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# Montana Indian market for relocatable housing

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THE MONTANA INDIAN MARKET FOR RELOCATABLE HOUSING

By

Peter M. Higman

B. S. Montana State University, 1964

Presented in partial fulfillment of the requirements for the degree of

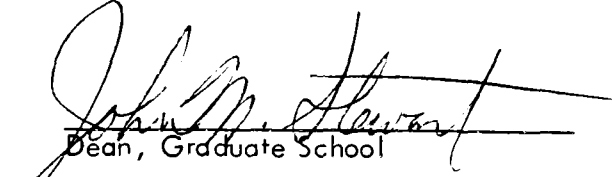
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## TABLE OF CONTENTS

CHAPTER	PAGE
I . INTRODUCTION . . . . .	1
Purpose and Scope . . . . .	2
Research and Analysis . . . . .	3
Plan of Paper . . . . .	4
II . INFORMATION NECESSARY FOR ANALYSIS OF THE MARKET FOR THE PRODUCT . . . . .	5
Definition of Terms . . . . .	5
Nature and Cost of Relocatable Houses . . . . .	6
Advantages Over Conventional Housing Construction . . . . .	9
Disadvantages Compared with Conventional Housing . . . . .	10
Influence of Business Cycle . . . . .	12
III . THE PUBLIC HOUSING MARKET FOR INDIANS . . . . .	14
Public Housing Programs for Montana Indians . . . . .	14
Specific Programs in Montana . . . . .	20
Future Need for Indian Housing . . . . .	27
IV . SUMMARY AND CONCLUSION . . . . .	28
BIBLIOGRAPHY . . . . .	30

## LIST OF TABLES

TABLE	PAGE
I. Prices of Relocatable Houses Manufactured in Montana Compared to Those Produced Out of State . . . . .	8
II. New Homes on the Montana Reservations (Constructed Fiscal Years 1963-1968) . . . . .	19
III. Indian Housing Under Construction, September 30, 1968 . . . . .	23
IV. Anticipated Housing Construction Starts, (September 30, 1968 - June 30, 1969) . . . . .	23
V. Montana Indian Area Housing Inventory . . . . .	24

## LIST OF FIGURES

FIGURE	PAGE
1. Montana Indian Reservations . . . . .	18

## CHAPTER I

### INTRODUCTION

The production of relocatable houses in Montana is a relatively new phenomenon, having been started less than two years ago. Relocatable houses offer a possible solution to the need of consumers for low cost housing in rural areas and for inadequate Indian housing which is scheduled to be replaced on the seven reservations in Montana. The relocatable houses serve the purpose of being large enough for expanding families and yet can be relocated if ranchers or farmers lose their leases on leased land. The relocatable houses also serve the purpose of being priced low enough to be used for replacement of inadequate housing on the reservations which at the present time constitutes the greatest demand for these houses. Pentagon financed studies by General Electric, Carl Kock and Associates, and the University of Michigan have shown that cost reduction of 7% to 15% can be achieved by use of standardized housing components in volume from on-site portable factories.<sup>1</sup>

These parts, largely pre-cut and pre-wired with plumbing installed, can be assembled with a minimum of time required on the job site. Use of labor-saving automated equipment and quality control methods can make savings that are not possible with conventional houses assembled on the site. Cost runs

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<sup>1</sup>"Pentagon Widens Do Gooder Role," Business Week, October 12, 1968, p. 68.

about \$10 to \$12 for relocatable houses, compared with \$14 to \$20 per square foot for a standard house.<sup>2</sup>

### Purpose and Scope

The purposes of this paper are to: 1) examine the Indian market for relocatable houses which consists of large rural families requiring low cost housing which can withstand weather conditions better than conventional mobile homes and 2) examine with less emphasis the advantages and disadvantages inherent in relocatable houses when compared with conventional housing. For the purposes of this paper, relocatable houses will be viewed as a "new product." The idea of relocatable homes is not new. The idea was started with the advent of producing double-wide mobile homes. Relocatable houses are similar to double-wide mobile homes in that they can be relocated much like a mobile home yet have the attributes of a conventional house. The relocatable house has conventional construction materials whereas the double-wide mobile home has metal siding and less insulation and strength throughout the structure. Chapter II will deal with the nature of relocatable houses in more depth. The main focus of this paper will be on the Indian market for this new product.

The attributes of relocatable houses as a new product are less obvious than those attributes of pre-fabricated homes when they first appeared on the

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<sup>2</sup>"The New Building Block," A Report on the Factory-Produced Dwelling Module by Center for Housing and Environmental Studies. Cornell University Press, 1968.



housing scene. The advantages inherent in relocatable houses are less obvious than those of conventional mobile homes. They are less obvious since relocatable houses are more like a conventional home in appearance and quality than are conventional mobile mobile homes and are built to withstand Montana weather conditions better than mobile homes designed and built in states with less harsh weather conditions. The Montana market provides an opportunity to review and analyze the advantages of the characteristics inherent in the product and the market of the latest addition to low cost housing since the introduction of pre-fabricated homes.

