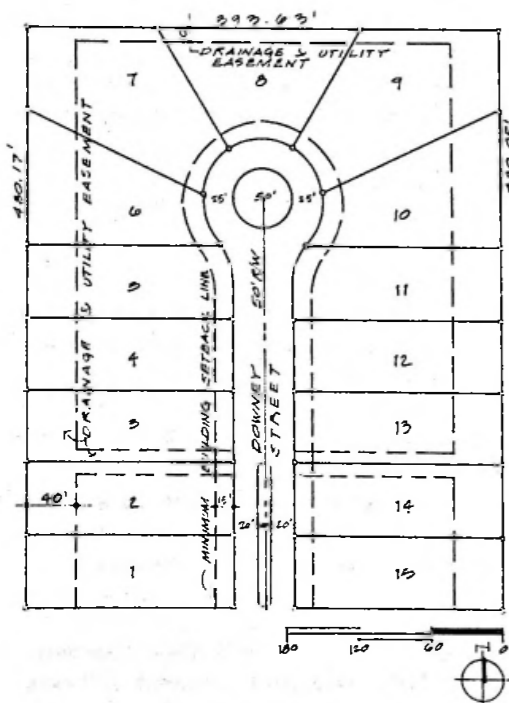
This concept of combining the talents of the various sectors of the building industry led to the planning and development of the Elkhart County Affordable Housing Demonstration.

Following the April meeting, Letherman Real Estate identified several buildable sites that were available in the county. Two sites were ultimately selected: Simonton Lake Manor II and Mark VII West. These two sites were located just north of the City of Elkhart along the Indiana Toll Road.

Planning for the development of these two sites took place during May and June 1982.

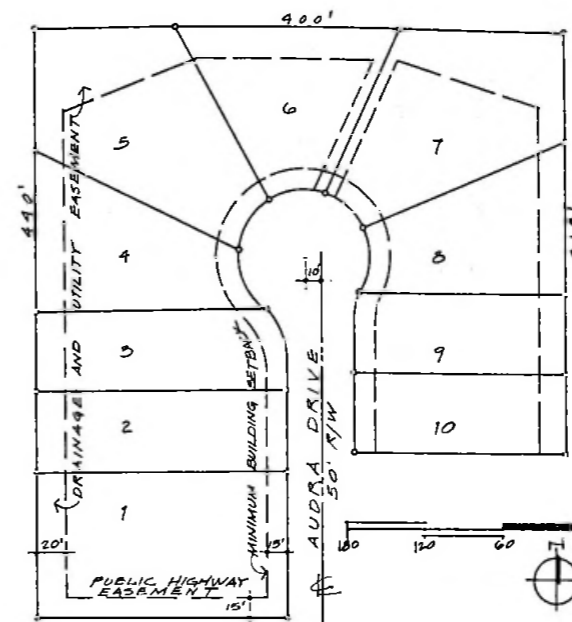
The Simonton Lake Manor II site was a 4.35 acre subdivision that had been previously platted into eight lots in accordance with R-2, duplex, zoning. No site improvements had yet been made. Letherman Real Estate developed a new plat for the site as a Residential Planned Unit Development (PUD). This new plat showed fifteen, single family lots positioned along a single cul-de-sac entry street. By

planning the site as a Residential PUD, it was possible to make smaller lots than in the original plat. Front set back was reduced from 35 feet to 15 feet and lot frontage requirements were reduced from 120 feet to 60 feet. Although the lots could be made narrower, the site planning had to consider the fact that each lot had to accommodate both a well for drinking water and a septic system. A professional engineer was employed to conduct soil percolation tests on which to base the dimensions of the septic drain field system. As a result of these tests, the Elkhart County Plan Commission granted a reduction in the size of the drain field. However, the commission maintained its requirement to set the lot size such that a second septic system could be installed in the rear of the lot should the first system fail. The homes planned for construction on these lots would be single-wide manufactured units in the 800 to 1,200 square foot range containing two or three bedrooms, one or two baths, plus garage.



Simonton Lake Manor II Site Plan

Planning for the Mark VII West site also involved working with a site that had been previously platted. However, the Mark VII West subdivision had been partially developed and one lot had been sold from the original plat. The remaining 3.58 acres were used for the demonstration and a new plat was prepared showing ten single family lots as a Residential PUD. Once again the Residential PUD made it possible to reduce required lot sizes. Front set back requirements were reduced from 35 feet to 15 feet and lot width at the building line was reduced from 125 feet to 60 feet. The soil percolation tests that were conducted also contributed to gaining approval of lot size reductions from the Elkhart County Plan Commission. These various factors effecting lot size resulted in reducing the average lot size from 22,600 square feet in the original plat to 14,700 square feet for the demonstration. As noted above, the Mark VII West site had already been partially developed. That is, the street and drainage had been installed to the satisfaction of the county and the developer's bond had been returned. Unfortunately, it was subsequently discovered that the 50-foot radius cul-de-sac circle had been misplaced by 10 feet. This misplacement would ultimately be reflected in the homes built for the Affordable Housing Demonstration by excessively long driveways on the lots to the north and east of the circle. The homes to be constructed on the Mark VII West lots were planned to be double-wide manufactured units ranging from 900 to 1,500 square feet and containing two or three bedrooms, one or two baths plus garage.



Mark VII West Site Plan

The redesigned and engineered plats for the two sites as well as the proposal for developing the sites as Residential PUD's were submitted to the Elkhart County Plan Commission in July and were approved by the commission on July 19, 1982.

In parallel with the site planning activities, Letherman Real Estate examined the market to be served by the homes to be constructed. Mr. Letherman drew upon the 1980 Census as well as his own resources as a real estate professional. Considering the median family income of \$20,000 to \$22,000 and such factors as interest rates, closing costs and loan qualification criteria, he concluded that the finished homes should be priced under \$50,000 to be affordable to the median buyer.

Also during the site planning period, Letherman Real Estate enlisted the aid of Borger/Jones Associates, architects and planners, to develop a set of guidelines for the compatibility of all the units. The design and construction guidelines specified such items as:

- ✓ 2-in-12 pitch roofs or greater;

- ✓ asphalt shingle or equal roofs;
- ✓ residential lap or vertical siding;
- ✓ 2 feet or less elevation of floor line above center line of street;
- ✓ backfill and grade to within 8 inches of bottom of exterior siding;
- ✓ concrete, aggregate, or equal walks and steps; and
- ✓ concrete or pressure treated wood porches and patios.

The site development guidelines specified:

- ✓ sod front and side yard;
- ✓ shrubs in front of home;
- ✓ homes square-set with street; and
- ✓ landscaping edging and ground cover to prevent weed growth.

With the market study completed, site plans approved and the guidelines for the lots and homes established, Letherman Real Estate solicited home manufacturers in Elkhart County to become participants in the Affordable Housing Demonstration. In order to become a participant, the manufacturer had to purchase a lot in one of the sites and agree to erect one of their units in accordance with the guidelines. The unit chosen could be a standard production model or an entirely new model designed specifically for the demonstration. However, new designs or materials should be selected with the understanding that they would be suitable to become company standards. Eight housing manufacturers responded to the Letherman Real Estate inquiry and became participants in the demonstration. These eight manufacturers are listed in Chapter 1. A ninth participant in the demonstration was Jerry Krull Construction, an Elkhart firm specializing in conventionally built

homes. Krull Construction not only designed and constructed a home for the demonstration but also provided its talents as a conventional builder to the home manufacturers that wanted to make site-built additions to their units. These site-built items included foundations and additions such as garages, entry ways, dormer windows, and patios.

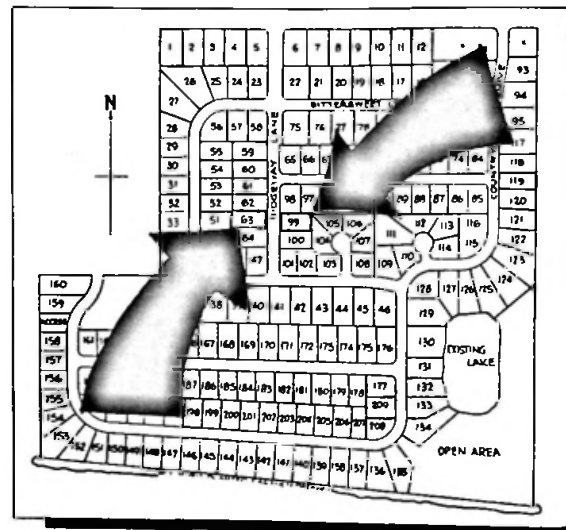
Site development activity on Simonton Lake Manor II and Mark VII West began on July 20, 1982. By mid August 1982, construction of the first homes had begun.

