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Bungalow Neighborhoods of North Omaha

A Thesis

Presented to the

Department of Geography/Geology

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

University of Nebraska at Omaha

by

Patrick A. Peters

July, 1984

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THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College, University of
Nebraska, in partial fulfillment of the requirements for the degree
Master of Arts, University of Nebraska at Omaha.

Committee

James S. Wood Geography
Name Department

Harold J. Retalick Geography - Biology

Arthur S. Jia Sociology / Anthropology

James S. Wood
Chairman

July 9, 1954
Date

ABSTRACT

Omaha, Nebraska, not unlike numerous other towns and cities throughout the United States, experienced a period of tremendous growth during the early decades of this century. Changes in industrial technology, an increasing work force, and innovative intra-urban transportation networks combined to bring a new look to the city.

The bungalow-style house is one of many house styles which, in identifying its stylistic elements, location, and distribution within a city, offers insight into urban growth and elements of popular taste. Studying the single-family home generates information which may help guide geographers to the essence of the urban landscape, both past and present.

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Chapter I

THE BUNGALOW

The architecture of a particular culture is an expression of that culture -- a symbol which reflects perceptions and attitudes in time and space. Hence, cultural and historical geographers often have relied upon architecture as an instrument by which certain elements of a culture may be revealed for analysis and interpretation. Gasoline stations, skyscrapers, railroad depots, and churches, as well as assemblages of structures, all have been utilized as foundations for a variety of geographical studies.

One type of structure which reflects the character of America's cultural landscape is the single-family home. Geographical research which focuses on house style builds on the premise that the locating and mapping of houses according to the period of construction and style of home allows geographers to assess the development of regions, cities, and neighborhoods. In urban areas, a study of the homes and architectural styles intended to house the greater bulk of urbanites can be a valuable tool for use in investigation of patterns of urban growth or to better understand the reasons for the development and for the perpetuation or demise of neighborhoods.

The present study involves the use of a ubiquitous, yet largely ignored house style -- the bungalow. Any North American city which experienced the economic boom of the post-World-War-I years contains

numerous examples of the bungalow-style house. Omaha, Nebraska, is no exception. Changes in industrial technology, an increasing work force, and innovative intra-urban transportation networks combined to bring a new look to the city. Vast neighborhoods of bungalows were developed. Identifying the bungalow's stylistic elements, location, and distribution within the city may offer insight into urban growth and elements of popular taste in Omaha during this period. Thus, a study of the bungalow-style house in Omaha should generate information which may help guide geographers to understanding more of the essence of the urban landscape, both past and present.

Statement of the Problem

The purpose of this study is to demonstrate the credibility of a specific style of domestic architecture as an indicator of early-twentieth-century urban growth as well as an indicator of an important element of popular taste during that same period. More specifically, it is an inventory and classification of all one- and one-and-one-half-story bungalow-style houses in two neighborhoods of North Omaha commonly referred to as the Miller Park area. The major hypothesis of this study is that the two neighborhoods are different on some dimension. Due to the differing natures of the neighborhoods regarding, among other things, their development histories and present states, rather significant differences were expected to appear with regard to architectural character, date of construction, and original cost. It was expected that this study ought to provide answers to some intriguing questions: Are any particular stylistic elements present in one area

and not the other? If so, which of these elements can be utilized to help establish neighborhood membership? To what extent do date of construction and original cost play a determining role in the presence of certain architectural features? Does the fact that one of the areas was developed by a single individual over a relatively short period of time as opposed to the development of the other area by several people over many years have a noticeable effect on the homogeneity or heterogeneity of each area? It is further hoped that this study will provide the groundwork for future endeavors in community development and the preservation of neighborhoods.

Bungalows in History

Over the past several years a number of authors have attempted to outline the socio-economic or architectural significance of the bungalow-style house (Brown, 1964; King, 1973; Lancaster, 1958; Mattson, 1981). In each case the author has reviewed, to some extent, the evolution of the American bungalow. Therefore, for the purposes of this study a brief overview will suffice.

The term "bungalow" is itself a derivation of the word bānglā -- an East-Indian word which refers to a house with low, horizontal lines and a large porch (Lancaster, 1958). Most often, this type of structure was developed from Indian prototypes by the English for temporary shelter during the British occupation. To fix precisely when the Indians themselves began to utilize this particular style of construction is mere speculation, as there exist many historical accounts dating back into the seventeenth century which refer to structures re-

flecting a semblance of the bungalow character (King, 1973: 8-12).

Even though the bānglā was a distinct architectural style, the precise structural features which this term evoked are equally uncertain: a structure with two gable ends and a wide verandah; a square, almost pyramidal structure incorporating a wrap-around porch; a single-story or one-and-one-half-story structure; or a structure of rectangular or square form with no porch whatsoever. No matter what the basic form of the structure, the presence of overhanging eaves appears ubiquitous (King, 1973). The failure of the Indians to adhere to strict design guidelines in the construction of their bānglās, or bangalos, is a trait which still must be dealt with in the classification of modern houses as bungalows. But, the ever-present overhanging eaves have lent some consistency to efforts of classification.

It was during the British occupation of India that the word and concept of "bungalow" made its appearance in England. Due in large part to the expanding use of photography as a means by which ideas and images of reality could be communicated, the bungalow as built in India came to be known and accepted in Britain. Anthony King (1973: 23) contends that "there was what might be called a 'cognitive climate' in existence [in England] which was ready to receive the introduction of a built form described as bungalow." In this new context the bungalow came to be known as a house of a single story, square, and with a pyramidal roof. More often than not this type of structure was built for use as a second home in rural and resort regions of England. The bungalow phenomenon, however, was not unique to India and Britain. By

the late nineteenth and early twentieth centuries the house type was familiar to residents of Ceylon, China, Japan, and coastal Africa, as it was considered to be suited perfectly to tropical climates (King, 1973: 25).

The concept of the bungalow soon made its way across the Atlantic to North America. According to Clay Lancaster (1958: 239), the first structure in the United States to be called a bungalow was a summer home built in 1880 at Monument Beach on Cape Cod, Massachusetts, and recorded in American Architect and Building News in that same year. The house had two-and-one-half stories with a wide verandah, but it bore little resemblance to the later California bungalow (Brown, 1964: 15). The American Architect in 1895 published an article on the next-earliest bungalow, the Grant House, which turned attention to the west coast. The Grant bungalow presented more of the symmetry and horizontal lines which we have come to attribute to the "true American bungalow" (Brown, 1964: 15).

The development of this truly American bungalow style can be attributed to the influences of many individuals and a variety of culture groups. It has been argued that the American bungalow movement grew out of the English cottage movement of the mid-nineteenth century, West-Indian domestic architecture, colonial architecture of the deep south in the late nineteenth century, domestic architecture of the American southwest and Mexico, and the Art Nouveau and Craftsman movements of the early twentieth century (Lancaster, 1958: 241-242). Individuals such as Louis Sullivan, Frank Lloyd Wright, and Henry and

Charles Green significantly refined the style. The influence and design practices of the Greene brothers had the most lasting effect upon the architectural features of typical American bungalows.

In 1906 Charles and Henry Greene gained national notoriety as "Architects of Bungalows" and did much to establish the bungalow-style house as an economical alternative in domestic architecture. This popularity had gained its momentum from their highly-successful designs of large, sprawling, high-brow bungalows in Pasadena and Long Beach, where the brothers were able to incorporate into their designs their love of Japanese architecture. Out of the plans of these great homes came designs for "graceful and dignified smaller houses" (American Preservation, 1978: 56).

By March of 1909, a publication entitled Bungalow Magazine was in circulation, first in Los Angeles and later in Seattle. The Ladies Home Journal and House and Garden began to bring the concept of the bungalow as a way of life into homes across the country (Lancaster, 1958: 250). Floor plans as well as elevations were available for members of the working class to simply enjoy or copy in their own hometown. The popularity of the American bungalow had reached its peak as a strong domestic form by World War I in most of the country. The housing boom which followed the war "tended, if anything, to lower building standards, reducing the bungalow from a unassuming creative expression to an insignificant and cheap means of housing" (Lancaster, 1958: 252). In Omaha, Nebraska, as throughout most of the United States, the bungalow-style house continued to be built throughout the

remainder of that second decade of the century and into the late 1920s. The bungalow had become an accepted, easily-copied, and economical housing option (Lancaster, 1958: 252).

The Structure

As alluded to earlier, many of the Indian "bānglās," due to the variety of locations and builders, had little in common with one another save for the overhanging eaves, and to a lesser extent, the verandah. The basic shape of the structure varied from round to rectangular to square, with the interior spaces lacking a like notion of universality or homogeneity in design. This lack of consistency is made clear in Anthony King's (1973) article, "The Bungalow: The Development and Diffusion of a House-Type," wherein he discusses four conflicting descriptions of Indian bungalows. Still, common to all descriptions is the mention of the thatched roof extending far below the sidewalls, thus forming a shady, protected retreat from the sun and rain (King, 1973: 8-12). It should be noted that these early structures were little more than huts, yet they provided year-round housing for the Indian people.

Modification of the simple hut was not possible, nor logical, until a more permanent structure could be built. By the late eighteenth century, wooden porch supports were being replaced with brick columns in cities, and the more-substantial tile roofs came into use. In the latter part of the nineteenth century, the Indian prototype was modified by the British into a structure of a "single story . . . , brick-built and plaster-rendered, surrounded by an arched verandah,

[and] flat or low-pitched roof" (King, 1973: 18). King (1973: 21) further suggests that "with these developments the word 'bungalow' becomes increasingly difficult to define in terms of identifiable structural characteristics." By the end of the century, the word "bungalow" was used as a surrogate for "house" or "cottage" in India and other regions of the world (Gwilt, 1888).

Charles and Henry Greene were entering their twenties at this time and were studying woodworking and carpentry in Washington University's Manual Training School. It was here that they learned the value of handcrafting, which was to have such a great impact on their later work, as well as a lasting influence on the bungalow style. After working in Boston as architects the brothers relocated to Pasadena, California, but not without a stop at the 1893 World's Columbian Exposition in Chicago. It was here that they were first introduced to the oriental elements of design. With these images in mind, and with the aid of travel books featuring Japanese homes, the Greenes began to incorporate the Far-Eastern tradition into their own style of domestic design. By 1901, the Arts and Crafts Movement had begun to emerge as a new and fresh alternative for art and architecture. The notion of handcraftsmanship suited the Greenes and was soon the trademark of their bungalow designs. Exposed, hand-finished wood; low and smooth horizontal lines; and the use of natural materials, such as cedar shingles, cobbles, and irregular bricks (clinker bricks) were combined to bring out the feelings of warmth and comfort which were so crucial to early bungalow design (American Preservation, 1978: 45-52).

The structural features of these bungalows were duplicated throughout the country, although on a less-grandiose scale: the extended eaves with their support brackets and visible rafter ends; a low, gently-sloping roofline; a porch which commanded the front facade; the "open" feeling promoted by the careful design of interior spaces; gable-end roofs with dormers; all contributed to the establishment of the house style which is called the bungalow today.

The bungalow-style house as developed in California was not perfectly suited to the climatic conditions of much of the remainder of America. As the style came to be accepted around the country, modifications in the basic design became necessary (David, 1906). For instance, when the bungalow gained popularity in the snow-belt states roofs were increased in pitch so as to more efficiently shed snow. The broad expanses of glass familiar on the facades of the California variety were greatly reduced to lessen heat loss. The front porches were often enclosed so as to provide added protection from winter winds and cold, as well as to provide protection from mischievous insects during the warmer months. In other parts of the country stucco replaced the cedar shingle as an exterior finish, due in part to the ready availability of the respective materials. It is presumed that in regions where wood was scarce and clay abundant, bricks were the chosen exterior material. The structural variations on the original California bungalow are, seemingly, endless; but the bungalow was to retain its essence -- a house of relatively small proportions; one or one-and-one-half stories; low, horizontal lines; extended eaves with

visible roof supports; a front porch; and readily-available, natural materials. The house envisioned by Charles and Henry Greene had come to reflect more than the warmth and comfort which theirs exuded. The bungalow had evolved into a domestic symbol of livability, simplicity, practicality, and economy.

The Bungalow's Place in the American City

The bungalow appeared on the American urban landscape at a time when cities were expanding on their fringes as well as from within. Housing developments of the early 1900s which were predominantly composed of bungalows were generally located on these early urban fringes; the result of an ordered, predictable growth according to the 1925 study by Ernest Burgess (Rugg, 1979: 215-216). The thrust of Burgess' research is that the cities of America grow, or evolve, in concentric zones, as illustrated in a copy of his original diagram (Figure 1.1). Although some comments and interpretations are considered to be dated (if not in bad taste), the diagram clearly depicts the outlying "bungalow neighborhood" as being situated in the "commuter zone." Geographic models such as the concentric zone model are not infallible and, certainly, not universal in their application. In spite of this, most American cities conform, in one way or another, to portions of this and other urban models.

As with modern-day housing developments, the bungalow suburbs of the second and third decades of this century were the result of speculation by real estate concerns or individuals. These neighborhoods were most often situated in areas where land prices and efficient modes of

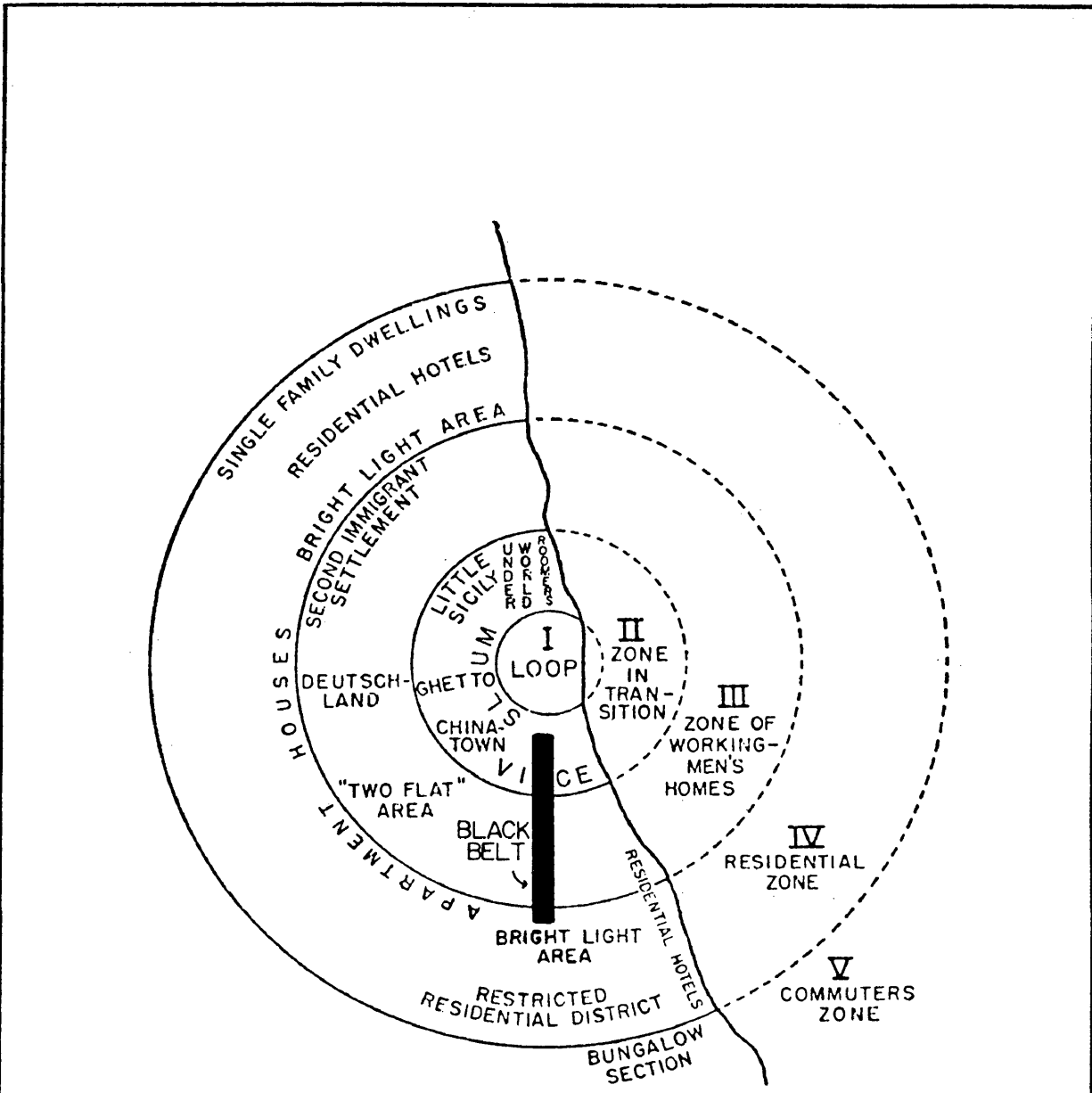


Fig. 1.1. Concentric Zone Model

Drawn from original by Ernest Burgess, 1925

transportation to the center-city encouraged development. Accordingly, this phenomenon tended to occur at the edge of the city. It is an investigation into one of these early bungalow suburbs with which this study is concerned.

Chapter II

AN INVESTIGATION INTO OMAHA'S BUNGALOWS

The study area for this investigation into the bungalows of Omaha consists of two neighborhoods located to the north and south of Miller Park in the northeastern portion of the city (Figure 2.1). The neighborhood north of Miller Park is bounded on the north by an east-west line bisecting the block between Vane and Read Streets and on the south by Redick Avenue (Figure 2.2). The neighborhood to the south of the park is bounded by Kansas Avenue and Fort Street to the north and south, respectively (Figure 2.3). North 24th and North 30th Streets form the respective east and west borders of each neighborhood. As can be observed from the maps, Miller Park acts as a physical barrier between the two neighborhoods and, yet, is the site of cultural and social interaction between the two. Fort Street, on the southern edge of the study area, is fifty-three blocks north of the business district. Vane Street, near the northern limits, lies seventy-one blocks north.