#### Research and Analysis

A large percentage of the information contained in this paper was obtained from personal interviews with management personnel of the two major producers of relocatable houses. Personal interviews were conducted with those government officials working directly with the self-help programs with the various Indian groups in Montana. Also, extensive information was obtained from government publications dealing with housing. It was felt that the best approach to an analysis of the rural market for this product was by examining the number of housing starts in rural areas, the number of mobile homes sold in rural areas, and the percentage of substandard homes in rural areas which should be replaced. The number of homes needed on the Indian reservations was determined by the number of homes needing replacement, the number of new homes,

and the number to be replaced by 1975. After the analysis of the market it can be determined if production of relocatable houses is warranted in this state.

### Plan of Paper

Chapter II will be devoted to providing the reader with general background information concerning relocatable houses. It will include a definition and description of relocatable houses and how they differ from conventionally built homes, citing the merits and drawbacks of each.

Chapter III will be reserved for remarks as to the need for, market for, and if an effective demand exists in Montana for this product.

With this introduction in mind, the next chapter, dealing with background information on relocatable houses, sets the stage for analysis and the comparison of the market for this product in Montana.

CHAPTER II

INFORMATION NECESSARY FOR ANALYSIS OF

THE MARKET FOR THE PRODUCT

In order to examine the market for relocatable houses in Montana with emphasis on the Indian market, it is necessary to be familiar with, at a minimum, the five areas discussed in this chapter. The five areas are: 1) a definition of common terms, 2) the nature and cost of relocatable houses, 3) advantages over conventional housing construction, 4) disadvantages found in relocatable houses, and 5) the influence of the business cycle. Since each is self-explanatory, no further preparatory remarks are needed.

Definition of Terms

Construction financing. Credit advanced to the builders for the purpose of financing the construction of the house.

Conventional house. One that is constructed piece by piece on the site. The component parts are gathered together from many fabricators and given form utility by combining them into the final house.

Conventional mortgage. Any mortgage not insured by the Federal Housing Administration or guaranteed by the Veteran's Administration.

Modules. Units assembled on mobile home production lines using conventional housing materials. Modules are trucked to site and the sections are stacked by a crane.

Mobile home. A movable or portable dwelling constructed to be towed on its own chassis, connected to utilities, and designed without a permanent foundation for year-around living.

Relocatable, portable or prefab houses. They are considered units from which hitch, safety lighting equipment, wheel carriage running gear, or dollies are removed and returned on arrival at delivery site.

#### Nature and Cost of Relocatable Houses

Relocatable houses manufactured in Montana are constructed in either one or two sections. Those which are produced in eastern Montana are in two sections, which range from 960 to 1440 square feet. The one-section houses which are built in western Montana have from 432 to 784 square feet. Due to the high cost of production, which ranged from \$16 to \$19 per square foot, they were discontinued in late 1968. The western Montana producer is now in the process of making plans to convert production to the two-section houses with the price between \$10 and \$11 per square foot.<sup>3</sup>

Those houses built in eastern Montana have a masonite exterior siding and wood veneer interior painted paneling with 2 x 4 wall framing on 16" centers, 2 x 4 rafters and ceiling joists on 16" centers, and 2 x 10 floor joists on 16" centers. These houses come equipped with top quality carpet and drapes.

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<sup>3</sup> Bob Higham, Anaconda Wood Forest Products executive, interview, December, 1968.

Standard equipment includes a refrigerator, gas range, water heater, and 100,000 BTU forced air heating system. They also include three-inch fiberglass insulation on exterior walls and ceiling. All of the relocatable houses constructed in the state met FHA specifications.

Cost is an important factor in the housing market and the lower cost in relocatable houses can be seen when one considers that the average wage in the relocatable house factories is \$3.40 per hour, plus 15% in fringe benefits. This is considerably lower than the average wage of \$5.57 an hour, painters at \$4.99, and laborers at \$3.94. The workers in the factories have worked on tract housing projects in Montana and their productivity is said to be as high as the unionized building trade workers in Montana.<sup>4</sup>

Table I is presented in order to show the prices of relocatable houses and to demonstrate the low cost per square foot of living space. It is important to note that to have an advantage over conventional housing and mobile homes the cost must be lower than the cost for conventional housing and in the range of costs for mobile homes. The cost of a mobile home is between \$4,000 and \$12,000; current average retail price is \$5,700 (12 x 60'), or about \$8 per square foot, depending upon the furnishings and equipment. By comparison, the average price of site-built homes is about \$14 per square foot, (\$20 per square foot in rural areas,) unfurnished.<sup>5</sup>

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<sup>4</sup>Thomas Marlow, Executive Secretary, Montana Contractors' Association interview, October, 1968.