On August 17, 1982, the Department of Housing and Urban Development officially designated Elkhart County as one of the participants in its nationwide Affordable Housing Demonstration program. It was pointed out in the announcement of the selection of Elkhart County that the program, already underway, brought together the best features of both conventional and manufactured housing.

During the summer of 1982, while Letherman Real Estate and others were busy planning and developing the demonstration sites, Mr. Dennis Harney, director of the Elkhart County Department of Planning and Development, began to plan for and organize a meeting that would be known as the National Symposium on Affordable Housing. The symposium would bring together government officials and interested representatives of both the public and private sectors for the purpose of showing just how far the manufactured housing industry had come in producing attractive, durable, and affordable housing. The plan was to use the Affordable Housing Demonstration sites as the showcase for the symposium, which was scheduled to take place on November 8-9, 1982.

It was not until October 1982 that a third site was added to the demonstration. This new site, called Country

Acres, had been developed by Krull Construction. The Country Acres subdivision was an existing subdivision of 209 lots. At the time of the Afford-



Country Acres Site Plan

able Housing Demonstration, 110 homes had already been built. These existing homes represented a mixture of split-level, ranch, and Cape Cod style single family units selling in the \$55,000 to \$65,000 range. The subdivision was developed with standard features including septic systems and water wells on each lot, buried storm sewers, and street widths of 24 feet from back-to-back of curb. The inclusion of Country Acres was regarded by Letherman Real Estate as an opportunity to demonstrate the compatibility of a present day manufactured unit with an existing neighborhood of conventionally built homes. As a result, two lots in the Country Acres subdivision were designated as part of the Affordable Housing Demonstration. The lots were located directly across the street from each other. One lot contained the conventionally built home by Krull Con-

struction and the other lot contained a manufactured unit produced by Nanticoke Homes of Indiana. Both units were designed to contain 1,120 square feet of living space and full basements. The model by Krull Construction also included 880 square feet of planned expansion area on the basement level.

By the time the National Symposium on Affordable Housing took place, six single-wide manufactured housing units had been completed in the Simonton Lake Manor II site, nine double-wide manufactured units had been completed in the Mark VII West site and the two units -- one manufactured and one conventionally constructed -- in the Country Acres site had been completed.

The 350 attendees at the symposium heard fourteen government officials and housing experts, such as Indiana Lt. Governor John Muntz and Manufactured Housing Institute President Jerry Connors, agree on two main points: the need for housing is overwhelming and the time for manufactured housing is now. One of the featured speakers was Donald I. Hovde, then Under Secretary of Housing and Urban Development, who said that manufactured housing "Looks like real estate, functions like real estate and holds its value like real estate." President Reagan acknowledged the success of the symposium and the efforts of the Elkhart County government in a congratulatory letter.

Attaining Affordability

The degree of affordability attained in the Elkhart County demonstration is illustrated by the summary data presented in Table 3-1.

TABLE 3-1

<u>Model</u>	<u>Builder</u>	<u>Finished area s.f.</u>	<u>Unfinished area s.f.</u>	<u>Selling Price</u>
<u>Simonton Lake Manor II</u>				
Accent	Marlette	1,100		\$44,900
*Brookwood I	Commodore	924		39,500
Flair	Marlette	890		37,500
*Innsbruck	Kingsley	1,183		49,950
*Innsbruck				
Americana	Kingsley	1,183		49,950
Today	Marlette	975		39,000
<u>Mark VII West</u>				
*Brookwood II	Commodore	1,056		\$48,500
Chatham	All-American	864	450	49,500
*Greenleaf				
Manor	Friendship	1,344		54,920
Hampton	All-American	1,284		49,900
Hawthorne	All-American	1,056		44,900
*Jefferson				
Manor	Friendship	1,456		54,748
*Residence				
Series	Schult	1,152		46,500
Rosemont	Marlette	1,390		52,500
Symphony 812	Miller Bros.	1,212	420	52,900
<u>Country Acres</u>				
**Concept	Krull Constr.	1,120	880	\$59,900
Greenwood	Nanticoke	1,120		49,500
<u>Survey Data</u>				
National average 1982 home		1,679		\$86,030
Regional average 1982 home		1,668		91,800
Elkhart Co. 1982 home		----		57,500

Footnotes:

* - Home constructed in accordance with the Federal Manufactured Housing Construction and Safety Standards.

** - Conventionally constructed home.

Presented in Table 3-1 is a list of each of the model units built for the demonstration arranged alphabetically by site. Shown for each model is the model name, the manufacturer/builder, the finished and unfinished floor area in square feet, and the selling price of the completed home. Presented for comparative purposes on the last three lines of the table are the average floor area and average selling price for homes built in 1982 in the nation, in the east northcentral region, and in Elkhart County. The national and regional data come from surveys conducted by the NAHB Research Foundation. The source of the county data is the Elkhart County Department of Planning and Development. The data presented in the table illustrate that the Elkhart County demonstration resulted in the production of homes that are more affordable.

In the case of the Elkhart County Affordable Housing Demonstration, accomplishing the production of more affordable homes was not dependent upon shortened processing times nor the extensive use of novel or innovative building materials and techniques. Rather, the degree of affordability attained was the result of combining the talents of the various sectors of the home building industry in such a way that each sector supplied those resources and skills at which it was most efficient.

The Approval Process

The Elkhart County government had, on its own initiative and with the encouragement and support of elected officials, taken steps to reduce its regulatory impact on housing and to streamline the permit process.

In early 1980, the Elkhart County Plan Commission staff used eight separate application forms, each with accompanying instruction sheets for business items to come before the Commission. In effect, this meant that a person

intending to establish a residential planned unit development would most likely have to make three separate applications: one for the initial rezoning hearing, one for the subdivision approval hearing, and one for the PUD hearing. By revising the application into a one-page document, concurrent applications for one piece of property could be made thereby expediting the processing and review times.

It was recognized that most residential development in the county occurs around the county's population centers of the City of Elkhart and the City of Goshen. Since Goshen is the county seat, the Building Department was located there. This meant that developers working in Elkhart had to travel the eleven-plus miles to Goshen to obtain a building permit. To eliminate this problem, a satellite permit office is now operating in the City of Elkhart.

In an effort to make the Plan Commission and the Building Department more responsive to the needs of the community, the County Commissioners and County Council approved the reorganization of these agencies into the Department of Planning and Development. This new agency continues to review and streamline the total permit process within the county.

At the time of the Affordable Housing Demonstration, the approval process in Elkhart County was designed to be accomplished in 45 days for either a standard subdivision or a subdivision proposed as a residential planned unit development. The process began with the submission of a preliminary plan and letter of intent by the builder/developer to the county. By the 10th day following this submission, a Technical Advisory Board made up of the key department heads in the county would advise the Plan Commission of the findings of its review. On the 17th day following submission, the Plan Commission would hold a hearing to

approve the site as a subdivision. If the site had been proposed as a residential planned unit development, a public hearing would also be held to review the special features of the plan. On the 35th day following submission, the County Commissioners would meet to review and consider for approval the site improvements. In the case of a planned unit development, a special ordinance referencing the standard subdivision ordinance and adding the special provisions of the proposed planned unit development would be passed. The last step would take place on the 45th day when the proposed subdivision would be given Plan Commission approval with reference to the planned unit development ordinance, if necessary.

The processing of the applications for residential planned unit development approval for the Simonton Lake Manor II and the Mark VII West sites was handled in accordance with the standard procedures. All applications were made, all reviews were conducted, and all hearings were held. The only special treatment afforded these applications was that the county speeded up the process in an attempt to be responsive to the urgency and high profile of the demonstration. This speeded up processing would not likely be made available to routine applicants. However, the technical aspects of the reviews and approvals complied, in all respects, with standard procedures.

Site Planning and Development

Several factors related to site planning and development contributed to the affordability of the homes built in the Simonton Lake Manor II and Mark VII West sites. However, all of these factors would be available to other projects.

The lot sizes are smaller than standard subdivisions in the county because of the use of the residential planned unit development concept and because

Letherman Real Estate was willing to invest the time and effort necessary to have soil percolation tests conducted.

The residential planned unit development approval allowed the site to be planned with 15-foot front set backs on the housing units rather than the conventional 35 feet. Lot widths were also significantly reduced. In the Mark VII West site, the lot width at the building line was reduced from 125 feet to 60 feet. In the Simonton Lake Manor II site, the front footage of the lots was reduced from 120 feet to 60 feet.

