INDEPENDENCE TOWNSHIP: A TOWNSHIP IN TRANSITION, A STUDY OF SUBURBANIZATION IN A SELECTED PORTION OF THE RURAL-URBAN FRINGE OF OAKLAND COUNTY, MICHIGAN

Thesis for the Degree of M. S.

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Louis A. Vargha

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by

Louis A. Vargha

An Abstract

Submitted to the College of Agriculture of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Department of Agricultural Economics

1958

Louis A. Vargha

ABSTRACT

This study is centered on the transitional problems of a township changing from a fundamentally rural one to an urbanized one.

Independence Township in northern Oakland County, part of the Detroit Standard Metropolitan Area, was selected as the case study. Independence Township is located six miles north of Pontiac on U.S. 10. The area in which it is located is characterized by rolling land with occasionally severe local relief. There are also a number of small lakes; the result of interrupted drainage in the area.

The township is one which was not particularly well-suited for agriculture, but which does have a potential for urban uses. Many fine home sites are available, although the topography presents problems in many sections.

The rural-urban fringe is defined in this study as an area in which there is strong competition for the use of agricultural land for non-agricultural uses, and in which there may be conflicts between "newcomers" and former residents over services which the political unit or ad hoc units such as a school district will provide.

The fringe area is an important area. Here the patterns of a future urban complex are developed and jelled.

The rapid rate at which our large urban centers have been and are spreading has made the fringe an extensive phenomenon.

The emergence of the fringe is related directly to the rise of the automobile and the development of a network of all-weather roads to serve it.

The rate at which fringe areas are growing is increasing. Before 1920 the growth of central cities in the United States greatly exceeded that of the urban and rural rings surrounding them. By 1950 this situation had been reversed and the great shift in population has been to the less densely settled and less populous fringe areas of the metropolitan ring.

In Michigan the fringe as a part of the metropolitan complex is particularly important. In 1950 seventy-two and six-tenths per cent of the population of Michigan lived in standard metropolitan areas or in metropolitan centers (population of 25,000 or over).

The increasingly urban composition of our population and the rapid growth of the fringe in our urban complexes makes the problems of the fringe area important to many people.

Independence Township has changed in many ways over the years following its settlement in the 1830's. Its agricultural population grew until 1870 when a peak of 1,586 persons was reached. From 1870 to 1920 its population decreased slowly but steadily to a figure of 1,081. 1920 marked a turning point and its population started growing

again as urban peoples began their exodus from the central city. Growth was slow; in 1940 the population was 2,280. The period of World War II and the subsequent period of 1946 to 1950, during which many single homes were built in outlying areas, raised the population to 4,170.

Since 1950, however, the growth rate has been accelerated dramatically. Between 1950 and 1957 the population almost doubled.

Growth such as this implies increased platting and construction activity and also increased school populations and the need for a township to assume services and duties which were not necessary when only or primarily an agricultural population was served.

Between 1950 and 1957 forty-three subdivisions were platted in Independence Township, containing 1810 lots. This means that some 900 acres of land have been shifted into residential use.

The rapid shifting of land to urban uses necessitates the consideration of the direction of land use. Independence Township has a zoning ordinance established in the late 1940's. The ordinance is not based on long-range planning considerations and the mapped portion is changed frequently.

Another problem raised by increased platting activity is the coordination of street systems into a functioning overall system.

Interior land is often isolated by shallow road

frontage developments leaving a legacy of hard to develop land.

In an area such as Independence Township topography presents problems which are often poorly handled.

Subdivision regulations are not used by townships to maximum effectiveness. Zoning also is not a panacea. It is a planning tool and not planning as is often assumed.

Increased school populations and the need for township services put a strain on the township which has a narrow tax base of primarily residential properties. Taxes have risen steadily since 1940. The average rate in Michigan's rural townships is nine-tenths of a per cent of assessed value. In Independence Township the rate in 1957 was three and a half per cent based on a 1947-49 dollar or five and a half per cent based on the actual dollar value. This is a dramatic difference and helps indicate why agricultural land may shift prematurely into non-agricultural uses.

The conclusions which were drawn are that (1) township officials are often unaware of the ways in which problems may be solved; (2) other agencies such as county planning commissions are not helping and often are unable to help local officials solve their problems; (3) enabling legislation for planning at the township level is inadequate and hamstrings efficient planning; (4) taxation as a method of directing land use should be explored within the framework of existing precedents; and (5) information about the importance of planning problems, methods of solution, legal powers, and sources

of assistance should be disseminated.

Fringe problems can be overcome, but it is necessary to coordinate the efforts of all the agencies concerned with separate problem areas and to inform people of their stake in planning the future of their community.

Approved _____
Major Professor

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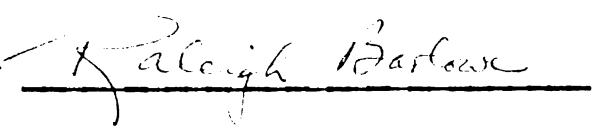
Approved by 

ACKNOWLEDGEMENTS

Among the many who have indirectly or directly helped me in the preparation of this study the following individuals or groups of individuals have my most sincere thanks and appreciation.

Dr. Lawrence Boger, head of the Department of Agricultural Economics, made possible the existence of the research project by financial assistance and flexibility in accepting my entrance from another discipline into a new area of study.

The cooperation and assistance of the people of Independence Township, Harold Doebbler, the Township Clerk, Max Solby, Floyd Andrews, the Township Supervisor at the time of the study's beginnings, Paul Reid, Director of the Detroit Metropolitan Area Regional Planning Commission, and George Skrubb, Director of Planning for Oakland County, enabled me to procure information easily and freely. The relationships and experiences with these people are ones that will be remembered warmly.

I also wish to mention my fellow graduate students for their patience, understanding, and constructive criticisms of the project. The association has been a rewarding one personally and professionally.

Adequate expression cannot be given for the value of the guidance of Dr. Raleigh Barlowe. His succinct comments, and insights into the area of study, have enabled me to consider additional lines of attack and study. This association, too, has been a personally rewarding one for me. This association has imparted to me an entirely new awareness of the breadth of land economics and the need for constant study to keep abreast of developments in the field.

Finally, my wife, whose understanding of the need for "nights in the shop," and seemingly erratic behavior on my part, has preserved my sanity and amazingly enough hers too, must receive my heartfelt admiration. My thanks also must finally find expression for her role as assistant to Dr. Boger as financial underwriter of my graduate work. Hers too is the credit for the typing of the "rough draft" of the thesis.

There was some griping about all of this; she's no angel, but on the whole her performance should be recognized and my indebtedness acknowledged.

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CHAPTER I

INTRODUCTION

The patterns established as man extends his cities are enduring. They are costly to change, and when we attempt to adapt them to the shifting concept of the highest and best use costs rapidly accumulate, not only in money terms but also in terms of social costs.

Urban redevelopment programs throughout the country provide us with evidence to support the above statements. Redevelopers working with patterns which have proven to be poorly adapted to the shifting of uses within the city find the costs to be very high. In terms of money, the cost of condemning land and improvements, changing or destroying utilities, providing new utilities, and designing and implementing a plan is prodigious. The social costs involved in relocating families and firms and in severing social contacts of many kinds defy calculation.

The emergence of the expanding urban pattern occurs at the fringe. Here the pattern is plastic; the molding of it is vital. The early pattern which begins to take form influences greatly the development which ultimately will take place. These patterns will influence the development's direction, its intensity, its rate, and its quality. Oliver Wendell

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Holmes, the famous jurist, once said, "The government which does not meet the needs of its society must fall," and so it is with an urban pattern. It will be rejected and it will deteriorate; thus if the expanding urban pattern is molded at the fringe, and the early pattern influences the ultimate development, the importance of the fringe is established.

One could say that this influence is both direct and indirect. An early development of residential units bordering on the sub-standard may directly affect the quality of neighboring development and also the timing of the development of adjacent land. The neighboring development adds more variables, of course, and the ultimate effects of the interaction can only be conjectured. Indirectly the needs of an increasingly urban population may affect the rate at which agricultural land becomes available for residential construction. This may happen if property taxes are increased, in an attempt to meet these needs, to a level high enough to convince farmers that their tax load is too heavy and that the value of their land for urban development outweighs the returns available from farming.

The township is the political division within which this dynamic process emerges and develops. Since the township is basically a rural unit of government, the problems posed by an urban "invasion" are foreign to it. The urban encroachment may or may not bring the realization to responsible officials that the township is now in transition. In transition it is neither urban nor rural, and the problems

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Purposes and Objectives

The objectives of this study are to: (1) illustrate with one township, Independence Township, Oakland County, Michigan, the emergence of the urban pattern; (2) show the characteristic problems associated with a change from a rural to an urban pattern of land uses; (3) analyze the ability of the township form of government to adapt to the changing problems, and its ability to work with the emerging patterns and carry them through the various stages of development; (4) provide an insight into the major problem areas associated with this process of transition; (5) indicate ways in which a township may be aided in adapting to transition, and aided in coping with the associated problems; (6) analyze the pattern of changes and development in Independence Township; and (7) discuss some problem areas with the hope that further work will be initiated on a much broader scale to analyze the impact on the eventual disposition and development of land resources in the urban pattern.

Selection of the Study Area

The study was motivated by the need for isolating and stating specifically the problems which a rural area encounters in the process of urbanization.

Since it was felt that the Detroit metropolitan area

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would in all probability provide a more accelerated growth pattern, it was decided to focus the study on this particular region of the state. The choice of this particular area may be open to criticism; however since the metropolitan area of Detroit includes a population of nearly 4,000,000 and a land area of over 2,000 square miles, the extent and importance of the fringe in our large metropolitan areas should be evident.

In the late spring of 1956 various methods of sample selection were discussed. The desirability of studying townships in the various divisions of the metropolitan area was recognized. The movements in Oakland County to the north and in Wayne County to the west and south vary in detail. The herculean proportions of this approach eliminated it from further consideration.

It was then proposed to select one township and present it as a case study. The rationale behind this was the belief or assumption that although the causal factors behind urban growth in various directions are dissimilar in detail, a la Hoyt's sector theory, in general their resulting encroachment into rural areas and the associated problems are basically similar. It was felt that the detailed presentation of the changes in a township and an attempt to delineate problem areas would be useful since an awareness and definition of the problematic situation is the essential first step to the solution of any problem.

After it was determined to select one township as a case study, it was a problem to decide which township to select.

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The director of planning for Oakland County, George Skrubb, was interested in the study and requested that the study be concentrated on one of the northernmost Oakland townships, suggesting Independence Township. His suggestion was honored on the assumption that his familiarity with the area would provide a good background with which to select a study area.

Collection of Data

The first data studied was U.S. Census data. This was done to obtain an idea of the past history of the township and an insight into the development which one could expect to see in the field. The minor civil division data pertaining to agriculture was studied for the same reason. School records from the Michigan Department of Education were also studied.

The summer of 1956 was spent mapping land use in the field, becoming familiar with the physical features of the area, and gathering population, platting, and building activity data from township records, the Oakland County Planning Commission, and the Detroit Metropolitan Area Regional Planning Commission. Township officials were interviewed and from time to time asked for opinions on certain events or situations. Their cooperation was important and they provided a wealth of information unobtainable from other sources.

A small random sample of suburban residents was interviewed in the fall of 1956. This initial sample (fifty cases) was used to determine whether further sampling would prove to be worthwhile. It did not appear to be particularly useful

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to pursue this approach further. Many residents had lived there only a short time and did not feel prepared to answer many questions on the questionnaire. (Sample questionnaires are included in the appendix.)

Farmers were interviewed that winter, and it was discovered that only six farmers were engaged full time in agriculture. Formal statistical analysis was thus ruled out. The interviews with those remaining were worthwhile since they provided an insight into the previous land uses in the township, the impact of urbanization on agriculture via taxes and land values, and soil conditions which could not be determined in the absence of a detailed soil survey.

The data gathered was then organized and analyzed for possible implications. Much of this analysis was inductive in an informal sense, i.e., not by statistical method. This was necessitated by the impossibility of gathering all the data necessary and in some cases any at all, for many of the relationships determined informally there is no established recording of statistics. This introduces a possible bias, although the relationships determined this way are never treated as anything but hypothetical relationships. The reader can determine for himself whether or not relationships thus devolved appear to be logical and consistent for at present there is no other test.

Tax data was gathered from the records of the Oakland County Tax Commission and the Oakland County Tax Equalization Board in January of 1958. At this time further data was

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obtained from the Oakland County Planning Commission on building permits issued, platting and population in Independence Township and the neighboring townships. This was used to supplement data previously compiled and to check the accuracy of some trends which were predicted from previous data.

After this data was worked into the framework provided by previous analysis, problem areas were delineated and their significance weighed and coordinated.

CHAPTER II

THE RURAL-URBAN FRINGE

The rural-urban fringe has been studied many times, yet as of this moment we have no operational definition of it. Various definitions have been tendered and have received varying receptions from workers in the field. Approaches to the definition have been developed through sociological studies and agricultural investigations. These aspects of the problem are important, but taken together they are still incomplete. The urban aspect is, of course, essential. The sociologists, both rural and urban, who have worked in this area have been concerned with the individual's integration and behavior, or to quote McKain and Burnight,[1] "Sociologists are concerned with .... accommodation, acceptance, conflict, cooperation, and competition ...." The land economists engaged in agricultural investigations have been concerned with the effects of the urban encroachment on agriculture. The urban point of view is the one which generally has been overlooked. The townships in which the rural-urban fringe is found are townships in transition. They are moving along the

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[1]Walter C. McKain, Jr. and Robert G. Burnight, "The Sociological Significance of the Rural-Urban Fringe From the Rural Point of View," Rural Sociology, Vol. 18, No. 1, (March, 1953), p. 111.

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path which leads from rural to suburban to urban land uses. The concern of this study is the way in which this process evolves.

The definition of the rural-urban fringe which can be used for purposes of this study needs to be developed, for the fringe is not static, but constantly shifting. The development of the fringe and the shift from fringe to suburban may cover a relatively short period of time, and by the time the status of suburb is reached the pattern has solidified.

Definitional Discussion of the Fringe

Before further discussion is presented, a review of definitions previously tendered by professionals concerned with the rural-urban fringe problem is necessary. From these definitions an operational definition of the rural-urban fringe will be developed.

Samuel W. Blizzard and William F. Anderson,[2] in a sociological study, defined the fringe as follows: "The rural-urban fringe is that area of mixed urban and rural land uses between the point where the full city services cease to be available and the point where agricultural uses predominate. It is assumed that such an area contains a population grouping and has evolved a social organization which are related to

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[2]Samuel W. Blizzard and William F. Anderson, II, Problems in Rural-Urban Fringe Research: Conceptualization and Delineation, Progress Report No. 89, The Pennsylvania State College Agricultural Station, State College, Pennsylvania, (November, 1952), p. 11.

both rural and urban life, but have distinctive sociological features." Wehrwein[3] described the rural-urban fringe as "the territory between well established urban land uses and farming." Obviously there are areas of agreement in these two definitions, yet they don't agree. McKain and Burnight[4] further compounded the confusion and also introduced a potentially useful division of the fringe with their delineation of the fringe as, "The limited fringe lies immediately peripheral to the city or urbanized area; its initial growth is radially from the city along highways, but in many specific instances urban people and urban land uses later invade interstitial areas.... This area is indeed in transition so far as land use is concerned.... The expected development is a greater and greater concentration of urban people and the eventual disappearance of the rural element in the limited rural-urban fringe." This is an extremely useful concept, yet not a workable definition. Their distinction between "limited" and "extended" rural-urban fringe is an advance in approaches to the study of the fringe. The "extended" fringe, as they see it, is the opposite in many ways of the limited fringe. The extended fringe, although it contains a mixture of urban and rural land uses and also a population partially urban, is not adjacent to the urbanized area, and may or may

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[3]George S. Wehrwein, "Land Classification for Rural Zoning," The Classification of Land, Missouri Agricultural Experimental Station Bulletin No. 421, (December, 1940), p.136.

[4]Op. cit., p. 110.

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not be in transition toward the urban. It is very often interstitial in the beginning rather than basically linear in orientation as the star shaped growth pattern associated with many urban complexes is.

Other definitions are based on the census classification of data as Queen and Carpenter's[5] definition of the fringe as, "that area within the standard metropolitan area which is outside the urbanized area." As defined by the United States Census of 1950 the "standard metropolitan area" is:

> "Except in New England, a standard metropolitan area is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more. Counties contiguous to the one containing such a city are included in a standard metropolitan area if according to certain criteria they are essentially metropolitan in character and socially and economically integrated with the central city. Standard metropolitan areas are not confined within state boundaries nor within census region or division boundaries.
>
> "Criteria of metropolitan character relate primarily to the character of the county as a place of work or as home for concentrations of nonagricultural workers and their dependents. Specifically, these criteria are:
>
> "1. The county must (a) contain 10,000 nonagricultural workers, or (b) contain 10 percent of the nonagricultural workers working in the standard metropolitan area, or (c) have at least one-half of its population residing in minor civil divisions with a population density of 150 or more per square mile and contiguous to the central city.
>
> "2. Nonagricultural workers must constitute at least two-thirds of the total numbers of employed persons of the county.

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[5]Stuart A. Queen and David B. Carpenter, "The Significance of the Rural-Urban Fringe, From the Urban Point of View," Rural Sociology, Vol. 18, No. 1, (March, 1953), p. 101.

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"The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and the central county as indicated by such items as the following:

"1. Fifteen percent or more of the workers residing in the contiguous county work in the county containing the largest city in the standard metropolitan area, or,

"2. Twenty-five percent or more of the persons working in the contiguous county reside in the county containing the largest with in the standard metropolitan area, or,

"3. An average of four or more telephone calls per subscriber per month from the contiguous county to the county containing the largest city in the standard metropolitan area."

The census definition of urbanized areas follows:

"Urbanized areas have been defined for the first time in the 1950 Census. These areas were delineated to provide a better separation of urban and rural population and housing in the vicinity of large cities. All of the dwelling units within the urbanized area are classified as part of the urban housing in 1950.

"Each urbanized area contains at least one city with 50,000 inhabitants or more in 1940 or according to a special census between 1940 and 1950. Each urbanized area also includes the surrounding closely settled incorporated places and unincorporated areas that comprise the 'urban fringe.' The boundaries of these fringe areas were established to conform as nearly as possible to the actual boundaries of thickly settled territory, usually characterized by a closely spaced street pattern.

"The urbanized area can be characterized as the physical city as distinguished from both the legal city and the metropolitan community. In general, the urbanized area represents the thickly settled urban core of the standard metropolitan area. Urbanized areas are smaller than the standard metropolitan areas and in most cases are contained in them. Since the boundaries of standard metropolitan areas are determined by county lines and those of urbanized areas by the pattern of urban growth, there are small segments of urbanized areas, in a few instances, which lie outside the standard metropolitan area. Because of discontinuities in land settlement, there are also cases in which a single standard metropolitan area contains two urbanized areas. The lists of

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> urbanized areas and of standard metropolitan areas also differ somewhat because the former had to be established for cities of 50,000 or more before 1950, whereas the latter were established for cities of 50,000 or more as determined in the 1950 Census."