There are several reasons behind selecting these particular neighborhoods for comparison. Both neighborhoods contain numerous examples of the bungalow-style house which could be used in the comparison. Second, the planning histories of the north and south areas are quite different; and, as a result, the neighborhoods have evolved dissimilarly, as will be noted subsequently. Additionally, upon initial exposure to the study area it appears that there is a true

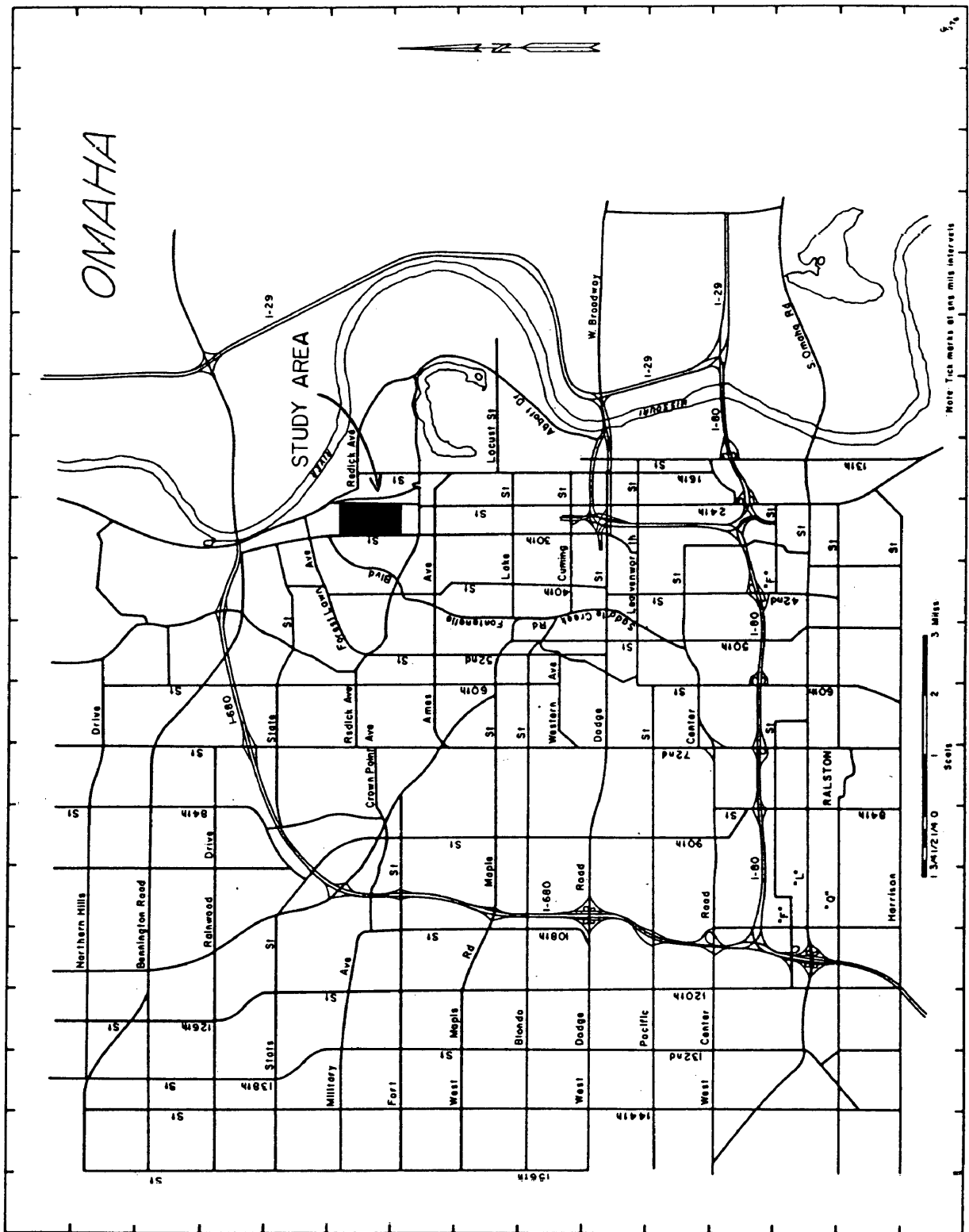


Fig. 2.1. Map of Omaha

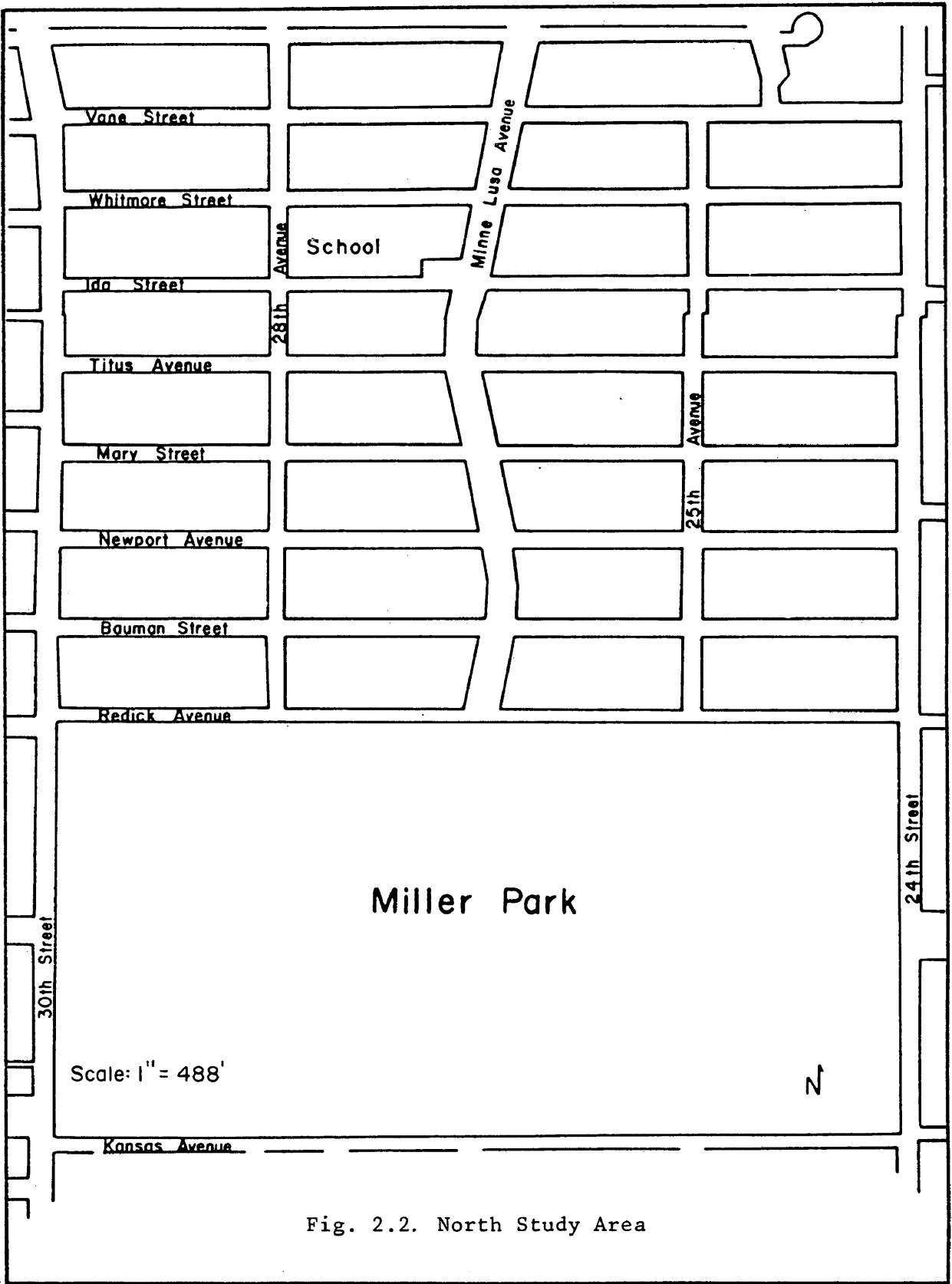


Fig. 2.2. North Study Area

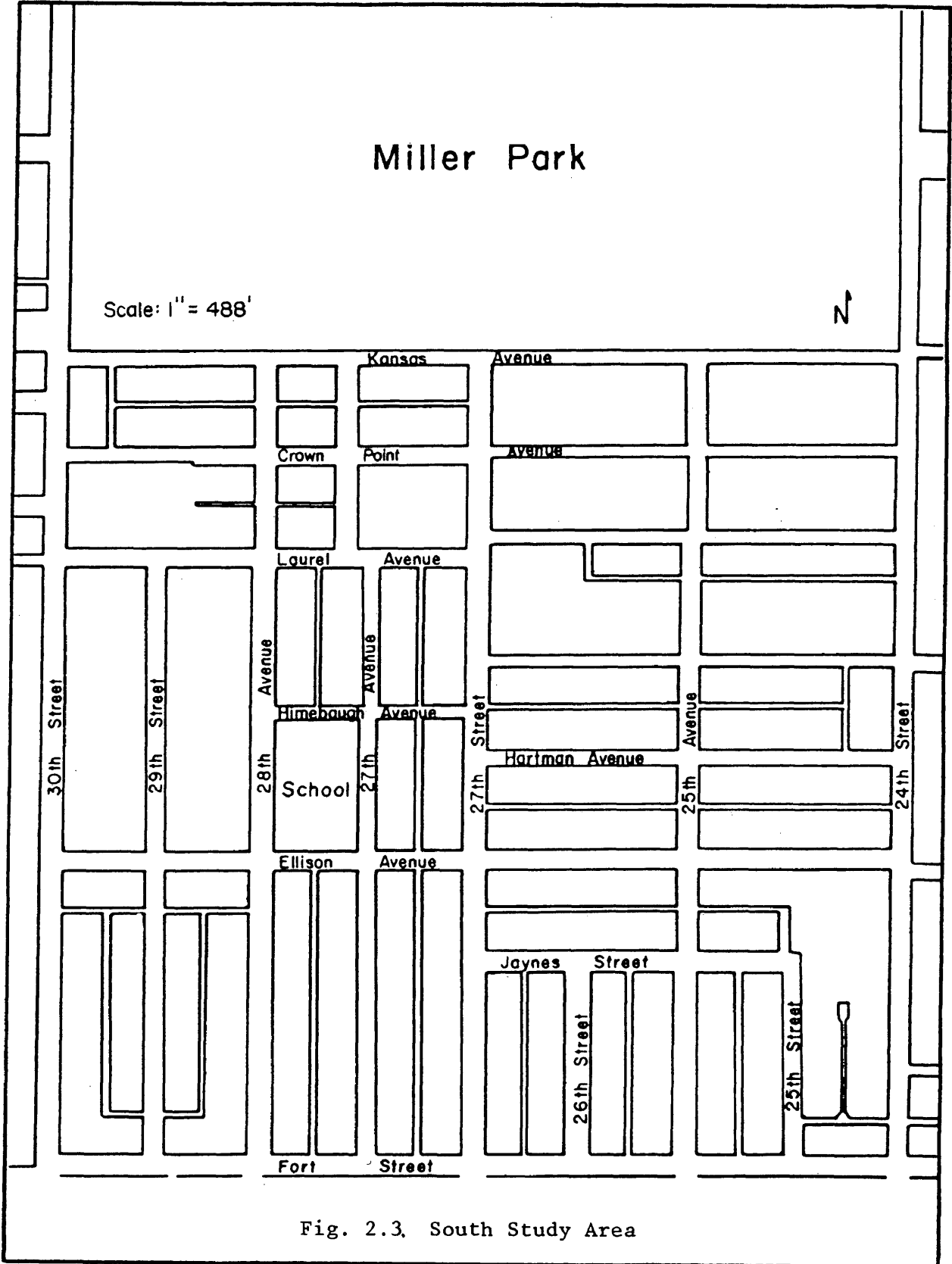


Fig. 2.3. South Study Area

disparity in the architectural features between the bungalows to the north and the bungalows found south of the park. Finally, the area's location within the city of Omaha presents the opportunity for an in-depth investigation into an early twentieth-century suburban neighborhood.

History

The following history of North-Omaha development has been culled from the 1980 Comprehensive Program for Historic Preservation, developed by the Omaha City Planning Department for The Landmarks Heritage Preservation Commission. As already mentioned, the history behind the development and growth of each of these neighborhoods offers quite a contrast. The neighborhood to the north of Miller Park was developed by the Charles W. Martin Company beginning in 1915. (The northern boundary for this study area coincides with the original northern extent of the Martin development.) Martin's company transformed a cornfield on the northernmost edge of the city into a housing development named Minne Lusa, or "clear water," for a small stream which ran through the field. The homes found here are predominantly bungalow-style, with the exception of some houses along Minne Lusa Avenue and nearly all homes bordering the park. House lots on the east-west streets are uniform and narrow, ranging from forty to forty-four feet in width. Homeowners on North 24th Street and Minne Lusa Avenue enjoy somewhat wider lots, with frontage varying between forty-four and fifty-six feet. Depths of all lots in the neighborhood range from 114 to 120 feet. The regularity of such a grid, coupled with the

nearness of neighbors on either side, lends an air of regimentation to the overall planning scheme. As developed, the area included a curvilinear boulevard, "six miles of water mains, forty-seven hydrants, twelve miles of cement sidewalks, an ornamental lighting system, 1700 shade trees, and last but not least, a clubhouse" (Landmarks Heritage Preservation Commission, 1980: 61-62).

Three years after the purchase by Martin 150 homes had been built and sold with another seven hundred lots sold. Like other past and present-day developers of suburban tracts, Martin promoted the sale of his lots based on the amenities which were associated with country living: "If you like to see things grow; to plant and to harvest; to help yourself, your neighbor, and your country; to build up financial independence; to breathe deep of pure country air; to play golf or tennis; to be among birds and flowers; to say 'this is my own'; come out to Minne Lusa" (Landmarks Heritage Preservation Commission, 1980: 62). This type of promotion worked, for by 1924 Martin had seen his development grow to over six hundred homes. The Charles Martin Company, in addition to its responsibilities as a developer, was the contractor for many of the bungalows found in this neighborhood. With his success in Minne Lusa assured, Charles Martin initiated several more such projects in varying sections of Omaha.

An area in which Martin was not involved, other than as a contractor once more, was the neighborhood to the south of Miller Park. The uniformity exhibited in the north neighborhood is evident only in small sections of the neighborhood south of the park. This heterogene-

ity of lot size and orientation is a direct result of the platting of this area by several individuals over an extended length of time. Within the boundaries of this portion of the study area are numerous "additions," "annexes," and "subdivisions" -- seventeen in all -- developed as early as 1887 and up until the last plat in 1943. Following is a list of plats (Table I) and a map (Figure 2.4) with the date of municipal authorization for development of each. The information included here has been garnered from the files of Omaha's Department of Public Works.

TABLE I

LIST OF PLATS

Seymour's Addition	1887
Bower's Addition	1900
Miller Park Place	1904
Ellistone Park Place	1904
Parkland Place	1905
Phelan's Addition	1905
Hasting's and Heyden's Second Addition	1905
Fort View Addition	1906
Fort View Annex	1906
Supplemental Subdivision of Ellistone Park Place	1906
Firestone's Subdivision	1907
Floroma	1908
Laurelton	1913
2 Belle Isle	1914
Barbe's Addition	1922
Dross and Wilson's Addition	1943

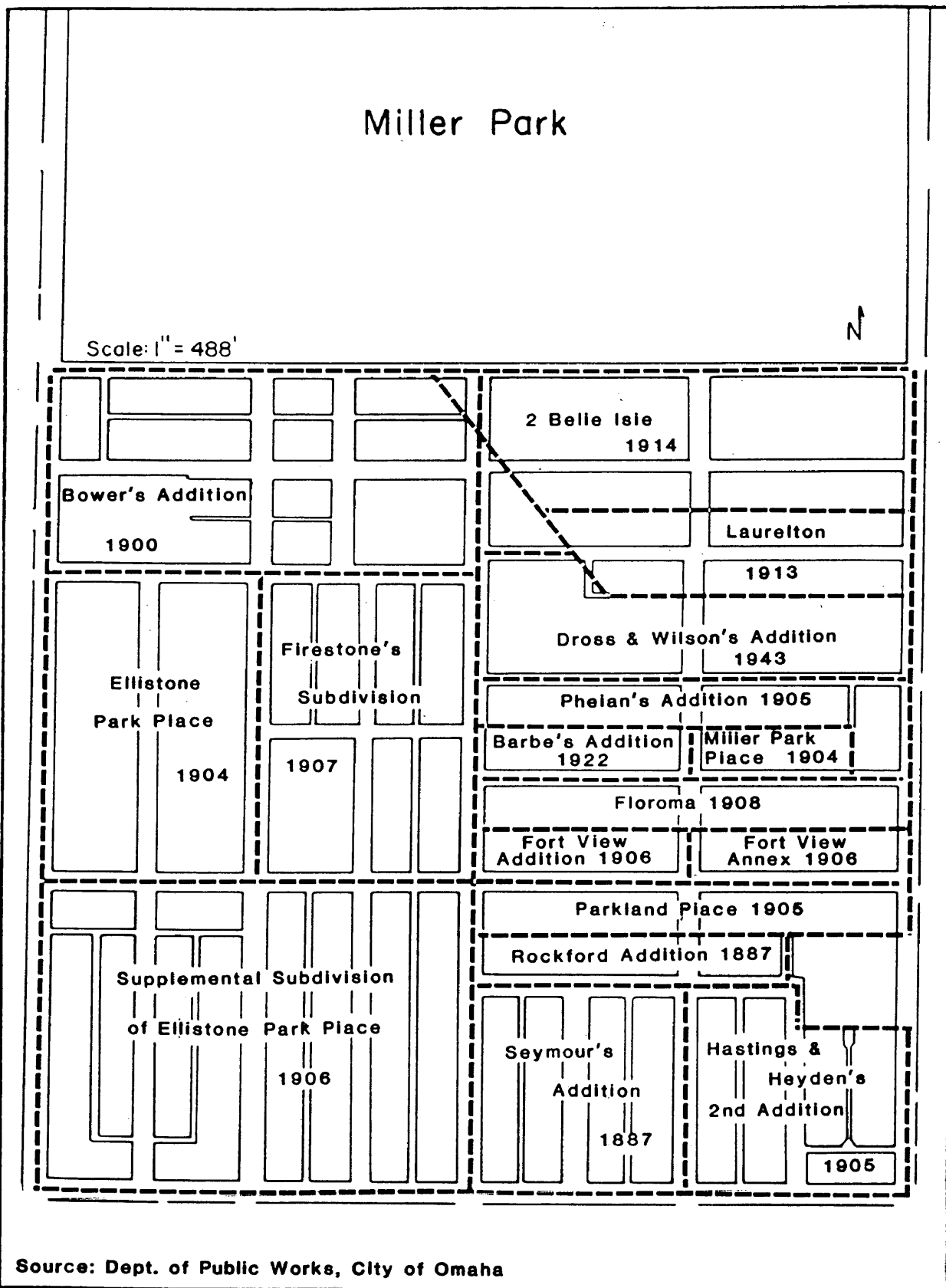


Fig. 2.4. Land Plats in South Study Area

Lot sizes within these plattings range from thirty-nine to 165 feet in width and from ninety-six to 136 feet in depth. Not only is there a greater measure of difference in lot size here, but the styles of housing which exist today vary widely. Bungalows are numerous but are interspersed among earlier as well as later styles.

The history of this neighborhood is quite different than, and certainly not as intriguing as, that of the Minne Lusa Addition. Until the development of Miller Park in 1891, which extended the boundary of the city northward, the neighborhood was on the northern edge of Omaha. It remained the northernmost residential district between 24th and 30th Streets until the Martin Company made its presence known north of the park. This southern neighborhood lies adjacent to one of the main lines of a street railway system which operated on North 30th Street and Fort Street. Consequently, the blocks nearest these two streets saw development earlier than those in the northeastern portion nearer the park and 24th Street (Figure 2.5). Just as Martin had utilized the presence of the streetcar to aid in the promotion and the ultimate realization of his project, the railway certainly had contributed to the development and form of the south neighborhood. This neighborhood lacks evidence of a deliberate effort towards cohesion and harmony which is so apparent in the Martin addition. In spite of this, it does have a character of its own -- perhaps not one of regimentation and "look-alike" houses but character, nonetheless, rooted in heterogeneity.

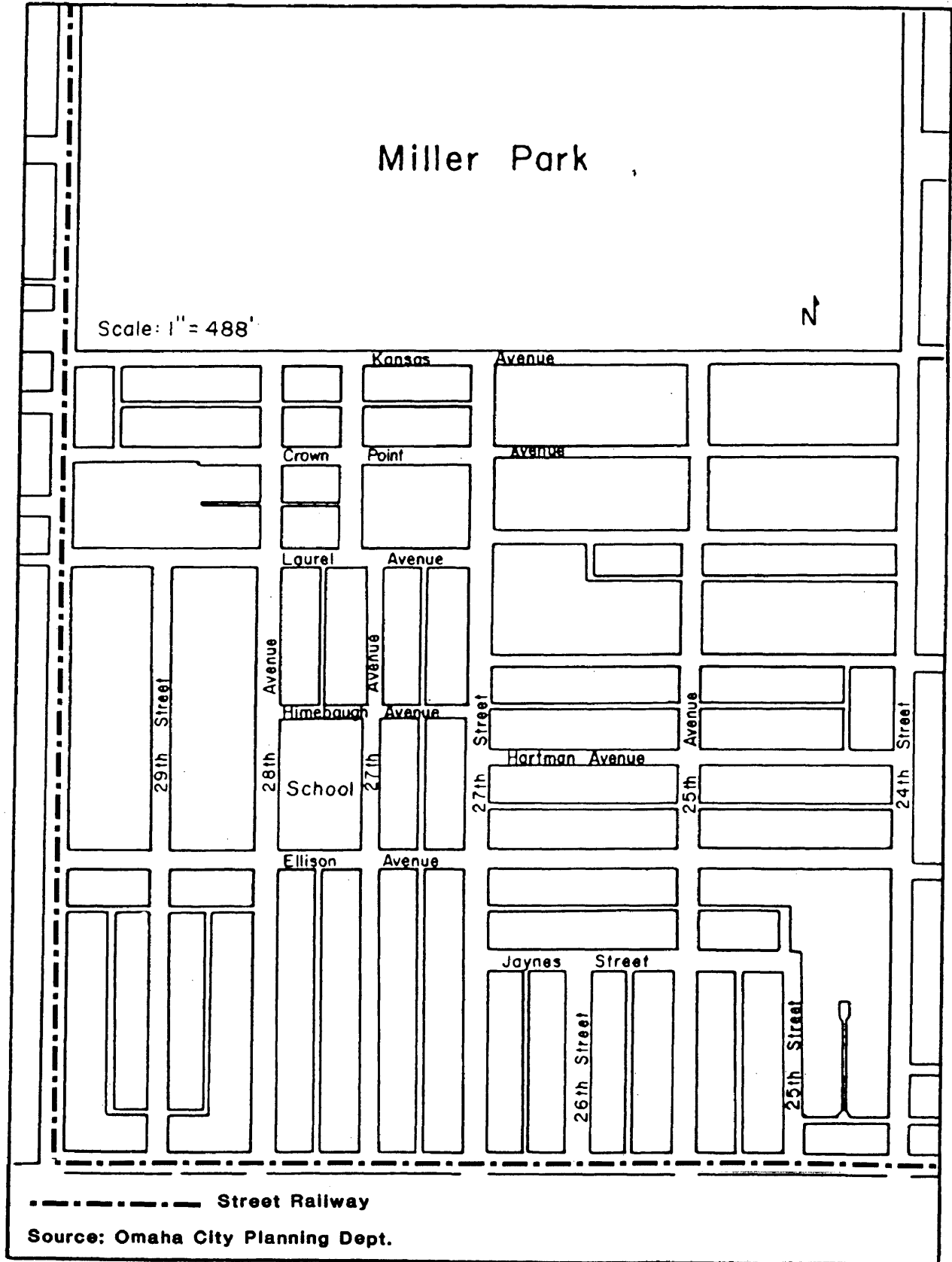


Fig. 2.5. Streetcar Map, 1912

THE FIELDWORK:
TECHNIQUES AND PROCEDURES

In any effort which involves research into house style it is necessary to conduct a field survey of the study area. Since the present study involves consideration of particular architectural features present in all one- and one-and-one-half-story bungalow-style houses within the study area it was necessary to select a technique by which an inventory could be carried out quickly and efficiently. Consequently, a windshield survey was chosen, as it allows for a relatively quick excursion through the area while allowing the researcher an acceptable amount of exposure to the neighborhood.