The soil percolation tests conducted by a local professional engineer were performed to determine if the septic drain field could be reduced in size. The results of these tests showed, to the satisfaction of the Plan Commission, that the soil conditions could support a drain field in less area than other soil types in the county. In fact, the percolation tests were conducted only on the Mark VII West site. However, since the sites are located on similar soil types within two miles of each other, the one test was accepted for both sites. For a three-bedroom unit, the drain field was reduced from 495 square feet to 300 square feet, a saving in excavation costs of \$300 per lot. The drain field size was reduced from 330 square feet to 200 square feet for two-bedroom units which represented a \$225 savings per lot.

The entry street in the form of a cul-de-sac had already been installed in the Mark VII West site before planning for the demonstration began. This was not the case with the Simonton Lake Manor II site. As a result, the proposed streets were designed to be 20 feet wide and curbsless. Storm water drainage would be handled by swales. The street cross-section included a 6-inch gravel base, a 2-inch binder and a 1-inch surface course of bituminous concrete. This street design was an acceptable practice and required no

Descriptions of the Homes



Completed Cul-de-sac

special consideration. In fact, the county authorized the developer to utilize on-site materials as the base due to the nature of the existing soil. The decision was made, however, to supplement the on-site material with a heavier gravel to insure an adequate base. The cost savings represented by installing curbless, 20-foot-wide streets with drainage swales versus the more conventional streets with vertical curb and gutter, 24 feet wide from back-to-back, was \$330 per 60-foot lot. This figure is based on street construction costs of \$21 per linear foot for the curbless streets and \$32 per linear foot for the streets with curb and gutter.

Building Design and Construction

The design and construction of the homes built on the demonstration sites was the responsibility of the individual manufacturers or builders. It was understood that the demonstration was to represent a showcase for the nation to see how far the manufactured housing industry had come. Therefore, some of the manufacturers designed special models to be built for the demonstration. These special models,

however, were designed so that they could become a standard production model if the market demand so dictated.

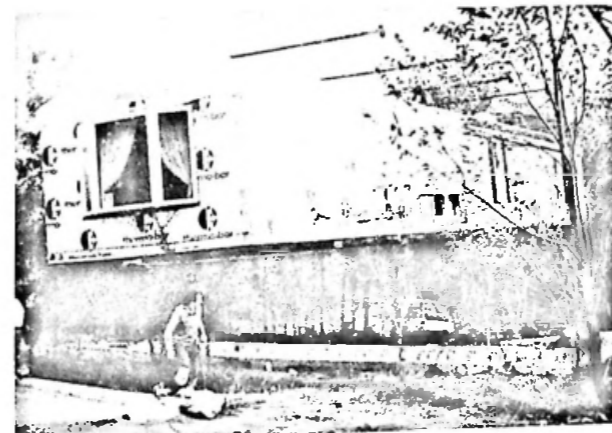
Most noteworthy among the new models built for the demonstration was the Chatham model manufactured by All-American. This was a Cape Cod style home with a 10-in-12 roof pitch, dormer windows, front porch, and attached one-car garage. Inside, the second floor was left unfinished for future expansion.

The Residence model built by Schult Homes was also a new design and represented the beginning of what Schult Homes would call their Residence Series.

The Concept model built conventionally by Jerry Krull Construction included a specially designed below-grade window to meet the egress requirements for sleeping areas. The design was submitted to and approved by the county and allowed Krull Construction to market the Concept model as having the capacity to add another bedroom in the basement.

As discussed in Chapter 3, the affordable nature of the homes produced for the demonstration depended very little on innovative technology and improvements in the administrative processing of permits and applications. Rather, the ability to produce a home and to place it on the market at a price well below state and national averages was directly related to coordinating the use of the appropriate expertise and efficiencies of a variety of members of the building community. That is, real estate professionals and developers handled the site selection and development as well as the market definition.

Housing manufacturers produced the homes and transported them to the sites. Conventional builders performed



Crane hoisting unit.

most of the on-site construction activity. The governmental officials reviewed and approved the entire process.

The products produced by this coalition are described and pictured on the following pages of this chapter. They illustrate that the objective of producing manufactured housing unit developments that were designed and built as attractive, durable, appreciating real estate investments acceptable to both consumers and communities can be met.

It should be noted that there are two types of "manufactured housing" units contained in the Elkhart County Affordable Housing Demonstration. The difference between these two types lies in the building code to which they were manufactured. For the purpose of the following descriptions, the term "modular" will be used to refer to units manufactured in accordance with Indiana Public Law 360, Acts of 1971. The term "HUD Code" will refer to units manufactured in accordance with the Federal Manufactured Housing Construction and Safety Standards. "HUD Code" manufactured homes have been known as "mobile homes."

Indiana Public Law 360, Acts of 1971

In Indiana, the state One- and Two-Family Dwelling Code (also known as the Indiana 360 code) is the building code used for precut or shell homes, panelized homes, modular homes, log homes, and geodesic dome homes. Each type, in varying degree, is constructed in a factory and completed at the building site.

Federal Manufactured Housing Construction and Safety Standards

Authorized by Title VI of the 1974 Housing and Community Development



Workmen...setting roof pitch.

Act (42 U.S.C. 5401 et seq., as amended), this is a single national standard for manufactured housing, administered by the U.S. Department of Housing and Urban Development. These homes, which have evolved from the

old "mobile homes," are built on steel I-beam chasses with the axles, wheels and hitch mechanisms removeable once the homes are placed onto the foundations.



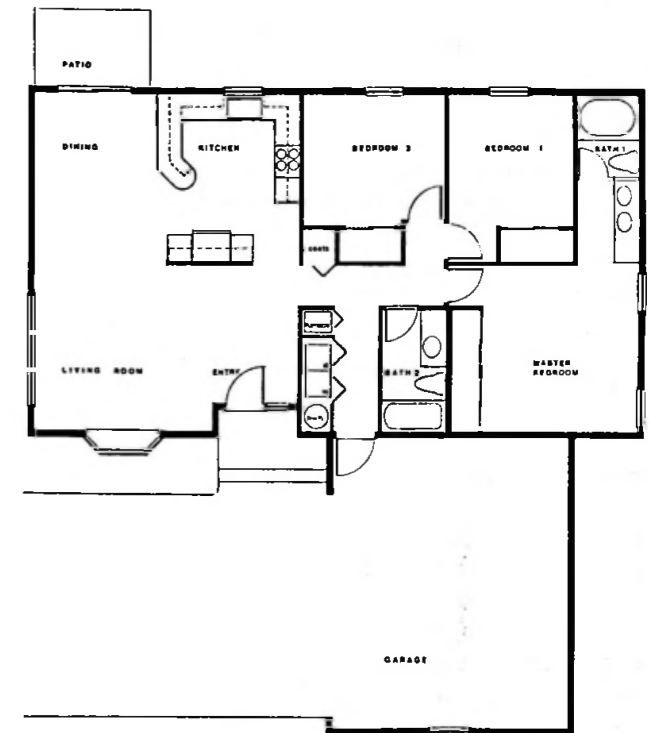
Interior rooms



Chapter 4

Rosemont Model Mark VII West

The Rosemont model is a double-wide modular unit manufactured by Marlette Division of Coachman Industries. The 1,390-square-foot Rosemont was erected on the 19,425-square-foot lot #1. This three-bedroom and two-bath unit was constructed on an undercarriage which was removed at the time the unit was crane-set onto its crawl space foundation. A two-car panelized garage was added to the Rosemont by Krull Construction. The completed unit was listed for sale at \$52,500 including lot.