The defect in Queen and Carpenter's and in similar definitions of the rural-urban fringe is aptly pointed out by the Census definition above. That area remaining when the urbanized area is subtracted from the standard metropolitan area is not necessarily fringe and many rural-urban fringe areas lie outside the territory included in the standard metropolitan area. The capriciousness of the boundaries of counties and the location of a central city within the standard metropolitan area as defined by Census, invalidates the use of the standard metropolitan area in land use analysis. Further, the criteria for determining the economic and social integration of contiguous areas into the metropolitan complex are open to argument. Its only value would appear to be the availability of data concerning changes in population and other characteristics as noted in the Census.

The standard metropolitan areas within the state of Michigan are shown in figure I. Figure II shows the Detroit standard metropolitan area and the location of Independence Township in the complex. Two asides are apropos here. First, Pontiac, if it were not within the Detroit standard metropolitan area, would be large enough to be considered a central city; also Waterford Township, which would be considered within the urbanized area of Pontiac if Pontiac were considered a central city, is growing at a rate which would almost

insure its qualification for the same consideration. Secondly, the Detroit standard metropolitan area does not conform to the area treated as the Detroit Metropolitan Region by the Detroit Metropolitan Area Regional Planning Commission. This agency, at the time of the study, was concerned with the three counties included in the standard metropolitan area and the eastern townships in Washtenaw County and all of Monroe County. The commission is supported by funds from these counties on a cooperative basis, which should indicate their awareness of their interdependence.

Figures III and IV show the positions Lansing and Grand Rapids occupy in relation to their standard metropolitan areas. It would seem fairly obvious that the southeastern part of Ingham County is less a part of the Lansing complex than the eastern part of Eaton County and the southern part of Clinton County. Maps showing the urbanized areas of some of the other standard metropolitan areas were not included in the 1950 Census of Housing for Michigan. But, a look at figure I shows that three other central cities are located in their standard metropolitan areas similarly to Lansing, Detroit and Grand Rapids. Thus of the eight standard metropolitan areas in Michigan, six at first glance would make one question the advisability of the Census definition of a standard metropolitan area.

McKain and Burnight's distinction between "limited" and "extended" fringe is one which will be employed in this study. Independence Township is now in the limited fringe

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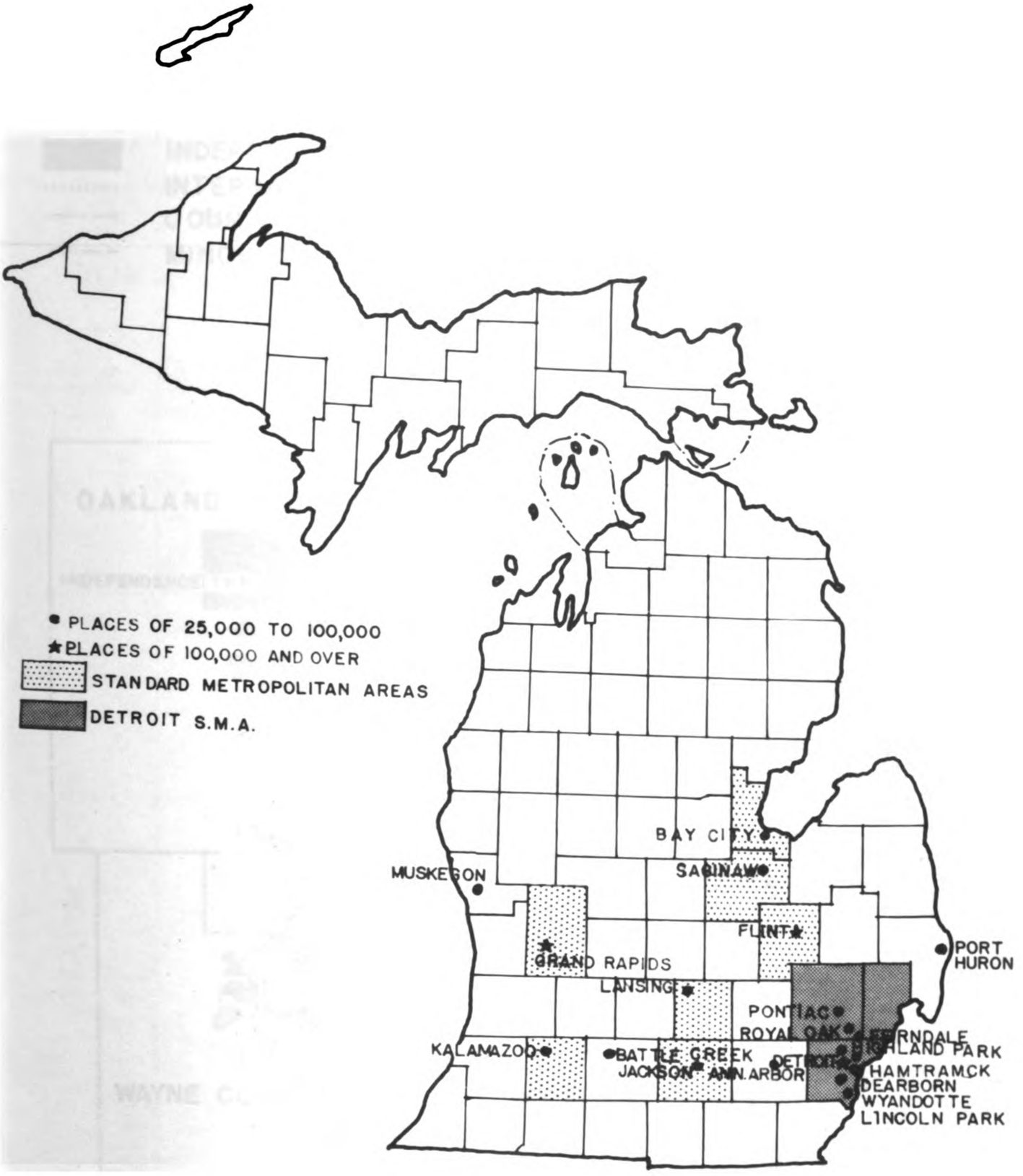


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FIGURE II

DETROIT S.M.A.

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INTERNATIONAL BOUNDARY

COUNTY LINES

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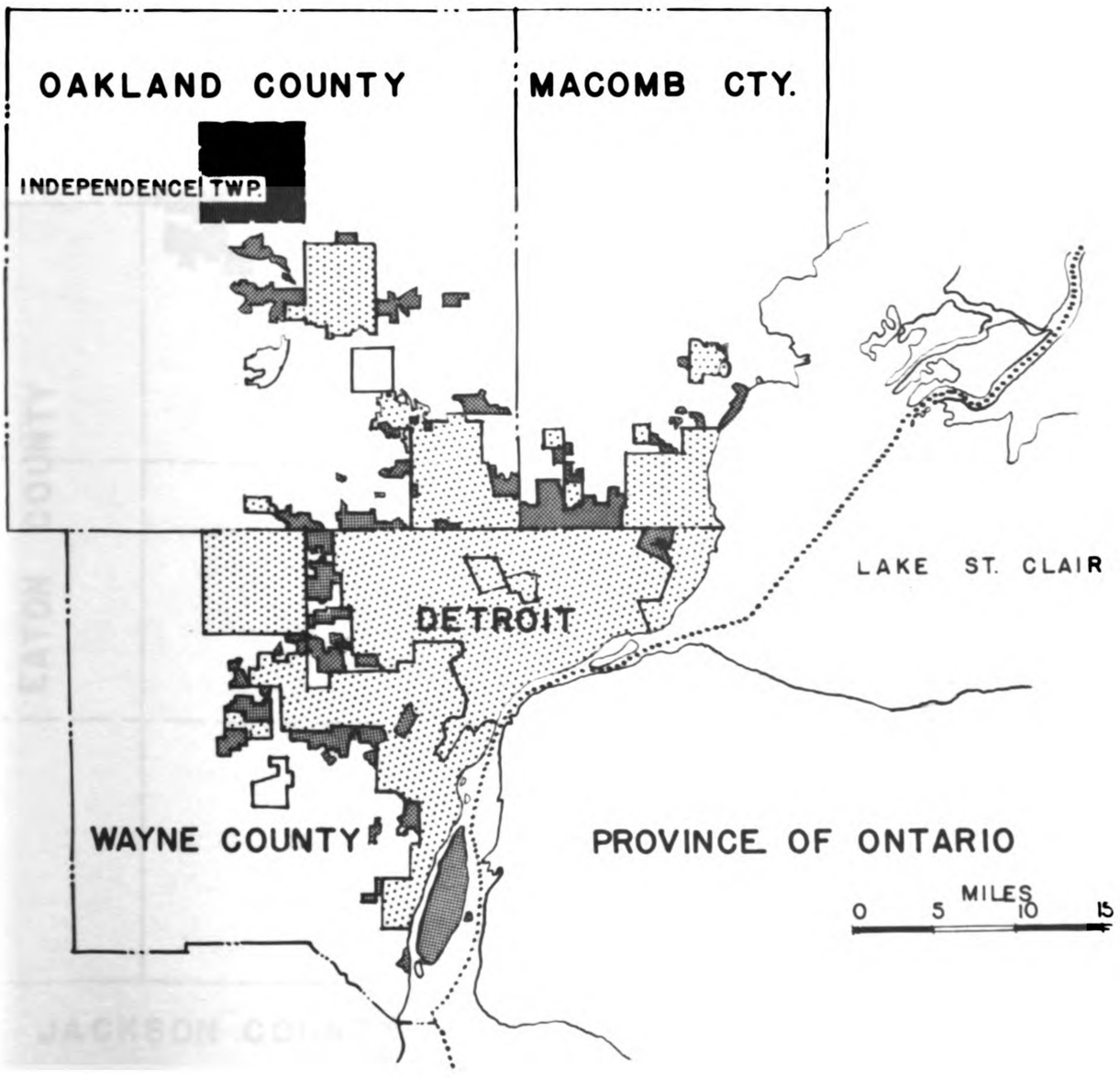

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FIGURE III

LANSING S.M.A. (INGHAM COUNTY), SHOWING URBANIZED AREA

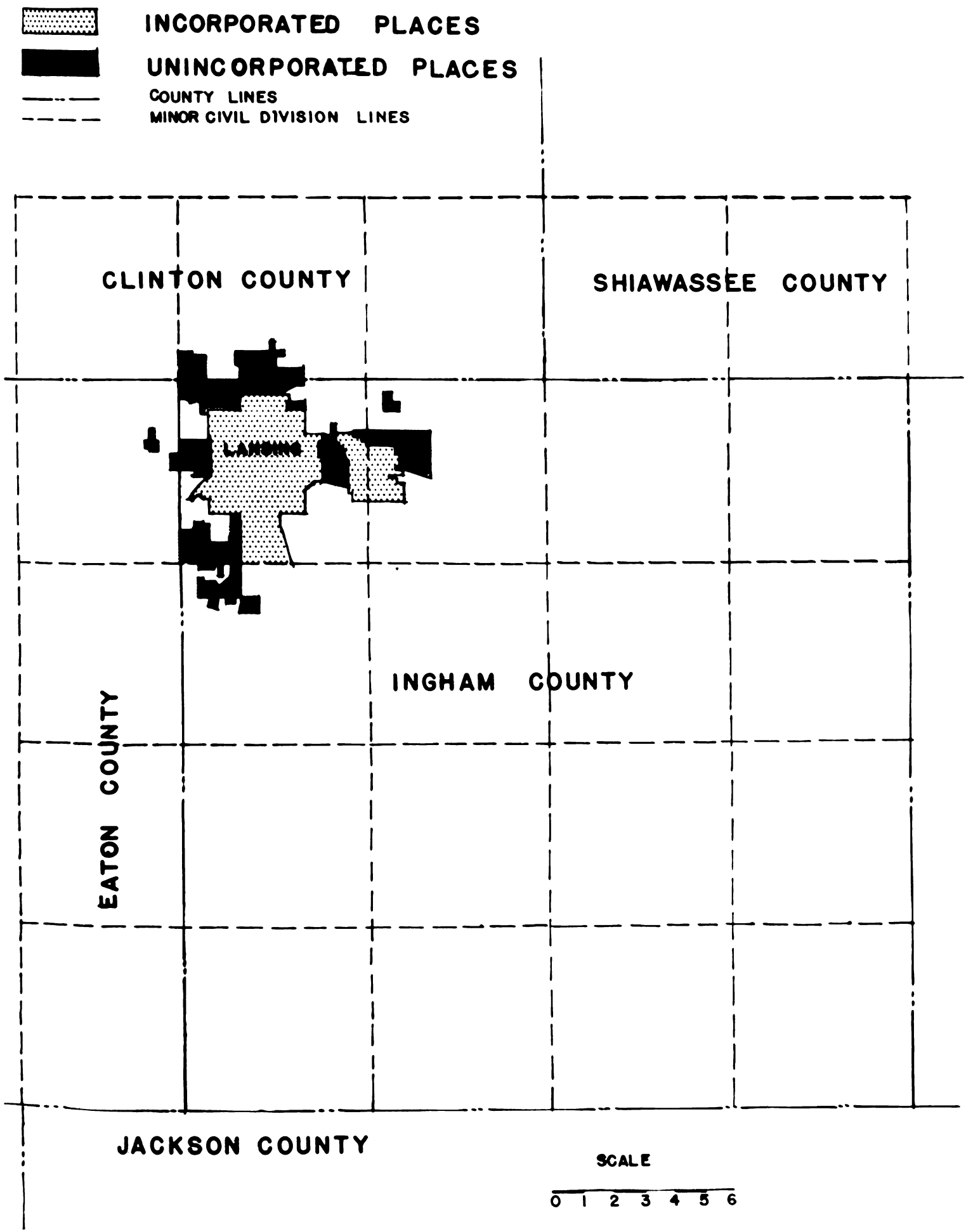

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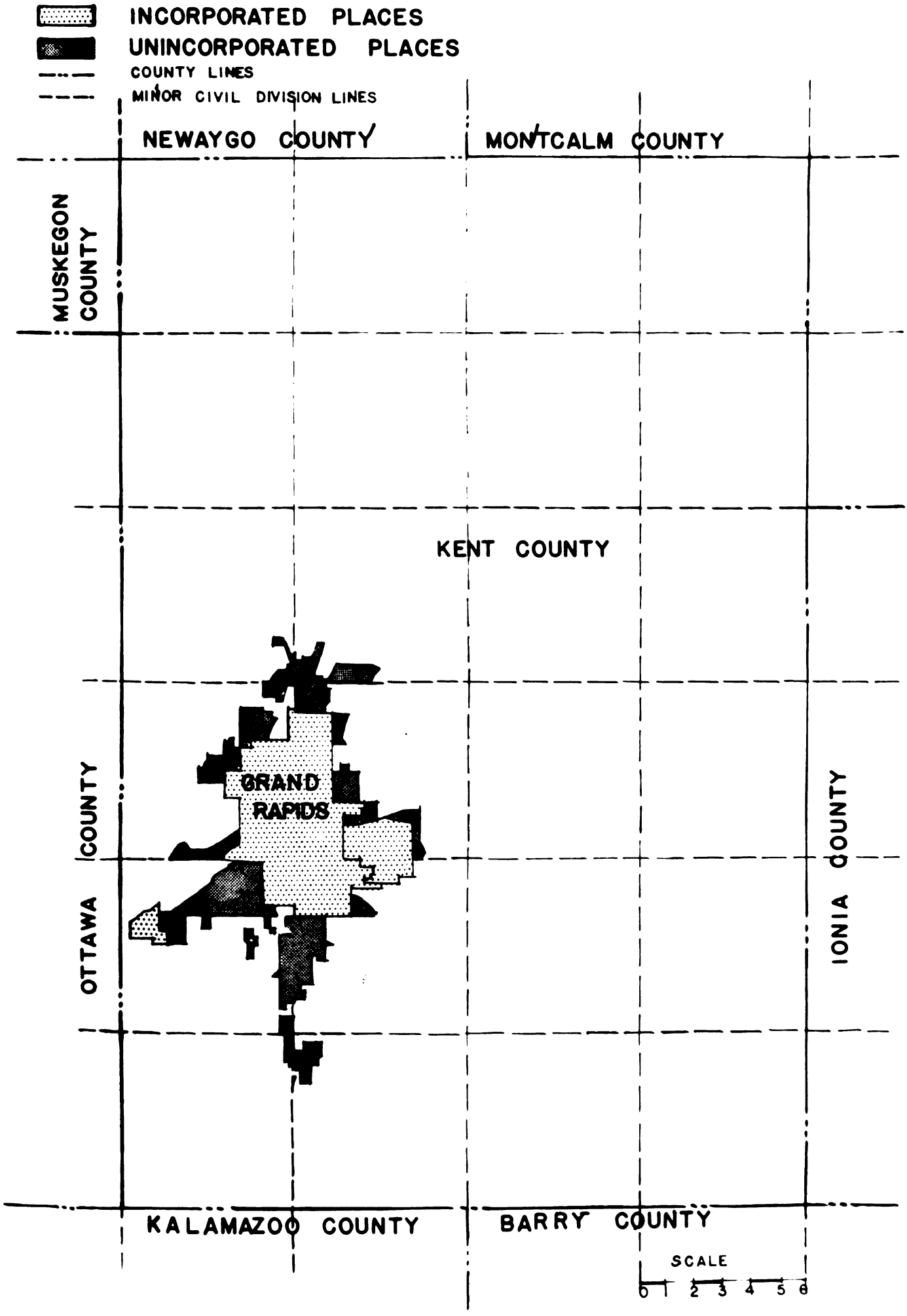
FIGURE IV

GRAND RAPIDS S.M.A. (KENT CO.) & URBANIZED AREA



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and the concern of this study will be with the problems of the limited fringe. The extended fringe may also lie along the rural-urban continuum as does the limited fringe, and may or may not be a presage of the limited fringe.

The question then arises of whether there is a continuum or several continua. Paul H. Hott argues that there are several continua. This he bases on Hoyt's sector theory, for under Hoyt's theory the fringe would be heterogeneous, ".... since the character of each sector of the fringe would be determined not entirely by its distance from the city center, but largely by the particular sector to which it is related."[6] This distinction is terminological and basically unimportant, for one could question the determination of sector divisions. The fringe lies along a continuum; this continuum will vary in detail from area to area within a region and as the areas are related to the central city, but it is in essence a continuum. One must remember that the continuum is continually shifting, and what is fringe today may not be fringe tomorrow.