An immediate concern in this investigation was the ability of the researcher to identify a structure as a bungalow. Chapter I of this study offers an understanding into the structural features of bungalows through history as do many of the bibliographic sources therein. It is with the aid of these sources that guidelines were established and adhered to in the discrimination between the bungalow and other styles present in North Omaha. As previously mentioned, the extended eaves with support brackets or visible rafter ends are a telling characteristic of the American bungalow (Figure 2.6). This single element, above all others, establishes that a particular structure deserves closer scrutiny. The presence of splayed or oversized porch columns (Figure 2.7), the presence of double gables of the front facade (Figure 2.8), and the relative size of the structure also played roles in discerning whether a house is a bungalow, a tudor-style, or simply



Fig. 2.6. Support brackets and visible rafter ends



Fig. 2.7. Splayed porch columns



Fig. 2.8. Double gables on front facade



Fig. 2.9. Relative size of bungalows

a vernacular structure. The bungalow of North Omaha is a relatively small structure when compared to other earlier and later house styles, reflecting the persistence of the cottage analogy (Figure 2.9). Even though the bungalow is a distinct architectural style of housing in America, the wide variety of architectural appurtenances exhibited makes implementing strict guidelines unrealistic. The researcher must rely upon knowledge of the style and be aware of the aforementioned telltale features.

Throughout the fieldwork, the address as well as the structural characteristics of each bungalow were noted on a checklist (Figure 2.10). This checklist utilizes criteria set forth in Richard Mattson's (1981) article, "The Bungalow Spirit." Bungalows were classified on the basis of the presence or absence of features contained in six main categories: roof style, number of stories, pitch of the roof, type of dormers, type of porch, and exterior siding material. As illustrated in the diagrams and photographs on the following pages, each of the six categories was broken down for further evaluation (Figures 2.11 - 2.28).

Roof style refers to the orientation of the roof's ridge beam (Figure 2.11, a - e). The fore-back axis utilizes a single beam running perpendicular to the street on which the house is situated, while the ridge beam of the parallel axis bungalow runs parallel to the street. The T-axis is a structure utilizing two ridge beams which intersect at right angles. The L-axis bungalow, too, has two ridge beams; but one merely abuts the other at right angles. The square-hipped structure has a relatively square roof form with a beam ex-

tending up from each corner and abutting one another at the peak, suggesting a pyramidal appearance.

An aspect of roof construction not appearing on the checklist is the consideration of whether the house exhibits a gable, clipped-gable, or hip roof (Figures 2.12 - 2.14). Each of the five main roof orientations, with the exception of the square hip, is capable of displaying one of the popular stylistic touches used in roof design. The gable-end design leaves an open-ended, pointed appearance to the roof; the clipped gable softens the peak by the addition of a "flap" to the gable end; and the hip roof has no open end and brings all eaves down to a common level. Indication of the presence of these particular stylistic elements was noted in the appropriate column on the checklist with the letters "G" (gable), "CG" (clipped gable), and "H" (hip). Despite the added attention given to this particular element, the information was not utilized in the more complex data analyses but, instead, will be viewed as stylistic elements of secondary importance.

Consideration of the number of stories of each bungalow involved deciding between two variables. Either the house is a single or one-and-one-half-story structure (Figures 2.15 - 2.16). As evidenced by the photographs, the single-story bungalow offers no living space above that of the main floor, while the one-and-one-half-story structure was built to accommodate additional bedrooms above the main floor. The presence of windows on the upper floor often indicates that this space is available, if not already utilized. Due to the exclusion of any and all two-story structures from this study, guidelines were instituted

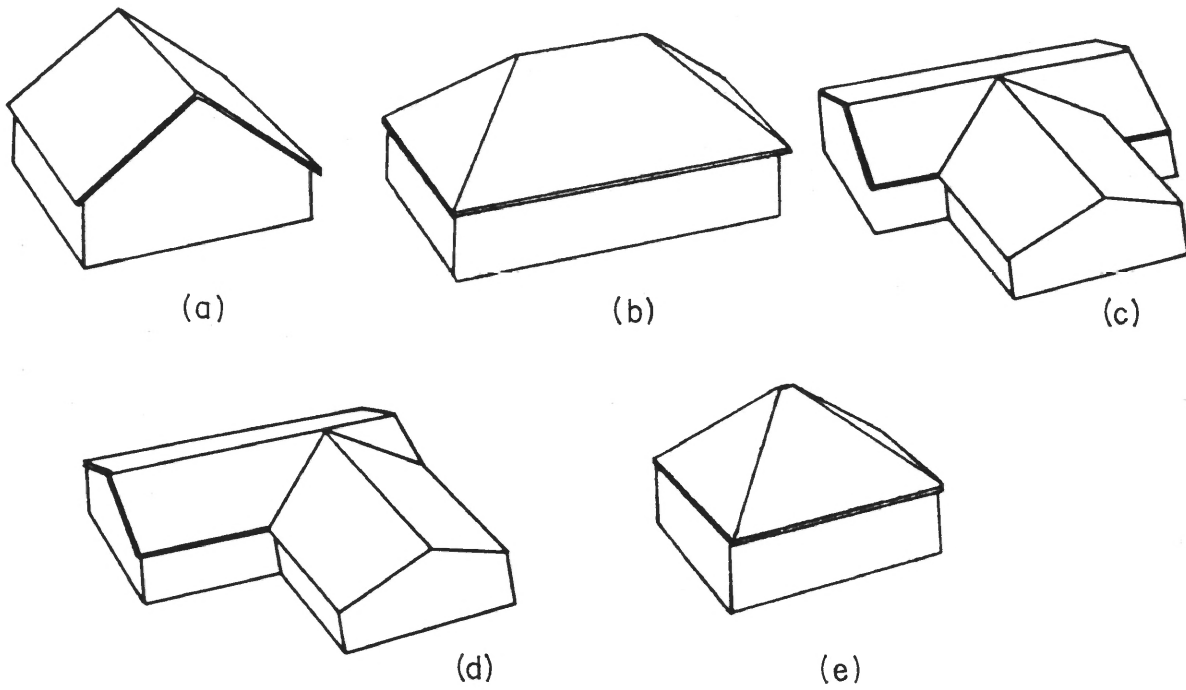


Fig. 2.11, a - e. Examples of roof style



Fig. 2.12. Gable-end roof



Fig. 2.13. Clipped-gable roof



Fig. 2.14. Hip roof



Fig. 2.15. Single-story bungalow



Fig. 2.16. One-and-one-half-story bungalow

which allowed for the discrimination between one-and-one-half and two-story structures. Since a taller structure affords greater headroom on the upper floor, it was assumed that the height of the sidewalls was directly related to the availability of room on the second story. A house on which the eaves of the roof extend below the midpoints of the second-story windows was considered a one-and-one-half-story home because of its low headroom and limited living space afforded by the shorter sidewalls (Figure 2.17). A home on which the edge of the eaves rose above the window's midpoint was classified as a two-story structure and eliminated from any further consideration (Figure 2.18).

The pitch of the roof was noted for each bungalow in order that insight might be gained into the extent of regional adaptations to certain climatological and stylistic influences. The pitch of a roof refers to the ratio of the number of inches of "rise" (vertical distance) to the number of inches of "run" (horizontal distance); or, more simply, the angle or steepness of the roof. For example, a structure exhibiting a low increase in rise and a high increase in run (e.g., 4" : 12") is said to have a shallow-pitched roof (Figure 2.19). Conversely, a structure with a standard-pitched roof is one in which the roof increases in rise more rapidly with the increase in run (e.g., 6" : 12") (Figure 2.20).

The presence of and style of dormers is an important element in the classification of bungalows. A dormer, according to Lester Walker's American Shelter (1981: 311), is "an upright window that projects from a sloping roof." Many of the one-and-one-half-story



Fig. 2.17. Short sidewalls on one-and-one-half-story bungalow



Fig. 2.18. High roofline of two-story bungalow



Fig. 2.19. Shallow-pitched roof



Fig. 2.20. Standard-pitched roof

bungalows in Omaha display at least one dormer, which allows for added living space and headroom in the small second story. The presence of dormers illustrates the willingness of the builder and buyer to spend additional money in order to gain additional space and light in the home. Of the three styles considered in the survey, the gable dormer is the least complicated of all, yet one which allows for more headroom than the other single-dormer styles. The gable dormer is a window with a small pointed, open-ended roof (Figure 2.21). The hip dormer, like the hip roof, extends the front of the roof over the window so as to make even all roof edges (Figure 2.22). The hooded variety describes a dormer with a single plane extending down from the roof and over the window (Figure 2.23). The "other" category includes less popular forms such as the double-gable (Figure 2.24), the eyebrow (Figure 2.25), and the double-eyebrow. The double varieties offer the luxury of even more headroom and light than the single dormers while maintaining the symmetry so characteristic of bungalow-style houses. If there were no dormers present, as expected on many of the single-story structures, none of the columns was marked. At this point it ought to be noted that due to the nature of a windshield survey the information gathered on the presence of dormers is based on what can be observed from the street. As a result, dormers not visible from the street were not recorded.

The front porch is an important stylistic element in the history of the bungalow; and, therefore, its presence and styles were noted in this survey. For the bungalows under study, the porches could be seen as belonging to one of four categories (Figures 2.26 - 2.29). In homes



Fig. 2.21. Gable dormer



Fig. 2.22. Hip dormer



Fig. 2.23. Hooded dormer



Fig. 2.24. Double-gable dormer



Fig. 2.25. Eyebrow dormer



Fig. 2.26. Porch under main roof



Fig. 2.27. Porch under extended gable



Fig. 2.28. Porch under extended hip



Fig. 2.29. Front stoop

which have an extended roof line on the front facade, the front wall would be inset substantially from the edge of the eave providing room for an open space under the main roof. Alternately, a wing was often added on the facade during construction either with a gable or hip roof (dependent upon roof style) which served as a porch. Bungalows which lacked any such open-air or enclosed areas with roofs were categorized as "other." This may include variations on the three main porch styles but most often would indicate open stoops with no roofs.

A characteristic feature of the California bungalow was the use of natural materials such as cedar shingles, cobbles, and wood for the exterior finish. In order to determine the extent to which North Omaha's bungalows followed these prototypes, it was necessary to take note of materials utilized on the exteriors of its bungalows. Materials such as clapboard, stucco, brick, and shingles comprise the list of basic materials that were expected to be found. The "shingles" category includes asbestos and asphalt, as well as cedar; although no distinction is made in the final analysis. Furthermore, if the bungalows of Omaha were to follow California's example, it was expected that a number of houses would exhibit a combination of materials on the exterior -- clapboard and stucco, stucco and brick, shingles and stucco, and so forth. Again, the distinction between combinations of exterior finishes is made only in the preliminary analysis and does not have a place in the more complex analyses. Should the materials of a particular structure not fit into any of the above categories, they were noted in the "other" column. "Other" includes cobbles and facing stone as well as the more

modern alternatives of aluminum, steel, and vinyl sidings.

In addition to the checklist for the recording of architectural data, a zoning map of Omaha at a scale of 1" = 200' was utilized in the survey. As the address of each bungalow was recorded on the checklist, its location was plotted on the map so that a visual record could be maintained along with the written record. It was expected that a map of bungalows in North Omaha would provide visual clues as to spatial patterns of location and distribution which no written list could provide.

Upon completion of the field survey, it became essential to the project to gather information regarding date and cost of construction for each bungalow recorded. Due to the seemingly conflicting natures and histories of the two neighborhoods, data on dates of construction and original construction costs were necessary in order to aid in the discovery of similarities and dissimilarities between the neighborhoods. This information was obtained from the files of the Permits and Inspection Department, City of Omaha Planning Department.

The largest portion of this survey was carried out during the spring of 1984. The remainder had been completed in the fall and winter of 1982. The results which follow reflect a consideration of all one- and one-and-one-half-story bungalows standing at these times.

Chapter III

DATA ANALYSIS

A total of 749 structures were classified as bungalows in the two neighborhoods. The neighborhood north of Miller Park contains 435 bungalows, or 58.1 percent of the total number of bungalows in both areas. The area south of the park contains 314 bungalows, or a 41.9 percent share of the 749 total bungalows. The bungalows to the north of Miller Park represent 62.6 percent of the 695 total housing units in that neighborhood, while of the 759 total housing units in the south neighborhood 41.4 percent are bungalows. These figures alone offer some indication as to the differences between the two areas regarding continuity.

Preliminary Analysis

Upon completion of the fieldwork, the results of which may be found in the appendix, it became evident that several statistical procedures were necessary in order to illustrate the relationships between the two neighborhoods. In addition to the breaking down of the occurrences of structural features of bungalows in the preliminary analysis, more sophisticated statistical techniques were implemented with the hope that more subtle differences which result from neighborhood differentiation would be revealed for analysis.

The first step in the preliminary analysis was to construct maps

which would illustrate the location of each bungalow. These maps not only allow for an examination of the relative location of bungalows but invite further analysis into patterns of distribution and questions which may arise concerning this distribution. A map indicating the location and distribution of bungalows in the neighborhood north of Miller Park (hereafter referred to as Area 1) and a map showing the location and distribution of bungalows in the neighborhood south of the park (hereafter referred to as Area 2) may be found on the following pages (Figures 3.1 - 3.2).

The map of Area 1 supports the contention that this neighborhood exhibits a level of uniformity in the development of housing that is lacking in Area 2. The bungalows of Area 1 appear uniformly arranged with respect to one another and occur largely in uninterrupted strings. The location of houses in Area 2 reflect, for the most part, the heterogeneity which is inherent in the platting of its smaller sections. Strings of bungalows are present here, as well; but the presence of isolated structures suggests a higher level of the use of the bungalow for infill. That is, bungalows were built to fill vacant lots in previously-developed sections of the neighborhood. Furthermore, the maps illustrate that a very high percentage (92 percent) of structures in Area 1 are located on streets with an east-west orientation, while approximately half of all bungalows in Area 2 are situated on east-west streets. This, of course, further reflects the uniformity and careful planning associated with the Minne Lusa neighborhood. Also noticeable is the lack of substantial numbers of bungalows on Redick and Kansas

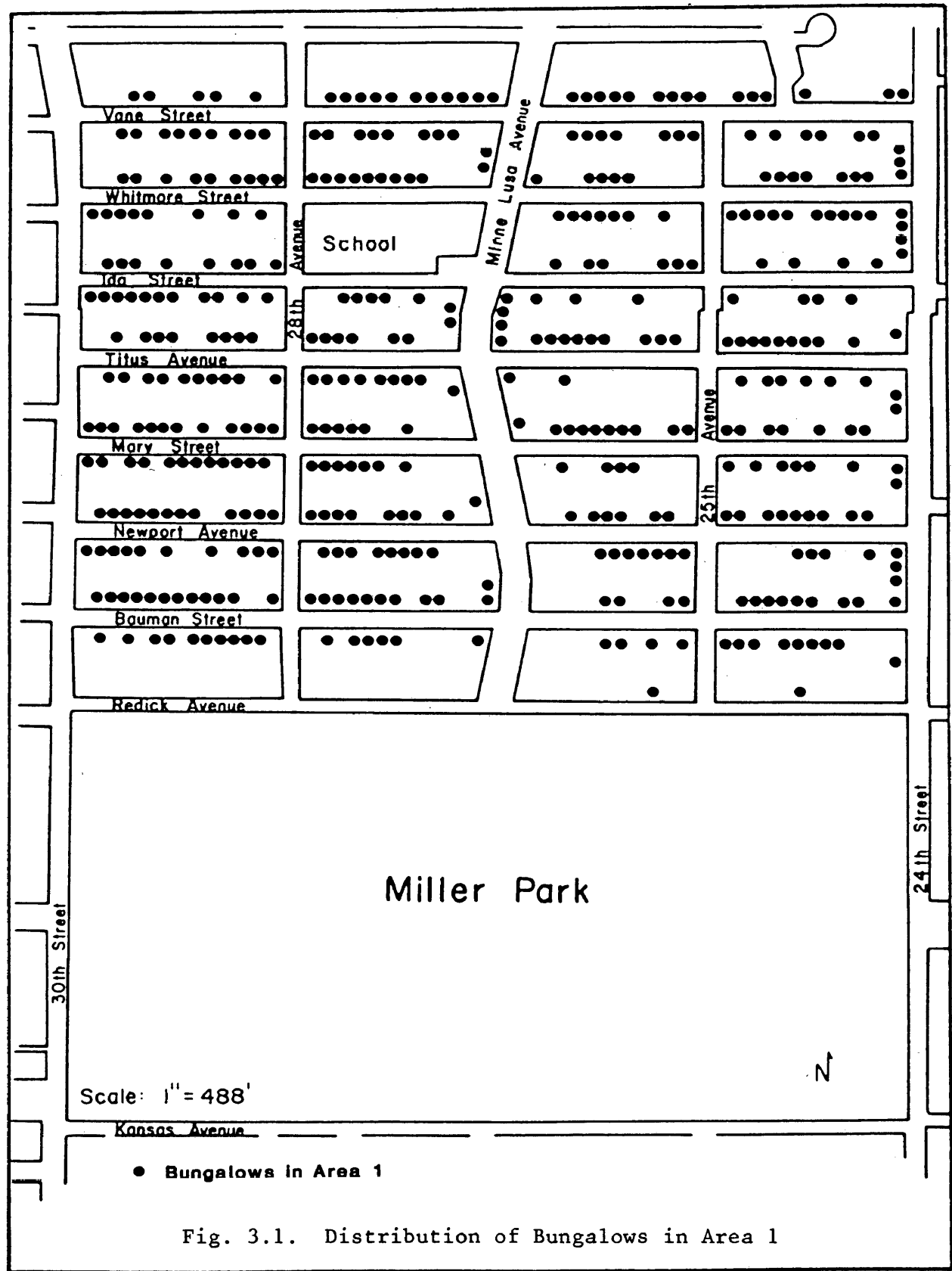
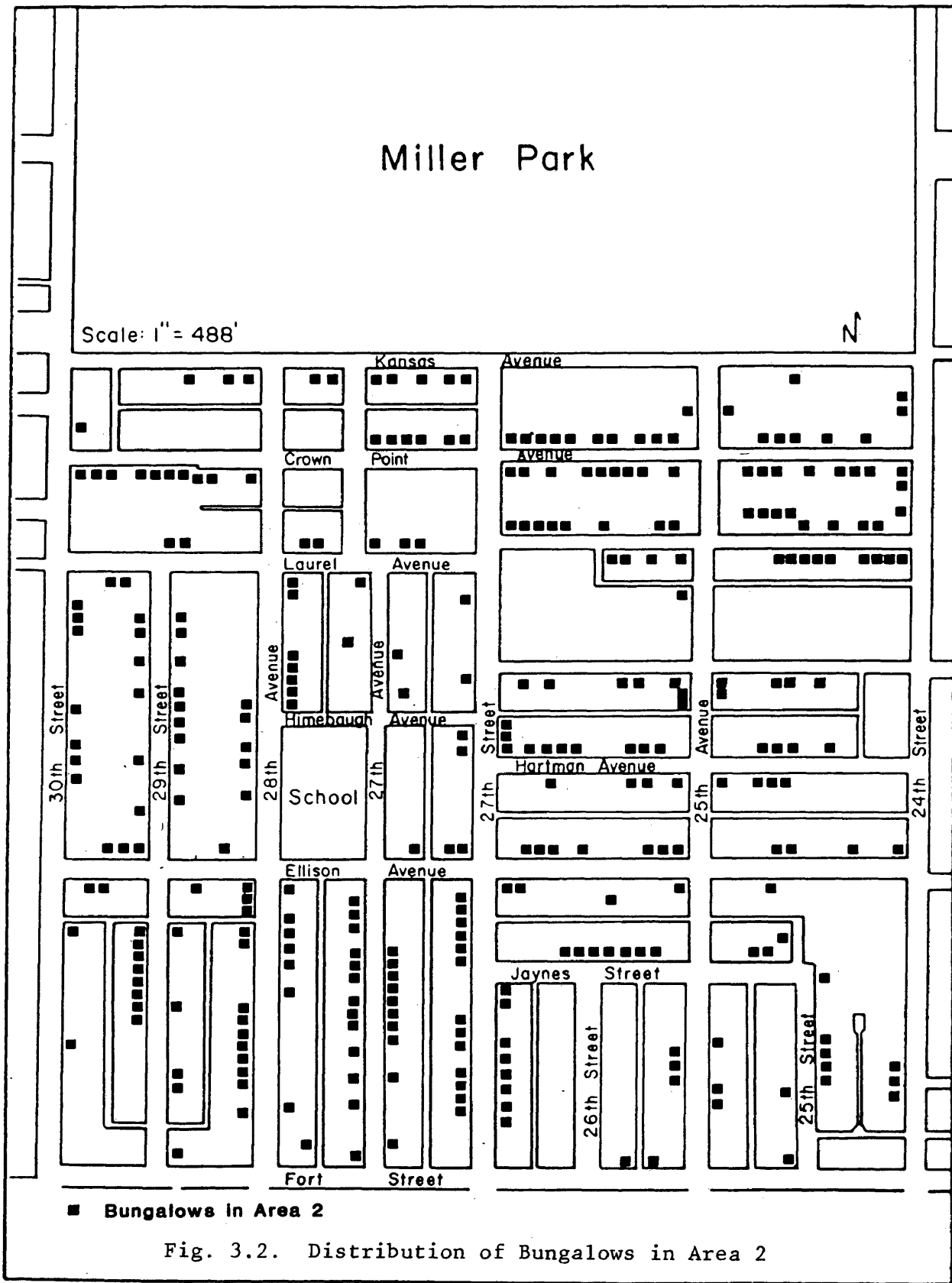