<sup>5</sup>"The New Building Block."

TABLE I

PRICES OF RELOCATABLE HOUSES MANUFACTURED IN MONTANA  
 COMPARED TO THOSE PRODUCED OUT-OF-STATE

A. Manufactured in Central Montana

Size	Square Feet	Price	Price per Sq. Ft.
24' x 40'	960	\$11,350	\$11
24' x 48'	1152	12,500	11
24' x 52'	1248	13,250	11
24' x 60'	1440	14,500	11

B. Out-of-State Relocatable Houses

Size	Square Feet	Price	Price per Sq. Ft.
24' x 56'	1344	\$14,500	11

Note: Price for Montana produced relocatable houses includes set-up costs and delivery within 300 miles from Billings, Montana. The cost for out-of-state produced relocatable house is price delivered anywhere in Montana.

Source: Harlan Carpenter, President, C & M Construction, interview, November, 1968. Pathfinder Mobilehome, Inc., Spencer, Wisconsin for price of out-of-state relocatable house.

### Advantages over Conventional Housing Construction

1). Lower cost. In pre-fabrication the result is lower costs per square foot. This is shown in Table I.

2). Savings in site labor. The erection work can be completed in 72 man-hours by a "lead carpenter" or foreman and two common laborers after foundation is in, excluding connection of utilities. A considerably higher number of man-hours is needed for a conventional house. Also, in rural areas travel time and subsistence must be considered to add an additional 20% to labor costs.<sup>6</sup>

3). Speed of erection. The relocatable house can be erected much faster than the conventional house. The time required is one week and is usually completed for turn-key occupancy in two to six weeks thereafter. A regular house takes up to three months for erection before it can be occupied.

4). More rapid turnover of capital. From the builder's point of view and because of speed of erection, a more rapid turnover of capital is permitted. This could permit a lower profit and, in turn, lower cost for an ultimate product, other things being equal.

5). Quality of materials. By purchasing large quantities, quality control is possible in the factories. There is variation of quality of materials in conventional building dependent upon the current inventory of materials on hand at the local supplier.

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<sup>6</sup>Marlow, op. cit.

6). Factory engineering in house. Component parts of the relocatable houses are precision cut and assembled on jig tables by factory workers, each of whom is a specialist in his field.

7). Sub-contracting costs. The higher the degree of prefabrication in the plant the lower should be the sub-contracting costs. Examples of such costs are: electrical work, plumbing, heating, painting, roofing and wood finishing.

8). Seasonal variation in construction. By maintaining a year-round labor force there should be a savings in labor costs. Also, weather will not interfere with the construction progress as foundations are placed in the late fall and crews erect the houses on the sites year around.

#### Disadvantages Compared with Conventional Housing

1). Lack of care in final erection. Workers who erect the houses on the foundations and who do the finish work tend to do a poor job. The trim particularly is assembled with poor workmanship which results in customer dissatisfaction. This creates an image of poor overall workmanship.

2). Design. People tend to associate their design with the early image of mobile homes and the design often prevents traditional living situations. Also, in areas like the Indian reservations a monotonous look of most pre-fab settlements is found.

3). Need for skilled labor. Skilled labor is required in the final phases of construction of relocatable houses. This includes applying sheetrock and taping, applying floor tile and trim, and painting. This is the area of



labor contribution by Indians who do not have the skills for such work. The Indians should do the framing, plus siding, and the finish work should be left to the skilled construction workers.

Studies, for instance, of modular construction very similar in nature to relocatable houses done for the U. S. Department of Housing and Urban Development have shown that production line techniques can rapidly produce permanent, low-cost housing. The Department of Housing and Urban Development feels that methods look promising for mass producing large quantities of low-cost housing for thinly populated areas. This study was called the Fredella Village demonstration in Vicksburg, Mississippi. The study showed that a manufacturer applying such an industrialized housing system can provide permanent low-cost housing for low income families and still earn a reasonable profit. Cost and time will have to be reduced still further before decent housing can be provided for all Americans, but the project is a start in order to prompt others to consider development projects.<sup>7</sup>

Here in Montana a joint study was conducted by the Blackfeet Tribe and the Montana State University School of Architecture. They concluded in their study that the cost averages more than for the mobile home, that it has many more advantages over the mobile home--such as better and more permanent construction, and that there is better suitability to the climatic conditions to which it

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<sup>7</sup>U. S. Department of Housing and Urban Development, Fredella Village - A Housing Demonstration. Washington, D.C.: Government Printing Office 1968.