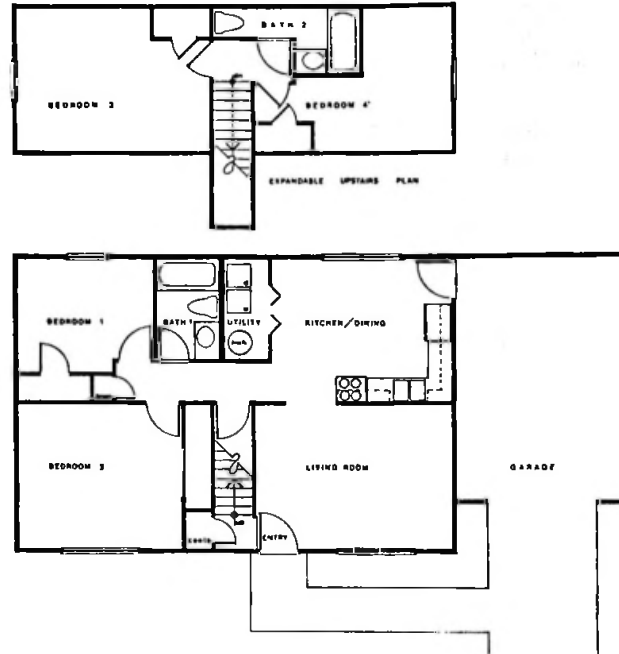


Description of the Homes

**Chatham Model
Mark VII West**

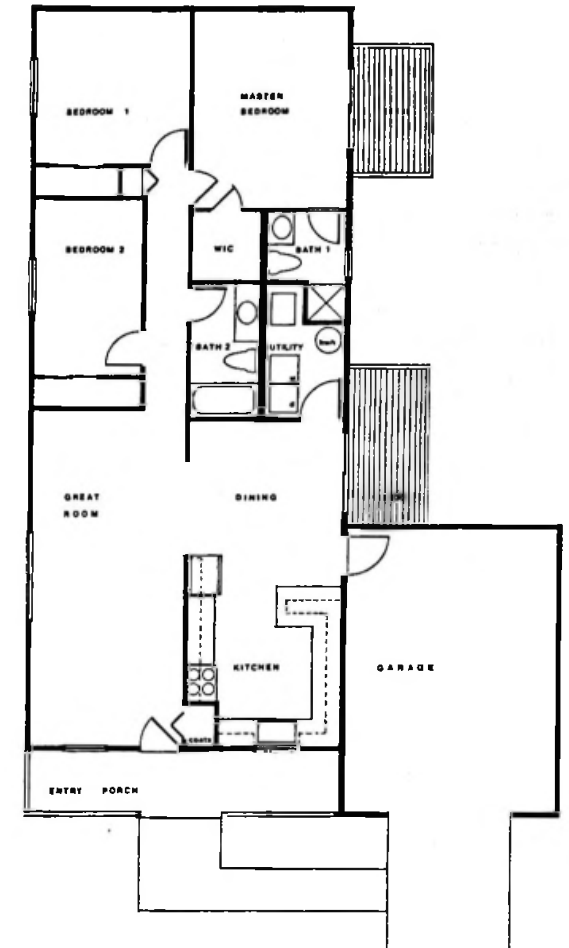
The Chatham model is a double-wide Cape Cod style modular unit manufactured by All-American Homes Division of Coachman Industries. It is located on the 11,100-square-foot lot #2 on a full basement foundation. The Chatham was manufactured in two sections and transported to the lot where it was lifted by crane onto its foundation. The 10-in-12 pitch roof consisting of hinged rafters was erected, the panelized dormers were added, and the panelized one-car garage and front porch were constructed. All site-built elements were handled by Krull Construction. The completed Chatham model consists of 864 square feet including two bedrooms and a bath on the first level. The upper level of 450 square feet was left unfinished but designed for two additional bedrooms and provided with roughed in plumbing for a second bath. The full basement

was left unfinished. The Chatham model was listed for sale at \$49,500 including lot.



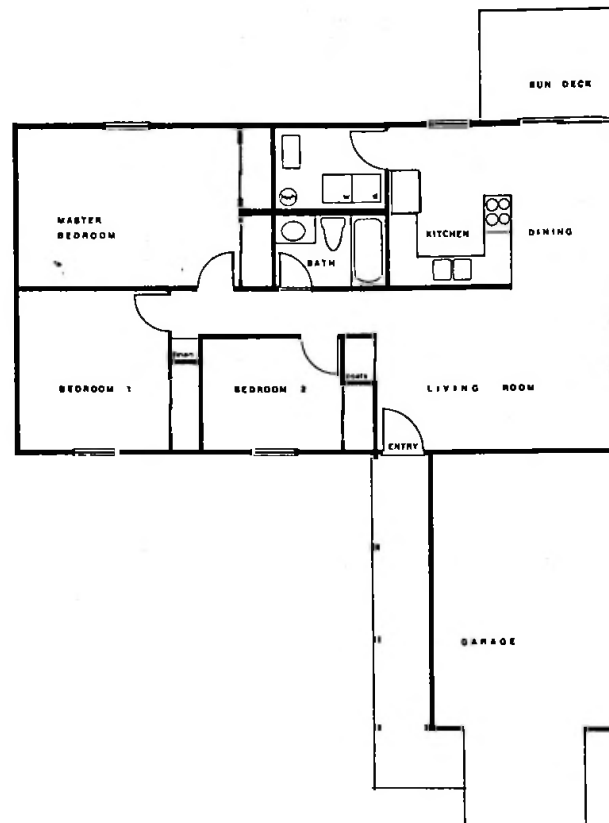
**Hampton Model
Mark VII West**

The Hampton model is a double-wide modular unit manufactured by All-American Homes Division of Coachman Industries. The two sections of this unit were constructed on a carrier, transported to the erection site and set by crane on a crawl space foundation. Located on the 11,100-square-foot lot #3, the 1,248-square-foot Hampton includes three bedrooms and two baths. After the unit had been set on its foundation, Krull Construction was responsible for the on-site construction of the front porch and one-car panelized garage. The completed Hampton model listed for \$49,900 including lot.



Hawthorne Model
Mark VII West

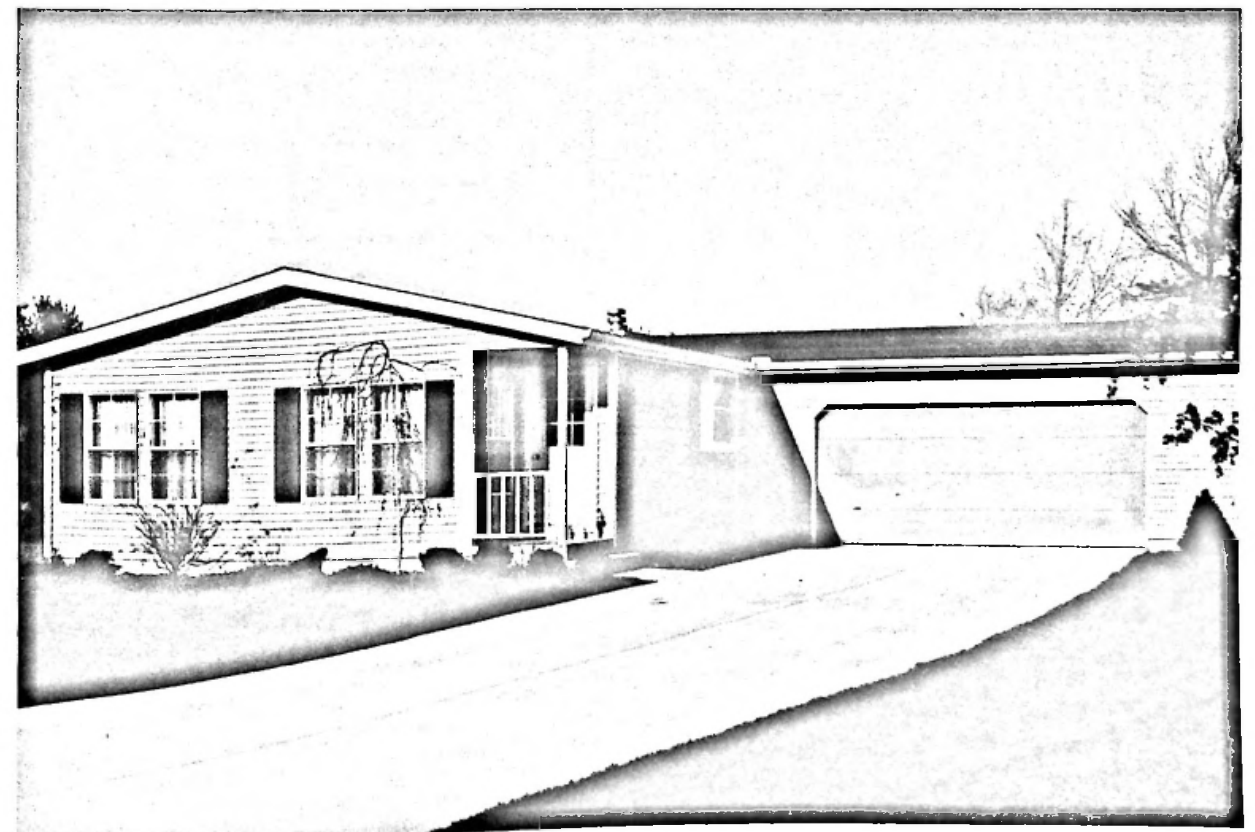
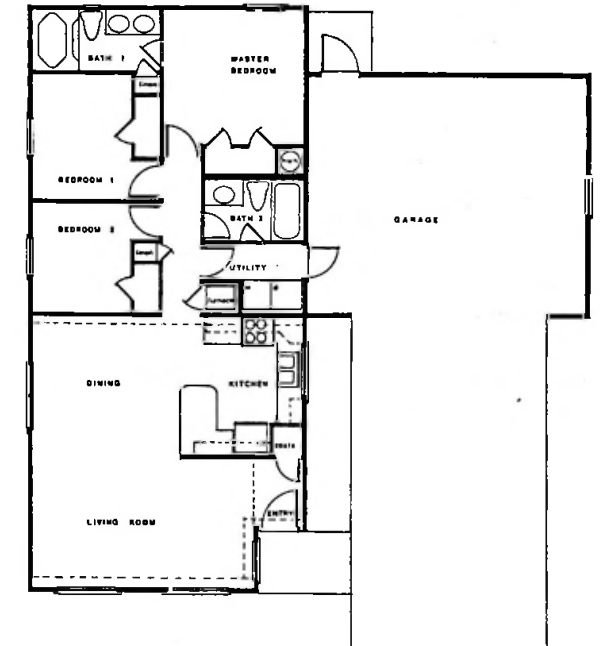
The double-wide Hawthorne model is a modular unit manufactured by All-American Homes Division of Coachman Industries. The unit was set by crane on its crawl space foundation on the 11,100-square-foot lot #4. The Hawthorne model contains three bedrooms, one full bath and one half bath in its 1,056 square feet of living space. Krull Construction was responsible for erection of the panelized one-car garage and covered entryway. The completed home listed for \$44,900 including lot.