Fig. 3.1. Distribution of Bungalows in Area 1



Avenues on the north and south borders of Miller Park. These areas are typically occupied by homes of a more elaborate nature. The preceding comparisons are based upon an initial perusal of the completed maps. More subtle differences and likenesses will be examined in the discussion concerning the primary statistical evaluations.

The heart of the preliminary analysis concerning structural features is reflected in the table on the following pages (Table II). This table represents a feature-by-feature comparison of bungalows in Areas 1 and 2. The differences as well as the similarities are featured as both percentages of occurrence and real numbers. Both sets of figures offer a straightforward and uncomplicated view of the presence of particular structural features on North Omaha's bungalows.

A number of major differences between bungalows of Areas 1 and 2 ought to be noted. Regarding roof style, bungalows with a fore-back axis in Area 2 account for nearly two-thirds of all bungalows here, while the fore-back orientation in Area 1 is a feature of slightly less than one-third of all bungalows. Additionally, the T-axis bungalow is much more prevalent in Area 1 than in Area 2. These differences in roof style may be interpreted as a reflection of lot size; i.e., a bungalow with an orientation which is perpendicular to the street is better suited to narrow lots, and a bungalow with a T-axis is apt to be situated on lots which afford greater frontage. The fact that Area 1 has a much higher representation of T-axis structures may be a clue as to the higher standards regarding style and construction costs. Furthermore, houses which provide more square feet of living space, such as the

TABLE II

STRUCTURAL CHARACTERISTICS OF NORTH-OMAHA BUNGALOWS				
CHARACTERISTICS	AREA 1		AREA 2	
	NO. OF OCCURRENCES	PERCENTAGE of Total No.	NO. OF OCCURRENCES	PERCENTAGE of Total No.
<u>ROOF STYLE</u>				
Fore-Back Axis	<u>142</u>	<u>32.6</u>	<u>205</u>	<u>65.3</u>
Gable	77		G 179	
Clipped Gable	55		CG 22	
Hip	10		H 4	
Parallel Axis	<u>155</u>	<u>35.6</u>	<u>97</u>	<u>30.9</u>
Gable	113		G 82	
Clipped Gable	41		CG 15	
Hip	1		H 0	
T-Axis	<u>125</u>	<u>28.7</u>	<u>10</u>	<u>3.2</u>
Gable	118		G 8	
Clipped Gable	7		CG 2	
Hip	0		H 0	
L-Axis	<u>11</u>	<u>2.5</u>	<u>2</u>	<u>.6</u>
Gable	8		G 1	
Clipped Gable	3		CG 1	
Hip	0		H 0	
Square Hip	<u>2</u>	<u>.5</u>	<u>0</u>	<u>0</u>
<u>NUMBER OF STORIES</u>				
1	<u>290</u>	<u>66.7</u>	<u>218</u>	<u>69.4</u>
1½	<u>145</u>	<u>33.3</u>	<u>96</u>	<u>30.6</u>

TABLE II -- Continued

CHARACTERISTICS	AREA 1		AREA 2	
	NO. OF OCCURRENCES	PERCENTAGE of Total No.	NO. OF OCCURRENCES	PERCENTAGE of Total No.
<u>PITCH OF THE ROOF</u>				
Standard	384	88.3	311	99.0
Shallow	51	11.7	3	1.0
<u>TYPES OF DORMERS</u>				
Gable	95	21.8	78	24.8
Hip	1	.2	4	1.3
Hooded	27	6.2	48	15.3
Other	3	.7	0	0
Eyebrow				E 0
Double Eyebrow				DE 0
Double Gable				DG 0
None	309	71.0	184	58.6
<u>TYPES OF PORCHES</u>				
Under Main Roof	174	40.0	156	49.7
Under Extended Gable	189	43.4	129	41.4
Under Extended Hip	65	14.9	26	8.3
Other	7	1.6	3	1.0

TABLE II -- Continued

CHARACTERISTICS	<u>AREA 1</u>		<u>AREA 2</u>	
	NO. OF OCCURRENCES	PERCENTAGE of Total No.	NO. OF OCCURRENCES	PERCENTAGE of Total No.
<u>EXTERIOR FINISH MATERIALS</u>				
Clapboard	<u>99</u>	<u>22.8</u>	<u>168</u>	<u>53.5</u>
Stucco	<u>197</u>	<u>45.3</u>	<u>34</u>	<u>10.8</u>
Brick	<u>12</u>	<u>2.8</u>	<u>5</u>	<u>1.6</u>
Shingle	<u>30</u>	<u>6.9</u>	<u>32</u>	<u>10.2</u>
Combination	<u>53</u>	<u>12.2</u>	<u>31</u>	<u>9.9</u>
Brick & Stucco	17		Br & St	2
Clapboard & Stucco	15		Cl & St	13
Shingle & Stucco	16		Sh & St	3
Shingle & Brick	1		Sh & Br	0
Stucco & New Siding	4		St & NS	3
Shingle & Clapboard	0		Sh & Cl	8
Shingle & New Siding	0		Sh & NS	1
Stucco & Stone	0		Stu & Sto	1
Other	<u>44</u>	<u>10.1</u>	<u>44</u>	<u>14.0</u>

T-axis or parallel-axis bungalows, require more materials for construction and ultimately higher construction costs. Perhaps this is the first real clue that differences do exist in the socio-economic fabrics of the two neighborhoods. Further supporting this claim are the figures which represent the percentage of occurrence of roof-style variations, such as gable, clipped gable, and hip. Area 2 is dominated by the gable-end roof in all roof orientations, while Area 1 exhibits a great many clipped-gable roofs as well as some full hip roofs on the bungalows with fore-back axes. Certainly, it is less expensive to construct a roof without the added materials and labor necessary in the addition of full and partial hips.

Approximately two-thirds of all bungalows in the study area are single-story structures. This is not a surprising figure since bungalows, by definition, are low-lying structures which emphasize the horizontal over the vertical. Area 2 contains a slightly higher percentage of single-story structures than does Area 1, but the difference is not particularly significant.

The standard-pitched roof was an overwhelming favorite of bungalow builders in these neighborhoods. Even though over ninety percent of all bungalows have roofs of standard pitch, fifty-one bungalows in Area 1 exhibit shallow-pitched roofs as opposed to three bungalows in Area 2. This, again, may be interpreted as the original builders of bungalows in Area 1 having the willingness and the financial wherewithall to be able to duplicate more closely the original style of the California bungalow. With this in mind it can be stated that the home builders of Minne Lusa,

a suburban housing development, were conscious of style and appearance as well as with offering affordable housing.

The greater number of bungalows surveyed had no visible dormers on the roofs. Of the total number of structures with dormers in each area, Area 2 had a higher percentage of single-story structures exhibiting dormers, while Area 1 had a higher percentage of one-and-one-half-story bungalows with dormers. One explanation for this paradox may be that the owners of one-and-one-half-story structures in Area 1 demanded the additional room offered by a dormer; while the inhabitants of the single-story bungalows in Area 2, unable to afford the additional living space offered by an upper floor, opted to install a dormer for its illusory effect or for purposes of ventilation. In addition, Area 2 displays a much higher percentage of hooded dormers than does Area 1. The hooded dormer is an inexpensive method of dormer construction requiring the construction of a single roof over the window. The relative absence of this variety in Area 1 offers support to the contention that builders in Area 2 were more ready to offer a less expensive dormer as an option to the more fanciful styles. A number of dormer styles are unique to Area 1. Examples of the eyebrow, double-eyebrow, or double-gable dormers are found on three bungalows here. None of these more elaborate dormers are present anywhere in Area 2. The eyebrow dormers are particularly novel and stylish, thus strengthening the contention that Area 1 displays more visible signs of a consciousness of style.

There is little variation in porch style between the two neighborhoods. Porches under the main roof and under an extended gable pre-

dominate in both Areas 1 and 2. The total of ten bungalows with porches in the "other" category represent, for the most part, structures with open stoops. Many of these homes were built with front porches, but the homeowners have had them removed. It is a rare bungalow which was constructed without a porch on the front facade.

An interesting contrast exists in the consideration of exterior finish materials. Greater percentages of bungalows with stucco and brick finishes are found in Area 1 than in Area 2. In fact, nearly fifty percent of all bungalows in Area 1 exhibit brick or stucco exteriors, while only twelve percent of all bungalows in Area 2 utilize these materials. Over fifty percent of the structures in Area 2, on the other hand, exhibit the less-expensive clapboard siding. A similar contrast is evident when considering those houses which combine materials, for these numbers further support the contention that homebuilders in Area 1 were apt to use more expensive materials than those in Area 2. The "other" category distinguishes, for the most part, those homes which have been "modernized" in appearance. Area 1 and Area 2 contain the same number of bungalows with recently-applied vinyl, steel, or aluminum siding. However, the percentages indicate that the bungalows in Area 2 exhibiting such sidings represent a greater percentage of all bungalows considered. The reasons behind the installation of such materials may vary, and any attempt to relate those reasons here without substantiation would be mere speculation.

As mentioned in Chapter I, it is important that a construction chronology be implemented in the investigation into bungalows of North

Omaha. As part of the preliminary analysis two graphs were constructed which portray the specific periods of bungalow construction in the two neighborhoods (Figures 3.3 - 3.4). This analysis includes only those bungalows for which the date of construction was recorded in the files of the Office of Permits and Inspection, City of Omaha. Only twenty-three addresses (five percent) in Area 1 lacked information concerning the date of construction, while for thirty-seven structures in Area 2 (12 percent) no data concerning date could be found.

Several differences in bungalow construction between the two areas are readily noticeable. First, the earliest of all bungalows in the study area was constructed in Area 2 in 1908. Due to the fact that development had not begun in Area 1 until 1915, no bungalows are found there predating 1915. Additionally, the graphs reflect the fact that Area 2 also contains the most recent bungalow, built in 1936.

The graph representing construction in Area 1 illustrates the fact that over eighty percent of all bungalows surveyed were constructed in the years from 1915 to 1926. The initial peak from 1917 to 1918 indicates the years of birth and boom for the area. The subsequent drop in construction in 1920 could be due to any number of factors. But, this drop was short-lived; another period of substantial construction occurred from 1922 through 1925.

In contrast, construction is noticeably spread out over a greater period of time in Area 2. The graph for building dates in Area 2 reaches an early peak in 1915 and then falls sharply during the next three years. This drop in bungalow construction could be attributed to the develop-

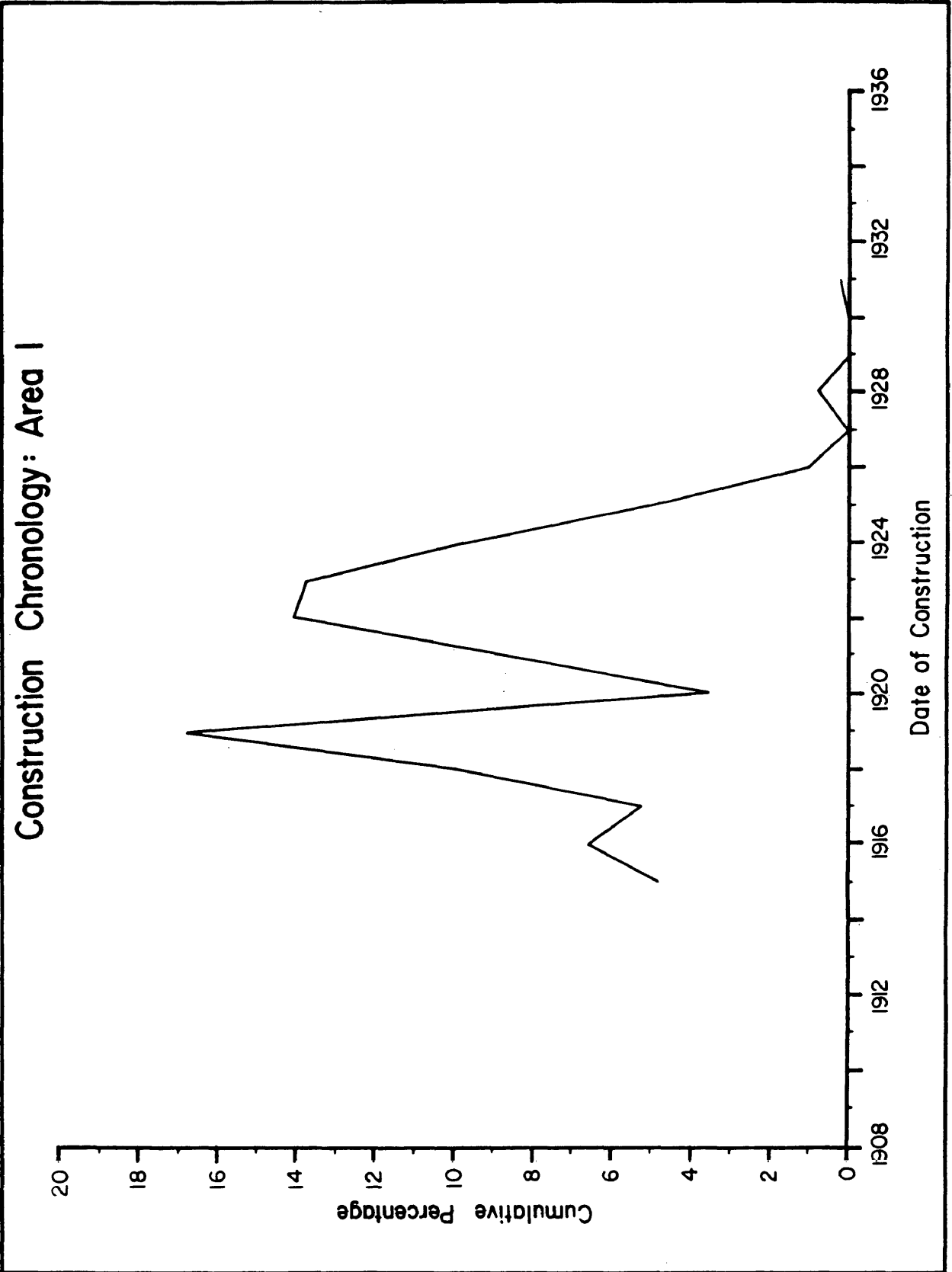


Fig. 3.3. Chronology of Construction in Area I

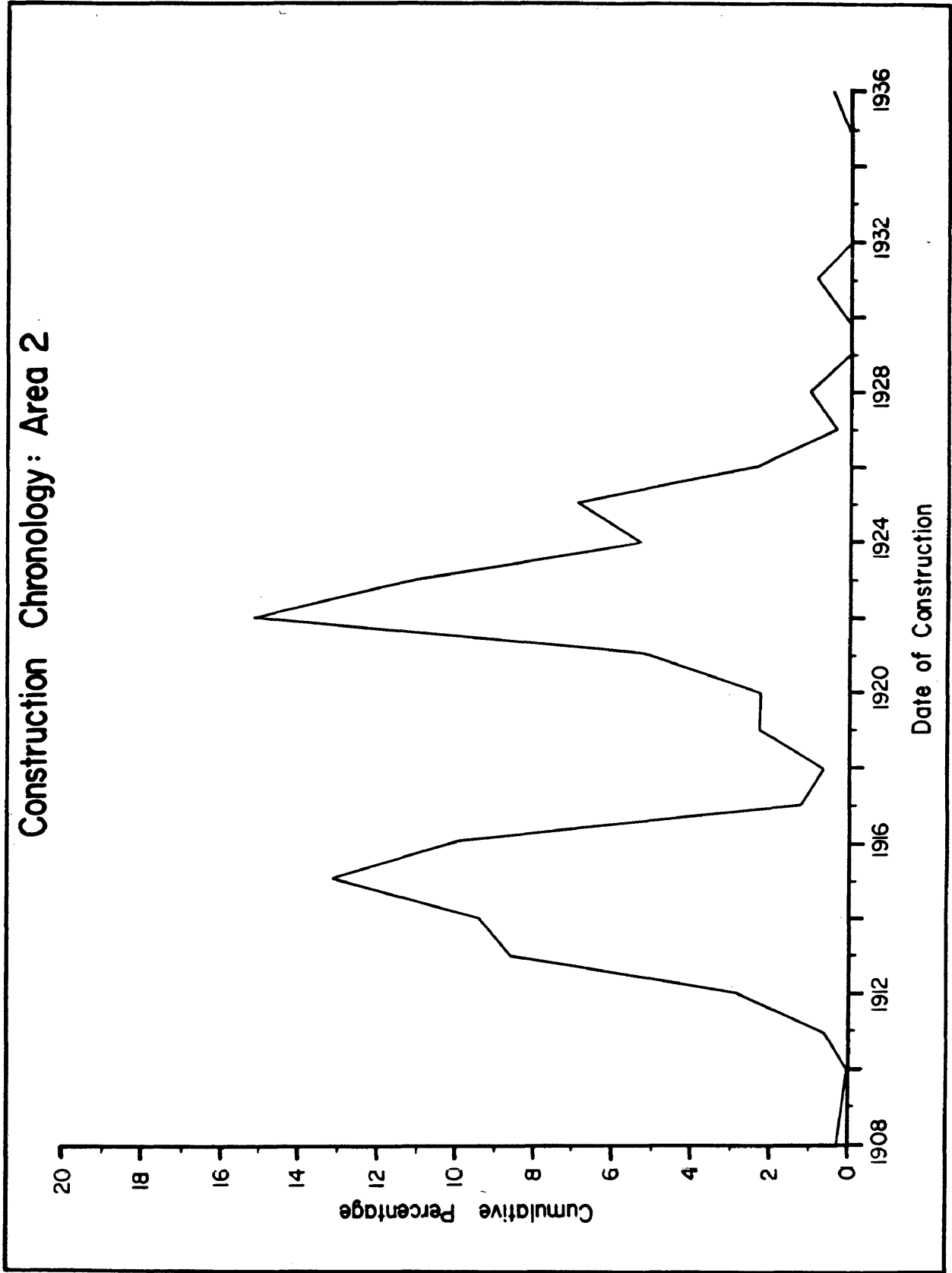


Fig. 3.4. Chronology of Construction in Area 2

ment occurring in Area 1. After all, Charles Martin had been successful in making Minne Lusa appear to be precisely what everyone longed for. This reduction was followed by a sharp rise, as in Area 1, which peaked in 1922. Construction fell off sharply in the mid-1920s, and this area saw little building activity after 1926. The actual construction dates for each bungalow in the survey can be found in the appendix of this study.