Sociologists have also been concerned with the question of whether the fringe represents a movement of urban population outward or rural population inward. Richard Dewey asserted that "(the) ....movement of population into the rural-

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[6]Paul H. Hott, in a discussion of Queen and Carpenter's and McKain and Burnight's essays in Rural Sociology, Vol. XVIII, (March, 1953), p. 121.

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urban fringe is .... a movement of urban people."[7] An intermediate position has been assumed by several others. M. W. Rodenhaver stated "...new residents converge upon the fringe from both urban places and rural areas."[8] The position taken herein is that the rural-urban fringe is future "suburbia" which in name only is distinct from the central city. Ralph Borsodi, who wrote in 1933, made the following statement on the basis of rural to urban and urban to rural migrations in the twenties and especially those of the early thirties: "It is not an exaggeration of the situation today to say that millions of urban families are considering the possibility of flight from the city to the country...and since most of the migrants in the other direction -- from the city to country -- actually consist of people who at one time had lived on farms, it is evident that what we have had for many years are intolerable conditions...driving people out of the country, and then intolerable conditions...driving them back again."[9] To this writer in the thirties this may have seemed to be the case; however, unless the settlement of these people is in the extended fringe and widely scattered, they move not from

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[7]Richard Dewey, "Peripheral Expansion in Milwaukee County," American Journal of Sociology, LIV, No. 2, (September, 1948), p. 119.

[8]M. W. Rodenhaver, "Fringe Settlement as a Two-Directional Movement," Rural Sociology, XII, No. 1, (March, 1947), pp. 49-57.

[9]Ralph Borsodi, Flight From the City, (New York: Harper and Brothers, 1933).

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city to country, but from city to fetal city.

Moving closer to home, J. A. Beegle defined the rural-urban fringe "...as including all townships surrounding a given center which have 50 percent or more non-village, rural non-farm residents."[10] This definition at least begins to approach a workable one. There are some drawbacks to the definition which are important enough to invalidate it: (1) the fifty percent figure is arbitrary, and (2) rural non-farm residents may not bring with them any of the problems of the limited fringe or in an extended fringe they may not indicate a trend towards the urban end of the rural-urban continuum. The arbitrariness of the 50 percent figure does not interfere too much; it is the last criticism which is important.

For the purposes of the study and for the applicability of its conclusions and suggestions, the following loose definition is tendered: The limited rural-urban fringe is characterized by these characteristics:

1. A variety of interposed mixtures of land uses, with a strong competition between urban and rural ones for the available land.
2. A large portion of the population resides in areas which are suburban in character, i.e. residential lots of five acres or under in "farm subdivisions" or

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[10] J. A. Beegle, "Characteristics of Michigan's Fringe Population," Rural Sociology, XII, No. 3, (September, 1947), p. 255.

in definitely urban subdivisions with a closely spaced street pattern with generally two or more houses per acre.

3. There exists a conflict of interest between rural and "urban" residents with regard to services which the political division in which they live should provide. Generally this will be manifested in the need to raise property taxes to provide school facilities for an increasing school population.

The rural-urban fringe should be studied on the individual township level, for this is the smallest political division with which we can work. Granted that a fringe township will not be homogeneous; however, it is a convenient framework within which to work, and it is the unit directly concerned with the problems which the rural-urban fringe advances.

The Spread of the Fringe Problem

Our population, our cities, our railroads, and our industry have all grown together. Unlike European cities, our cities have developed and grown in conjunction with railroads and industry. As a result, railroads penetrate our cities to their cores, and industrial corridors alligned with railroad rights of way are scattered throughout the urban complex. Urban population simultaneously grew in three ways. Increased immigration in the late 1800's and early 1900's brought eastern and southern Europeans to the United States, most of whom located in the industrial centers in the Eastern

and North Central states. Infant mortality rates dropped and life expectancies were increased, giving rise to a large natural increase in population. Finally, agricultural techniques advanced and surplus labor in agriculture began to increase the previous rural-urban migration of the middle 1800's. Land uses within cities began to complete rigorously for the urban land available. With the horizontal expansion of cities limited greatly by the transportation of the day, intensification of urban land use was inevitable. This period of rapid urban growth gave to us as a dubious heritage the dumbell and railroad tenements, first developed in the teeming New York metropolitan area.

The pressures of urban life increased as the urban population grew and urban complex grew more slowly. Slums developed, the fine old residential areas adjacent to the central business districts deteriorated and finally were obliterated by the need to intensify the use of the land. Even today one can see how this happened. One only needs to see the streets perpendicular to Woodward Avenue in Detroit near Wayne University. The pattern of residential development in the 1800's followed, in spirit, very closely the urban residential development in colonial times. Every other street was a service street; only the kitchen gardens and stables opened on to them. Residences all faced on another street. This is obvious in the pattern now to be observed. As an example, Ferry, one of these streets on which residences stood, is a street of apartments, commercial establishments, and

schools, all of which are located in large old residences. The streets to the south and north also have apartments, etc., all of which are in buildings erected expressly for these purposes. The previous lots were simply cut in half and the double frontage eliminated. The people who lived in these areas could afford to move out and establish new residential oases, such as Arden Park in Detroit, for they were not as strictly controlled by time. The greater portion of the urban population, however, could not move and escape the crowding and urban blight which was increasingly distressing. That there was a desire to escape the conditions of the city cannot be denied, but the transportation of the day made it impossible for any but a few to realize this goal. These factors, intensification of land use, tremendous population growth, and the development of an urban complex around the railroads and industrial corridors, were the causes of the future rural-urban fringe. Only one factor was needed to bring this expansion into the hinterland into being.

This catalyst was provided by the rapid development of the internal combustion engine and the commercial production of the automobile. The automobile made possible early in the 1900's the move of affluent individuals to areas at that time removed from the central city. Commuter trains also made possible this move, and in cities where this service was widespread and readily available, horizontal expansion of the central city was rapid and took place comparatively early in the century. In a city such as Detroit, this effect can be

substantiated by the early development of Royal Oak, Pleasant Ridge, and the other "North Woodward" communities served by the Grand Trunk and Western Railroad. As a testimonial to the attitude towards the city prevailing at the time, an early community in the Royal Oak areas was called Suburban Rest. The development of the all-weather road in response to the increased use of automobiles made the catalyst complete, and the 1920's saw the beginnings of the new "American Dilemma" and hope, the trek to suburbia.

If we, for the moment, attempt to use the 1950 Census data for standard metropolitan areas, and the reworking done by Bogue[11] to make previous metropolitan district information coincide with the new S.M.A., we can get an index of the growth of Standard Metropolitan areas throughout the country. Bogue differentiated between Central cities and rings, and then between rural and urban areas within metropolitan rings.

Bogue continues further: "Within the rings of S.M.A.'s there has been another reversal of the pattern of growth, similar to that which occurred between central cities and rings. Before 1930, urban places in the rings were growing much more rapidly than the rural areas...During the 1930-40 decade, however, this situation was completely reversed, and this reversal has continued through the 1940-50 decade. During the last 20 years, the growth of incorporated places into the urban

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[11]Donald J. Bogue, Population Growth in Standard Metropolitan Areas 1900-1950, H.H.F.A., Washington, D. C., (December, 1953).

class has slackened noticeably, while the suburbanization of unincorporated territory adjacent to metropolitan centers has been accelerated tremendously." The great shift in population then has been to the less densely settled and less populous fringe areas of the metropolitan ring.

When we compare growth in central cities and rings, we observe the following: "Since 1900 a remarkable reverse in the pattern of growth within S.M.A.'s has taken place. In 1900-10, the central cities had higher growth rates than the metropolitan rings, but in 1940-1950 the rings were growing at a much more rapid rate than central cities. This change appears to have taken place about 1920." This pattern of growth is now firmly established, and Bogue feels that it would appear to be more than just the central city's overflowing its boundaries, "for annexation to the central city is now infrequent."[12]

Bogue, as mentioned, feels this is not an overflowing of the central cities' bounds; however, it is more than likely that this is exactly what it is. True, there has been little annexation politically, but the economic and social ties to the central city are such that this fundamental identity cannot be denied.

The importance of the rural-urban fringe depends upon the importance of the growth of urban metropolitan areas. The growth of metropolitan areas has been almost phenomenal. In

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[12] Ibid., p. 18.

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1900, 32 percent of the total population of the United States (some 24.2 million persons) lived in the 52 areas which would have qualified for consideration as S.M.A.'s in 1950. In 1950, 86 million (57 percent of the national population) lived in the 162 S.M.A.'s. To quote Bogue[13] "During this half-century, the population of the nation nearly doubled in size, but the S.M.A. population became 3½ times its 1900 size." Of course much of this increase had been by accretion of urban areas into S.M.A. classification size which distorts the picture slightly; however, the growth of urban areas is clearly indicated. In Michigan there are eight S.M.A.'s: Detroit, Grand Rapids, Lansing, Bay City, Saginaw, Flint, Jackson, and Kalamazoo. These eight areas had a total population of 4,225,001 or 68.8 percent of the population of the State of Michigan. If we add such urban centers as Battle Creek, Muskegon-Muskegon Heights, Port Huron, Ann Arbor-Ypsilanti, we find that 4,452,037 people are involved or 72.6 percent of the state's population. If we attempt to trace the urbanization of the state's population, two obvious alternatives are available. First we can follow the change in the percentage of the population residing in urban places, and secondly trace the change in the farm population of the state. Table I shows the change in the percentages of the population residing in urban places. Table II shows the individual changes in S.M.A.'s and urban places from 1900-1950. An interesting phenomenon is

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[13] Ibid., p. VII.

TABLE I

GROWTH OF STANDARD METROPOLITAN AREAS AND URBAN PLACES IN THE STATE OF MICHIGAN AND THE CORRESPONDING CHANGES IN THE PERCENTAGE OF THE STATE'S POPULATION RESIDING IN THEM. THE FIGURES ARE FOR CENSUS YEARS SINCE 1900.

	1900	1910	1920	1930	1940	1950
Standard Metropolitan Areas	874,279	1,162,164	2,009,659	3,119,945	3,380,869	4,225,001
% of Michigan Population	36.1	41.4	54.8	69.6	64.3	68.8
S.M.A.'s and Metropolitan Centers	967,435	1,268,215	2,164,264	3,312,723	3,528,492	4,452,037
% of Michigan Population	40.0	45.1	59.0	73.9	67.1	72.6
S.M.A.'s, Met. Cntr.'s and Urban Places	1,093,323	1,417,323	2,332,779	3,507,600	3,725,887	4,698,864
% of Michigan Population	45.2	50.4	63.6	78.3	71.1	76.6
Michigan Population	2,420,982	2,810,173	3,668,412	4,482,325	5,256,106	6,136,272

Source: Donald J. Bogue, Population Growth in Standard Metropolitan Areas 1900-1950, H.H.F.A., Washington, D. C., December 1953.

TABLE II

GROWTH OF INDIVIDUAL STANDARD METROPOLITAN AREAS, METROPOLITAN CENTERS AND URBAN PLACES, 1900-1950

	1900	1910	1920	1930	1940	1950
S.M.A.'s						
Flint	41,804	64,555	125,668	211,641	227,944	270,963
Grand Rapids	129,714	159,145	183,041	240,511	246,338	288,292
Bay City	62,378	68,238	69,548	69,474	74,981	88,461
Detroit	426,829	613,773	1,305,798	2,177,343	2,377,329	3,016,197
Jackson	48,222	53,426	72,539	92,304	93,108	107,925
Kalamazoo	44,310	60,427	71,225	91,368	100,085	126,707
Lansing	39,818	53,310	81,554	116,587	130,616	172,941
Saginaw	81,222	89,290	100,286	120,717	130,468	153,515
Sub-total	874,279	1,162,164	2,009,659	3,119,945	3,380,869	4,225,001
Metropolitan Centers						
Ann Arbor-Ypsilanti	21,887	21,047	26,929	37,087	41,936	51,420
Battle Creek	18,563	25,267	36,164	43,573	43,453	46,658
Benton Harbor-St. Joseph	11,717	15,121	19,484	23,783	25,731	28,030
Muskegon-M. Heights	21,830	25,752	46,084	56,974	63,744	65,693
Port Huron	19,158	18,863	25,944	31,361	32,759	35,235
Sub-total	93,155	106,050	154,605	192,778	207,623	227,036

Table II Continued

Urban Places	1900	1910	1920	1930	1940	1950
Adrian	9,654	10,763	11,878	13,064	14,230	17,703
Albion	4,519	5,833	8,354	8,324	8,345	9,427
Alpena	11,802	12,706	11,101	12,166	12,808	13,029
Cadillac	5,997	8,375	9,750	9,570	9,855	10,320
Escanaba	9,549	13,194	13,103	14,524	14,830	14,806
Holland	7,790	10,490	12,183	14,346	14,616	15,251
Ironwood	9,705	12,821	15,739	14,299	13,369	11,351
Marquette	10,058	11,503	12,718	14,789	15,928	15,494
Menominee	12,818	10,507	8,907	10,320	10,230	10,967
Midland	2,363	2,527	5,483	8,038	10,329	14,195
Monroe	5,043	6,843	11,573	18,110	18,478	20,802
Mt.Pleasant	3,662	3,972	4,819	5,211	8,413	9,766
Niles	4,287	5,156	7,311	11,326	11,328	12,980
Owosso	8,696	9,639	12,575	14,496	14,424	15,652
Slt.Ste.Marie	10,538	12,615	12,096	13,755	15,847	17,277
Traverse City	9,407	12,115	10,925	12,539	14,455	13,430
Willow Run	-----	-----	-----	-----	-----	11,228
Springfield-Lakeview	-----	-----	-----	-----	-----	13,149
Sub-total	125,888	149,109	168,515	194,877	207,485	246,827
Grand Total	2,420,982	2,810,173	3,668,412	4,482,325	5,256,106	6,136,272

shown by the difference between the 1930 percentage and the 1940 percentage and by the difference between the 1930 percentage and the 1950 percentage. The 1940 percentage we would expect to be lower than the 1930 percentage as a result of the return to the country during the depression. The 1950 percentage we would expect to be greater than the 1930 percentage; however, it is not. One possible explanation is that the post war recovery of the residential construction industry was not effected until well into 1948, and that due to this many families were required to find housing in areas contiguous to S.M.A.'s yet not within them. The decline of the farm population (Table III), perhaps, provides us with a better insight into the degree or urbanization which the state has undergone. The depression return to the farm appears in the 1940 figure and the influx of rural non-farm residents is indicated by the sharp decrease in the farm population from 1940 to 1950.

The Detroit S.M.A., in which Independence Township is located, had, in 1950, a population of 3,016,197 or 49.2 percent of the state's population. It is also the most extensive covering three counties, Wayne, Oakland, and Macomb. It has grown rapidly in the past; between 1940 and 1950 only three other S.M.A.'s in the country with over 1,000,000 population grew faster - Washington, D.C., Los Angeles, and San Francisco. The State of Michigan increased in population by some 880,166 people; the Detroit S.M.A. increased by 638,868. Comparison of population growth in the Detroit S.M.A. and that of other S.M.A.'s and urban places in the state is shown in Table II.

TABLE III

MICHIGAN FARM POPULATION

1920	1930	1940	1950
844,499	775,436	860,202	694,742

TABLE IV

GROWTH OF THE CENTRAL CITY, URBAN RING AND RURAL RING, DETROIT, MICHIGAN 1900-1950, IN ACTUAL NUMBERS

	1950	1940	1930	1920	1910	1900
Central City	1,849,568	1,623,452	1,568,662	993,678	465,766	285,704
Urban Ring	731,279	497,661	442,437	188,983	42,368	26,101
Rural Ring	435,350	256,216	166,244	123,137	105,639	115,024

PERCENTAGE GROWTH OF THE CENTRAL CITY, URBAN RING, DETROIT, MICHIGAN 1900-1950

	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910
Central City	13.9	3.5	57.9	113.3	63.0
Urban Ring	46.9	12.5	134.1	346.0	62.3
Rural Ring	69.9	54.1	35.0	16.6	-8.2

It is apparent that in an area as extensive as the Detroit S.M.A. or more broadly the Detroit Metropolitan Region as defined by the Detroit Metropolitan Area Regional Planning Commission the rural-urban fringe exists in force. This supposition is corroborated by the DMARP's studies and Bogue's figures showing growth in the rural rings or the central city of Detroit (which is almost completely built up). Bogue's statistics[14] (Table IV and Figure V) show that between 1940 and 1950 the urban ring gained in absolute amount more than the central city and the rural ring about one-fifth less. Between 1930 and 1940 during the depression exodus the rural ring led the race with the central city second and the urban ring last. In percentages, which are at best a little misleading, the trend is clearly indicated. (See Figure VI)

The Detroit Metropolitan Area Regional Planning Commission, working with census data, has determined the center of population for the Detroit S.M.A. Their calculations show that "In 1930, the center of population of the Detroit S.M.A. was located in Detroit at Hamilton and Elmhurst Avenues. (See Map.) By 1940, the center had moved northwest to Thompson and Glendale Avenues. This move was about as far west as it was north. By 1950, the center of population for the metropolitan area had shifted to LaSalle and Oakman Boulevards. The move from 1940 to 1950 was about twice as much both north and west as during the previous decade. In other words, the trend

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[14] Ibid., p. 42.