would be subjected. They also stated that the split house or relocatable house is comparable to conventional construction. A feature favoring the relocatable house is the saving in labor costs. They stated that relocatable houses are a definite possibility in the Browning, Montana area because of ease of erection and because they allow a large family to live comfortably and yet remain within its income. Another important point is that a firm to produce these houses has been incorporated in Browning. Jobs would be provided and the economic problems of the community should be improved. A new spirit is what is needed and new industry like this could be instrumental in helping to promote this spirit.<sup>8</sup>

#### Influence of Business Cycle

The field study described in this study was taken at a time when a relatively tight housing market existed. On the basis of the findings, the industry has proper reason to anticipate a prosperous future if this type of market would continue to exist. Historically, however, it has been proven that the building cycle takes more drastic swings than the general business cycle. While the extreme trends which have existed in the past may be reduced in the future by the important participation of the government in the housing field, and especially in the field of Housing finance, never-the-less, it is highly important that

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<sup>8</sup>"A Joint Study by the Blackfeet Indian Tribe and Montana State University," Moccasin Flat: Several Alternatives, Cooperative Service, Montana State University, January, 1969.

some study be undertaken regarding the industry's possible position under different market conditions.<sup>9</sup>

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<sup>9</sup>Practices and Precepts of Marketing Prefabricated Houses.  
Washington, D. C.: Government Printing Office, 1952, p. 39.

## CHAPTER III

### THE PUBLIC HOUSING MARKET FOR INDIANS

The principal market for relocatable houses at the present time is the Indian population which requires replacement of the crowded, drafty and inconvenient cabins and shacks with adequate housing. This chapter will cover 1) public housing programs for Montana Indians, 2) specific housing programs on Montana reservations, and 3) future need for Indian housing in Montana.

#### Public Housing Programs for Montana Indians

Under the United States Housing Act of 1937, as amended, the Housing Assistance Administration, Department of Housing and Urban Development, is authorized under the Housing and Urban Development Act of 1968 (Public Law 90-448--approved August 1, 1968) to make loans and pay annual contributions to local housing authorities to assist in developing low rent housing projects and achieving and maintaining their low rent character. The Congress affirmed in the 1968 Act the national goal of "a decent home and suitable living environment for every American family" (as stated in the Housing Act of 1949). The Secretary of Housing and Urban Development requires that an opportunity be made for training and employment of low income persons residing in the area of housing; and that contracts be awarded to business concerns located or owned in the area of the housing. A tribal governing body is legally competent to enact an

ordinance creating a housing authority with the necessary local cooperation.

The public housing program for Indians offers a choice of two types of housing programs: conventional low rent housing and mutual help housing.

The conventional low rent housing program for Indians is essentially similar to the low rent program in non-Indian areas in which the housing is constructed by a building contractor and is thereafter operated as rental housing by the local housing authority. For permanent financing of the development of the projects, the local authority sells its 40-year bonds to private investors; however, the HAA agrees to pay annual debt service (interest and principal), and those annual contributions are pledged as security for the bonds, thereby enabling them to be sold at unusually low interest cost. The homes are rented by the housing authority to families of low incomes at rents based on their incomes. The purpose then is to resell the structure to tenants involved to make their purchases without undue financial hardship. The rents must be sufficient in aggregate to pay the Authority's operation expenses, except in the case of low rent public housing projects. An additional annual contribution of up to \$120 per unit can be paid by the HAA under the condition of large families or families with low incomes.<sup>10</sup>

The mutual-help program was devised by the Housing Assistance Administration in cooperation with the Bureau of Indian Affairs to meet the needs of very

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<sup>10</sup> Housing & Urban Development Act of 1968, Public Law 90-448, Section 23.

low income Indians on reservations who cannot afford even rents required in conventional low rent housing projects. Home ownership provides a strong incentive for Indians under self-help programs in building and maintaining their homes. The women are taught skills in maintaining a home and in an environment away from the reservation, such as the University of Montana campus at Missoula, Montana. Under the plan a group of participating Indians contribute their labor in construction of homes for their families. In addition, the tribe contributes the building sites and, where feasible, indigenous building materials will be contributed by the tribe. The participants are given a lease-purchase type of agreement and are given credit in amounts approved by the Housing Assistance Administration for these contributions of labor in lieu of payment for them in cash. There is an incentive for participants to make as great a contribution as possible because the greater the portion of development cost represented by the credit given, the shorter is the period before they become home owners. Should the participant's contributions (i.e., their initial equity) constitute 20% of the development cost of housing, the Housing Assistance Administration's annual contribution could retire the borrowings in about 17 years.