Residence Series
Mark VII West

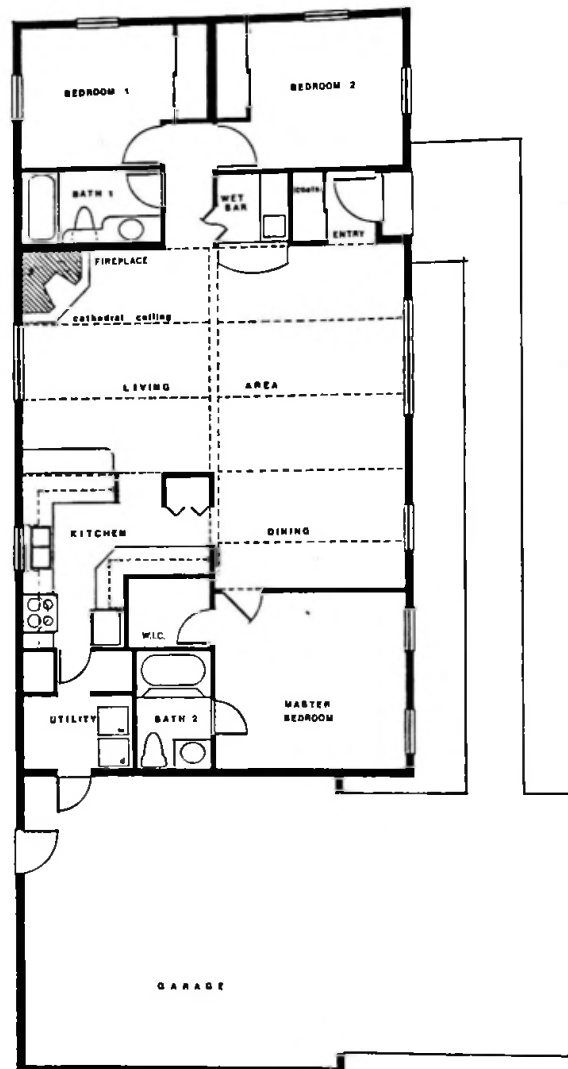
The Schult Homes Corporation model erected on the 24,700-square-foot lot #5 represents the first home in what is called the Residence Series. This 1,152-square-foot double-wide unit was manufactured in accordance with the HUD Code and includes three bedrooms and two baths. The unit was specifically designed with its long axis perpendicular to the front lot line for the Affordable Housing Demonstration. This permitted the unit to be placed on a smaller, narrow lot. The interior of the demonstration model was finished with gypsum wallboard, but future models in the Residence Series will be finished with Upson board. After the unit had been shipped to the site, the entire chassis was removed prior to setting the unit onto its crawl space foundation. The attached two-car garage was site-built by a local con-

tractor. The completed model was listed for sale at \$46,500 including lot.



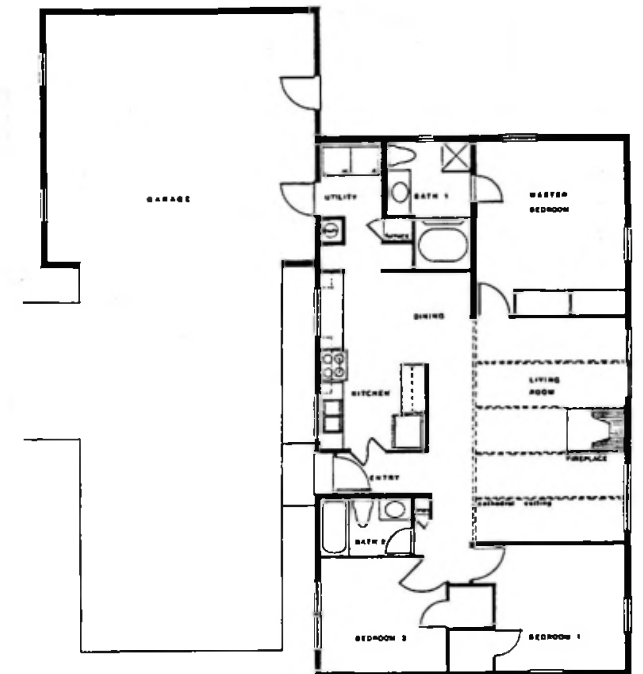
Jefferson Manor Model
Mark VII West

The Jefferson Manor model is a double-wide unit manufactured in accordance with the HUD Code by Friendship Industries, a division of Fairmont Homes, Inc. This 1,456-square-foot unit was transported to the 14,000-square-foot lot #6 and placed on a crawl space foundation by crane. The Jefferson Manor includes three bedrooms and two baths. Friendship Industries added a panelized two-car attached garage and finished the front gable on site. The completed unit was listed for sale at \$54,748 including lot.



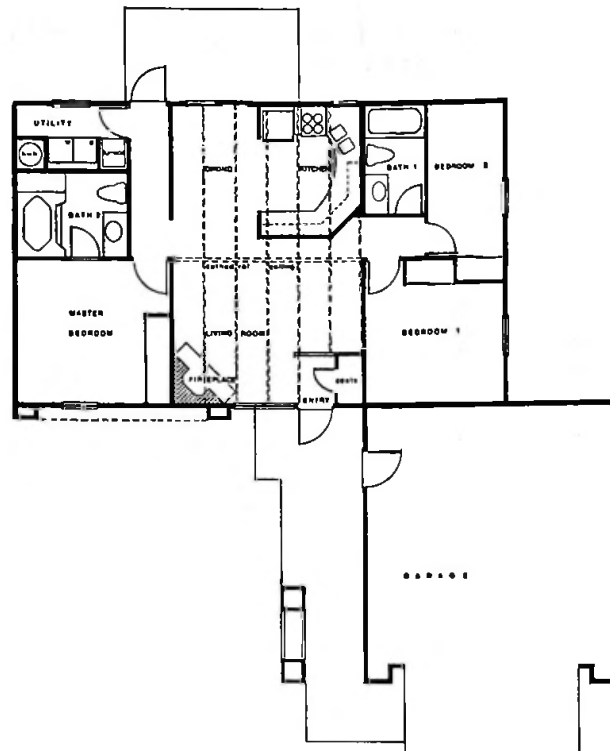
Greenleaf Manor Model
Mark VII West

The Greenleaf Manor model was manufactured as a double-wide unit in accordance with the HUD Code by Friendship Industries, a division of Fairmont Homes, Inc. The Greenleaf Manor was transported to the 24,700-square-foot lot #7 and set by crane on its crawl space foundation. The 1,344 square feet of finished floor area includes three bedrooms and two baths. A panelized two-car attached garage was site built by Friendship Industries. The completed unit was listed for sale at \$54,920 including lot.