The role of the Charles W. Martin Company as contractor for bungalows in the study area, again, offers a noticeable contrast in the neighborhoods. A total of 141 bungalows either were constructed or designed and built by the Martin Company in Area 1, while Area 2 contains only twenty-seven Martin-built bungalows. These twenty-seven bungalows were built during the same period in which Area 1 was expanding. The fact that Area 1 was conceived and developed by Martin is the primary reason for this discrepancy. Certainly, the sharing of a common contractor by nearly one-third of the bungalows in Area 1 aids in the establishment of uniformity in house features as well as a more homogeneous neighborhood.

Discriminant Analysis

Discriminant analysis is a statistical technique which allows the researcher to distinguish between two or more groups. The researcher chooses a set of discriminating variables which are measures of the characteristics on which the groups, or areas, are expected to differ. William Klecka (1975: 435) points out that, "the mathematical objective of discriminant analysis is to weight and linearly combine the discrim-

inating variables in some fashion so that the groups are forced to be as statistically distinct as possible." Discriminant analysis performs mathematical procedures which bring group separation and group membership to a maximum. The results of this procedure allow for a high level of sophistication in the analysis and classification of the input data. As a result of this procedure, the researcher is able to reveal particular variables which determine group membership and to predict group membership for all known or unknown cases (Klecka, 1975: 435-436).

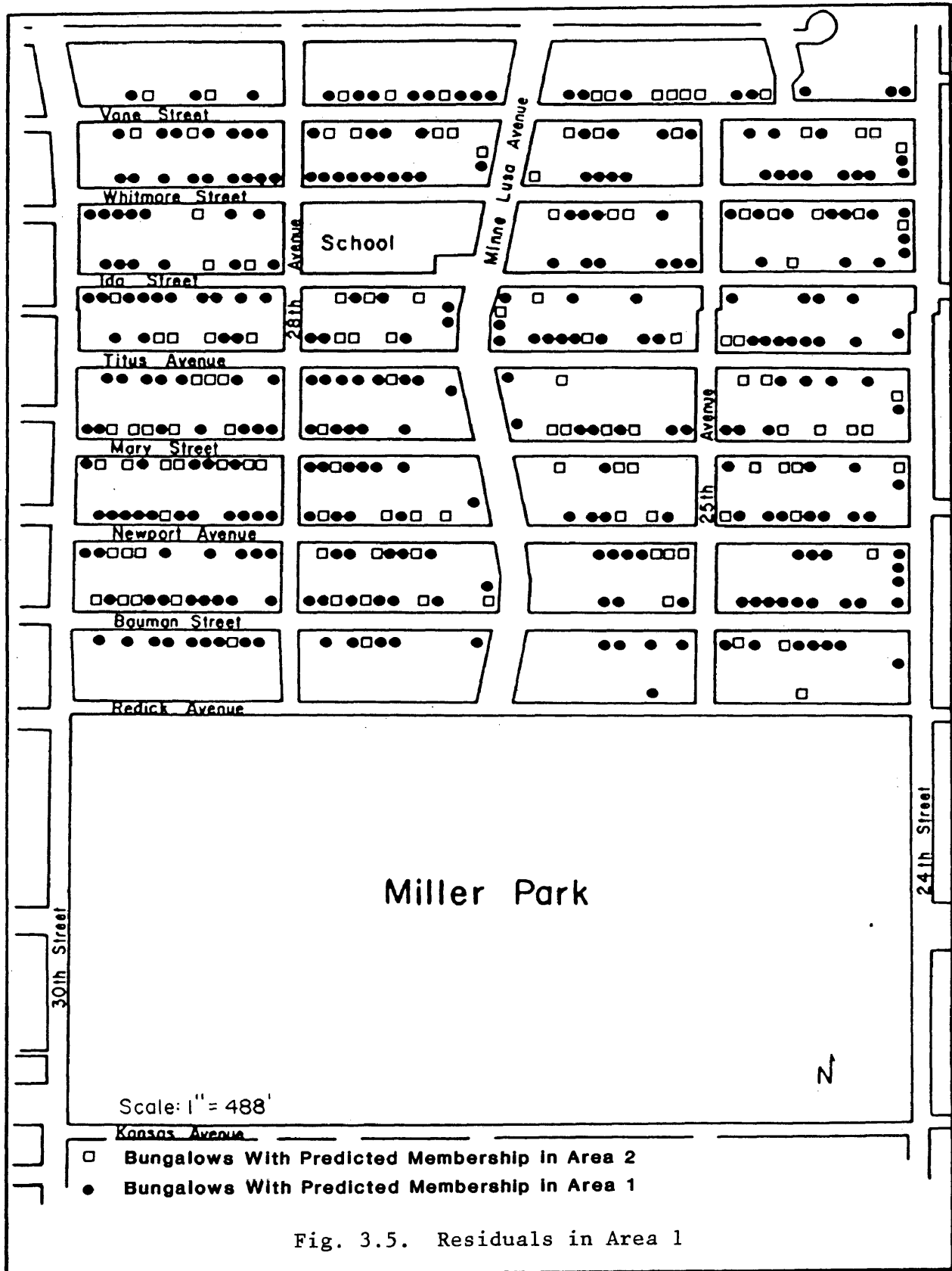
In order to implement discriminant analysis in this study, the discriminant analysis subprogram of the "Statistical Package for the Social Sciences" (SPSS) was used on the "Digital VAX/VMS" computer system at the University of Nebraska at Omaha. The discriminant subprogram was implemented twice, each time using a different set of discriminating variables. The stepwise method was employed so as to establish a hierarchy of discrimination in variables. The variables used for the first run of the program were the architectural features under consideration in this research. With architectural features as the only variables, the results would reveal those features which more strongly suggest group membership.

The following list contains the most discriminating variables in order of their importance in establishing group membership. Membership in Area 1 is determined by the presence of a stucco exterior finish, an extended-hip porch, a roof with parallel axis, a shallow-pitched roof, double-eyebrow dormers, and a brick exterior finish. Membership in Area 2 is determined by the presence of a fore-back roof alignment,

a hooded dormer, clapboard siding, a porch under the main roof, a combination of exterior finish materials, and a single story. These particular architectural features constitute the set of variables which provides for satisfactory discrimination for all known cases.

The classification procedure of discriminant analysis identifies the likely group membership of an individual case, or in this instance, individual bungalow. According to the results of the analysis, 74.6 percent of all bungalows in both areas can be placed in the appropriate group based simply on the above architectural features. Broken down into areas, it is predicted that seventy-one percent of the bungalows in Area 1 are appropriately located in that area; while twenty-nine percent of the bungalows in Area 1, due to the presence or absence of certain architectural features, might more appropriately belong within Area 2. At the same time, 79.6 percent of all bungalows in Area 2 are properly situated in Area 2, while 20.4 percent are considered to be outliers and might be situated more appropriately within Area 1. These outliers, or residuals, have a low correlation with the discriminant function.

Once the predictability of group membership had been established, it became necessary to plot the residuals on a map of each area so as to establish whether or not any geographic patterns of location and distribution could be noticed within the areas. The following maps (Figures 3.5 - 3.6) illustrate the residuals of the discriminant analysis for Areas 1 and 2. For Area 1, the bungalows which are members of the group based on their architectural features are represented by blackened



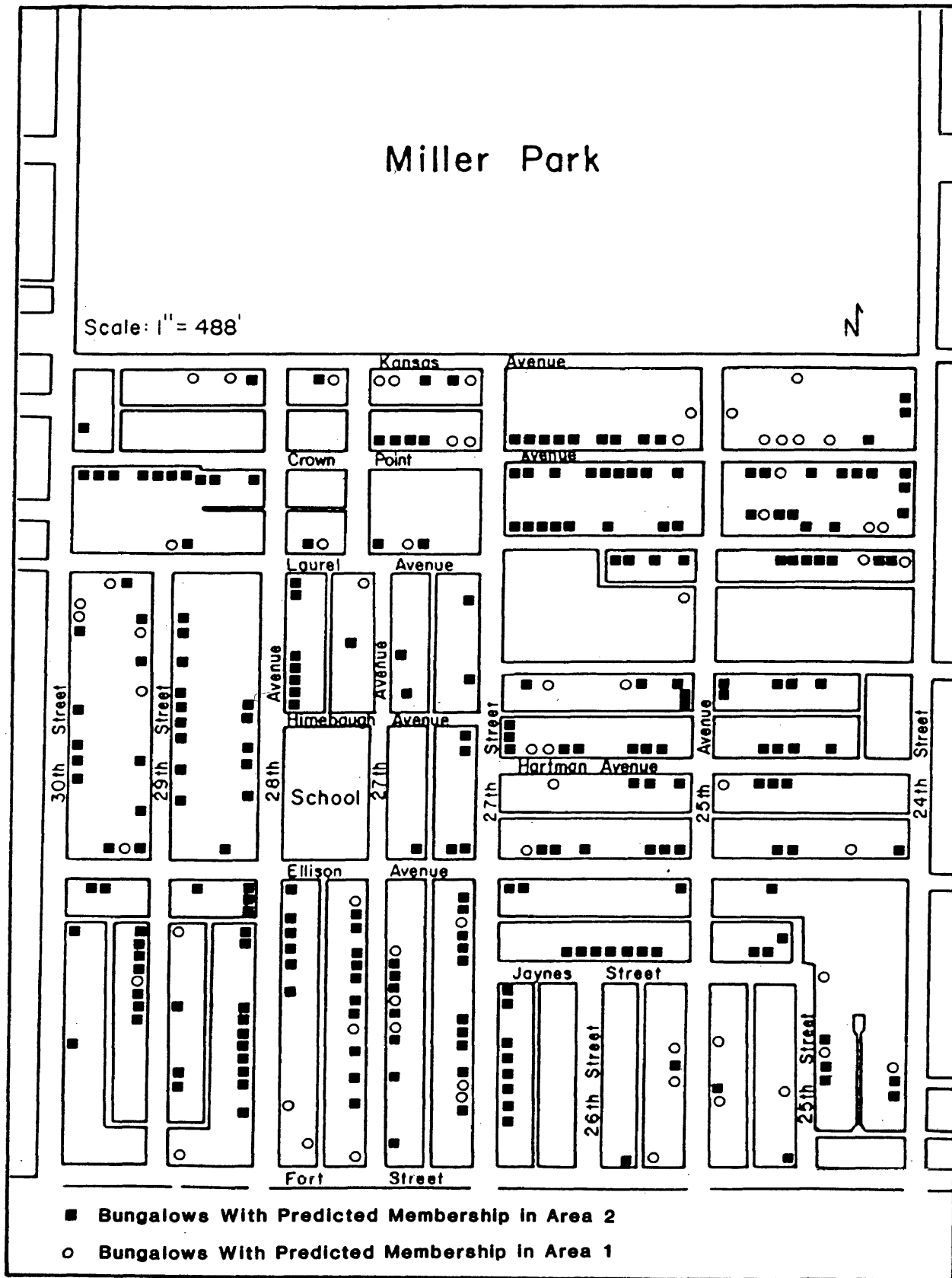


Fig. 3.6. Residuals in Area 2

circles. The squares represent those bungalows which, due to the presence or absence of certain features, might more appropriately belong in Area 2. Likewise, on the map of Area 2 the blackened squares signify the locations of bungalows expected to belong in that area; while the circles represent bungalows which are expected to align more closely with those of Area 1.

Concerning the map of Area 1, with the exception of a very few instances where there is a tendency for the outliers to cluster (e.g., on Mary Street west of 28th Avenue), the distributional pattern appears to be random. On the other hand, the map of Area 2 may offer some insight into a pattern of the location of residuals here. Over one-third of the residuals of Area 2 lie within the first two blocks south of Miller Park; or, the northern quarter of the neighborhood. It is within these blocks north of Laurel Avenue that a greater number of structures are situated which more closely resemble bungalows in the area north of the park. The explanation for this could be a result of these northern blocks developing in closer association with Area 1 than with the remainder of Area 2. The map of the distribution of residuals within Area 1 reflects no such tendency to assimilate characteristics of Area 2 in any single section.

With the completion of the analysis utilizing architectural features alone, data concerning original cost and date of construction were input into the data file along with the data reflecting architectural features. The intention here was to determine what effect the inclusion of date and cost had on the discriminant function. With date and cost

of construction as variables, there was a change in the ranking of variables which most strongly suggest group membership. The following lists contain the most discriminating variables in order of their importance in establishing group membership. Membership in Area 1 is determined by the presence of a stucco exterior, the cost of construction, T-axis roof orientation, an extended-hip porch, the year of construction, double-eyebrow dormers, and a parallel-axis roof orientation. Membership in Area 2 is determined by the cost of construction, a fore-back-axis roof orientation, the year of construction, hooded dormers, clapboard siding, standard-pitched roofs, and a porch under the main roof. It is upon these variables that the discrimination and subsequent predictions are based.

With the added variables, date and cost, the computer had more information to utilize in the classification procedure. Hence, the results of the classification reflect slightly higher percentages and more accurate representations of group membership. Of the 435 bungalows in Area 1, 325 (74.7 percent) are located there as expected; while the remaining 25.3 percent are associated more closely with Area 2. In Area 2, 83.8 percent of the 314 bungalows meet group membership criteria; while the remaining 16.2 percent do not. In total, the predictability for both groups combined is 78.5 percent. That is, based on the selected architectural features and date and cost of construction, it is reasonable to assume that eight out of every ten bungalows can be correctly predicted as belonging within a particular area.

Again, it was necessary to map those structures which do not fit

into the group. The maps on the following two pages are the results of this effort (Figures 3.7 - 3.8). Symbolic representations identical to those used to represent bungalows in Areas 1 and 2 in the first discriminant analysis were utilized here, as well. As expected, there are houses which attain group membership when date and cost are considered along with architectural features. However, this additional information does not appear to aid in the establishment of any spatial patterns within the neighborhoods. The distribution of the outliers in each area appears random and without significance. It should be understood, therefore, that the distribution of residuals in the northern blocks of Area 2 in the first run appear to stem from an assimilation of structural features found in Area 1 rather than from any relationships with the original dates and costs of construction there.

Multiple Regression

Another statistical procedure which permits an in-depth investigation into problems involving numbers of variables is multiple regression analysis. Regression analysis may be used as an inferential, or predictive, tool as well as one of description. In the present work, however, it will be implemented purely as a descriptive tool. In essence, the descriptive nature of multiple regression lies in its ability to summarize the linear dependence of one variable on others (Kim and Kohout, 1975: 321). Regression analysis allows the researcher to examine relationships between a dependent variable and a set of independent variables in order to establish a straight line which best describes the scatterplot of cases identifying relationships. For example, on a