After the houses are built, each participant is responsible for maintenance and utility costs for his home and will pay an administration charge to the tribal housing authority for administrative costs and insurance. Should a participant fail to maintain his house, the authority will have the necessary work done and pay for it out of funds obtained by deducting from the equity payments and mutual-help contribution made by the participant.

In the mutual-help housing program the Bureau of Indian Affairs, in cooperation with the Housing Assistance Administration, has prepared standardized dwelling designs and plans for mutual-help housing. The plans were based on the objectives of 1) simple construction, enabling maximum amount of labor contribution by the participant, 2) minimum cost so ownership can be achieved in the shortest possible time, 3) minimum maintenance, 4) suitability to climatic conditions, and 5) a house adequate to accommodate the needs of most Indian families. The need again is to replace the crowded, drafty and inconvenient cabins and shacks with decent homes for the large Indian families. The Bureau of Indian Affairs anticipates that the use of standardized plans such as those for relocatable houses will result in greater production of mutual-help housing in the future.<sup>11</sup> The map is included to show the location of the six Montana Indian reservations. With this background material in mind, the next area will cover specific housing programs available to Indians in Montana.

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<sup>11</sup>Eugene B. Mulvaney, Billings Area Housing Coordinator, Bureau of Indian Affairs.

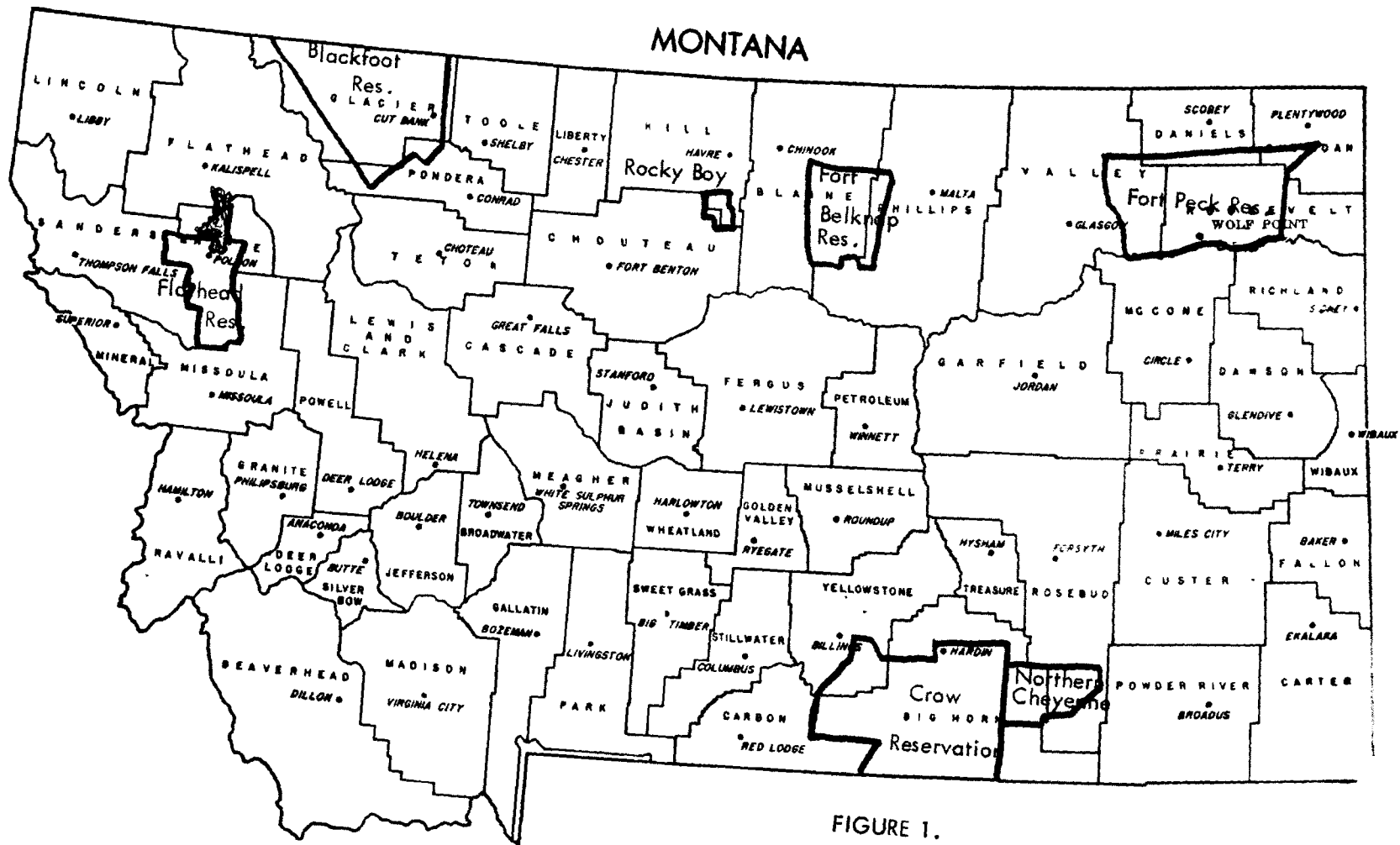


FIGURE 1.  
MONTANA INDIAN RESERVATIONS



TABLE II

NEW HOMES ON THE MONTANA RESERVATIONS  
(CONSTRUCTED FISCAL YEARS 1963 - 1968)