FIGURE V
POPULATION GROWTH OF THE DETROIT S.M.A. 1900 - 1950
CENTRAL CITY, URBAN RING, AND RURAL RING

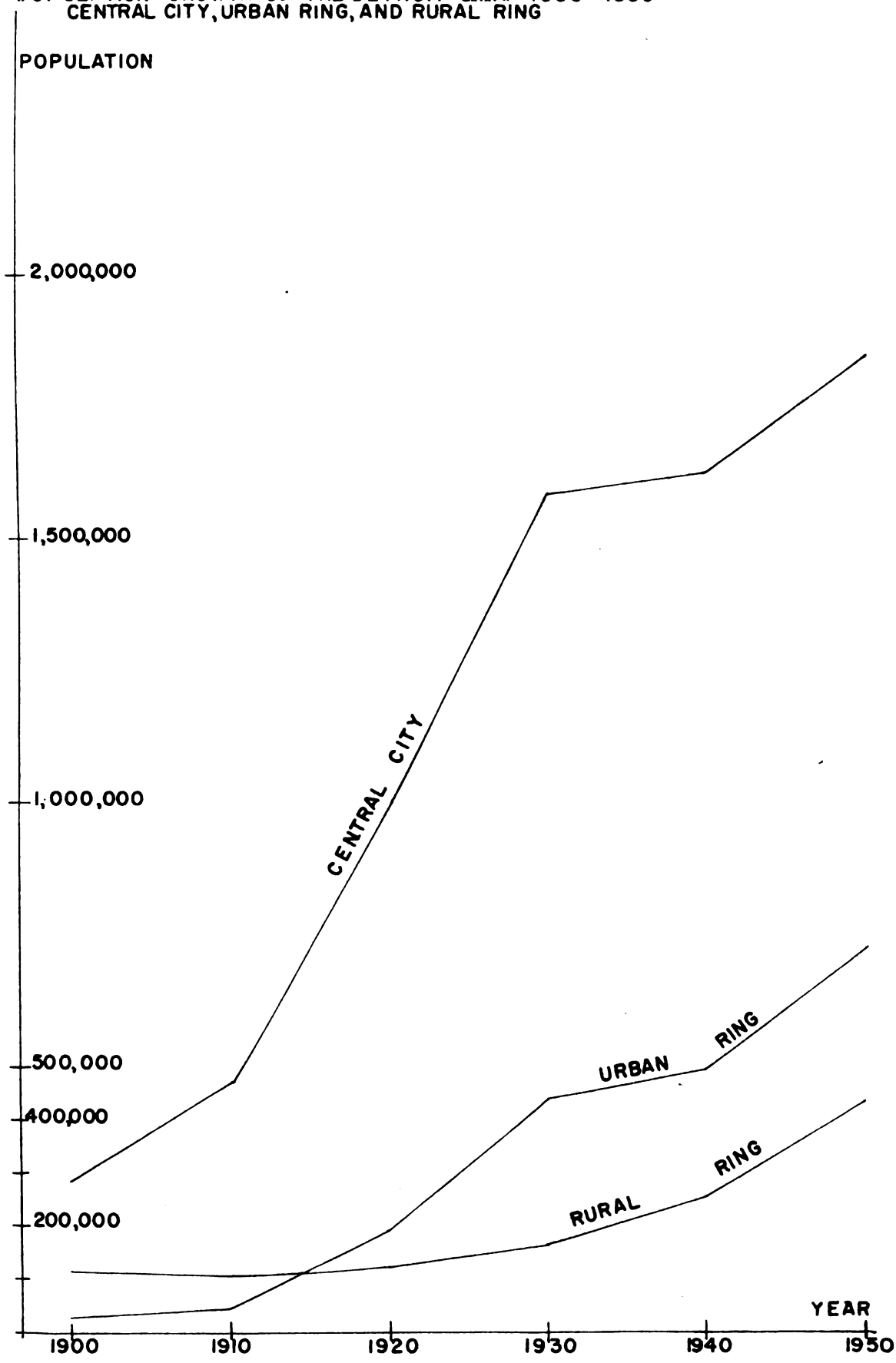
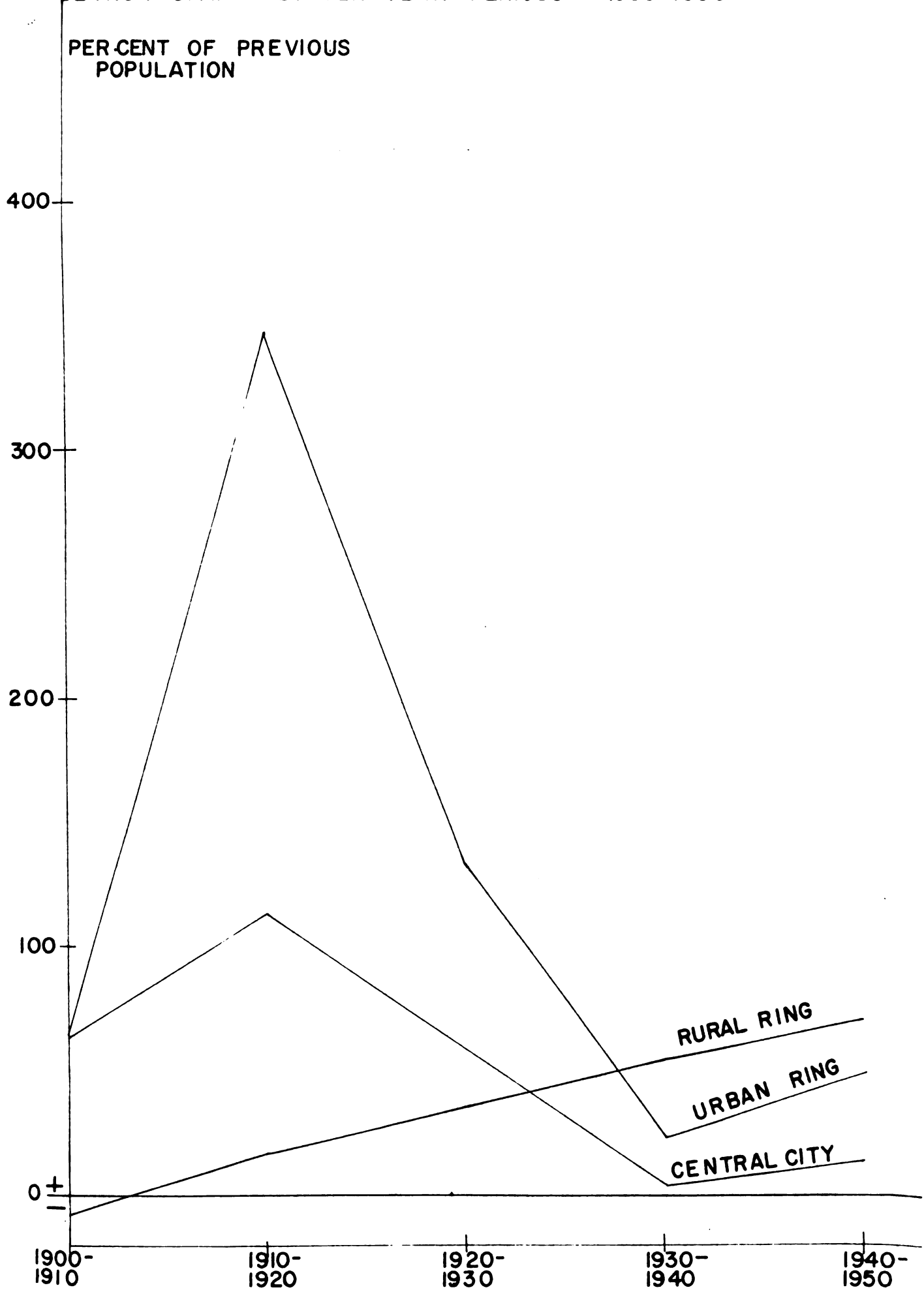


FIGURE VI

PERCENTAGE GROWTH CENTRAL CITY, URBAN RING, AND RURAL RING
DETROIT S.M.A. BY TEN YEAR PERIODS 1900-1950



toward the north and west was greatly intensified during the 1940-1950 period."[15]

The conclusions which they drew from this were: (1) the City of Detroit, as other cities throughout the country, has been growing at a much slower rate than its surrounding environs, and (2) further growth in this northwest direction should be anticipated as expansion to the east and south is, of course, limited by Lake St. Clair and the Detroit River.

In a talk before the Sixth Annual Planning and Zoning Conference at the Fort Shelby Hotel in Detroit on February 23, 1956, Paul M. Reid, then Planning Analyst with the D.M.A.R.P.C., talked on Detroit Regional development, including Economic growth, home building, and population growth. As a part of his presentation, he stressed that the townships in the region were fast taking the lead in population growth. As examples he cited that "seven cities in the central complex, Detroit, Hamtramck, Highland Park, Ferndale, Dearborn, Ecorse, and River Rouge, in 1950 built 15,756 new homes or 36 percent of the region's total of 43,975," but, "in 1955 built only 2,463 or only 6 percent of the region's total of 39,953." As he mentioned further growth in these areas is slowing because there simply aren't available building sites. He then stated that in 1950 the 14 top townships in the region accounted for only 16.9 percent of the area's new residential

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[15] Urban Environment Study #1, The Centers of Population of the Detroit S.M.A. and the City of Detroit 1930, 1940, 1950, D.M.A.R.P.C., July 1953.

construction, but, by 1955 the townships received 34.6 percent of the region's total. He then continued that, "Today, townships like Warren (now incorporated), Clinton, Southfield, Waterford, Dearborn, Redford, Taylor, and Ecorse are fast becoming urbanized."

CHAPTER III

INDEPENDENCE TOWNSHIP

Geographical Location

Independence Township is located in the north central part of Oakland County. (See map for location in State and in Detroit area.) It is about one mile northwest of the city of Pontiac. U.S. 10, which provides the major highway connection with Pontiac and Detroit to the south and with Flint, Saginaw and Bay City to the north, cuts across the southwestern portion of the township. Clarkston, the village center of the township, is located in the western part of the township one mile north of U.S. 10 on M 15 which originates at U.S. 10 and runs north to Bay City. The Grand Trunk and Western Railroad also crosses the township southwest of U.S. 10.

Settlement

Oakland County was one of the earliest settled of the inland counties in Michigan. Early settlers arrived in 1815, most of them from New England, New York, New Jersey and Pennsylvania. The journey to Michigan in those days was a long tedious one. A common way (in fact one of the few ways) to get there was to take a stage from New York or Philadelphia

to Buffalo, a schooner from Buffalo to Detroit, and then travel by oxcart or horseback to the interior. The total elapsed time was a good thirty days. Settlement was slow. Much of Oakland County is rolling and broken up except for some level areas at the Sashabaw plains, Drayton plains, and around Orion and Oxford. The surface was mainly formed during a drift period and there is much alluvial deposit.

Oakland County was formed as a governmental unit January 12, 1819, and on June 28, 1820 the county was split into two townships, Oakland and Bloomfield. In 1827 the county was again subdivided into five townships, Pontiac, Oakland, Farmington, Bloomfield, and Troy. Lest the impression be given that the population was increasing rapidly, it should be noted that in 1830 the population of this 900 square mile area was less than 5,000.

The slow development of this portion of Michigan can be laid in part to the discouraging picture painted by the surveyors who studied the area in 1812 for the purpose of government gifts to the soldiers of the War of 1812. Their description starts, "The country on the Indian boundary line, from the mouth of the Great Auglaize River, and running thence for about fifty miles, is (with some exception) low, wet land ...," and there follows a description which would hardly encourage settlement.

The cities of Pontiac, Birmingham and Royal Oak were established or founded in the fall of 1818, which coincided with the early conversion of the Indian trail from Detroit to

Saginaw into a military road. Progress was slow and sixteen years later, in 1834, the road was only six miles beyond Flint.

Settlements moved further inland as the road advanced. Waterford Township was settled in the spring of 1819. Finally the first purchase of land in Independence Township was made in October of 1823 by Alpheus Williams. Most of Independence Township, at that time, was covered by large stands of oak except for Sections 3, 25, and 29 which had fine stands of pine.

The Sashabaw Plain (section 25) was settled by John W. Beardslee in 1826. The next few years saw more settlers arriving and in 1832 the first wheat crop was harvested by John Beardslee on the Sashabaw Plain. That same year saw a number of settlers arrive, all but one of whom settled in the southern part of the township. The year 1833 saw the settlement increase substantially and saw the founding of what is now Clarkston by Butler Holcomb who built a saw mill there. The saw mill was bought by Jeremiah and N. W. Clark in 1838. They built a dam and a grist mill in 1839 and the village was named for them.

Agricultural development continued and by the middle 1870's there were many orchards, and the upland wheat land was considered among the finest developed at this time.

The expansion into the western wheat lands reduced the acreages of wheat grown in the township, and as Detroit grew dairying became the major enterprise. Potatoes were also grown as a cash crop and the fertility of the light sandy

soils of the township was reduced considerably.

Land Forms of Independence Township

The area in which Independence Township is located consists mainly of outwash plain and alluvial deposits. Local relief varies considerably. In some areas there are changes of 100 to 150 feet in a short distance while in others there may be little relief at all (see Figure VII showing topo).

Drainage is interrupted to some extent and there are many bogs and potholes. There are many lakes most of which are part of a river system (see Figure VIII showing drainage areas and stream systems). There are numerous occurrences of organic soils, muck and peat, varying in depth and acidity from spot to spot. Much of the organic soil is underlain by marl, and most large bodies of it are in areas difficult to drain. The lakes in the area are not solely drainage fed; many of them are spring fed, and the larger more accessible ones have been developed in varying degrees for recreation.

Original cover varied from pines on some well-drained sandy soils to an oak association on the major parts of the township to a cedar tamarack association on organic soils.

Veatch in his book Soils of Michigan describes the land types found in the state. Of these four are found in Independence Township (see Figure IX showing land types).

Veatch's descriptions of these land types is as useful as any that could be given and almost as fine a breakdown as exists. The first type that he mentions is the "Dry Sandy

FIGURE VII

TOPOGRAPHY OF INDEPENDENCE TOWNSHIP

CONTOUR INTERVAL 50 FEET

TOWNSHIP BOUNDARY

CLINTON RIVER

LOWER BUSHMAN LK.

WHIPPLE LK.

ROUND LK.

WALTERS LK.

CRANBERRY LK.

LITTLE WALTERS LK.

PARK LK.

DEER LK.

GREENS LK.

TOWNSON LK.

MILL POND

WOODHULL LK.

LK. OAKLAND

SASHABAW CREEK

MORGAN LK.

FIGURE VIII

INDEPENDENCE TWP. DRAINAGE AREAS, DRAINAGE SYSTEMS, MARSH, AND LAKES

INTERMITTENT STREAMS
STREAMS
DRAINAGE AREAS
TWP. BOUNDARY
SWAMPY LAND

SCALE
0 1000 2000 3000 4000 5000 FT.

DUCK CREEK — KEARSLEY CREEK DRAINAGE AREA (SAGINAW RIVER SYSTEM)

DEER LAKE DRAINAGE AREA (CLINTON RIVER SYSTEM)

CLINTON RIVER DRAINAGE AREA

TOWNSON LAKE DRAINAGE AREA (CLINTON RIVER SYSTEM)

PAINT CREEK DRAIN DRAINAGE AREA (CLINTON RIVER SYSTEM)

SASHABAW CREEK DRAINAGE AREA (CLINTON RIVER SYSTEM)

CRANBERRY LK.
LITTLE WALTERS LK.
CLINTON RIVER
DARK LK.
DEER LK.
GREENS LK.
CLINTON
TOWNSON LK.
MILL POND
WOODHULL LK.
LK. OAKLAND
SASHABAW CREEK
LOWER BUSHMAN LK.
WHIPPLE LK.
ROUND LK.
WALTERS LK.
MORGAN LK.

FIGURE VIII

INDEPENDENCE TWP. DRAINAGE AREAS, DRAINAGE SYSTEMS, MARSH, AND LAKES

INTERMITTENT STREAMS
STREAMS
DRAINAGE AREAS
TWP. BOUNDARY
SWAMPY LAND

SCALE
0 1000 2000 3000 4000 5000 FT.

DUCK CREEK — KEARSLEY CREEK DRAINAGE AREA (SAGINAW RIVER SYSTEM)

DEER LAKE DRAINAGE AREA (CLINTON RIVER SYSTEM)

CLINTON RIVER DRAINAGE AREA

TOWNSON LAKE DRAINAGE AREA (CLINTON RIVER SYSTEM)

PAINT CREEK DRAIN DRAINAGE AREA (CLINTON RIVER SYSTEM)

SASHABAW CREEK DRAINAGE AREA (CLINTON RIVER SYSTEM)

CRANBERRY LK.
LITTLE WALTERS LK.
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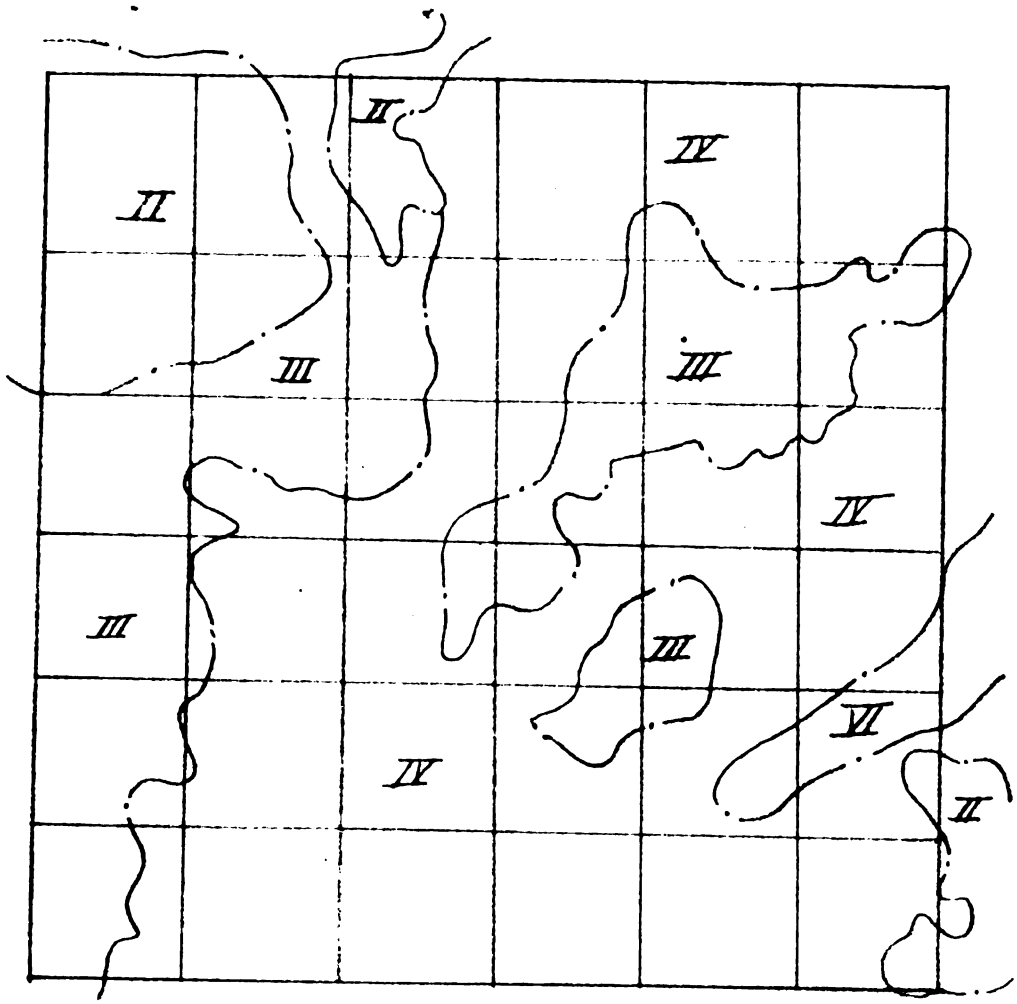
DARK LK.
DEER LK.
GREENS LK.
CLINTON
TOWNSON LK.
MILL POND
WOODHULL LK.
LK. OAKLAND
SASHABAW CREEK
LOWER BUSHMAN LK.
WHIPPLE LK.
ROUND LK.
WALTERS LK.
MORGAN LK.