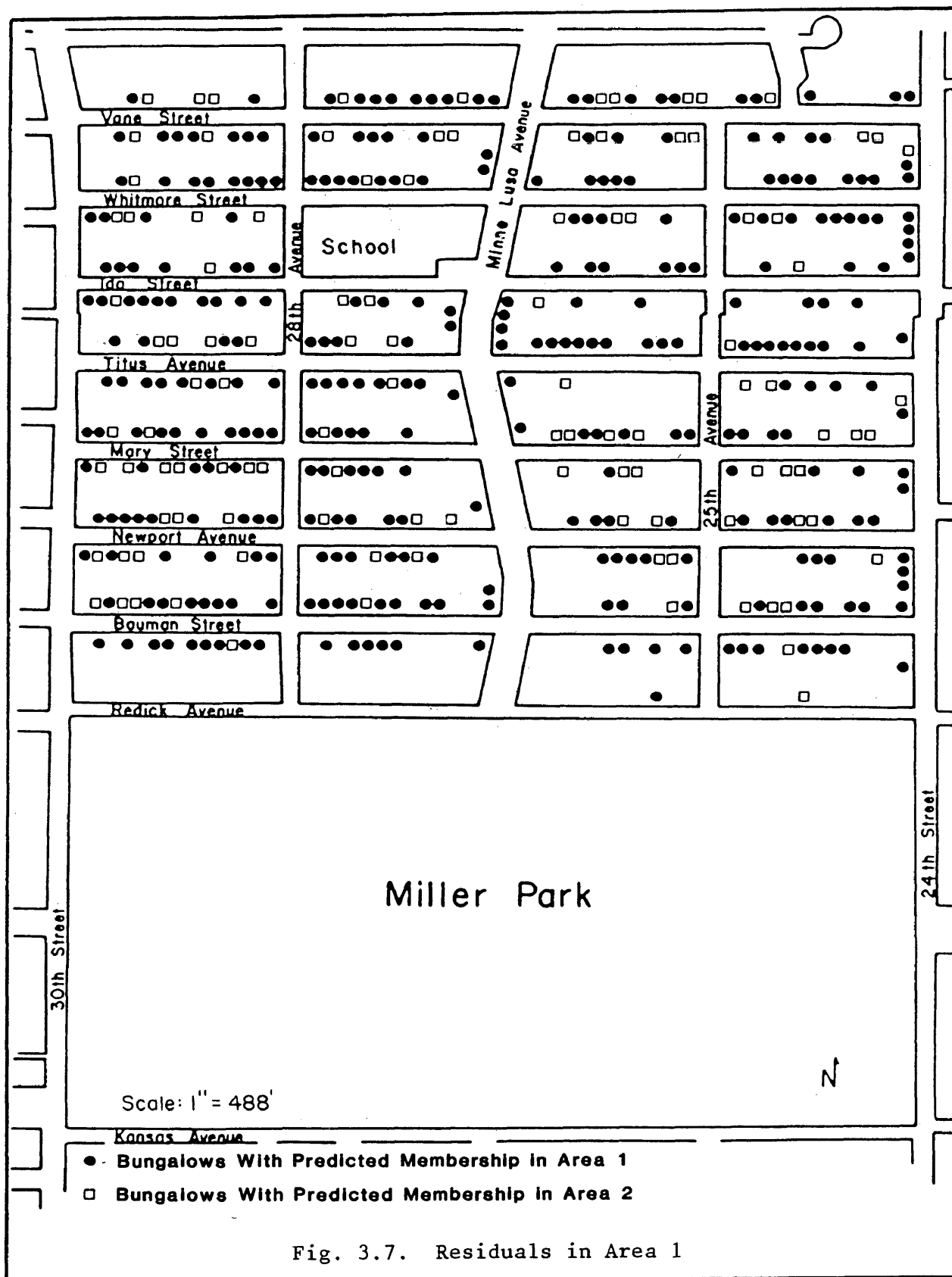


Fig. 3.7. Residuals in Area 1

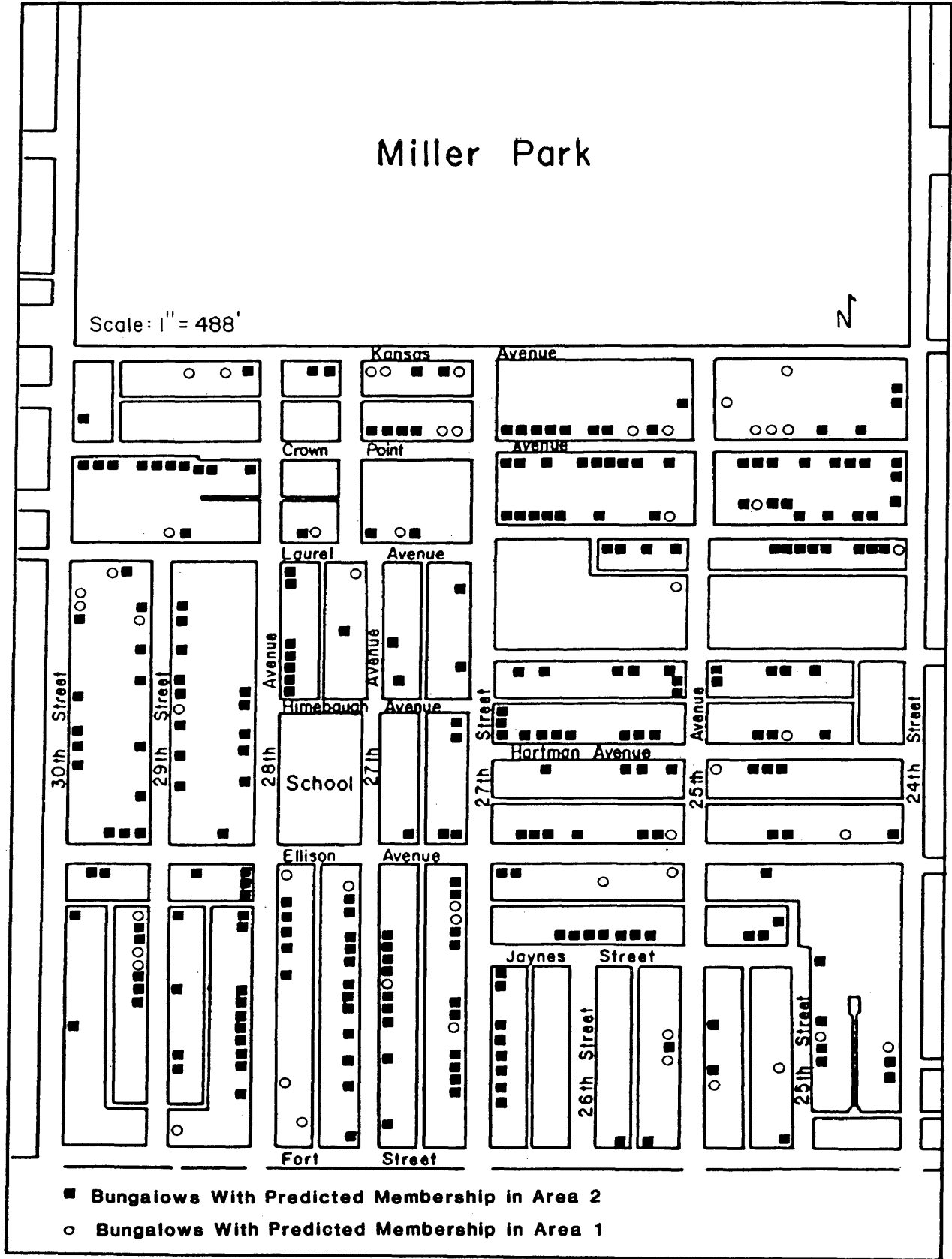


Fig. 3.8. Residuals in Area 2

set of X-Y axes which represent the respective independent and dependent variables, points are plotted which reflect the relationship between the variables. A straight line is drawn along which the points balance, or so that the points have equal weight upon that line. This balancing of points along a line infers a line of "best fit." The slope of this line is a result of the rate which the dependent variable (Y) changes with changes in the independent variable (X). A positive slope, one which slopes down from right to left, indicates a direct relationship between variables. A negative slope, one which slopes down from left to right, implies an inverse relationship (Abler, Adams, and Gould, 1971: 121-124). Those points, or resultant relationships, which do not fit along the line are considered outliers and are classed as residuals in the analysis. Residuals may be viewed as measures of the amount of error in the analysis and indicate how well or how poorly the regression equation fits. Thus, these cases which deviate from the line of best fit are clearly visible on a scatterplot of cases.

The necessity for carrying out regression analysis in this work stems from the need to understand the relationships between the architectural features and original date and cost of construction for the bungalows in the study area. Through the use of this technique, the residuals as well as the types of relationships which exist are revealed for interpretation.

Again, the "Digital VAX/VMS" computer system at the University of Nebraska at Omaha was utilized in conjunction with the SPSS regression software. Regression analysis was performed three times for each area.

A different dependent variable was introduced each time so as to discover the strongest relationships between the variety of variables which define each area. As in the preliminary and discriminant analyses, the regression procedure used the available data for date and original cost of construction. The number of bungalows for which this information could be found represented a high percentage of the total number of bungalows, and the results should be considered representative of all bungalows in the study area.

The first variables under consideration in Area 1 were the date of construction as the dependent variable and the architectural features as independent variables. A high correlation between these variables would indicate that the presence of particular architectural features was meaningful in explaining the date of construction. For example, the highest correlation occurs between date of construction and a bungalow with an extended-hip porch; where this type of porch explains thirty-four percent of the variance in date. This was the highest statistical correlation found in this step of the analysis, yet a percentage this low is an indication that there is little relationship between architectural features and date in Area 1. In combination, the four architectural features which have the strongest relationship with year (extended-hip porch, extended-gable porch, stucco exterior, and combination exterior finishes) explain only twenty-eight percent of the variance in year.

For Area 2, the extended-gable porch was the highest ranking variable, as it explains thirty-seven percent of the variation in year. This

illustrates a slightly better relationship between date and features in Area 2 than in Area 1, but the relationship is not strong enough to prove meaningful. In combination, the extended-gable porch, parallel-axis roof, absence of dormers, and brick exterior have the strongest relationship with year. Again, however, the relationship is minimal with only twenty-four percent of the variance in year explained by these factors. Overall, for both areas, the twenty-three architectural features do not aid in explaining year to a significant extent.

In the second stage of the analysis, it was expected that there would be a closer relationship when looking at the extent to which architectural features explain cost. Oddly enough, when original cost replaced year as the dependent variable in the analysis the percentages of explanation were even lower for both Areas 1 and 2. In Area 1, bungalows with brick exteriors explain eighteen percent of the variance in cost; but this, again, is not a substantial figure. In combination with fore-back axis, porch under the main roof, and double-gable dormers only ten percent of the variance in original construction cost can be explained. The construction costs for bungalows in Area 2 find the highest correlation in relationship to brick exteriors (twenty-five percent). The four features which in combination most help to explain cost in Area 2 are brick exterior, extended-gable porch, fore-back axis roof, and the single-story. Still, these variables explain only seventeen percent of the variance in cost.

The final regression procedures included year of construction as the dependent variable and original cost as the independent variable.

This procedure can be considered a simple correlation since there are only two variables involved. The relationships between year and cost shed a bit more light onto the differences between the areas than did the analyses of architectural features versus cost and date.

The first comparison lies in the consideration of the mean original costs and mean construction dates. The mean cost for bungalows in Area 1 is \$3975.00, and the mean date of construction is 1920. The mean cost for bungalows in Area 2 is \$3022.00, and the mean date of construction is 1918. Both sets of figures reflect the earlier graphs of bungalow construction and echo the contention that the more expensively-built homes are located in the area north of Miller Park.

The correlation between date and cost in the two areas offers additional information. In Area 1, cost accounts for forty-two percent of the variation in date of construction -- a comparatively significant, yet not overwhelming statistic. In Area 2, however, cost accounts for sixty-nine percent of the variance in year. This reflects a good relationship between cost and date in Area 2, in that costs increase as the years go by to a much greater extent here than in Area 1. This, perhaps, can be explained by the theory that house construction in Area 2 more closely conforms to traditional building trends; while house construction in Area 1 tends to be more closely associated with style and the demands of home-builders and home-buyers.

The residuals for each of the above procedures were subsequently plotted on maps of each area in order to determine if there were any significant geographic patterns of distribution to which these outliers

adhered. No such patterns were found. The distribution of the residuals appears to be random and without significance.

Chapter IV

SUMMARY AND CONCLUSION

Throughout the preceding chapter, emphasis was placed on distinguishing between the areas north and south of Miller Park. Differences were noted regarding the architectural features of bungalows, their original construction costs, and the years during which these structures were built. The questions posed in Chapter I have been answered conjecturally, if not statistically, in the consideration of these differences. It is necessary, at this point, to briefly summarize these findings.

The major hypothesis of this study, as stated, is that the neighborhoods to the north and south of Miller Park differ on some dimension. This assumption is based upon historical evidence that the areas were developed independently from one another, in different times, and under very different circumstances. Structurally, several differences in the features of bungalows were noted between the two areas. However slight they may appear, the variances in construction offer insight into basic differences in attitudes towards design and style. The analyses clearly have shown the developer and bungalow builders in Area 1 to be more conscious of efforts which resulted in a more stylish and attractive neighborhood.

The resulting homogeneity of Area 1 is due in part to the narrower range of building costs found here. Due to the long developmental history of Area 2, the original construction costs of bungalows varied

widely; while costs in Area 1 were held relatively constant. Additionally, the bungalows of Area 1 were found to have a higher mean construction cost than those of Area 2. On the matter of dates of construction, the graphs which were presented reflect, again, that growth in the number of bungalows in Area 1 was the result of a single period. As a result, Area 1 is the site for more bungalows of the same structural ilk than is Area 2. In that same light, all houses in Area 1 reflect styles and construction trends associated with a single period, while the houses of Area 2 reflect the styles and trends of a much longer period of time.

The results of the present study reflect the success of Minne Lusa in becoming a distinct suburban housing development and its ability to maintain a relatively high level of homogeneity. The results further indicate that the greatest contribution to this homogeneity is the platting and subsequent development of the neighborhood by Charles Martin beginning in 1915. From the outset, the neighborhood as envisioned by Martin was to be distinct. The layout of the streets, lighting systems, and lots suggest order and symmetry. The bungalows located there reflect a continuity in style and size. The neighborhood south of Miller Park, due to the nature of its planning history, has become a mosaic of varying house styles, lot sizes, and street orientations. It is these differences between neighborhoods that most strongly suggest neighborhood planning as a crucial factor in the morphology and evolution of residential neighborhoods -- and, perhaps, in the long-run success of neighborhoods, though this question has not been addressed

explicitly here.

Nevertheless, the efforts to achieve a level of surficial homogeneity and at the same time maintain a modicum of individuality and diversity in Area 1 offer insight into the notion of neighborhood, or sense of place. Taking into account what is known about the two neighborhoods, it should be clear that Minne Lusa (Area 1) promotes a true feeling of community. Even though geographers have no real statistical measure for human senses and emotions, the findings of this study suggest that the residents of Area 1 are more likely to possess a stronger sense of place, or sense of belonging, than residents of Area 2. Although residents of both areas are able to identify with their respective neighborhoods, unity and cooperation may be more descriptive of Area 1. The heterogeneous nature of Area 2 acts as a deterrent to the establishment of traits which suggest harmony and community.

Further recognition of the unique nature of Minne Lusa can be found in the Comprehensive Program for Historic Preservation in Omaha (Landmarks Heritage Preservation Commission, 1980). The report, based upon an inventory of Omaha's historic districts, has designated Minne Lusa as a potential historic district due to its "architectural and historical significance . . . and major items of townscape" (Landmarks Heritage Preservation Commission, 1980: 104-105). The neighborhood south of the park (Area 2) holds no such distinction, and it is not likely that it ever will.

Practical and Theoretical Implications

Studies on house style offer information which may be utilized in several disciplines. City planners, sociologists, anthropologists, architects, and geographers at some time have concerned themselves with housing the urban population. Information such as is included in this study offers members of each of these disciplines a base on which to build.

The planner may find such information helpful in neighborhood development programs, preservation planning, and in attempting to change the attitudes towards housing of those both inside and outside of city government. Most importantly, perhaps, research such as this allows for the identification of viable neighborhoods versus deteriorating neighborhoods in order to establish limits for urban renewal and renovation. The historic preservationist welcomes any information which deals with an inventory and classification of areas containing structures of architectural significance. This allows for a detailed appraisal not only of the architecture but of the history and present conditions in the area.

Sociologists and anthropologists, who concern themselves with the human condition, may utilize house-style data as an indicator of the socio-economic levels represented in the neighborhoods. Work involving an investigation into class segregation and working-class housing would find the present study a good foundation upon which to build a comparative analysis of house style and income levels.

Research on house style offers to the architectural community the

ever-so-valuable historical perspective on one version of American domestic architecture as well as a contemporary look at the state of the bungalow. The variety of architectural features, costs, and dates of construction provide grist for the student of architecture on which to further evaluate and delimit the characteristics associated with the bungalow-style house.

Geographers will recognize this research as an attempt to make sense out of two small neighborhoods on the American urban landscape. Research on house style can be a valuable tool to the geographer in the analysis of settlement and patterns of sequent occupance as well as in interpreting the cultural landscape. In attempting to understand houses, geographers try to make sense out of the single largest portion of urban land -- the residential sector. By better understanding a city's residential areas, a more refined analysis of the entire urban landscape will likely follow.

APPENDIX

Structural Characteristics for Bungalows in Area 1

ADDRESS	ROOF				STORY		PITCH			DORMERS			PORCH			MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	I	I $\frac{1}{2}$	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other	1918	4500
2436 Redick		G				X	X	X			X			X										1918	4500
2562 Redick		G				X	X	X		X				X				X						1917	4000
2416 Bauman				G		X	X	X							X			X						1924	4500
2421 Bauman			G			X	X	X						X				X						1922	4000
2422 Bauman			G			X	X	X						X				X						1919	4000
2425 Bauman		G				X	X	X		X				X				X						1916	3500
2430 Bauman	G						X	X			X					X		X						1920	3500
2431 Bauman		G					X	X		X				X				X						1915	3500
2433 Bauman		G				X	X	X							X			X						1924	4200
2434 Bauman		G					X	X		X				X				X						1922	4500
2437 Bauman	CG					X	X	X							X			X						1924	4000
2438 Bauman	G						X	X		X				X								St Cl			
2442 Bauman	G						X	X		X				X								St NS		1916	2900
2445 Bauman	G					X	X	X		X				X				X						1920	5000
2446 Bauman	CG					X	X	X		X					X								X	1924	4500
2447 Bauman	CG					X	X	X		X					X			X						1924	4500
2449 Bauman			G			X	X	X						X								St Sh		1918	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST					
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco			Brick	Shingle	Combo.	Other	
2450 Bauman		G				X	X		X		X			X											1916	3000
2551 Bauman			G			X	X								X			X							1919	4500
2552 Bauman		G				X	X		X					X				X							1916	4000
2558 Bauman	CG					X	X		X						X							X			1925	3000
2561 Bauman			G			X	X		X					X				X							1918	4000
2569 Bauman			G			X	X		X					X				X							1919	3000
2570 Bauman	G					X	X		X						X			X							1921	4500
2573 Bauman			G			X	X		X									X							1919	5500
2574 Bauman			G			X								X				X							1919	4500
2720 Bauman				G		X	X		X					X									X		1921	4000
2724 Bauman	G					X	X		X		X											St			1923	4500
2729 Bauman	G					X	X		X									X							1919	3500
2730 Bauman	G					X	X		X									X							1919	3000
2733 Bauman		G				X	X		X																1922	4400
2734 Bauman	G					X	X		X									X							1919	2500
2737 Bauman	CG					X	X		X									X							1924	4500
2740 Bauman	G					X	X		X									X							1919	3000

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2741 Bauman		G				X		X							X			X						1921	3500
2742 Bauman		G					X	X			X				X			X						1923	4000
2744 Bauman	G					X		X								X								1921	5000
2747 Bauman		G					X	X						X				X						1916	3500
2752 Bauman			G			X		X							X			X						1920	3500
2756 Bauman				G		X		X						X				X							
2852 Bauman			G			X		X							X			X						1921	4500
2855 Bauman		G					X	X						X							St Sh			1918	4000
2859 Bauman			G			X		X						X				X						1918	4000
2863 Bauman		G				X		X						X							St NS			1918	3500
2864 Bauman			G			X			X					X				X						1919	4500
2865 Bauman			G			X		X						X				X						1918	4000
2866 Bauman	G					X			X					X				X						1919	3500
2867 Bauman			G			X		X						X				X						1918	3500
2868 Bauman			G			X			X						X			X						1919	5000
2869 Bauman		G					X	X						X							St Sh			1918	3500
2870 Bauman			G				X	X							X			X						1922	5750

ADDRESS	ROOF				STORY		PITCH				DORMERS				PORCH				MATERIALS						DATE	COST
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2872 Bauman	G					X	X	X		X												St Cl		1916	2500	
2873 Bauman			G			X	X	X						X				X						1918	3500	
2874 Bauman	G					X	X	X		X					X			X						1918	3500	
2875 Bauman			G			X	X	X						X							St Sh			1918	3500	
2876 Bauman		G					X	X		X						X					St Sh			1922	5000	
2878 Bauman	G					X	X	X		X				X									X	1916	2500	
2879 Bauman		G					X	X		X				X				X						1915	3000	
2880 Bauman	G					X	X	X		X						X		X						1916	2500	
2882 Bauman			G			X	X	X										X						—	—	
2885 Bauman			G			X	X	X						X				X						1916	2500	
2886 Bauman	G						X	X			X													1916	2500	
2411 Newport	G					X	X	X							X								X	1931	3000	
2416 Newport		G					X	X		X				X				X						1917	4000	
2418 Newport			G			X	X	X						X				X						1919	4000	
2426 Newport			G				X	X						X										1919	4000	
2429 Newport				CG		X	X	X							X			X						1925	4600	
2430 Newport		G				X	X	X						X								St Cl		1916	2500	

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2433 Newport	G					X	X	X		X					X			X						1919	4000
2434 Newport	CG					X	X	X		X					X							X		1923	4500
2437 Newport		G					X	X		X					X			X							
2438 Newport		CG				X	X	X							X							X		1923	4500
2440 Newport		G					X	X		X				X				X						1916	3500
2450 Newport		G				X	X	X							X			X						1922	3750
2452 Newport	CG					X	X	X							X			X						1923	4800
2553 Newport		G					X	X		X				X				X						1921	5000
2555 Newport	CG					X	X	X							X							X		1924	4000
2560 Newport	CG					X	X	X							X			X						1922	3500
2561 Newport		CG				X	X	X							X			X						1923	4200
2562 Newport		G					X	X			X			X				X						1917	3000
2565 Newport		G					X	X		X				X							St Sh			1918	4500
2569 Newport			G			X	X	X						X				X						1921	4000
2570 Newport		G				X	X	X						X				X						1918	3500
2571 Newport		G					X	X		X				X							St Sh			1916	3500
2574 Newport			G			X	X	X						X				X						1923	4500