Reservation/Tribe	1	2	3	4	5	6	7	8
Black feet	221	50	37	0	129	0	5	0
Crow	298	0	0	0	0	255	32	11
Flathead	63	0	10	0	0	0	29	24
Fort Belknap	14	0	10	0	0	0	2	2
Fort Peck	69	56	10	0	0	0	3	0
Northern Cheyenne	178	0	0	0	0	148	3	2
Rocky Boy	37	0	10	26	0	0	0	1
<b>TOTALS</b>	<b>880</b>	<b>106</b>	<b>102</b>	<b>26</b>	<b>129</b>	<b>403</b>	<b>74</b>	<b>40</b>

Note: The numbers 1 - 8 apply to the classifications below:

- 1 - Total new homes
- 2 - Low rent
- 3 - Mutual-help
- 4 - Housing Improvement Homes
- 5 - Flood rehabilitation
- 6 - Built with Judgement Funds
- 7 - Built with credit loans
- 8 - Other housing programs

Source: Eugene B. Malvaney, Billings Area Housing Coordinator, Bureau of Indian Affairs, Billings, Montana, December, 1968.

Specific Programs in Montana

The Low Rent Housing Program was started in 1963 with the construction of 56 units of low rent housing on the Fort Peck Indian Reservation. The low rent housing was constructed by the local Indian housing authority using funds advanced by the HAA. The low income tenants pay modest rentals, such as \$50 per month for a three-bedroom unit, including utilities. Others range from four-bedroom down to one-bedroom, including some built exclusively for elderly people. Low rent housing projects were also constructed on the Blackfeet Reservation and this accounted for 50 units.<sup>12</sup>

The Mutual Help Housing program was begun in November of 1964 on the Fort Peck Reservation with the start of ten mutual help homes constructed by the future owners under Bureau of Indian Affairs supervision. This is another program of the local Indian housing authority using Housing Assistance funds. Mutual help participants receive credit for the hours of contributed labor and for volunteer labor in their own behalf. The monthly payments are scaled to their income--averaging perhaps \$15. Ownership is achieved in 15 to 20 years, depending on the amount of labor contributed--not the amount of monthly payments. The homes are modern three-bedroom, fully insulated, with central heating, ranges and refrigerators. All the other Montana reservations followed, and approximately 275 units were completed.<sup>13</sup>

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<sup>12</sup>ibid.

<sup>13</sup>ibid.

The Family Plan Housing program was active during 1963 to 1966 and 249 Crow and 135 Northern Cheyenne Indian families elected to use their \$1000 per capita share of judgement funds to purchase or construct new homes. The judgement funds were awarded the Indians under a court ruling that the federal government pay the Indians for land taken from them in the past. Additional Family Plan funds were used for improvement of existing homes.<sup>14</sup>

Flood Housing was a result of emergency appropriation by Congress, under which 129 flood rehabilitation homes were constructed by the Blackfeet Indians in 1964. Thirty-five homes were repaired under this program.<sup>15</sup>

The Housing Improvement Homes were under the Bureau of Indian Affairs, a financed program whereby 26 new homes were built on the Rocky Boy Indian Reservation for widows, elderly and disabled persons. On the Flathead Indian Reservation, Housing Improvement money has been combined with Family Plan funds and credit loans in many cases. Several families have been able to construct new homes under this arrangement.<sup>16</sup>

Credit loans once so difficult for Indian families to obtain, are now more easily obtained through tribal loan programs as well as from governmental and private lending agencies. This has resulted in an increase of new homes financed by loans, especially on the Flathead and Crow reservations with their

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<sup>14</sup>ibid.

<sup>15</sup>ibid.