Figure IX : Land Types of Independence Township



Land Type	Characteristics	No. of Acres
II.	Gently rolling to hilly, mainly clay loams, peat and muck widely distributed both in large and small bodies.	1,700
	Sixty per cent in farms, 23 per cent in pasture swamp and woodland (county wide).	
III.	Mainly hilly sandy uplands with sharp ridges, knobs basins, swells, and sags; lakes and swamps common.	7,420
	Gullies easily, very little now in production, was best wheat land. Fifty per cent now in permanent pasture; Fifty per cent in hunting, homes, reforestation or other non-agricultural use (county wide).	
IV.	Level and pitted sandy loam plains, underlain by gravelly deposits, associated bodies of peat and muck.	12,010
	Forty per cent in agriculture; other uses are subdivisions permanent pasture and gravel pits (county wide).	
VI.	Wet land, flat plains and wide valleys. Mainly sandy loams and muck underlain with clay, sand or gravel.	580
	Sixty per cent in farms, 25 per cent in wet pasture, 15 per cent in subdivisions, golf courses, and special truck crops if well drained (county wide).	

Plains Type," of which he says comprise a large portion of the State.

> "The land varies from flat and featureless to plains which are deeply pitted and interspersed with lakes, bogs, and swamps. Trough like basins and valleys enclosed by short steep slopes are also an occasional feature...The soils are prevailingly sands and sandy loams; relatively dry, and low to medium in fertility and productivity. The topography is favorable for agricultural use, and the soil is easily tilled, but much of it has a low value for agriculture because the moisture is insufficient for the production of profitable yield." Veatch recognizes five sub-types of this general type and places Oakland County in the following sub-type, "....both uniformly flat and broken pitted plains which are underlaid by the more gravelly deposits and are characterised by a thin sub-surface layer of reddish gravelly or sandy clay between the surface soil and the dry gravelly substitution. Dry, pit depressions, numerous lakes, both small and large, and small to large bodics of peat and muck land are associated. The principal soil types are Fox loam and Fox sandy loam. This division includes some of the best agricultural land..."[16]

> Division number one has..."a higher proportion of slopes in relation to flat upland, more wet lowland, including peat and muck, and on the whole a greater range and complexity in soil components. The configuration features are mostly rounded, constructional in origin, and without any very definite uniformity in kind or arrangement. The depressional features are variously dry erosion hollows, cols, cupules, bowls, broad, shallow, dish depressions, punts, open drainage swales, alluvial valleys, occasional lakes, peat bogs, and numerous tiny, shallow ponds. The upland features are hillocks, ridges, rolls, gentle swells, hends, spurs, breasts, all generally rounded or curved in conformation and composed of smooth short slopes. The few slopes that are precipitous or steep are generally short. Some of the area included consists of separate broad swells of upland spaced either by wide depressions or by narrow valley flats occupied by streams. These upland segments are not flat-topped, but have inequalities produced by micro hollows and drainage swales...The local relief is generally less than 40-50 feet and in a few places as much as 100 feet."[17]

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[16] J. O. Veatch, Soils of Michigan (East Lansing: Michigan State College Press, 1953), pp. 14-15.

[17] Ibid., p. 61.

#12 Bellefontaine-Hillsdale-Coloma Association

"This land type comprises the more broken or hilly highland in the southern part of the state, in which the soils are diverse in texture and other physical and chemical properties, but are dominantly sandy loams.

The broken, or hilly, aspect of the landscape is caused by basin depressions and other inequalities which are constructional features of glacial deposition, rather than because of dissection by streams. The configuration features are generally curved in form; slopes are rounded and convex and variable in gradients rather than angular and evenly planated from crest to base. Local differences in elevation may not be more than 40 or 50 feet, but in more hilly areas they may be 100 to 200.

Lakes, lake basin and valley swamps are characteristic; there are very few streams, although short drainage hollows confluent to basins and valleys are numerous. There are a few small bodies of flat land on the crests of plateaus and ridges, but generally the acreage of strongly sloping land exceeds that of the combined flat land of the summits and basin floors.

The principal soil types are Bellefontaine, Hillsdale, and Coloma...Organic soils comprising as much as 20 percent of some of the areas shown on the map, have a wide range in thickness and also in kinds - from black, highly developed limy muck to strongly acid, raw peat."[18]

#14 Fox-Oshtemo-Plainfield Association

"This division comprises the land on which the soils are uniformly the Fox types. The land surface, in part, is flat and dry, or merely diversified by very shallow sags; in other places the surface is indented by numerous small potholes, and broken by larger basin depressions and valleys containing lakes, swamp and marsh. Differences in elevation between the upland plain levels and the bottoms of potholes, lake and swamp levels, amount to 10 to 40 or 50 feet. Steep slopes are very short, and conform to the circular and elliptical shapes of the depressional relief.

The soils are mainly sandy loams, but also, in part loams of the Fox and closely related soil types...Muck soils may make up as much as 10 percent of some of the areas...Surface boulders are uncommon, but gravelly and cobbly soils are local in occurrence throughout the areas."[19]

A further breakdown has been done into seven land types

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[18] Ibid., p. 71.

[19] Ibid., p. 76.

and this is shown on maps with a brief description of characteristics.

History of Agriculture in Independence Township

The study of changes in agriculture before an urban influx ties in usually with the land's capacity. However, little is available in print regarding changes in agriculture in Independence Township except census data. There are some records which tell us that before 1870 Oakland County was one of the greatest wheat producing counties in the United States. The Sashabaw Plains area in the southeastern portion of the township was at that time the wheat land of the township. We also can recover accounts of orchards on the gently sloping sandy soils, some of which were fairly extensive.

The light soils on slopes and the extensive deposits of organic soils in marshes and swamps are factors which limit farming and urban development in some parts of the township.

CHAPTER IV

URBAN GROWTH IN INDEPENDENCE TOWNSHIP PRIOR TO 1946

It is difficult to trace with any precision the urban growth prior to 1946 in Independence Township. Records of building permits are available only from 1946 to date, and even then the years of 1946, '47 and '48 are open to some question about their completeness. We can arrive at an idea of how densely developed the township was at the end of the last war by taking the total development as mapped in the summer of 1956 by field checking and subtracting all residential construction recorded from 1946 to 1956 (Figures X abcde showing development by periods).

We are in a more fortunate situation regarding subdivision activity. The township had on record in its office a copy of every plat recorded in the township.

There is a substantial record of platting activity in the township before 1946. There was little subdividing up to 1920. Between 1920 and 1930, however, there were 27 plats recorded containing 4561 building lots. These varied in size from 12 lots to over 1100. Most of these subdivisions were adjacent to easily reached bodies of water. Some were simple divisions of parcels into a few large lots; others were grandiose with intricate road systems and plans