ADDRESS	ROOF					STORY		PITCH		DORMERS			PORCH			MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2575 Newport		G				X		X							X			X						1921	3750
2578 Newport			G			X	X							X						X				1921	3750
2582 Newport			G			X			X						X			X						1919	4500
2714 Newport		G				X	X								X			X						1922	3800
2717 Newport			G			X			X					X				X						—	—
2721 Newport	G					X	X								X			X						1922	3500
2723 Newport			G			X		X						X							St Sh			—	—
2724 Newport	G					X	X							X									X	1921	3750
2726 Newport			G			X	X							X				X						1920	4000
2727 Newport			G			X	X								X			X						1921	5000
2730 Newport		G				X	X								X			X						1923	4500
2733 Newport		G					X								X			X						1916	3000
2739 Newport			G			X			X					X				X						1918	3500
2740 Newport		G				X	X								X			X						1916	3850
2741 Newport	CG					X	X									X		X						1923	4000
2742 Newport		G					X							X							St Ct			1923	4000
2744 Newport	G					X	X							X									X	1921	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST					
	Fore-Back	Parallel	I-Axis	I-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2747 Newport	G					X	X	X							X									X	1924	5000
2750 Newport		CG				X	X	X							X				X						1922	4500
2853 Newport			G			X	X	X							X				X						1918	4000
2854 Newport			G			X	X	X							X				X						1917	3500
2855 Newport		G				X	X	X							X				X						1923	4000
2858 Newport			G				X	X							X				X						1917	3500
2859 Newport	CG					X	X	X								X				X						
2862 Newport			G				X	X						X					X						1916	2500
2864 Newport		G					X	X		X				X								St Cl			1916	3000
2865 Newport		G					X	X		X				X					X						1919	3500
2870 Newport		G					X	X		X				X											1915	2500
2872 Newport		G					X	X		X				X								St Cl			1915	2500
2873 Newport		G					X	X		X				X					X						1916	3500
2874 Newport	G					X	X	X						X								St Cl			1915	2500
2876 Newport			G			X	X	X						X					X						1920	5500
2877 Newport	G						X	X		X				X											1917	2500
2878 Newport			G			X	X	X						X					X						1919	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST					
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2879 Newport	G					X	X	X		X				X				X							1918	2500
2881 Newport	G					X	X								X			X							1924	3500
2882 Newport		CG				X		X							X			X							1923	3500
2883 Newport			G			X	X							X				X							1916	2500
2884 Newport		G				X	X								X			X							1922	4000
2886 Newport	G					X		X						X							St Cl				1917	3000
2889 Newport		G				X		X		X				X								X			1917	5000
2414 Mary		CG				X		X							X			X							1924	4000
2418 Mary	G					X		X							X			X							1921	4000
2419 Mary			G				X	X						X							X				1924	5100
2426 Mary	G					X		X		X				X							St Br				1923	4000
2429 Mary			G			X		X							X							X			1919	3000
2433 Mary	G					X		X						X								X			1921	3000
2437 Mary	G					X		X						X								X			1921	3000
2438 Mary		CG				X		X						X											1924	4000
2442 Mary		G				X		X							X										1924	4000
2445 Mary	CG					X		X							X										1928	3500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH				MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2448 Mary			G			X	X							X					X						1919	3000
2451 Mary		G				X	X			X					X					X					1922	4000
2452 Mary			G			X		X						X					X						1919	3000
2552 Mary			G			X	X								X				X						1919	5000
2558 Mary			G			X	X								X				X						1919	4800
2565 Mary	CG					X	X								X			X							1925	4000
2566 Mary		CG				X	X								X			X							1925	3500
2568 Mary		G					X	X						X					X						1921	5000
2569 Mary		G				X	X								X			X							1923	3500
2572 Mary	CG					X	X								X										1925	4500
2573 Mary		G					X	X						X					X						1919	5000
2576 Mary		G					X	X						X					X							
2582 Mary			G			X			X					X					X						1922	4000
2583 Mary		G				X	X				X			X							St Cl				1916	3500
2586 Mary	H					X	X									X									1922	3500
2588 Mary	CG					X	X								X										1922	4000
2720 Mary	G					X			X					X					X						1919	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2721 Mary		CG				X	X	X		X					X						X				1922	3500
2729 Mary			G			X		X	X					X								St Br			1919	4500
2732 Mary		G				X	X	X							X				X						1921	4000
2733 Mary			G			X	X	X						X									X		1919	2950
2736 Mary		CG				X	X	X		X									X						1922	3200
2737 Mary	G					X	X	X						X					X						1919	2500
2740 Mary	CG					X		X	X						X				X						1922	3200
2741 Mary	CG					X	X	X								X							X		1922	3000
2744 Mary		G				X	X	X							X										1922	3800
2745 Mary	CG					X	X	X							X										1924	4200
2747 Mary	G					X	X	X		X									X						1922	5000
2750 Mary			G			X		X	X						X							St Br			1921	4800
2852 Mary		G				X	X	X							X				X						1919	5000
2857 Mary	G					X	X	X								X									1916	2500
2858 Mary				G		X	X	X							X				X						1923	4250
2861 Mary	G					X	X	X							X										1917	2200
2862 Mary		G				X	X	X					X						X						1924	4500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS						DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other	DATE	COST
2863 Mary			G			X	X	X					X									St Sh		1917	3250
2864 Mary		G					X	X			X			X					X					1923	5900
2865 Mary		G					X	X						X				X						1922	3700
2867 Mary			G			X	X	X						X								St Sh		1917	2500
2868 Mary			G			X	X	X							X			X						1917	3750
2869 Mary			CG			X	X	X						X				X	X					1921	4000
2871 Mary	G					X	X	X							X			X						1922	4000
2872 Mary	CG					X	X	X						X				X						1921	4500
2873 Mary		CG				X	X	X							X			X						1924	4200
2874 Mary		G					X	X						X				X						1916	2500
2876 Mary	G					X	X	X						X						X				1915	2500
2877 Mary			G			X	X	X							X			X						1919	3500
2878 Mary		G					X	X						X								X		1922	5100
2879 Mary		G					X	X						X							X				
2882 Mary		G					X	X						X				X						1915	2500
2884 Mary			G			X	X	X						X				X						1918	3500
2885 Mary	CG					X	X	X							X			X						1924	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2887 Mary		G				X	X			X				X			X					St Br			1923	5700
2890 Mary	G					X		X						X				X							1919	4000
2413 Titus	G					X		X	X						X			X							1919	4000
2418 Titus			G			X		X	X					X				X							1918	3500
2421 Titus			G				X							X								St Br			1922	4000
2426 Titus			G			X	X								X							St Sh			1918	4000
2431 Titus			G			X	X							X								St Br			1922	4000
2432 Titus			G				X								X						X				1925	4000
2434 Titus			G			X	X							X				X							1918	4000
2437 Titus		G				X			X									X							1919	2500
2438 Titus			G			X	X								X			X							1918	4000
2441 Titus	CG					X	X							X										X	1923	3500
2442 Titus			G			X	X															St Cl			1918	4000
2444 Titus	CG					X	X									X						St Cl			1924	4000
2447 Titus		G				X	X											X							1921	4000
2448 Titus	CG					X	X													X					1924	5300
2454 Titus		G				X	X			X								X							1925	3500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH				MATERIALS					DATE	COST					
	Fore-Back	Parallel	I-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other				
2558 Titus	G					X	X			X					X										1920	8500	
2562 Titus		CG				X	X								X								X		1924	5000	
2566 Titus		G				X	X			X				X					X						1919	4500	
2572 Titus			G			X	X							X					X	X					1922	3800	
2576 Titus	CG					X	X								X			X							1925	5000	
2578 Titus	G					X		X						X					X								
2581 Titus	CG					X	X								X			X							1918	3500	
2584 Titus			G			X	X							X					X								
2586 Titus	CG					X	X								X				X						1923	4200	
2588 Titus		G				X	X								X				X						1922	3500	
2714 Titus			G			X	X								X							St Br			1921	8000	
2715 Titus			G			X	X							X					X						1915	2500	
2717 Titus		CG				X	X								X				X						1925	5000	
2718 Titus	CG					X	X								X								X		1922	3500	
2721 Titus	G					X	X							X							X				1920	3500	
2725 Titus			G			X	X							X					X						1919	4500	
2730 Titus	G					X	X								X									X		1924	3500

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS						DATE	COST		
	Fore-Back	Parallel	1-Axis	1-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2731 Titus			G			X		X							X						X				1919	5000
2734 Titus	H					X		X							X			X							1924	5500
2735 Titus			G			X		X						X				X							1919	5500
2740 Titus		G					X			X									X						1917	3500
2741 Titus	G					X		X											X						1921	4000
2743 Titus			G			X		X											X						1921	4000
2744 Titus			G			X		X											X						1917	2500
2853 Titus	CG					X		X											X						1923	5000
2862 Titus		G					X	X		X				X							X				1915	2500
2863 Titus		CG					X	X		X				X					X						1923	4000
2864 Titus			G			X		X						X									X		1922	3500
2865 Titus		G					X	X		X				X									X		1928	3250
2866 Titus	CG					X		X											X						1924	4000
2867 Titus			G			X		X						X											1924	5000
2868 Titus		G				X		X		X				X											1921	3500
2869 Titus	CG					X		X					X													
2871 Titus			G			X		X											X						1923	5000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS					DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2873 Titus			G			X	X	X							X			X						1922	4000
2874 Titus	G					X	X	X							X			X						1922	3000
2876 Titus	G					X	X	X						X				X						1917	2000
2877 Titus		G				X		X		X				X				X						1918	4500
2878 Titus	G					X	X	X						X				X						1919	3500
2879 Titus	G					X	X	X		X								X						1919	4000
2882 Titus	G					X	X	X						X				X						1922	3800
2883 Titus	CG					X	X	X			X				X			X						1922	5000
2414 Ida	CG					X			X									X						1923	4000
2421 Ida		CG					X	X															X	1926	4000
2422 Ida		CG					X		X														X	1925	4000
2429 Ida			CG				X	X													St Br			1922	4500
2433 Ida		CG					X	X													St Br			1928	4750
2442 Ida	G					X	X	X						X				X						1924	4000
2448 Ida	CG						X	X										X						1923	4000
2449 Ida		G					X	X		X											St Sh			1918	4500
2552 Ida			G				X		X						X			X						1918	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS					DATE	COST			
	Fore-Back	Parallel	I-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2558 Ida		CG					X	X		X						X		X						1923	4500
2562 Ida			G				X	X							X					X				1922	5000
2563 Ida			CG				X	X								X		X							
2578 Ida		CG					X	X								X		X						1923	3500
2581 Ida		H				X		X								X			X					1922	3500
2582 Ida			G			X		X							X				X					1919	5000
2590 Ida			G			X		X						X					X					1919	5000
2591 Ida		CG				X		X							X			X						1922	4000
2713 Ida		CG				X		X								X		X						1923	4000
2721 Ida					X	X		X							X			X						1922	3500
2725 Ida	G						X	X					X							X				1918	3000
2731 Ida		G				X		X							X				X					1918	3500
2733 Ida	G					X		X							X							X		1922	2800
2852 Ida	G					X		X							X				X					1917	3500
2857 Ida			CG			X		X							X								X	1924	4000
2862 Ida	G					X		X						X							St Br			1921	6500
2863 Ida		G					X	X																1915	2500

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2866 Ida		G				X		X							X				X						1922	5000
2867 Ida			G				X	X						X								X			1922	4000
2869 Ida		G					X	X						X					X						1919	4500
2870 Ida		G					X	X							X								X		1915	2500
2873 Ida	CG					X		X								X			X						1923	4500
2875 Ida			G			X		X						X					X						1917	3500
2876 Ida		G					X	X		X				X					X						1916	3300
2877 Ida		G					X	X		X				X					X						1916	2500
2879 Ida			G				X	X							X				X						1919	4000
2881 Ida		G				X		X							X										1922	3800
2882 Ida			G			X		X						X					X						1920	5000
2884 Ida		CG					X	X								X									1925	4000
2885 Ida		CG				X		X								X			X						1924	3800
2886 Ida		CG					X	X							X				X						1922	4500
2889 Ida			G				X	X						X					X						1919	4000
2411 Whitmore		CG					X	X								X					X				1925	3750
2418 Whitmore		G					X	X						X					X						1921	6500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH				MATERIALS						DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2419 Whitmore		CG				X	X	X		X				X							X				1923	4500
2421 Whitmore		G				X	X	X		X				X				X							1922	3500
2422 Whitmore	CG					X	X	X							X						X				1924	4400
2423 Whitmore	G					X		X	X					X							X				1924	4500
2426 Whitmore			G			X	X	X							X						X					
2429 Whitmore		CG					X	X	X	X				X				X							1923	4500
2436 Whitmore			G			X			X					X				X							1918	3500
2437 Whitmore	CG					X			X						X									X	1924	3000
2440 Whitmore			G			X			X					X				X							1918	3500
2441 Whitmore		G					X	X						X										X	1923	3500
2442 Whitmore		G				X	X	X								X		X								
2445 Whitmore			G				X	X						X				X							1923	4500
2446 Whitmore		G				X	X	X						X								St Cl			1918	4000
2447 Whitmore	CG					X	X	X							X			X							1923	4000
2453 Whitmore			G				X	X							X							St Br			1923	6000
2561 Whitmore			G				X	X							X									X	1918	4000
2569 Whitmore	CG					X	X	X							X			X							1923	4000

ADDRESS	ROOF					STORY		PITCH		DORMERS				PORCH			MATERIALS						DATE	COST	
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2570 Whitmore			G			X	X	X							X								X	1919	5000
2571 Whitmore		CG				X	X	X							X			X						1923	3800
2573 Whitmore		G					X	X							X					X				1923	3800
2574 Whitmore					X	X	X	X				X								X				1925	4200
2577 Whitmore			G				X	X							X						St Sh			1917	3000
2582 Whitmore			G			X			X						X					X				1920	5000
2583 Whitmore	CG					X			X						X								X	1915	2500
2584 Whitmore	CG					X			X						X								X	1923	4000
2585 Whitmore	G					X	X	X						X				X							
2714 Whitmore			G			X			X						X									1918	
2718 Whitmore			G			X	X	X						X				X						1918	
2724 Whitmore		CG					X	X							X			X						1925	4350
2726 Whitmore	G					X			X					X				X						1919	4000
2730 Whitmore		CG				X	X	X										X							
2734 Whitmore			G				X	X						X				X						1919	5000
2738 Whitmore		G					X	X						X						X				1922	5500
2742 Whitmore		G					X	X						X				X						1920	5000

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco			Brick	Shingle	Combo.	Other
2750 Whitmore		CG				X	X									X		X						1923	4000
2852 Whitmore	G					X	X								X			X						1923	4000
2858 Whitmore	CG					X	X								X			X						1923	4500
2861 Whitmore		G					X	X		X											St Cl			1916	3000
2864 Whitmore		G					X	X		X					X			X						1924	4800
2865 Whitmore			G			X	X							X							St Cl			1917	3500
2866 Whitmore		G				X	X								X			X						1919	4500
2869 Whitmore	G						X	X			X													1922	3800
2870 Whitmore			G				X	X							X			X						1924	4500
2872 Whitmore	G					X	X								X			X						1923	3000
2876 Whitmore			G				X	X													St Sh			1917	3500
2877 Whitmore	G					X	X								X			X						1919	4000
2879 Whitmore			G			X	X							X				X						1918	—
2881 Whitmore			G			X	X							X				X						1919	—
2883 Whitmore	G						X	X							X			X						1922	5750
2884 Whitmore	G					X	X							X				X						1923	—
2885 Whitmore			G				X	X							X			X						1919	4500

ADDRESS	ROOF				STORY		DORMERS				PORCH				MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco			Brick	Shingle	Combo.	Other
2886 Whirmore	H					X	X									X			X					1925	4000
2412 Vane			G			X	X				X						X		X					1922	4000
2413 Vane	CG					X	X									X		X						1925	3000
2415 Vane	CG					X	X									X		X							
2427 Vane	G						X				X					X					St Br			1926	5500
2432 Vane			G			X		X						X							X			1920	3300
2433 Vane	CG					X	X									X		X						1924	4500
2441 Vane		G					X							X					X					1915	4000
2447 Vane	CG						X									X							X	1918	4500
2502 Vane		G				X	X				X			X							X			1915	3500
2506 Vane	G						X							X				X						1916	3000
2516 Vane	G						X							X							St Br			1920	5000
2553 Vane	CG					X	X									X							X		
2556 Vane	H					X	X						X						X					1924	4000
2557 Vane	CG					X	X									X									
2560 Vane	G					X	X								X			X						1918	3500
2561 Vane	G					X			X						X				X					1919	5000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS					DATE	COST		
	Fore-Back	Parallel	F-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle			Combo.	Other
2564 Vane	CG					X	X	X								X		X						1924	4000
2568 Vane	CG					X	X	X								X		X						1924	4000
2572 Vane		G					X	X						X					X					1917	3000
2573 Vane		G					X	X						X					X					1919	3500
2577 Vane	H					X	X	X						X				X						1923	4000
2578 Vane	H					X	X	X		X										X				1921	2000
2581 Vane			G			X	X	X						X				X						1925	3500
2582 Vane	G					X	X	X						X									X	1915	3000
2585 Vane	G					X	X	X										X						1915	2500
2588 Vane	CG					X	X	X												X				1924	4000
2590 Vane			CG				X	X		X											X			1925	3500
2708 Vane		H				X			X											X				1926	6000
2714 Vane			CG			X	X	X																1925	4500
2715 Vane		G				X	X	X						X							X			1915	2500
2718 Vane			G			X	X	X																—	—
2719 Vane		G				X	X	X						X										1923	4000
2721 Vane	CG					X			X															1923	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS					DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2722 Vane	H					X	X	X								X		X						1922	3500
2726 Vane			G			X	X	X						X					X					1919	4000
2730 Vane			G				X	X							X				X					1919	—
2731 Vane			G			X		X	X					X					X					1919	4000
2734 Vane	CG					X	X	X								X		X						1923	4000
2735 Vane	H					X	X	X								X				X				1923	4000
2738 Vane	G						X	X						X					X					1919	2500
2739 Vane	H					X	X	X								X								1922	3500
2742 Vane	CG						X	X								X			X					1921	4000
2747 Vane	G					X	X	X						X										1919	2500
2748 Vane		G					X	X					X					X						1922	3600
2751 Vane			G				X	X						X				X						1919	4000
2752 Vane			G			X			X										X					1919	4000
2856 Vane		G				X			X					X					X					1918	7000
2857 Vane	G					X	X	X						X					X					1919	2500
2859 Vane	G					X	X	X						X					X					1920	3500
2863 Vane	G					X	X	X						X					X					1920	3500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST					
	Fore-back	Parallel	I-Axis	I-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2866 Vane		G					X	X			X			X					X						1916	3000
2868 Vane		G					X	X			X			X					X						1915	2500
2869 Vane		G					X	X		X												St NS			1918	2500
2871 Vane	CG					X		X							X			X							1924	4800
2873 Vane	G						X	X							X			X							1923	5000
2874 Vane	G						X	X			X				X			X							1917	3000
2875 Vane		G					X	X						X				X							1919	5000
2876 Vane			G			X			X						X			X							1918	2500
2879 Vane	G						X	X							X			X							1919	2500
2881 Vane			CG				X	X										X							1922	4200
6520 Minne Lusa			G			X		X														St Sh			1919	6100
6604 Minne Lusa	CG					X		X		X								X							1919	3500
6608 Minne Lusa		G					X	X		X								X							1919	3500
6708 Minne Lusa		CG				X		X							X										1923	7500
6805 Minne Lusa		G					X	X		X								X							1923	5000
6816 Minne Lusa	CG						X	X		X								X							1919	5000
6819 Minne Lusa				CG		X		X							X										1927	7500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH				MATERIALS						DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
6851 Minne Lusa			G			X	X	X						X				X								
6858 Minne Lusa		CG				X	X	X		X					X							St Br			1925	5500
6859 Minne Lusa		CG				X	X	X							X			X								
6862 Minne Lusa		CG					X	X			X		X		X							St Br			1924	6500
6865 Minne Lusa		G				X	X	X							X			X							1923	4500
6869 Minne Lusa			G			X	X	X						X				X							1923	5000
7001 Minne Lusa		G					X	X						X				X							1919	5000
7008 Minne Lusa		G					X	X			X			X				X							1919	5000
7012 Minne Lusa		CG					X	X						X				X							1924	5500
6512 N. 24 St. CG						X	X	X							X			X							1921	4000
6604 N. 24 St.			G			X	X	X						X				X							1915	3000
6612 N. 24 St.			G			X	X	X						X				X							1921	4000
6616 N. 24 St.		G				X	X	X							X			X							1922	3800
6620 N. 24 St.		CG					X	X							X							St Sh			1923	4000
6714 N. 24 St.			G				X	X							X					X					1921	4200
6720 N. 24 St. G						X	X	X						X								St Br			1921	5500
6812 N. 24 St.			G			X	X	X							X			X							1922	4000

Structural Characteristics for Bungalows in Area 2

ADDRESS	ROOF				STORY		PITCH			DORMERS			PORCH			MATERIALS					DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other	DATE	COST
2558 Fort	G					X	X	X		X						X							X	1911	1900
2572 Fort	G					X	X	X			X					X		X						1912	2500
2744 Fort	G				X		X	X							X				X					1922	4000
2824 Fort	G					X	X	X		X						X							X	1914	2500
2516 Jaynes	G				X		X	X						X				X						1913	2500
2518 Jaynes	H				X		X	X		X				X				X						1913	2500
2558 Jaynes		G				X	X	X						X				X						1913	2300
2566 Jaynes	G				X		X	X						X									X	1915	2500
2568 Jaynes	G				X		X	X										X						1924	3000
2574 Jaynes	G				X		X	X						X				X						1920	4000
2602 Jaynes	G				X		X	X						X				X						1925	4000
2604 Jaynes	G				X		X	X						X									X	1923	3500
2608 Jaynes		G				X	X	X						X				X						1915	2500
2412 Ellison	G					X	X	X								X						Sp Cl		—	—
2424 Ellison	G					X	X	X							X								X	1912	2000
2426 Ellison	G				X		X	X						X				X						1912	2000
2435 Ellison	G				X		X	X						X				X						—	—