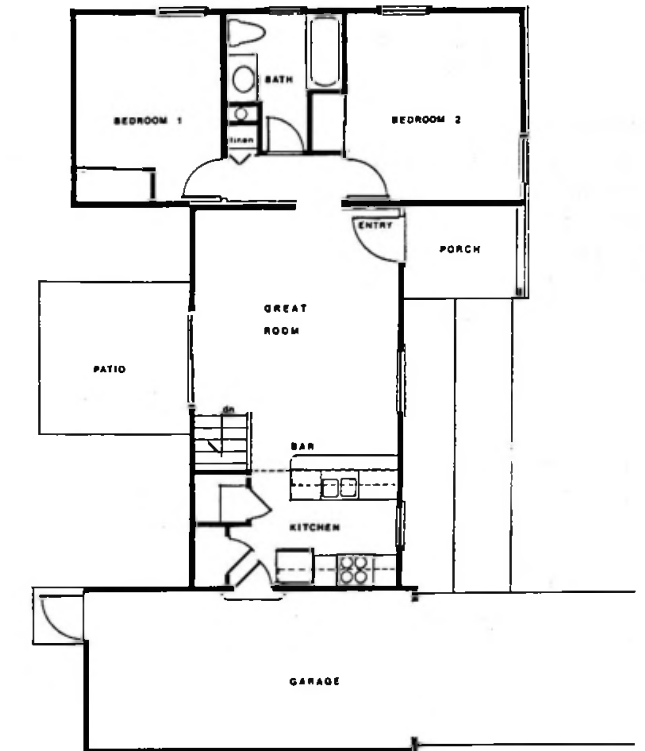
Brookwood II Model
Mark VII West

The Brookwood II model is a double-wide unit manufactured by Commodore Home Systems, Inc., in accordance with the HUD Code. It was transported to the 11,100-square-foot lot #8 and set by crane onto its crawl space foundation. The 1,056-square-foot Brookwood II includes three bedrooms and two baths. The panelized entryway and two-car garage were site built by Commodore. The completed unit was listed for sale at \$48,500 including lot.



Symphony Model #812
Mark VII West

The Symphony Model #812, by Miller Brothers, Inc., is a 1,212-square-foot modular unit with two bedrooms and a bath plus a finished basement family room. An additional 420 square feet in the full basement is unfinished but designed for the addition of a third bedroom and another full bath. The unit was shipped by trailer to the 9,900-square-foot lot #10. The trailer's undercarriage was removed and the two single-wide units were placed on the basement foundation in a "T" configuration. Subsequently, the porch and one-car garage were constructed on-site and the siding, shingles, drywall, cabinets, and trim were applied on-site by Miller Brothers, Inc., Goshen Supply, Inc., and Benders Corporation. The completed unit was listed for sale at \$52,900 including lot.

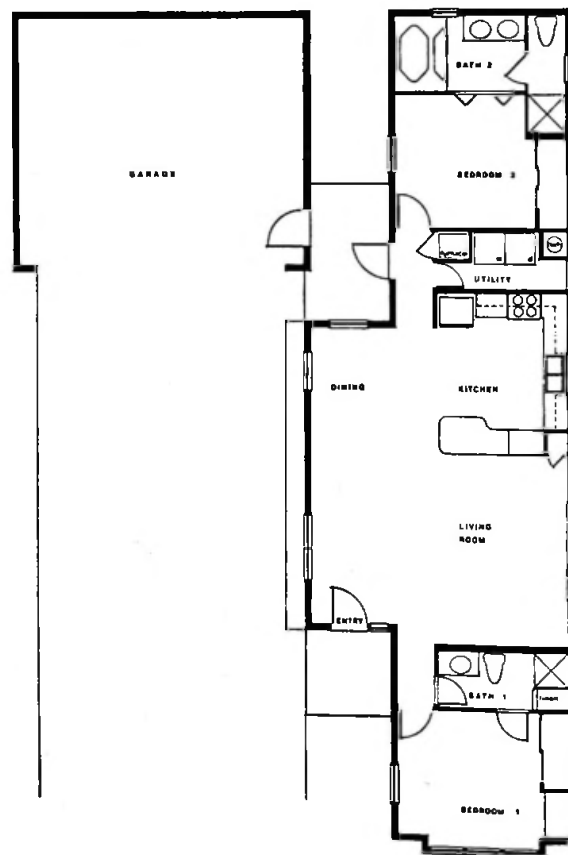


Innsbruck Model and
Innsbruck Americana Model
Simonton Lake Manor II

The Innsbruck Model and the Innsbruck Americana Model are both single-wide units manufactured in accordance with the HUD Code by Kingsley Homes, a division of Fairmont Homes, Inc. The units were transported to the 10,400-square-foot lots #4 and #5 and set by crane on crawl space foundations. Both 1,183-square-foot models include two bedrooms and two baths. After placement on their foundations, Kingsley Homes added site built panelized two-car garages. The difference between the two models is their exterior finish. The Innsbruck model was given a natural 5/8-inch grooved redwood siding and the Innsbruck Americana model was given an aluminum, double 5-inch, lap siding. The completed units each were listed for sale at \$49,950 including lot.



Innsbruck Americana Model

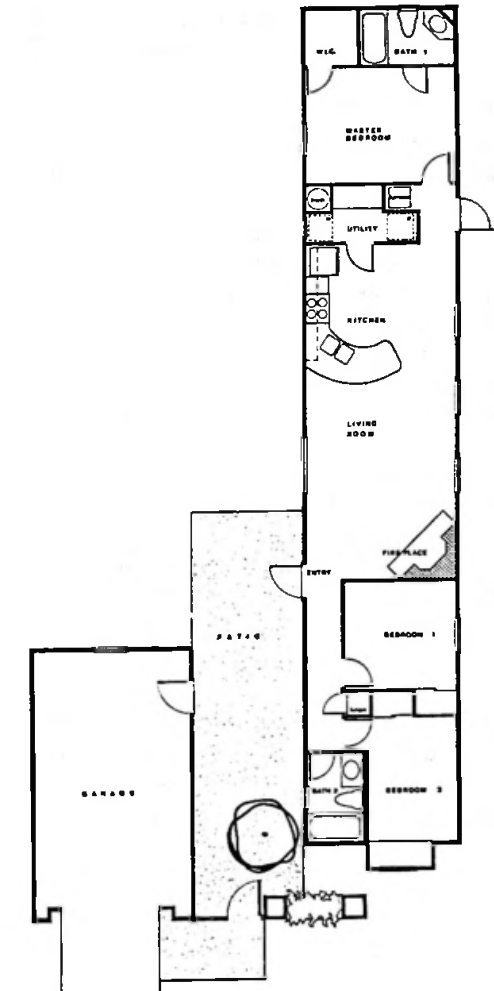


Innsbruck Model



Brookwood I Model
Simonton Lake Manor II

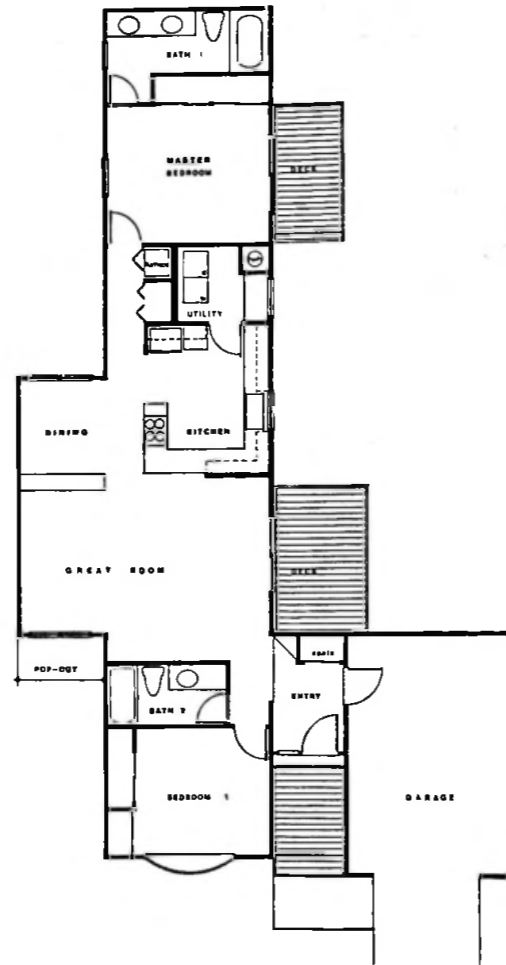
The Brookwood I model is a single-wide unit manufactured by Commodore Home Systems, Inc., in accordance with the HUD Code and erected on the 10,800-square-foot lot #6. The 924-square-foot Brookwood I includes three bedrooms and two baths. The panelized one-car garage and entryway were site built by Commodore after the unit had been set on its crawl space foundation. The completed unit was listed for sale at \$39,500 including lot.