FIGURE 10a

CONSTRUCTION AND PLATTING ACTIVITY PRIOR TO 1946

each dot = 1 residence

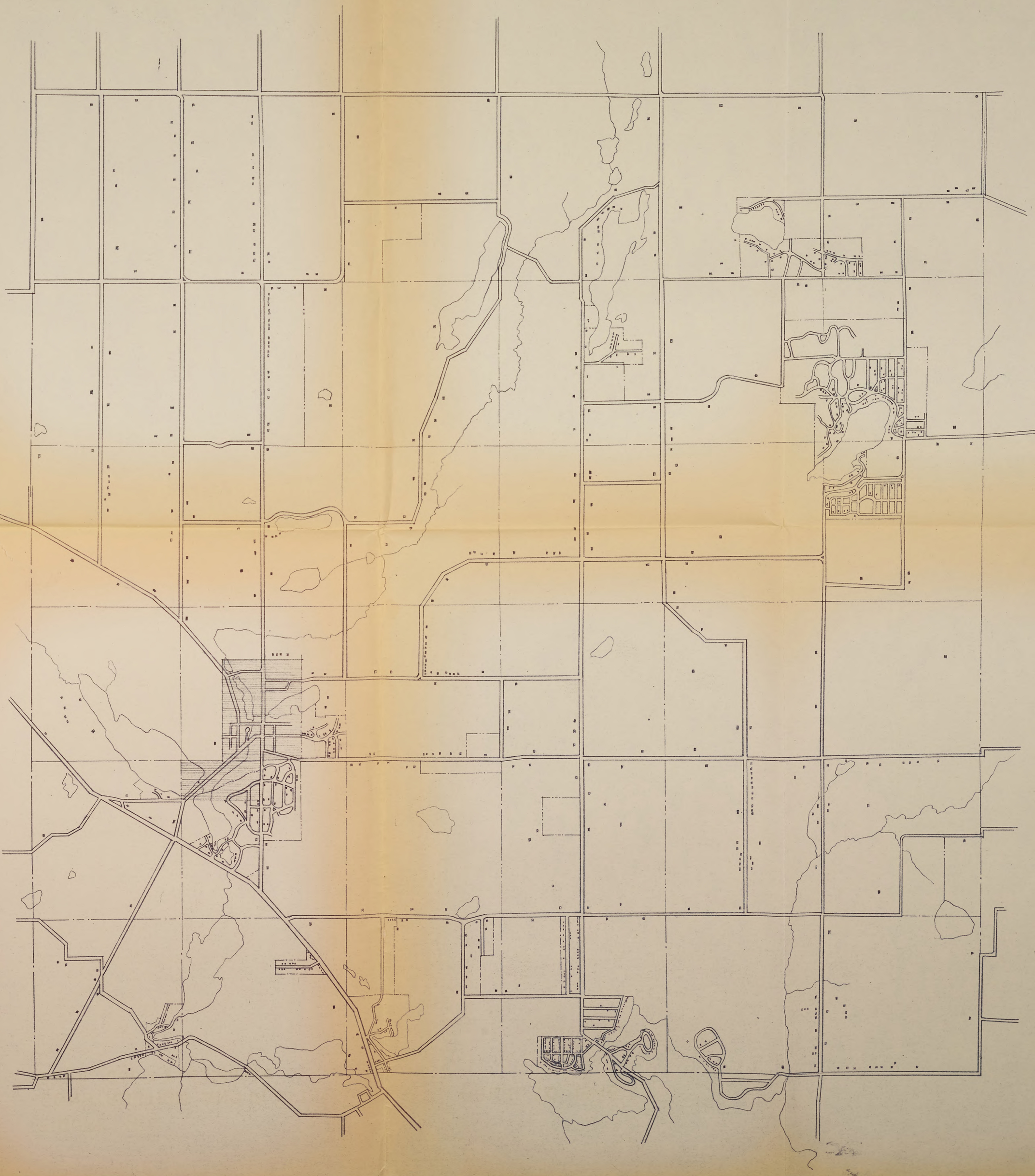


FIGURE 10b

CONSTRUCTION AND PLATTING ACTIVITY 1946-50

each dot = 1 residence

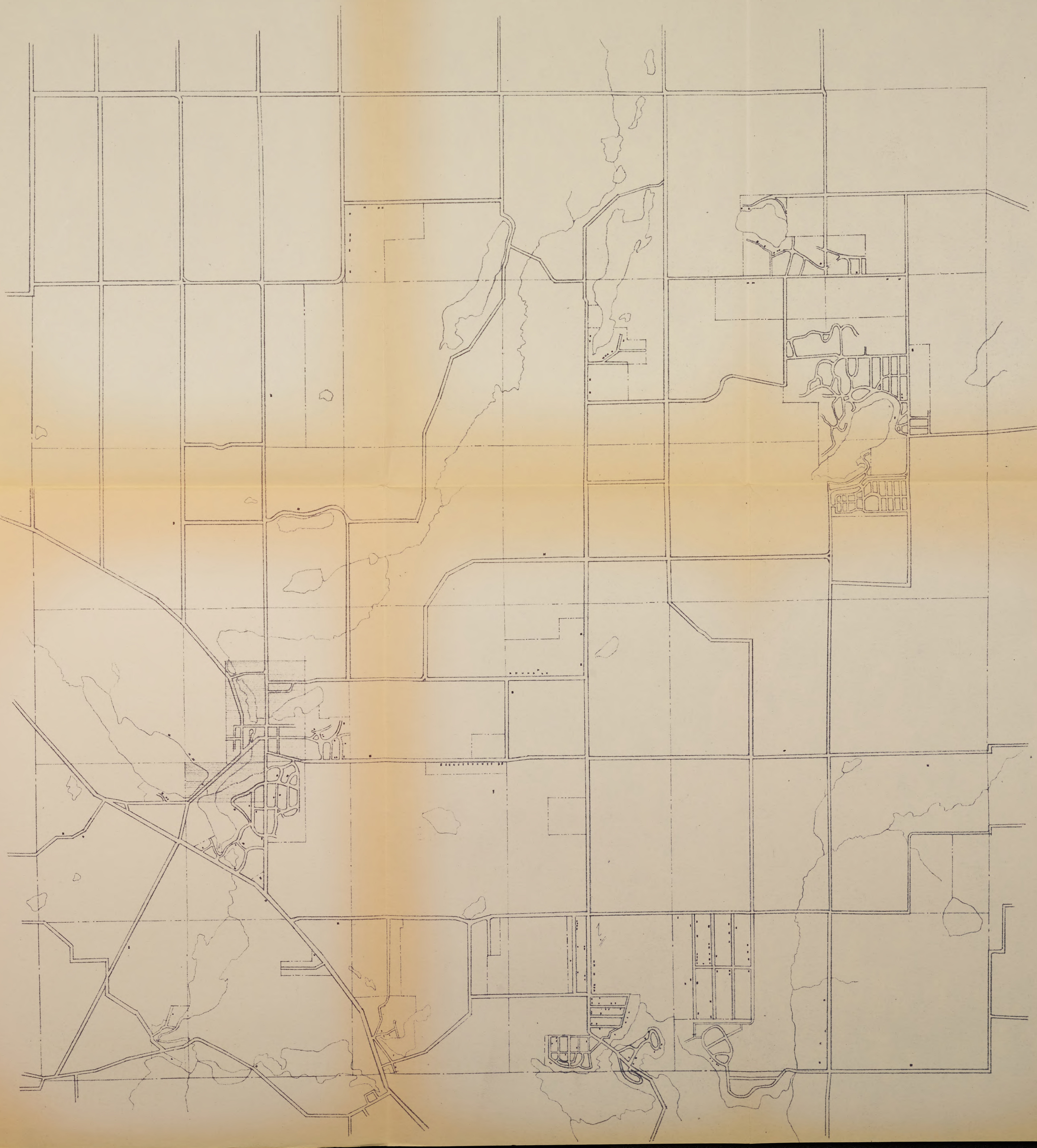


FIGURE 10c

CONSTRUCTION AND PLATTING ACTIVITY 1951-52

each dot = 1 residence

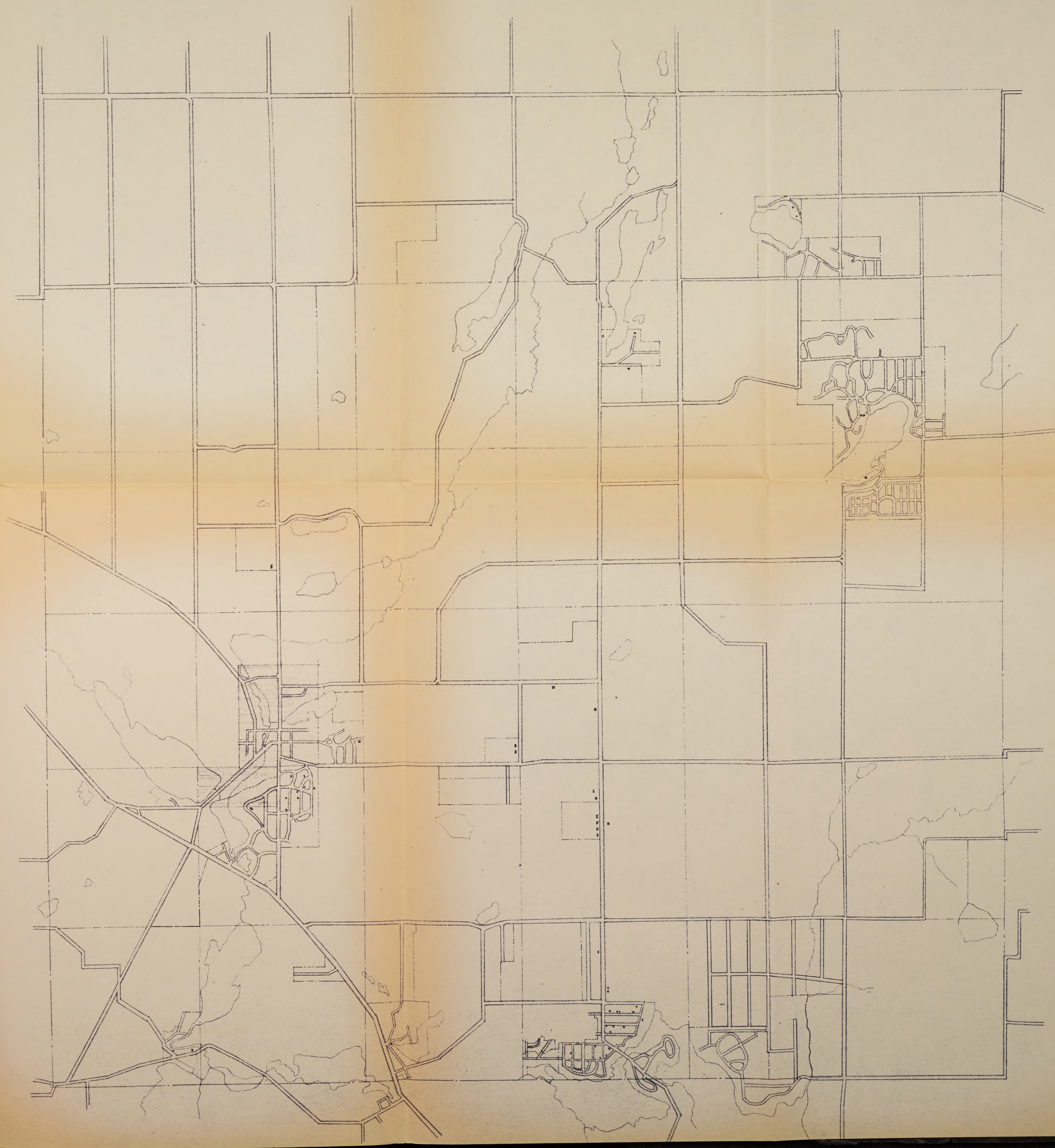


FIGURE 10d

CONSTRUCTION AND PLATTING ACTIVITY 1953-54

each dot = 1residence

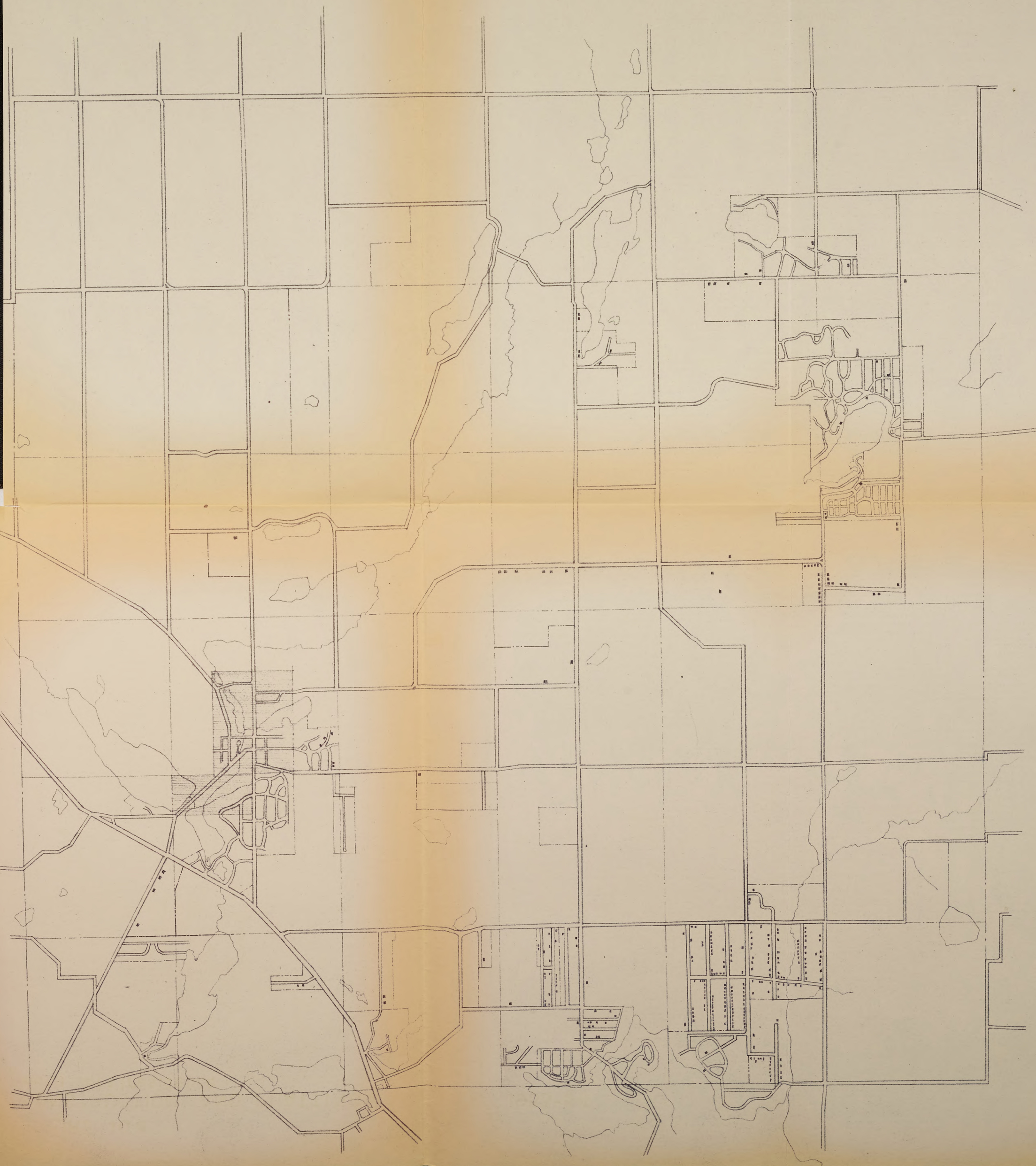


FIGURE 10e

CONSTRUCTION AND PLATTING ACTIVITY 1955-56

each dot = 1 residence

for becoming small communities. The largest of these, Thendara Park, contained approximately 1137 lots. It is difficult to assess accurately the number of lots contained as many were planned for garage sites and beach cabanas. Thendara Park was laid out on a rolling hilly area north of Walter's Lake. The subdivision contained a golf course, which was built, and a beach promenade for group use, the dedication of which has since been broken. At one time all the roads in Thendara Park were laid out and the lots staked for prospective buyers. Many of the roads still exist although most of them are now eroded and impassable for an automobile. Of these 1137 or so lots only 48 had been built upon by August of 1956. As a group the subdivisions platted between 1920 and 1930 have a low percentage of lots built upon, less than 25 percent. Most of these subdivisions have been developed with a mixture of summer homes and year round residences. There is a possibility that some of these will develop further as many of the building sites available are suitable for development. The one problem involved is obtaining title to enough contiguous lots for construction purposes. Many of the lots platted during this period are narrow and unsuitable when used singly. It is difficult to obtain a number of contiguous lots as the ownership of these parcels has become obscured and obtaining a clear title can be laborious. In fact, very often the township has no idea to whom tax bills should be sent, for lots are often included in the assets of an unsettled estate.

Almost all of these subdivisions have two characteristics in common. The first is the attempt to establish a "country club" type of development, thus the use of lake property. Secondly, they were platted by people who were at best land developers only; that is they were in no way connected with the eventual construction of residential units.

The 1930's saw a drop in subdividing activity, as one would expect. Only two subdivision plats were recorded; one of them was an extension of a subdivision laid out in the 1920's; the other one was a supervisor's plat of tax reverted property. Both were near lakes and have been built mainly with cottages. As one would expect, some retardation of development is present due to a few "sub-standard" dwellings which were erected in the '30's and early '40's. Of the 115 lots which were added by these two subdivisions, only 54 or 47 percent have been built upon. In Round Lake Woods subdivision (Figure XI) one can see that only a skeleton of the planned road system of the earlier plat exists, and conditions prevailing there may have had a detrimental effect on activity in Supervisor's Plat #2.

There were only four plats recorded during the "war period" from 1940-1945. Three of these four were "suburban farm" type of development. That is, lots varied in size up to five acres or more. The percentage of lots built upon in a subdivision such as this may be misleading. For example, of the 32 lots in Supervisor's Plat of Independence Farms, only 18 lots have been used; however, this represents 25

FIGURE XI

ROUND LAKE WOODS SUBDIVISION

homes. This is not a rare occurrence in Independence Township with regard to large acreage parcels for homesites. One might speculate whether large parcels, as these are, meet with a general requirement for a homesite. Few of the homes in Independence Township are of the size or cost which one finds on sites such as these further south in Oakland County. Most of the homes occupying lots which have been split are frame and of moderate price. The inference one could draw from this occurrence is that the upkeep of a large parcel of land is prohibitive if landscaped and that the interest in land for kitchen gardens does not usually run to 5 or 6 acres. Even on these split-parcels, it is a rare sight to see one completely utilized by the owner.

It is possible that data could be compiled for the purpose of resolving the "maybe" posed above. Utility functions for varying sizes of land parcels could be obtained for different income groups. The results could substantiate or deny the conclusion which was offered in passing. There are variables which would have to be accounted for other than parcel size; wooded acreage would be one of these, for example.

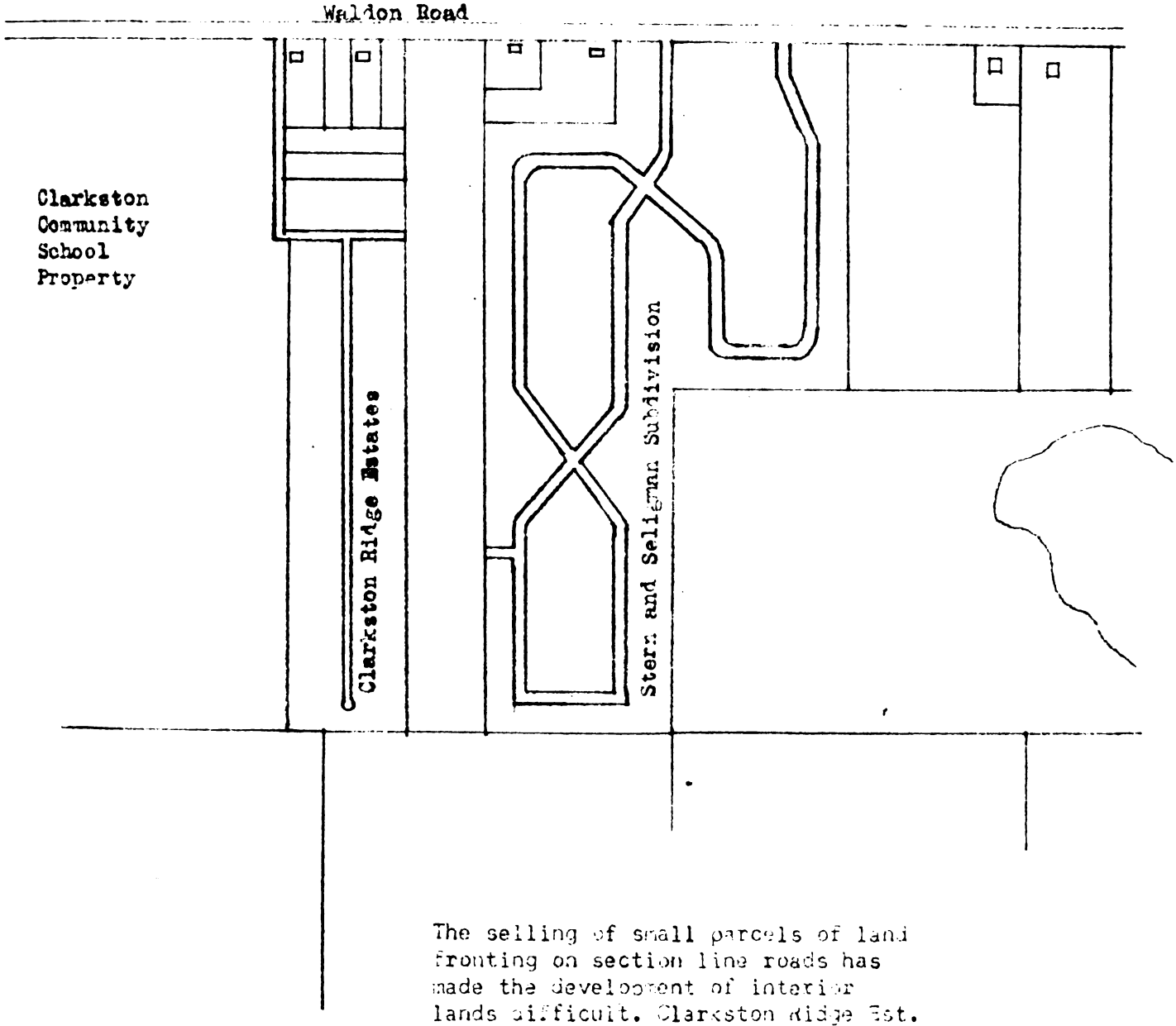
If the inference drawn above is substantiated, we may find that many rural zoning ordinances which include "suburban farms" or acreage parcels under another alias, are promoting a land division which is not really desired. The elimination of this category would in fact aid the planning of many townships. Most suburban farm subdivisions are

strictly road frontage propositions; that is only one lot deep and that lot generally quite deep. The isolation of interior parcels of land and limited access to them which is left makes subsequent development difficult and in fact may result in an inferior road pattern or a forced unsatisfactory circulation. (For an example see Figure XII, subdivision plat - Clarkston Ridge Estates.)

Figure XII

Clarkston Ridge Estates Subdivision: The results of the isolation of land.

Scale: 9" equals 1 mile



The selling of small parcels of land fronting on section line roads has made the development of interior lands difficult. Clarkston Ridge Est. has only one center spine for circulation and this is a "cul-de-sac" one half mile in length. In addition the cost of installing an access road skirting frontage parcels has increased the cost of development without benefit to adjacent parcels. A similar fate probably awaits the 18 acre parcel lying to the east of Clarkston Ridge Estates. A shotgun development of this type is difficult to service and provides poor circulation forcing an inordinate amount onto the mile roads crossing the township.

CHAPTER V

POST WORLD WAR II DEVELOPMENT OF INDEPENDENCE TOWNSHIP

In 1940 the population of Independence Township was 1627 without Clarkston and 2280 with Clarkston, which was only 1/3 greater than the 1890 population of 1586. There had been as one would expect a steady decrease in this agricultural area from 1870 to 1920. From 1920-1930 during the suburban boom, there was a substantial increase in population. This continued, though abated, during the 1930's when people moved to rural areas in the hopes of supplementing income with produce, and many looked for agricultural employment. (See Table V.)

From 1940 to 1950, Independence Township had a population growth amounting to 82.9 percent of the 1940 population; of this total of 1890 we must estimate the portion which has been added since 1946.

If we estimate an average family size from the 1950 population as reported by the census and the number of occupied dwelling units as reported by the Detroit Metropolitan Regional Planning Commission, we arrive at an average family size of 3.53. Between 1946 and 1950 approximately 228 residential units were constructed. This number was determined by checking building permits and then substantiating in the

TABLE V

POPULATION CHANGES OF OAKLAND COUNTY, INDEPENDENCE TOWNSHIP AND THE VILLAGE OF CLARKSTON

	Oakland County	Independence Township	Clarkston
1870	40,867	1,586	-----
1880	41,537	1,386	-----
1890	41,245	1,297	incorp. 1884 387
1900	44,792	1,191	360
1910	49,576	1,144	345
1920	90,050	1,081	419
1930	211,251	1,803	639
1940	254,068	2,280	653
1950	396,001	4,170	722
1957	615,000	8,200	820

Source: United States Bureau of the Census

field whether they were completed or not. (This was necessary as records of occupancy permits were not consistent, and in fact few were on record in the Township Hall.)

This list was then supplemented by a number of dwellings for which no building permits were on record yet appeared to have been constructed between 1946 and 1950. (The criteria for this distinction is arbitrary, yet by necessity it must be done. The criteria used were type of building materials used, condition of structure, proximity to others constructed between 1946 and 1950 and record of building activity in the area since then.)

The Detroit Metropolitan Area Regional Planning Commission statistics show that there were 533 more dwelling units occupied in 1950 than in 1940. The number determined in this study is less than one-half of this number. This figure, however, represents only new construction. It is highly probable that a good portion of these 533 additional units were farm dwellings or tenant houses which may have been vacant. These 228 occupied dwelling units account for 800 of the 1821 additional persons living in the Township in 1950. By July of 1954 the population had increased to 4400 and there were 1260 occupied dwelling units in the township. The rate of growth had been increasing as can be seen on Figure XIII. The average family size was decreasing, however, from 3.53 in 1950 to 3.44 in 1954. This decrease in family size is what one would expect with a change from a rural to an increasingly urban population, but it is possible

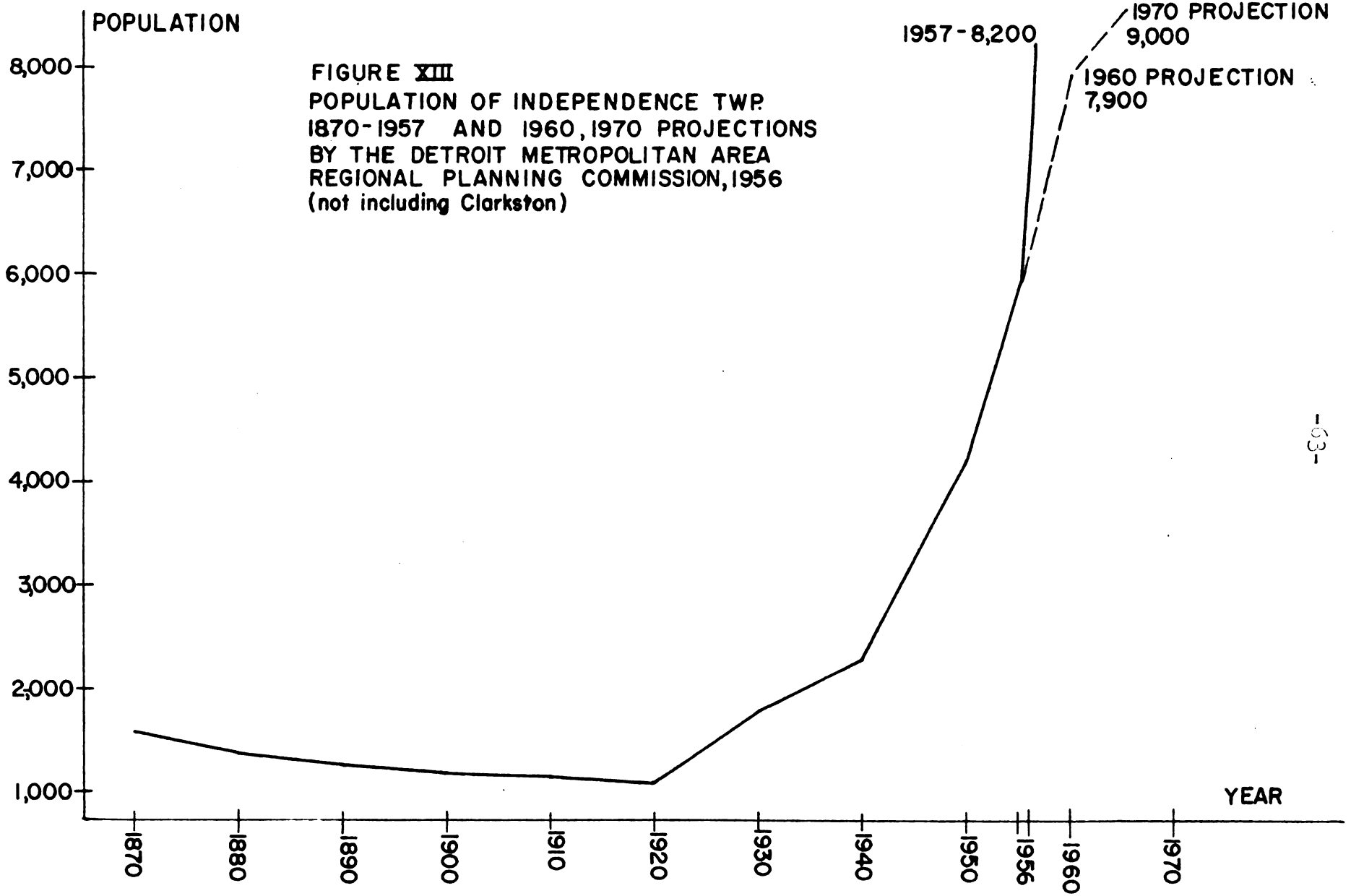


FIGURE XIII
POPULATION OF INDEPENDENCE TWP.
1870-1957 AND 1960, 1970 PROJECTIONS
BY THE DETROIT METROPOLITAN AREA
REGIONAL PLANNING COMMISSION, 1956
(not including Clarkston)

that a significant portion of the households were young, having on the average more young children than a community with a more normal population pyramid as regards age groups.

When we study the maps showing construction of residential units from 1946 to 1956 an analysis of construction activity and population dispersion is difficult to make. A few general comments can be made, however. From 1946 to 1952, the population increase was scattered throughout the township, but as subdivision activity increased from 1953 to 1956 population was concentrated in the area adjacent to Clarkston on the eastern fringe and to the southern tier of sections adjacent to the lakes on the township's southern boundary. The dispersion of construction activity and thus population is not tied too closely to physical distance to the urban core, but more to the physical features of the terrain.