<sup>16</sup>ibid.

somewhat better economies. The Flathead Reservation has tribal land which contains valuable commercial timber stands and the tribe received \$1 1/2 million in 1967 from timber sales. Also, two sawmills are located on the Flathead Reservation and they employ more than 100 tribal members. The Flathead Indian tribe also receives \$950,000 yearly rental of the site of Kerr Dam, a hydro-electric power generating facility of the Montana Power Company. The Crow Tribe in 1961, as the result of a suit against the Federal Government for additional compensation for lands sold and ceded in the last century, was awarded a judgement which yielded the tribe approximately \$9 million after attorney fees were paid. This money resulted in a judgement fund of \$1,000 to each enrolled member. Also, the Crow Tribe won another suit against the United States in 1963 and was awarded a \$2 million judgement as additional compensation for tribal lands required for the Yellowtail Dam and Reservoir on the Big Horn River.<sup>17</sup>

Since 1963 at least 1024 homes have been constructed or started on the seven Montana reservations under the above mentioned programs. It is estimated by Mr. Louis Amblen, Assistant Regional Administrator for housing Assistance, that 2000 new homes are still needed on the seven reservations to replace structurally unsound homes and for unhoused or new families. Table III will delineate the figure as to the number of houses needing replacement on the seven reservations.<sup>18</sup>

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<sup>17</sup>The Montana-Wyoming Indian, United States Department of Interior, Bureau of Indian Affairs, Billings Area Office, July, 1968.

<sup>18</sup>Eugene B. Mulvaney.

TABLE III  
HOUSING UNDER CONSTRUCTION, SEPTEMBER 30, 1968

Reservation/ Tribe	Total	Mutual Help	Low Rent	Turnkey III	HIP	Other
Blackfeet	10	10	0	0	0	0
Crow	47	40	0	0	0	7
Flathead	14	0	0	0	7	7
Fort Belknap	0	0	0	0	0	0
Fort Peck	19	19	0	0	0	0
Northern Cheyenne	17	15	0	0	0	2
Rocky Boy	16	15	0	0	1	0
<b>TOTALS</b>	<b>123</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>16</b>

Source: Eugene B. Mulvaney, Billings Area Housing Coordinator,  
Bureau of Indian Affairs, Billings, Montana

TABLE IV  
ANTICIPATED HOUSING CONSTRUCTION STARTS  
SEPTEMBER 30, 1968 - JUNE 30, 1969

Reservation/ Tribe	Total	Mutual Help	Low Rent	Turnkey III	HIP	Other
Blackfeet	148	38	55	0	0	55
Crow	110	0	0	100	0	10
Flathead	116	0	0	100	8	8
Fort Belknap	92	42	50	0	0	0
Fort Peck	150	0	50	100	0	0
Northern Cheyenne	100	0	50	50	0	0
Rocky Boy	97	50	40	0	7	0
<b>TOTALS</b>	<b>813</b>	<b>130</b>	<b>245</b>	<b>350</b>	<b>15</b>	<b>73</b>

Source: Eugene B. Mulvaney, Billings Area Housing Coordinator,  
Bureau of Indian Affairs, Billings, Montana.

TABLE V  
MONTANA AREA HOUSING INVENTORY

Reservation	1	2	3	4	5	6	7	8
Blackfeet	1050	370	680	280	400	430	280	150
Crow	712	484	228	102	126	142	102	40
Flathead	523	250	273	140	133	215	140	75
Fort Belknap	256	56	200	180	20	240	180	60
Fort Peck	659	215	444	255	189	366	255	111
Northern Cheyenne	557	193	364	261	103	344	261	83
Rocky Boy	185	49	136	136	0	208	136	72
<b>TOTALS</b>	<b>3942</b>	<b>1617</b>	<b>2325</b>	<b>1354</b>	<b>971</b>	<b>1945</b>	<b>1345</b>	<b>591</b>

Note: The numbers 1 - 8 apply to the classifications below:

- 1 - Total number of existing housing units
- 2 - Housing units in standard condition
- 3 - (sub-total) Substandard condition
- 4 - Housing units needing replacement
- 5 - Housing units needing renovation
- 6 - Total new housing units required
- 7 - Housing units needing replacement
- 8 - Families needing housing

Source: Eugene B. Malvaney, Billings Area Housing Coordinator,  
Bureau of Indian Affairs, Billings, Montana

Progress is accelerating and the bulk of the Indian housing demand should be satisfied in a few years. More than 1000 new homes are expected to be started by the end of calendar year 1970. Most of the new homes will be built under HAA - BIA - PHS Low Rent and Mutual Help programs employing the "Turnkey" principle. Under the above system private corporations will build the housing and sell it to the tribal authorities. In the case of Mutual Help Housing, the participants will contribute sufficient labor to give them equity in the house. Turnkey housing can be developed and constructed more quickly by conventional contract arrangements. The Turnkey housing program is classed as low rent and the tenant does maintenance and receives credit for the amount budgeted for routine maintenance. In 20 years the tenant should have \$2400 and the contribution by the Housing Assistance Administration has paid four-fifths, to equal the value of the house. The tenant does no work before he moves into the house and he only does maintenance such as painting or replacing screens.<sup>19</sup>

The benefits of the new housing programs are manifold. Children have respectable homes in which to live, study and entertain their friends. Families have the convenience, comfort and healthful surroundings of new homes, affording them a new outlook on life. Perhaps most important are the experience, skills and confidence gained by participating members of the local Indian community. The programs do, however, have drawbacks in that the Indians

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<sup>19</sup>  
ibid.

want the homes on their own land instead of being located so closely together.