Description of the Homes

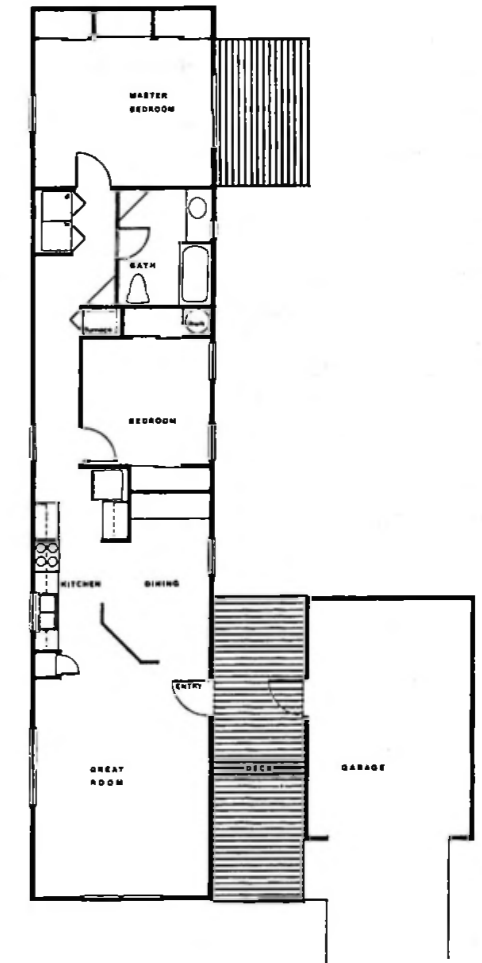
Accent Model
Simonton Lake Manor II

The Accent model is a 1,110-square-foot modular unit manufactured by Marlette Division of Coachman Industries. This single-wide unit includes two bedrooms and two baths and was set by crane onto a crawl space foundation located on the 10,200-square-foot lot #11. The unit was designed to include a 7x21 foot expansion section or "pop out" which increased the living space. The undercarriage on which the Accent was constructed was used to transport the unit to the erection site but was removed prior to setting the unit on the foundation. The house was oriented to maximize passive solar gain. Once set on the foundation, Krull Construction was responsible for the on-site construction of the front gable, roof over the expansion section, entry foyer, panelized one-car garage, and front wall brick veneer. The completed unit was listed for sale at \$44,900 including lot.



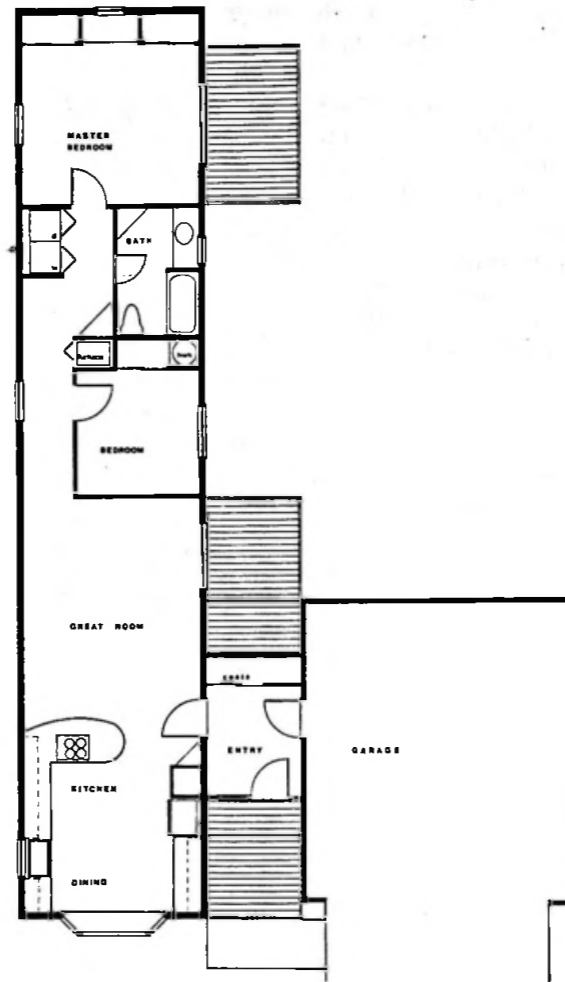
Flair Model
Simonton Lake Manor II

Marlette Division of Coachman Industries manufactured the Flair model. This is an 890-square-foot, two-bedroom and one-bath unit erected on the 10,400-square-foot lot #12. This single-wide modular unit was positioned on a crawl space foundation for passive solar gain. The Flair was constructed in the factory with an undercarriage for transportation to the site. Once at the site, the unit was lifted by crane, the undercarriage was removed, and the unit was positioned on the foundation. The front gable, breezeway, and one-car garage were site built by Krull Construction. The completed unit was listed for sale at \$37,500 including lot.



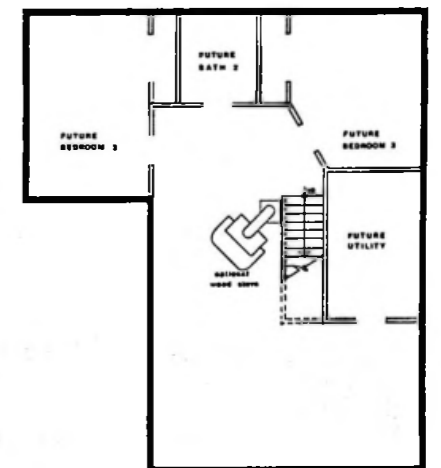
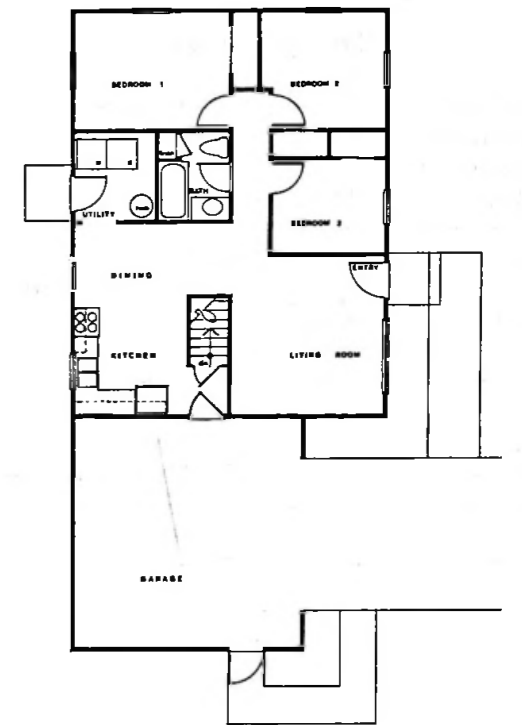
Today Model
Simonton Lake Manor II

The Today model is a single-wide modular unit manufactured by Marlette Division of Coachman Industries. This 975-square-foot model includes two bedrooms and one bath and is located on the 10,200-square-foot lot #13. The Today was manufactured with an undercarriage which served to transport the unit to the erection site. The undercarriage was then removed as the unit was hoisted by crane onto its crawl space foundation. The house was oriented to maximize passive solar gain. Once set on the foundation, Krull Construction was responsible for site building the front gable, entry foyer, and panelized two-car garage. The completed unit was listed for sale at \$39,000 including lot.