We can get a perspective view on the population growth of Independence Township by comparing its growth with that of the surrounding townships. We can see that the two townships adjacent to the city of Pontiac, Waterford and Pontiac, are growing faster than the others shown. Part of the City of Pontiac takes up a good deal of Pontiac Township which makes the figures seem small whereas they in reality indicate an approaching state of almost complete use of residential sites.

Waterford Township is in a class by itself as concerns population growth. Plans are being discussed for incorporation in the near future, and if the predictions by the

D.M.A.R.P.C. for a 1960 population of 46,000 are correct, it would be one of the state's larger cities.

It too is being built up quickly. Residential builders are expanding their operations to adjacent townships where land is more readily available, and not as costly. It would appear that in this area, Orion, Independence and White Lake Townships are receiving the major portion of the population increase due to this construction activity. It is difficult to determine where the bulk of future population increase will be, but even though Independence Township now has less people than White Lake Township and Orion Township, the increases for 1955 and 1956 would indicate that it may surpass them in rate of growth. (See Table VI and Figures XIV, XV, XVI, XVII, and XVIII.

Construction Activity

If we study the data for building permits for Independence Township from 1950 to 1957, certain construction trends in this part of Oakland County may be inferred. The number of building permits issued in 1951 and 1952 dropped off gradually from the number issued in the late 1940's and 1950. This could indicate that as the residential construction industry recuperated from the post war slump caused by material shortages and the lack of labor in skilled trades, project building gained momentum and the numbers of individuals having homes constructed for themselves, i.e., contracting the work out or building a home themselves dropped. All of Independence Township's housing gain from 1946 to 1950

TABLE VI

POPULATION GROWTH OF INDEPENDENCE TOWNSHIP AND ADJACENT TOWNSHIPS 1940, 1950, 1954-1957

	1940	1950	1954	1955	1956	1957
Brandon	999	1,447	1,950	2,000	2,100	2,200
Groveland	930	981	1,210	1,210	1,260	1,330
Independence	1,627	3,448	4,400	5,100	6,800	8,200
Orion	2,400	4,780	5,600	6,200	6,600	6,950
Oxford	1,213	1,837	2,100	2,200	2,350	2,550
Pontiac	3,465	6,210	7,100	7,600	8,000	8,600
Springfield	1,273	1,825	2,200	2,350	2,550	2,700
Waterford	12,019	24,275	31,000	34,000	37,400	40,400
White Lake	1,643	4,182	5,300	5,700	6,150	6,600

Source: Detroit Metropolitan Area Regional Planning Commission

FIGURE XIV

POPULATION INCREASES 1940-1957
INDEPENDENCE, ORION, AND WHITE LAKE
TOWNSHIPS

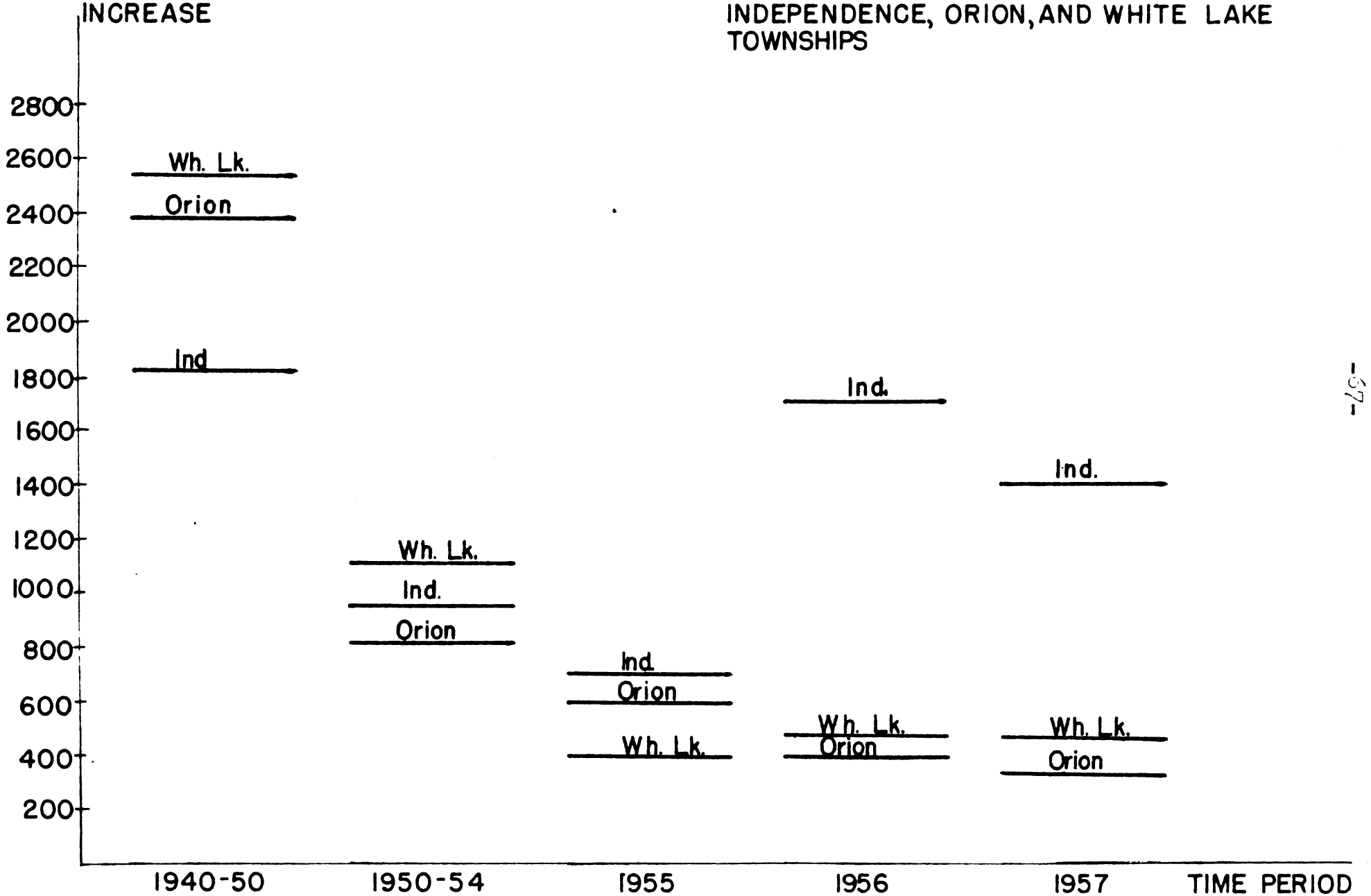


FIGURE XV
RESIDENTIAL BUILDING PERMITS 1950-56 BY YEAR
INDEPENDENCE, ORION, PONTIAC, SPRINGFIELD, WATERFORD, AND WHITE LAKE TOWNSHIPS

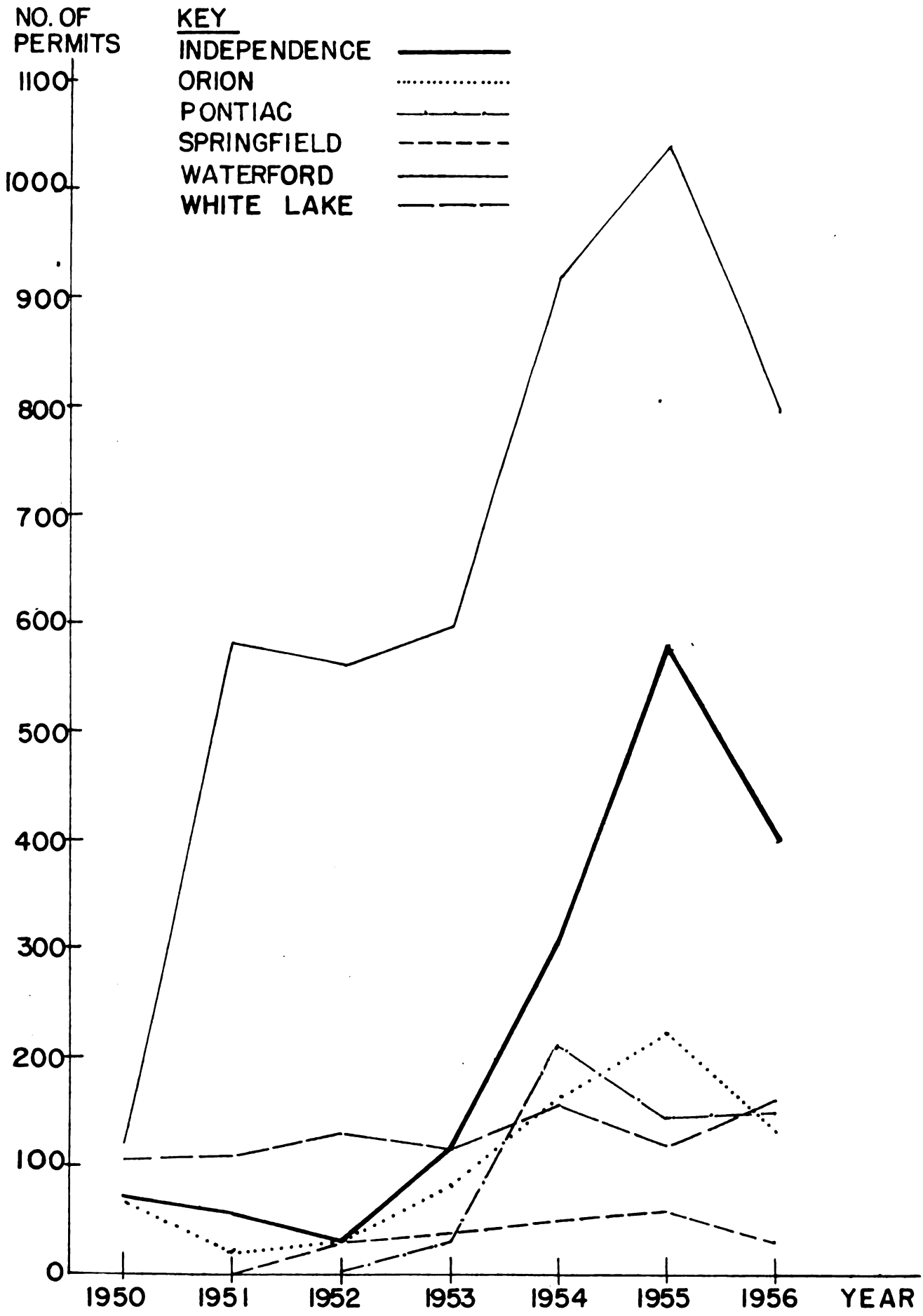
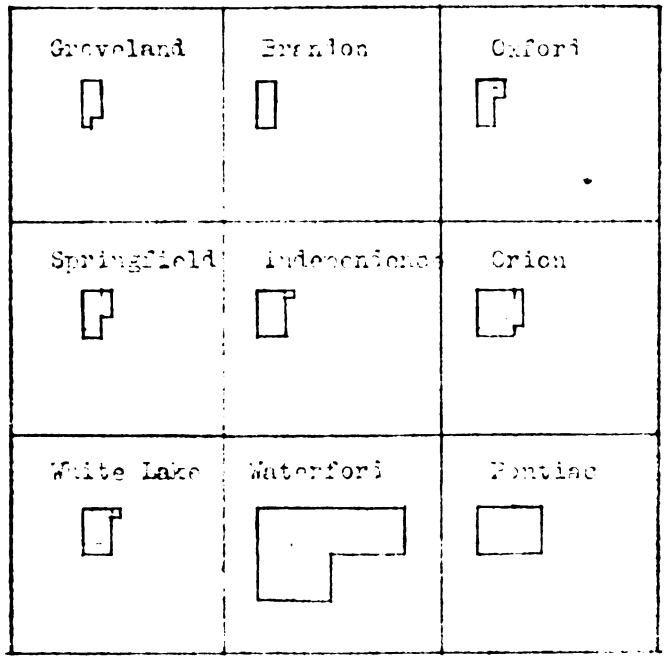


Figure XVI

Spatial distribution of 1940 population by political unit for Independence Township and adjacent townships.

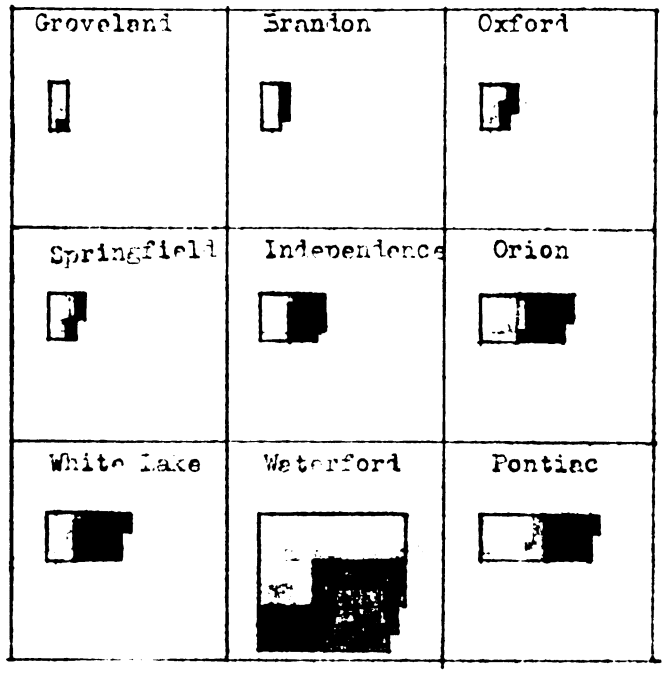


Each enclosed white square equals 100 persons

Source: United States Bureau of the Census

Figure XVII

Spatial distribution of 1950 population by political unit for Independence Township and adjacent townships



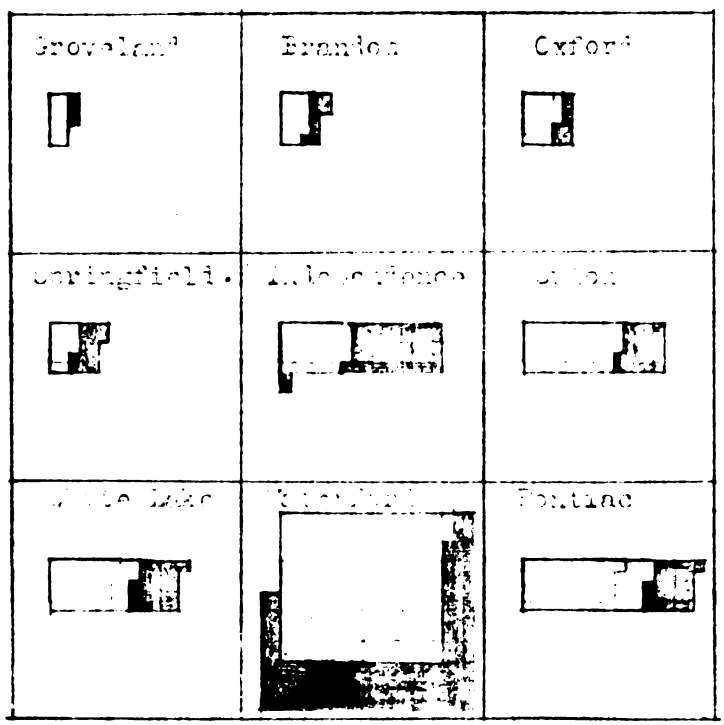
Each enclosed white square equals 100 persons in 1940

Each enclosed black square equals a population increase of 100 persons between 1940 and 1950

Source: United States Bureau of the Census

Figure XVIII

Spatial distribution of 1967 population by political unit for Independence Township and adjacent townships.



Each enclosed white square equals 100 persons in 1967

Each enclosed black square equals a population increase between 1,50 and 1967 of 100 persons

Source: Detroit Metropolitan Area Regional Planning Commission

was of this type, and also most of the activity in neighboring townships.

An example of this is the phenomenal spurt in the number of permits issued in Waterford Township in 1951. (See figure XV.) This indicates, perhaps, that as subdivision activity and project building activity increased with the recovery of the construction industry, those townships nearest to the urban centers supporting suburban growth attracted the most residential development. As this activity was increased and competition for the available building sites became more intense, developers tended to move to adjacent areas where land prices were just beginning to be bid up. The rate at which the number of building permits issued in Independence Township from 1953 on increased as contrasted with the other adjacent townships, except Waterford, would lead one to believe that it will receive a greater share of construction activity in the near future than its neighboring townships.

The location of construction activity can be examined on the series of maps showing activity during various periods of time. It should be noted that activity before 1953 was mainly individual homes in older platted lands or rural dwellings. Project building definitely started in 1953-54 with a marked, definite increase in 1955-56. As was remarked before, it appears that current activity is almost wholly centered on the eastern fringe of Clarkston and in the southern tier of sections which border on a few of the large lakes in Waterford Township.

There has been a variety of housing built in recent years in Independence Township. There is a range in price from slightly below $10,000 to $17,000. This, of course, is in project construction. In a few subdivisions where houses are individually built on lots which are sold unimproved except for roads, there are homes of $30,000 and $40,000 value being built. One feature is shared in common by most of these units; they are ranch homes, only partly brick or frame, do not usually have basements, and have septic tanks. There are either individual wells or a community water system for a subdivision.

Platting

Activity in subdividing can be presented clearly by the tables showing number of subdivisions by township per year, and by the number of lots or an average of lots per subdivision.

The number of subdivisions in Independence Township per year has increased; the number of lots per subdivision has also increased. (See Tables VII, VIII and IX and Figures XIX and XX.) The number of subdivisions per year in the neighboring townships has remained fairly constant with a little yearly variation. For the period from 1950-1957 Independence Township leads all neighboring townships except Waterford Township in number of subdivisions and total number of lots.