One relocatable house manufacturer in the state has supplied or will supply partially finished Mutual Help houses for the Northern Cheyenne, Rocky Boy, and Fort Belknap Reservations. After the houses are delivered to the sites, in two length-wise sections, the participants erect the porches, apply and tape sheetrock, apply floor tile, apply trim, and paint interiors and exteriors. This does present a problem as all of these jobs require skilled workers and, as pointed out in the disadvantages, the Indians should do the rough work such as framing and leave the finish work to skilled workers.

In addition to 25 at the Northern Cheyenne Reservation and 15 at the Rocky Boy Reservation, the manufacturer in eastern Montana has contracted to supply 22 Mutual Help homes on the Fort Belknap Indian Reservation. These may be constructed in a plant to be built on the reservation because the local housing authority has tentatively selected the same company to construct 50 Low Rent homes which are now in the late application stage. The firm has also signed a contract to build 50 Low Rent houses on the Fort Peck Indian Reservation in a plant to be constructed there. Low Rent homes built under the "Turnkey" procedure are finished in their entirety by the builder.

Another relocatable fabricating plant is under construction at Browning on the Blackfeet Indian Reservation. This company hopes to supply homes on that reservation in addition to an expected off-reservation market.

Currently, there is an active application for a project on the Blackfeet Indian Reservation and an application near approval for 50 homes near



Ashland, just off the Northern Cheyenne Indian Reservation. Other applications may be filed this fiscal year.

#### Future Need for Indian Housing

The housing inventory shows the need, as shown in Table III. The Bureau of Indian Affairs hopes to see all delapidated homes replaced by adequate housing by the end of 1975. If Housing and Urban Development, Health, Education and Welfare (Public Health Service, Division of Indian Health), and the Bureau of Indian Affairs continue to receive adequate funding it should be possible to accomplish the goal of adequate Indian housing through the use of relocatable houses. By taking the figure of \$13,000 per unit cost of a housing structure which must include administrative costs and sanitation and by estimating that 1945 new homes (see Table V) are required, the cost would be \$26 million. The advantage of relocatable houses is that due to fast building techniques and a uniform plan the administrative costs can be reduced, thus leaving more money for the construction of the house.

## CHAPTER IV

### SUMMARY AND CONCLUSIONS

The production of relocatable houses in Montana was started less than two years ago by two manufacturers, one in Billings and the other in Missoula. At the present time there are four such manufacturers in the state. The product is so produced that low costs can be obtained by employing industrialized or factory production line building methods in order to manufacture units within the affordable purchasing and rental limits of those requiring shelter. The costs average \$11 per square foot for relocatable houses which are much lower than the \$14 to \$20 per square foot for conventional homes. The cost of relocatable homes is higher than the \$8 per square foot for mobile homes. (The concept of relocatable houses involves the mobile home concept.)

It has been pointed out that relocatable houses have many advantages over other types of low cost housing. The houses are FHA approved and can withstand hailstorms, bad weather conditions and fire better than conventional double-wide mobile homes. The disadvantages are also present and better workmanship must be attained on the finish work in order to accentuate the quality of the product. It is important to remember that relocatable houses use building materials right in our state and can compete within a 400-mile radius from the factory. For farmers who lease land, relocatable houses are a definite advantage as they can relocate the house if they fail to renew their leases. This is very important in Montana where so much farm and ranch land is leased

on a short-term basis. Also, this type of low cost housing is a definite improvement in living conditions for Indian and rural families with many sociological implications.

There is a potential market for 1945 (Table V) new housing units required for Indians, and these houses are to be completed by 1975. Most firms have been in the process of expanding to meet the demand of the Indian market and will expand their facilities to meet the demand of the rural market only when financing is more readily available.

This study suggests that there is a great future for double-wide, relocatable homes and does not mean that the market will be taken by these units. The size and shape of mobile homes limit the size of family that can use these accommodations. The regular 12 x 60 mobile home is good for small families. The 24 x 60 relocatable home can be used by growing families, which is an entirely different market than that supplied by the 12 x 60-foot mobile home units. There is a considerable market for relocatable houses and it appears that the acceptance and the market for the 24 x 60-foot house is just being recognized. Therefore, with inflation increasing, taxes increasing, and building costs going up steadily, it becomes obvious that people will have to seek lower cost housing, and the future sales of relocatable houses can do nothing but increase from year to year.

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