Concept Model
Country Acres

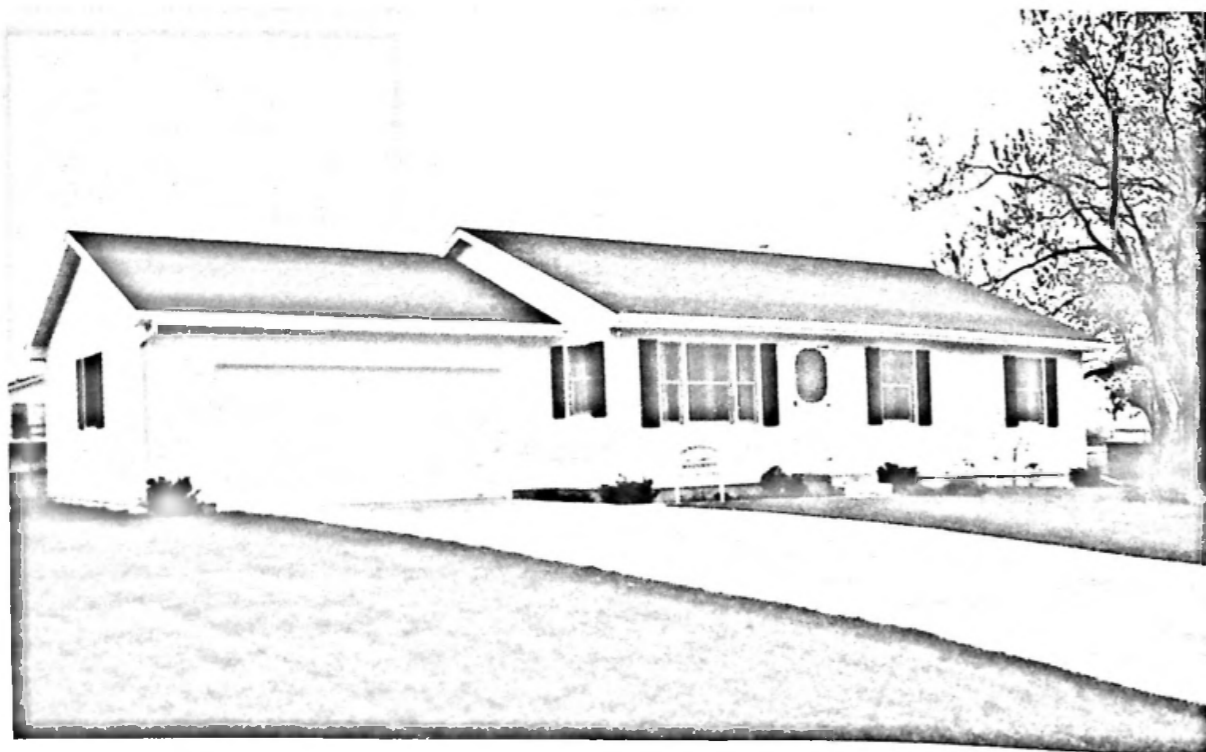
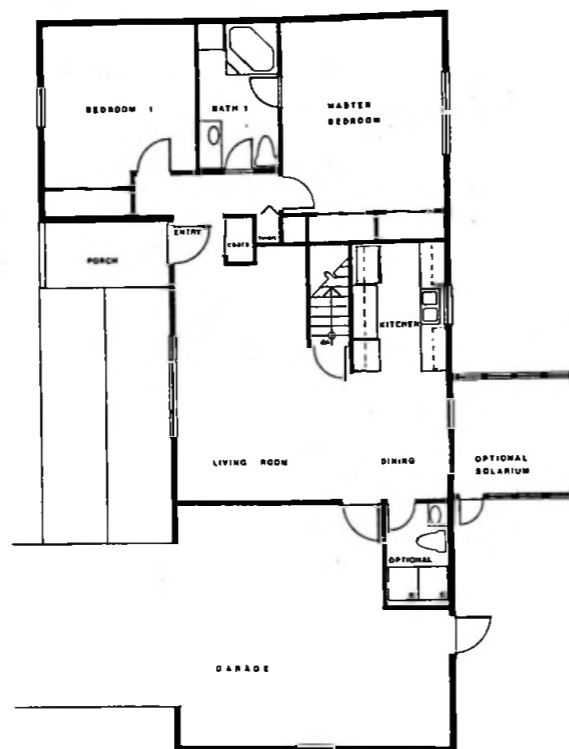
The Concept model was a conventionally constructed home built by Jerry Krull Construction on the 16,650-square-foot lot #63. The 1,120-square-foot Concept includes two bedrooms and one bath plus a one-car attached garage. The full basement was left unfinished but was designed for expansion to a third bedroom, and roughed in plumbing was provided for a second bath. A specially built window well with ladder and code-size egress window were provided to qualify the basement area as a future bedroom. The completed home was listed for sale at \$59,900 including lot.



Marketing Strategy

Greenwood Model
Country Acres

The Greenwood model, a modular unit manufactured by Nanticoke Homes of Indiana, was erected on the 16,650-square-foot lot #99. This 1,120-square-foot unit includes three bedrooms, one bath, two-car garage, and a full basement. The Greenwood was manufactured and transported to the erection site on "low-boy" trailers. The two units were then lifted by crane and positioned onto the foundation. The only on-site construction involved the assembly of the panelized garage by Nanticoke Homes. The completed unit was listed for sale at \$49,500 including lot.



The Affordable Housing Demonstration in Elkhart County had two purposes:

- ✓ to provide a show case for the nation to see how far the manufactured housing industry had come in developing its product, and
- ✓ to produce housing units that would be sold to the public.

The first purpose was met with the National Symposium on Affordable Housing in Elkhart on November 8-9, 1982.

The preparation for the symposium included extensive publicity and news coverage. Announcements of the symposium were distributed nationwide to leaders in all sectors of the home building industry and to public officials. Considerable effort on the part of Mr. Letherman was invested in the preparation and strategic placement of signs directing interested parties to the demonstration sites. The individual units constructed for the demonstration were equipped with flood lights for night illumination and considerable attention was given to the aesthetic appearance of both the individual units and the sites in general. A logo was designed and subsequently trademarked by Coachman Realty Group which carries the slogan: "The New American Neighborhood." The logo was used extensively in signs and advertising thus providing quick visual identification of the demonstration.

These advertising and publicity efforts in support of the symposium also served to develop public awareness of the existence of the demonstration sites and

model homes. Subsequent to the symposium, dealers for the home manufacturers utilized the demonstration homes as models for potential buyers to see.



To illustrate the impact of the demonstration and the success of using the sites as a tool for marketing manufactured homes, the two Coachman Industries divisions reported selling a total of 59 units of the Cape Cod style Chatham Model; this represented almost half of their total sales of 121 units between the date of the symposium and June 1983. These 59 sales were directly attributed to the Affordable Housing Demonstration, since the Chatham Model had been newly designed and produced for inclusion in the demonstration. The selling prices for these 59 Chatham Models varied from the sale price listed for the demonstration model due to varying land prices, transportation charges, and options selected by the buyers. To illustrate this variation, one Chatham Model sold for \$50,000 in Dale, Indiana; another unit was sold for \$47,000 in Huntingburg, Indiana; and still another Chatham Model sold for \$59,100 in Bristol, Indiana.

Project Schedule

The Affordable Housing Demonstration program in Elkhart County, Indiana, spanned a period of eight months in 1982 from conception to grand opening. Presented below is a list of some of the key events that took place during this period:

- | | | | |
|----------|---|------------|--|
| April 19 | - National Association of Counties announces selection of Elkhart County as one of three participants in a study of deregulation in the zoning and building areas. | July 19 | - Both preliminary and final approval of the replat and Residential Planned Unit Development applications are granted by the Plan Commission. |
| April 21 | - Thomas Romberger, chairman of the Elkhart County Commissioners, challenges local home builders to produce affordable housing. | July 20 | - Site development begins on the Mark VII West and Simonton Lake Manor II sites. |
| June 10 | - Engineering for Mark VII West and Simonton Lake Manor II sites is initiated. | August 17 | - U.S. Department of Housing and Urban Development announces selection of Elkhart County as one of the participants in the Affordable Housing Demonstration program. |
| June 29 | - Study of target market for the homes in the affordable housing sites is completed by John Letherman. | October 4 | - County Acres subdivision is added to the Affordable Housing Demonstration program as a third site. |
| July 15 | - Applications for replatting and Residential Planned Unit Development for the Mark VII West and the Simonton Lake Manor II sites is submitted to the Elkhart County Plan Commission. | October 29 | - President Reagan issues letter commending the Elkhart County Affordable Housing Demonstration program. |
| | | November 8 | - Grand opening of the demonstration sites and models and the start of the National Symposium on Affordable Housing. |

Participants

One of the primary lessons to be learned from the Affordable Housing Demonstration in Elkhart County, Indiana, is that each sector of the nation's housing industry brings its own special expertise to the task of producing homes. One approach to attaining affordability in the homes produced is to form a working partnership of these various industry sectors and to allow each sector to perform those tasks at which it is most efficient.

The partnership in the Elkhart County Affordable Housing Demonstration involved the following participants:

Elkhart County Commission

Elkhart County Plan Commission

Elkhart County Department of
Planning and Development

Elkhart Home Builders
Association

Coachman Industries, Inc.

Commodore Home Systems, Inc.

Fairmont Homes, Inc.

Jerry Krull Construction

Letherman Real Estate

Miller Brothers, Inc.

Nanticoke Homes of
Indiana, Inc.

Symphony Products, Inc.

Schult Homes Corporation

Two specific individuals contributed to the success of the Elkhart County Affordable Housing Demonstration that are not referred to in the text of this report:

Mark Brinson
Marketing Specialist
Coachman Realty Group

Steven F. Seifert
Plan Administrator
Elkhart County Department of
Planning and Development

U.S. Department of Housing and Urban Development
Washington, D.C. 20410

Official Business
Penalty for Private Use, \$300

Postage and Fees Paid
Department of Housing
and Urban Development
HUD - 401



HUD-PD&R-763
Dec. 1983