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS						DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle			Combo.	Other	
2553 Ellison		G				X	X	X		X				X										X	1922	3800
2554 Ellison		G				X	X	X		X					X							St Br			1923	4000
2556 Ellison		G				X	X	X			X			X							X				1923	4000
2564 Ellison		G				X	X	X		X				X											1914	2500
2571 Ellison	G					X	X	X			X				X				X						1923	4500
2578 Ellison	G					X	X	X							X				X						1925	3500
2584 Ellison	CG					X	X	X							X				X						1925	3300
2586 Ellison	G					X	X	X						X					X							
2592 Ellison		CG				X	X	X		X				X								Sh Cl			1926	3000
2597 Ellison	G					X	X	X							X				X						1916	2000
2599 Ellison	G					X	X	X							X				X						1916	2000
2702 Ellison		G				X	X	X							X				X						1925	3000
2706 Ellison	G					X	X	X							X				X						1921	3000
2716 Ellison	G					X	X	X							X				X						1925	4800
2862 Ellison	G					X	X	X			X					X			X						1916	2000
2865 Ellison	G					X	X	X			X				X									X	1915	2500
2904 Ellison	G					X	X	X				X				X			X						1913	2500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2908 Ellison		CG				X	X	X							X						X			1925	3500
2910 Ellison	G					X	X	X						X						X				1923	3500
2911 Ellison		G				X	X	X			X			X				X							
2917 Ellison		G				X	X	X			X			X				X							
2418 Hartman	G					X	X	X						X				X						1915	2000
2434 Hartman	G					X	X	X						X									X	1920	5000
2435 Hartman	G					X	X	X						X				X						1916	1300
2439 Hartman	G					X	X	X						X				X						1917	2000
2440 Hartman		G					X	X		X				X				X						1922	2000
2442 Hartman	G					X	X	X						X				X							
2443 Hartman		G					X	X		X				X					X		X			1915	2500
2453 Hartman			G				X	X						X						X				1912	2100
2501 Hartman	G						X	X			X			X					X					1913	2000
2506 Hartman	G						X	X			X			X				X						1922	3500
2510 Hartman	G					X	X	X						X				X						1914	2500
2516 Hartman	G					X	X	X						X									X	1925	3000
2530 Hartman	CG					X	X	X						X						X					

ADDRESS	ROOF				STORY		PITCH			DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2532 Hartman	CG					X	X	X		X				X				X								
2559 Hartman	G					X	X	X						X				X							1912	500
2565 Hartman	H					X	X	X		X				X						X					1919	4000
2589 Hartman		G				X	X	X							X							X				
2590 Hartman			G			X	X	X						X				X								
2592 Hartman		CG				X	X	X						X						X						
2419 Himebaugh	CG						X	X			X			X				X							1923	3500
2425 Himebaugh	G					X	X	X						X				X								
2427 Himebaugh	G					X	X	X						X				X							1936	3200
2511 Himebaugh	CG					X	X	X						X				X								
2515 Himebaugh		G					X	X			X			X					X						1914	1000
2585 Himebaugh			CG			X	X	X							X			X								
2593 Himebaugh	G					X	X	X						X								X			1923	2500
2403 Laurel			G				X	X						X								X			1922	4300
2409 Laurel	G					X	X	X			X			X				X							1913	2500
2411 Laurel	G					X	X	X						X				X							1913	2500
2412 Laurel		G					X	X						X									Sh Cl		1915	2500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2415 Laurel		G				X	X	X		X				X								St Cl		1914	2500
2416 Laurel		G				X	X	X		X				X								St Cl		1915	2500
2423 Laurel		G				X	X	X			X			X				X							
2424 Laurel	G					X	X	X						X				X						1913	2500
2427 Laurel	G					X	X	X		X				X				X						1913	2500
2429 Laurel		G				X	X	X			X			X				X						1914	2400
2431 Laurel		G				X	X	X		X				X								St NS		1914	2500
2432 Laurel	G					X	X	X						X				X						1915	2500
2435 Laurel		G				X	X	X		X				X								Sh Cl		1914	2500
2436 Laurel		G				X	X	X			X			X									X	1914	2500
2438 Laurel	G					X	X	X			X			X									X	1915	2500
2444 Laurel		G				X	X	X		X				X				X						1915	3200
2448 Laurel		G				X	X	X		X				X								St Sh		1914	2500
2551 Laurel	G					X	X	X						X				X						1914	2500
2556 Laurel		G				X	X	X		X				X				X						1922	4500
2560 Laurel		G				X			X					X				X						1923	4650
2561 Laurel	G					X	X	X			X			X				X							

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
2567 Laurel	G					X	X	X		X				X					X					1913	2500
2571 Laurel	G					X	X	X							X				X					1922	3800
2576 Laurel		G				X	X	X			X			X				X						1913	3000
2586 Laurel	G					X	X	X							X			X						1916	2000
2588 Laurel	G					X	X	X						X				X						1916	2000
2590 Laurel	G					X	X	X			X			X				X						1916	2500
2592 Laurel		G					X	X		X				X				X						1914	2500
2594 Laurel	G					X	X	X						X				X						1915	2500
2716 Laurel	G					X	X	X						X							X			1923	4000
2720 Laurel		G					X	X		X				X				X						—	—
2728 Laurel	G					X	X	X		X					X			X						—	—
2751 Laurel		G				X	X	X							X			X						1922	3500
2754 Laurel		G				X	X	X							X			X						1923	4950
2760 Laurel	G					X	X	X						X				X						1921	3000
2870 Laurel	G						X	X			X				X			X						1923	3500
2872 Laurel		G				X	X	X							X								X	1922	3800
2905 Laurel	G					X	X	X						X									X	1923	4000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS						DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2907 Laurel	G					X	X	X								X					X				1923	3500
2414 Crown Pt.	G						X	X		X				X				X							1914	3000
2415 Crown Pt.	G					X	X	X						X							St Cl				1913	2500
2419 Crown Pt.	G					X	X	X		X				X				X							1913	2500
2423 Crown Pt.	G					X	X	X						X				X							1913	2500
2428 Crown Pt.		G					X	X		X				X							St Cl				1916	2500
2431 Crown Pt.		G					X	X		X				X				X							1914	2500
2436 Crown Pt.			G			X	X	X						X							Sh Cl				1919	3500
2437 Crown Pt.		G					X	X		X				X							St Cl				1914	2500
2440 Crown Pt.		G					X	X		X				X						X					1923	6000
2442 Crown Pt.			G			X	X	X						X				X							1914	2500
2443 Crown Pt.	G					X	X	X						X				X							1915	2500
2447 Crown Pt.	G					X	X	X						X							St Sh				1914	2500
2555 Crown Pt.	G					X	X	X		X											St MS				1921	4000
2556 Crown Pt.		CG				X	X	X													St Stc				1922	3850
2560 Crown Pt.	G					X	X	X										X							1914	2500
2564 Crown Pt.		G				X	X	X										X							1922	4500

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
2716 Crown Pt.	G					X	X	X							X						X				1924	4000
2720 Crown Pt.		CG				X	X	X							X			X							1928	3000
2722 Crown Pt.		G				X	X	X		X				X							X				1921	3000
2726 Crown Pt.		G				X	X	X		X				X				X							1922	4650
2851 Crown Pt.	G					X	X	X						X							X					
2863 Crown Pt.	G					X	X	X			X			X							X					
2875 Crown Pt.	G					X	X	X		X				X								St Cl			1915	1200
2877 Crown Pt.	G					X	X	X						X									X		1915	1800
2879 Crown Pt.	G					X	X	X							X			X							1917	2200
2881 Crown Pt.	G					X	X	X							X			X							1915	1800
2883 Crown Pt.	G					X	X	X							X								X		1916	1600
2887 Crown Pt.	G						X	X							X			X							1915	1800
2891 Crown Pt.		G					X	X						X								Sh Cl			1915	1800
2895 Crown Pt.	G					X	X	X								X		X							1915	1800
2435 Kansas		G					X	X						X					X						1916	4000
2701 Kansas		G				X			X						X			X							1921	3500
2703 Knasas		CG				X	X	X							X			X							1931	2500

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS						DATE	COST			
	Fore-Back	Parallel	I-Axis	I-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Compo.	Other		
2715 Kansas		G				X	X	X		X				X				X						1922	3500
2721 Kansas		G				X	X	X		X				X				X						1922	4000
2723 Kansas			CG			X	X	X							X			X						1923	4500
2751 Kansas		CG				X	X	X						X								X		1925	3500
2757 Kansas		CG				X	X	X						X				X						1924	4800
2853 Kansas		G				X	X	X						X							St Sh			1925	4000
2857 Kansas		G				X	X	X							X			X						1923	4000
2869 Kansas		G				X	X	X		X					X								X	1923	4000
5314 N. 24 St.		G					X	X						X				X						1913	2500
5320 N. 24 St.		G					X	X		X					X			X							
5322 N. 24 St.			G			X		X							X				X					1908	2500
5602 N. 24 St.		G				X	X	X		X					X			X						1916	2500
5912 N. 24 St.		G				X	X	X						X				X						1913	2500
5920 N. 24 St.		G				X	X	X						X				X						1913	3500
5924 N. 24 St.		G					X	X		X				X				X						1914	2500
6012 N. 24 St.		G				X	X	X		X				X								St Cl		1915	2500
6016 N. 24 St.		G				X	X	X		X				X				X						1915	3000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS						DATE	COST	
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
5302 N. 25 St.	G					X	X	X							X			X						1918	3000
5319 N. 25 St.	G					X	X	X							X					X				1916	2000
5320 N. 25 St.	G					X	X	X								X			X					1919	2500
5325 N. 25 St.	G					X	X	X						X				X						1921	3500
5329 N. 25 St.		CG				X	X	X							X							X		1924	4000
5333 N. 25 St.	G						X	X		X					X			X						1913	1000
5503 N. 25 St.	G					X	X	X							X							X		1915	2400
5508 N. 25 St.	G					X	X	X							X			X						1915	2400
5315 N. 25 Ave.	G					X	X	X				X			X			X						1912	2300
5319 N. 25 Ave.		G					X	X			X			X					X					1916	3200
5322 N. 25 Ave.	CG					X	X	X						X				X		X				1923	6000
5326 N. 25 Ave.	G						X	X							X					X					
5332 N. 25 Ave.			G				X	X						X								St NS		1925	5000
5339 N. 25 Ave.		G				X	X	X							X						X			1924	3200
5718 N. 25 Ave.	G					X	X	X						X										1922	3200
5719 N. 25 Ave.	G					X	X	X							X										
5720 N. 25 Ave.	G					X	X	X							X									1922	3500

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS						DATE	COST		
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other	DATE	COST
5721 N. 25 Ave.	G					X		X							X			X						1922	3500
5722 N. 25 Ave.		G				X		X							X			X						1922	3500
5814 N. 25 Ave.		G					X	X		X				X					X						
6010 N. 25 Ave.		G					X	X			X			X					X					1915	2500
6011 N. 25 Ave.		G				X		X							X				X					1921	3500
5303 N. 27 St.	G					X		X						X						X				1914	2500
5320 N. 27 St.	G						X	X						X							Sh Cl			1920	3300
5321 N. 27 St.	G						X	X		X					X				X					1912	1600
5324 N. 27 St.		G					X	X		X				X							Sh Cl			1916	2200
5327 N. 27 St.	G						X	X						X					X					1917	2500
5328 N. 27 St.		G					X	X		X				X							St Cl			1914	2000
5329 N. 27 St.	G						X	X			X				X				X					1915	2300
5330 N. 27 St.	CG					X		X							X				X					1924	3600
5335 N. 27 St.	G					X		X						X					X					1914	2400
5340 N. 27 St.		G					X	X		X				X					X					1922	4500
5343 N. 27 St.	G						X	X		X				X					X					1916	2200
5344 N. 27 St.	G					X		X						X					X						

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other	DATE	COST
5347 N. 27 St.	G					X	X	X		X				X				X						1916	2200
5348 N. 27 St.	G					X	X	X							X			X						1913	1900
5502 N. 27 St.		CG				X	X	X							X			X						1922	3000
5508 N. 27 St.		CG				X	X	X							X			X						1922	3000
5512 N. 27 St.		G					X	X		X				X				X						1922	4500
5516 N. 27 St.	CG					X	X	X							X			X						1925	3500
5520 N. 27 St.		CG				X	X	X							X			X						1925	3500
5524 N. 27 St.	G					X	X	X							X			X						1925	3500
5705 N. 27 St.	G					X	X	X						X						X				1920	3500
5706 N. 27 St.	G					X	X	X							X			X						—	—
5709 N. 27 St.	G					X	X	X							X					X				1920	3500
5710 N. 27 St.	G					X	X	X							X			X						1924	3200
5711 N. 27 St.	G					X	X	X							X					X				1920	3500
5806 N. 27 St.	CG					X	X	X							X			X						1923	3500
5836 N. 27 St.	G					X	X	X			X			X					X					1926	3800
5302 N. 27 Ave.	G						X	X							X								X	1913	2000
5311 N. 27 Ave.	G					X	X	X						X				X						1922	3000

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST				
	Fore-Back	Parallel	T-Axis	T-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
5320 N. 27 Ave.	G					X	X	X							X								X	1922	3500
5326 N. 27 Ave.	G						X	X		X					X			X						1915	2500
5335 N. 27 Ave.	G					X	X	X							X			X						1922	4000
5340 N. 27 Ave.	G					X	X	X							X			X						1931	2500
5347 N. 27 Ave.	CG					X	X	X							X			X						1925	3500
5348 N. 27 Ave.		G				X	X	X							X					X				1924	3500
5351 N. 27 Ave.		CG				X	X	X							X							X		1925	3500
5352 N. 27 Ave.	G						X	X			X				X							X		1922	4000
5355 N. 27 Ave.	H					X	X	X			X										X			1925	3500
5356 N. 27 Ave.		G					X	X		X							X							1922	4300
5359 N. 27 Ave.	G						X	X		X					X				X					1923	4000
5362 N. 27 Ave.	G					X	X	X						X					X					1915	2000
5363 N. 27 Ave.	G					X	X	X							X			X						1922	3500
5364 N. 27 Ave.	G					X	X	X							X			X						1921	4000
5367 N. 27 Ave.	CG					X	X	X							X			X						1922	3500
5371 N. 27 Ave.	G					X	X	X						X								X		1922	4000
5372 N. 27 Ave.		G				X	X	X		X				X				X						1924	3600

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS					DATE	COST					
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other				
5375 N. 27 Ave.		G				X	X	X							X								X				
5380 N. 27 Ave.	G					X	X	X		X					X			X							1923	4200	
5384 N. 27 Ave.	G					X	X	X							X								X			1921	3000
5388 N. 27 Ave.		CG				X	X	X		X				X						X						1926	4500
5801 N. 27 Ave.	G					X	X	X						X				X									
5827 N. 27 Ave.	G						X	X			X			X				X									
5828 N. 27 Ave.	G					X	X	X							X			X								1926	3250
5318 N. 28 Ave.	G					X	X	X							X			X								1923	3900
5319 N. 28 Ave.		CG				X	X	X									X									1928	3000
5330 N. 28 Ave.		G				X	X	X		X				X												1923	3500
5334 N. 28 Ave.	CG					X	X	X							X			X									
5336 N. 28 Ave.	G						X	X						X												1916	2200
5340 N. 28 Ave.	G					X	X	X		X				X				X								1916	2200
5344 N. 28 Ave.	G						X	X		X								X								1916	2200
5348 N. 28 Ave.	G						X	X		X					X			X								1916	2200
5354 N. 28 Ave.	G					X	X	X		X					X							St Br				1919	4000
5355 N. 28 Ave.		G					X	X		X					X			X								1921	3200

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH				MATERIALS					DATE	COST		
	Fore-Back	Parallel	T-Axis	T-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other		
5367 N. 28 Ave.	G					X	X	X					X					X						1916	1800
5369 N. 28 Ave.	G					X	X	X					X					X						1916	1800
5370 N. 28 Ave.	G					X	X	X					X									X		1915	2000
5373 N. 28 Ave.	G					X	X	X					X					X						1913	2000
5374 N. 28 Ave.	G						X	X					X							X				1915	2000
5379 N. 28 Ave.	G					X	X	X					X					X						1921	3000
5502 N. 28 Ave.	G						X	X					X					X						1916	2000
5506 N. 28 Ave.	G	G					X	X					X					X						1923	4000
5508 N. 28 Ave.	CG					X	X	X														X		1925	4600
5509 N. 28 Ave.	H					X	X	X							X			X						1923	4000
5622 N. 28 Ave.	G						X	X					X					X						1919	2800
5632 N. 28 Ave.	G						X	X					X									X		1911	1200
5636 N. 28 Ave.	G						X	X					X					X						1922	3500
5801 N. 28 Ave.	G					X	X	X							X						X			1915	1500
5808 N. 28 Ave.	G					X	X	X							X						X			1919	2500
5811 N. 28 Ave.	G					X	X	X								X								1915	1500
5812 N. 28 Ave.	G					X	X	X														X		1916	2000

ADDRESS	ROOF				STORY		PITCH		DORMERS				PORCH			MATERIALS					DATE	COST			
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1½	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other	1913	1950
5815 N. 28 Ave.	G					X	X	X							X								X	1913	1950
5819 N. 28 Ave.	CG					X	X	X							X			X						1925	3500
5821 N. 28 Ave.	G						X	X			X			X						X				—	—
5839 N. 28 Ave.		G					X	X			X			X				X						1917	1800
5841 N. 28 Ave.	G					X	X	X						X				X						1913	1500
5323 N. 29 St.	G					X	X	X						X								X	—	—	
5327 N. 29 St.	G					X	X	X						X				X						1916	2500
5348 N. 29 St.	G					X	X	X						X				X						1922	2500
5351 N. 29 St.		G					X	X						X				X						1923	2600
5352 N. 29 St.	G					X	X	X							X			X						1921	2500
5356 N. 29 St.		G				X	X	X			X			X				X						1923	4000
5360 N. 29 St.		G					X	X							X					X				1922	3500
5362 N. 29 St.	G					X	X	X						X					X					1922	4000
5368 N. 29 St.	CG					X	X	X							X			X						1926	3000
5372 N. 29 St.	CG					X	X	X								X		X						1927	3200
5373 N. 29 St.	G						X	X								X		X						—	—
5374 N. 29 St.	G					X	X	X								X		X						1922	3800

ADDRESS	ROOF				STORY		PITCH		DORMERS			PORCH			MATERIALS					DATE	COST					
	Fore-Back	Parallel	T-Axis	L-Axis	Square Hip	1	1 1/2	Standard	Shallow	Gable	Hip	Hooded	Other	Under Main	Ext. Gable	Ext. Hip	Other	Clapboard	Stucco	Brick	Shingle	Combo.	Other			
5616 N. 29 St.	CG					X	X	X							X			X							1923	4000
5621 N. 29 St.	G					X	X	X							X			X							1924	3500
5628 N. 29 St.	G					X	X	X							X			X							1925	2900
5629 N. 29 St.	G					X	X	X							X			X							1926	3900
5635 N. 29 St.	G					X	X	X						X				X								
5637 N. 29 St.				G		X	X	X						X				X							1922	3400
5639 N. 29 St.	G						X	X						X				X							1913	1700
5802 N. 29 St.	CG					X	X	X							X										1928	3300
5803 N. 29 St.	CG					X	X	X							X			X							1924	3500
5812 N. 29 St.	G					X	X	X						X				X							1916	1900
5813 N. 29 St.	G					X	X	X						X												
5820 N. 29 St.			G			X	X	X							X			X							1922	2800
5824 N. 29 St.		G					X	X					X					X							1915	2500
5825 N. 29 St.	CG					X	X	X							X			X							1924	4000
5829 N. 29 St.	G					X	X	X							X			X							1924	4000
5339 N. 30 St.	G					X	X	X							X										1918	2500
5375 N. 30 St.		G					X	X						X				X							1924	4000

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