There is a variation of great proportion in the qualities exhibited by the various subdivisions. Most of them

Figure XIX

Subdivision Plats of Record 1950 - 1957 : Independence, White Lake and Orion Townships

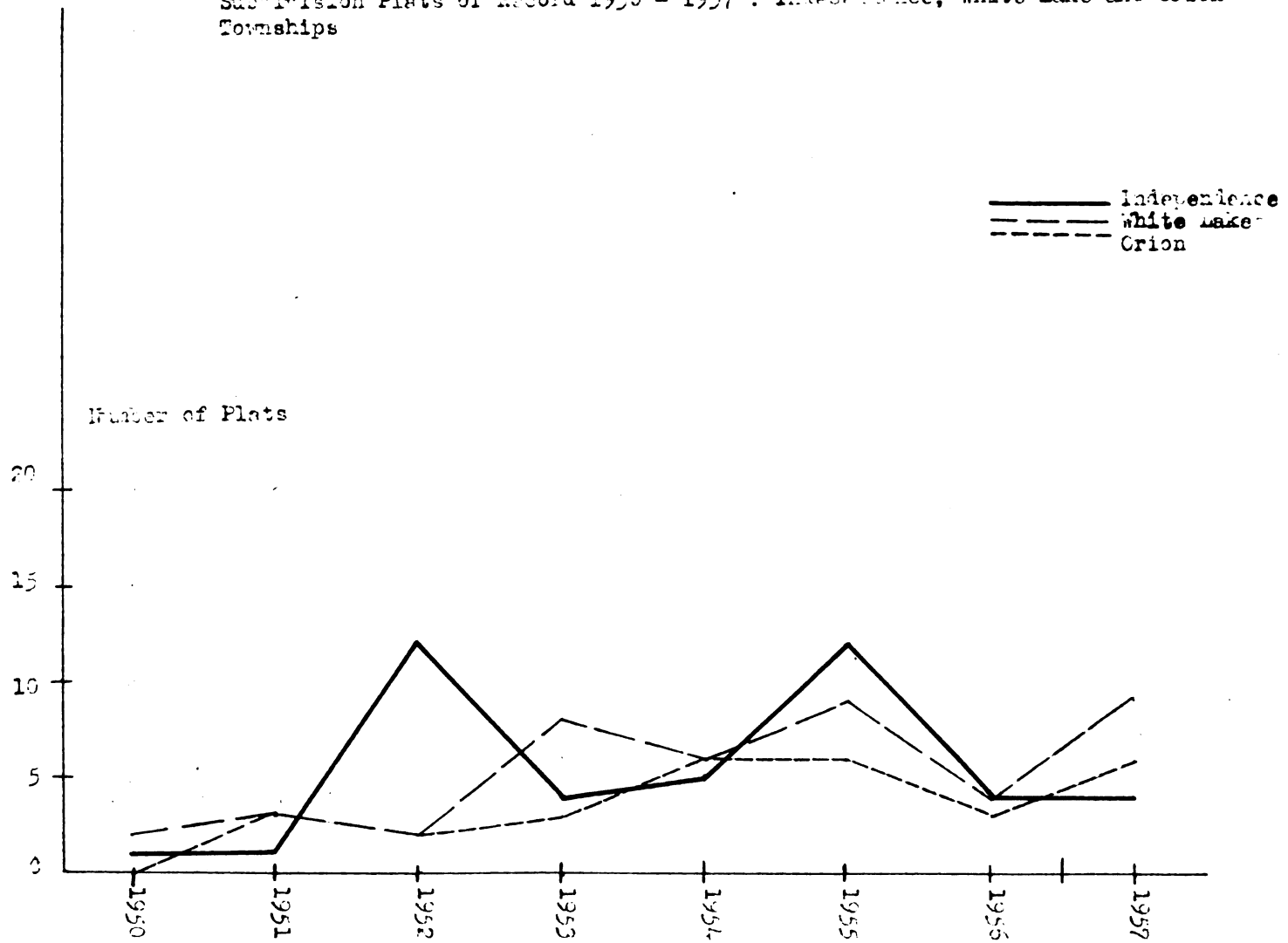


TABLE VII

SUBDIVISION PLATS OF RECORD FOR INDEPENDENCE TOWNSHIP AND ADJACENT TOWNSHIPS 1950-1957

	1950	1951	1952	1953	1954	1955	1956	1957
Independence	1	1	12	4	5	12	4	4
Pontiac	0	0	1	4	4	1	2	1
Springfield	5	2	2	3	3	1	1	0
Waterford	12	13	11	14	21	17	13	9
Orion	0	3	2	3	6	6	3	6
Brandon	1	2	0	2	3	1	0	1
Groveland	0	0	0	1	0	0	1	2
Oxford	2	1	1	1	1	1	4	3
White Lake	2	3	2	8	6	9	4	9

TABLE VIII

AVERAGE NUMBER OF LOTS PER SUBDIVISION PLAT OF RECORD, INDEPENDENCE TOWNSHIP AND ADJACENT TOWNSHIPS 1950-1957

	1950	1951	1952	1953	1954	1955	1956	1957
Independence	6.0	7.0	27.5	30.0	25.8	61.8	68.5	50.1
Pontiac	---	---	86.0	40.8	60.8	128.0	62.5	13.0
Springfield	46.2	56.5	91.5	25.3	49.3	17.0	7.0	---
Waterford	19.4	31.9	37.6	35.3	38.3	37.2	69.5	41.2
Orion	---	14.3	14.5	21.7	43.3	24.0	54.6	21.7
Groveland	---	---	---	12.0	---	---	12.0	39.5
White Lake	29.0	15.7	28.0	26.9	33.9	37.8	19.8	35.7
Brandon	94.0	29.5	---	13.0	10.0	57.0	---	10.0
Oxford	51.0	17.0	95.0	10.0	12.0	28.0	49.3	29.3

TABLE IX

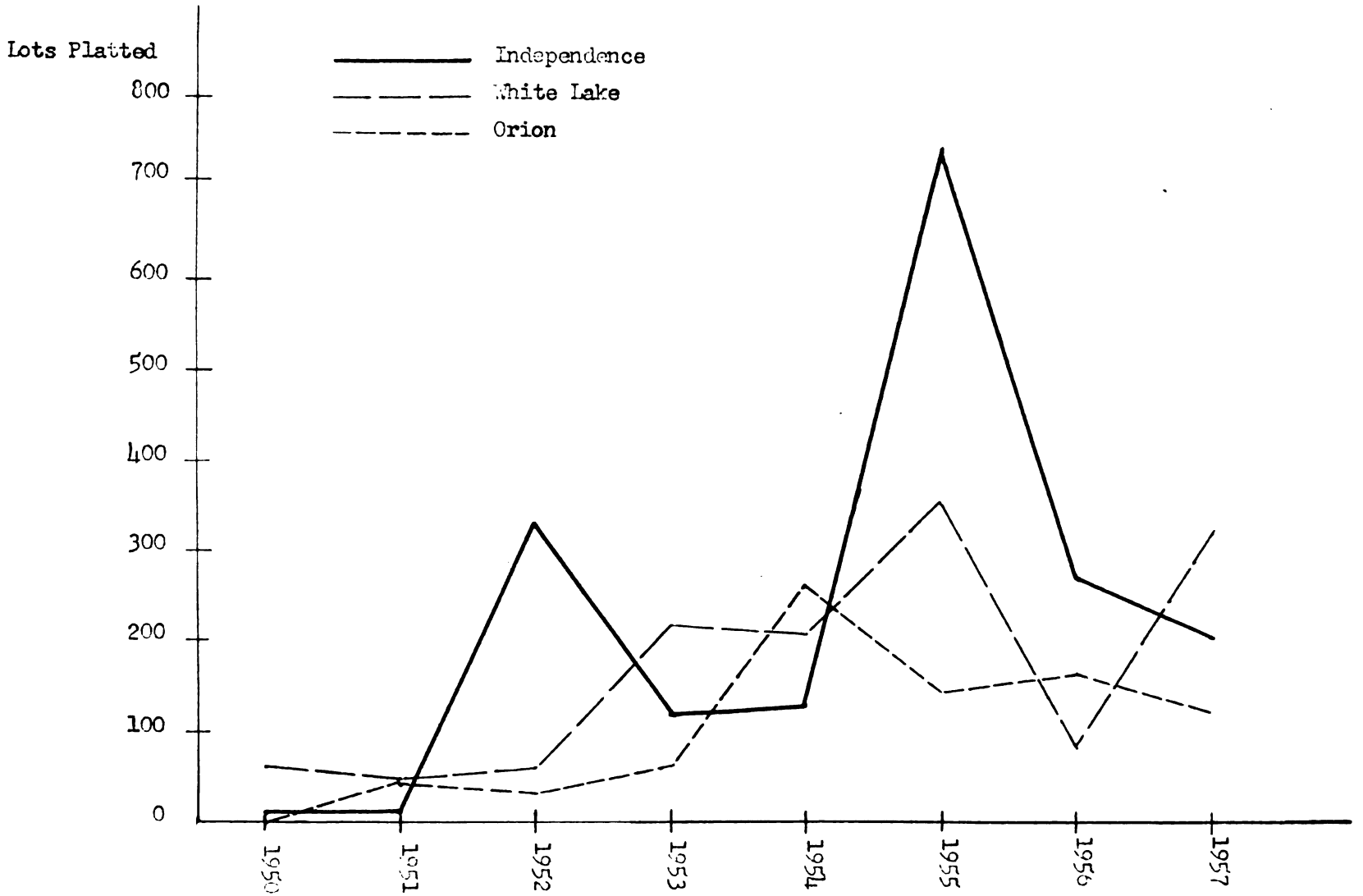
TOTAL LOTS PLATTED - INDEPENDENCE TOWNSHIP AND ADJACENT TOWNSHIPS - 1950-1957

	1950	1951	1952	1953	1954	1955	1956	1957
Independence	6	7	330	120	129	741	274	203
Pontiac	0	0	86	163	243	128	125	13
Springfield	231	113	183	76	148	17	7	0
Waterford	233	414	413	494	805	632	903	371
Orion	0	43	29	65	260	144	164	130
Oxford	102	17	95	10	12	28	197	88
White Lake	58	47	56	215	203	350	79	318
Brandon	94	59	0	26	30	57	0	10
Groveland	0	0	0	12	0	0	12	79

Source: Detroit Metropolitan Area Regional Planning Commission

Figure XX

Total lots platted 1950 - 1957 Independence, Orion and White Lake Townships



Source: Oakland County Planning Commisssion

exhibit the saving grace of deviating from a formal grid system of streets. Many of the street layouts are imaginative and impart some interest to the subdivisions in which they are. Much of the land that has been subdivided is fairly level and presents no great topographical problems; however, as less level land remains, this may well be a major problem.

The lots in recent subdivisions are large; Independence Township requires a 15,000 square foot minimum with at least 100 feet of frontage. This is necessary as there is no sewage system and a large field is needed for the dissipation of septic effluent. In general the subsoils are fairly porous, but if a highly intensive stage of development is ever reached, there could be a problem in supplying a safe, adequate quantity of water for drinking and washing.

A check of the development of lots platted since 1946 shows that a few observations made before as to initiation of construction by home owner or contractor may be true. (See Table X and Table XI.) Between 1946 and 1950 there were four subdivisions platted containing 198 lots. Of these 155 had been built upon by August 1956 or 75.3 percent. In 1951 and 1952 there were 13 subdivisions containing 370 lots; of these 22 were built upon by August 1, 1956 or 60.0 percent. 1953-1954 saw the recording of 9 plats containing 236 lots; of these 118 were built upon by August 1, 1956 or 50.0 percent. In 1955 and 1956, 13 plats were recorded containing 930 lots; of these 573 were developed by August 1, 1956 or 61.6 percent.

TABLE X

SUBDIVISION PLATS OF RECORD IN INDEPENDENCE TOWNSHIP 1900-1946 AND A CALCULATION OF THE PERCENTAGE OF LOTS IMPROVED BY AUGUST, 1956 BY PERIODS.

Name of Plat	Year Platted	No. of Lots	Number Improved	
1900-1920				
Lake Oakland Hills	1914	26	7	
Oakland Ridge	1917	53	37	
		79	44	= 55.7%
1920-1930				
Kleinsteuber	1921	43	17	
Round Lk. Resort	1922	81	20	
Clement's Greens Lake	1923	21	21	
Townsend's	1923	138	66	
Grandview	1925	12	12	
Moon Valley	1925	58	34	
Sunny Beach Country Club	1925	585	120	
Sunny Beach C.C.#2	1925	626	47	
Thendara Park	1925	1,137	48	
Clintonside	1926	51	22	
Deer Lake Hills	1926	76	15	
Marvin	1926	12	8	
Oakview	1926	22	5	
Clarkston Estates	1927	127	71	
Clarkston Park	1927	152	84	
Round Lake Woods	1927	203	42	
Clarkston Estates #1	1928	79	3	
Clarkston Estates #2	1928	233	75	
Dollar Lake	1928	78	27	
Sunny Beach C.C. #1	1928	197	4	
Drayton Heights	1929	153	123	
Drayton Highlands	1929	169	92	
Lk. Oakland Knobs	1929	54	31	
Merrie Oakes Gardens	1929	91	24	
Supervisors Pl.of Morgan Lake	1929	27	0	
Woodhull Lake	1929	88	67	
Woodhull Lake #1	1929	58	42	
		4,561	1,120	or 24.6%
1930-1940				
Supervisors #2	1934	55	25	
Woodhull Lake #2	1936	60	29	
		115	54	or 47%
1940-1946				
Sup.Pl.of Independence Farms	1940	32	18	
Waid Acres	1941	10	2	
Bailey's Lakeview	1942	74	20	
Irish Meadows	1943	31	14	
		147	54	or 36.7%

TABLE XI

SUBDIVISION PLATS OF RECORD IN INDEPENDENCE TOWNSHIP, 1946-1956, AND A CALCULATION OF THE PERCENTAGE IMPROVED BY AUGUST 1, 1956 FOR DIFFERENT PLATTING PERIODS.

Name of Plat	Year Platted	No. of Lots	Number Improved	
1946-1950				
Sashabaw Heights	1947	20	13	
Sashabaw Orchard Acres	1950	6	0	
Clarkston Acres	1946	15	10	
Sunshine Acres	1946	157	132	
		198	155	or 75.3%
1951-1952				
Cranberry Acres	1952	12	4	
Sliwa's Whipple Lk. Est.	1952	7	3	
Supervisor's Plat #7	1952	28	6	
Clarkston-Orion Acres	1952	47	22	
Supervisor's Plat #5	1952	13	6	
Park Lake Estates	1952	11	3	
Clarkston Acres #1	1952	32	8	
Supervisor's Plat #3	1952	8	4	
Jack's Greens Lake Park	1952	65	65	
Woodhull Lake #3	1952	23	3	
Independence Homes	1952	14	13	
Supervisor's Plat #4	1952	24	18	
Supervisor's Plat #6	1952	86	67	
		370	222	or 60.0%
1953-1954				
Motdoch's	1953	12	12	
Walter's Lake	1954	24	4	
Steven's Farms #1	1954	29	11	
Steven's Farms	1953	9	4	
Clarkston Ridge Estate	1954	40	40	
Lloyd E. Thomas Sub.	1954	8	0	
Waterford-Drayton	1953	83	28	
Pelton Heights	1954	21	19	
		236	118	or 50.0%

Table XI continued

Name of Plat	Year Platted	No.of Lots	Number Improved	
1955-1956				
Whipple Shores	1955	53	9	
Richmond Knolls	1955	40	40	
Cranberry Lake	1956	16	4	
Cameo Homes	1955	36	36	
Clarkston Villa	1955	30	30	
Clarkston Gardens	1955	160	97	
Clarkston Gardens #1	1955	72	71	
Wilshore	1955	41	41	
Goodrich Farm	1956	123	55	
Stern and Seligman	1956	126	45	
Waterford Hill Manor	1955	92	4	
Pelton Heights #1	1955	113	113	
Woodhull Lake Heights	1955	28	28	
		930	573	or 61.6%

One would expect that as we approached the date of the field checking that the percentage would drop consistently; however, as the number of builder originated plats increased, the percentage of completions and starts has increased. The most important fact is that most plats recently recorded are submitted by builders, not by land developers or speculators. This one fact alone accounts for the difference in our current suburban expansion when compared with the land boom of the 1920's.

Generalizing, one could say that this is not a land boom, not a derived demand for land and more land, but a package deal with land and home being a consumer item. This would contribute a great deal more stability to the expansion, as the demand for housing is more closely, and more realistically linked to the land which is platted and developed for housing.

In order to present specific examples of the apparent differences between the rates of improvement of builder-originated subdivisions and land developer or private individuals' plats and to support previous contentions, Table XI will be discussed in detail.

Between 1946 and 1950 only one plat was a project development, Sunshine Acres. It contained 157 lots, contributing 79% of the total number of lots platted in this period. Eighty-four percent of these lots were developed by 1956 compared with 56.1% of the non-builder-originated lots.

In 1951-1952 two plats were builder-originated, Jack's Greens Lake and Independence Homes. These accounted for only

only 79 lots; 78 of these had been developed by 1956. Of the non-builder-originated lots slightly under 50% had been developed. During this period the bulk of the lots platted were non-builder originated.

In 1953-1954, Clarkston Ridge Estates and Pelton Heights were builder-originated. These two plats contained 61 lots, 59 of which were developed by 1956. Non-builder-originated plats were becoming less important as project builders moved into adjacent townships. Only six such plats were recorded and they contained only 185 lots.

By 1955-56 the builder-originated plat had become dominant. Of the 930 lots platted in these two years, only 161 were non-builder-originated. Considering the short time which had elapsed between the time of platting and the field check in mid-1956, a surprisingly large proportion of the builder-originated lots had been developed. At that time 73.7% of these lots were improved.

If one compares the decade of the 1920's with the decade between 1946 and 1956, the difference is even more clearly discernible.

Between 1920 and 1930, 4561 lots were platted; of these only 1120 or 24.6% had been developed by 1956.

Between 1946 and 1956, 1734 lots were platted. Of this number some 1068 lots have been developed. This is 61.6% of the total.

The remaining lots not developed at this time which were platted since 1946 give promise of development in the

future. Three hundred and one builder originated lots will in all probability be developed in the next year or so. This will raise the development percentage considerably.

A number of non-builder-originated lots also will be developed, but probably much more slowly. These are mainly subdivisions catering to more expensive homes in the $25,000 to $40,000 class and the market for such sites in this area is just in the formative stage. The sites, however, are attractive, and in all probability will be developed.

The decade of the twenties left Independence Township a heritage of 3441 lots hard to develop and often legally entangled in estates or by obscure ownership. The decade 1946-1956 will probably leave no more than 50 or 100 lots and this will be caused by unattractive development between 1946 and 1952 in adjacent areas. There is, then, the occasional individual who dreams of cashing in on the land boom who develops 10 or 20 acres in residential lots, and potentially is a contributor to the surplus of platted lots in the urban complex, but he is a piker compared to his counterparts in the '20's who contributed much larger developments than this.

Zoning

Independence Township was one of the first townships in Oakland County to recognize the need for a rural zoning ordinance. In 1946 a provisional interim ordinance was adopted to freeze the existing pattern of land uses except as granted by appeal. Their finished ordinance was adopted in 1951, and has served as a model for the ordinances drafted

by other townships nearby.

The ordinance is not a perfect model for others to copy although in the textual parts it is similar in form to many others which have been adopted throughout the country. There has been developed in this country a legalistic approach to the drafting of zoning ordinances which can be deplored from certain angles. It does provide a maximum of insurance concerning legality, as precedents have been set by similar ordinances throughout the country, but it eliminates or tends to discourage an amount of original thinking as to the manner in which a particular area's specific problems may be eliminated or goals may be reached.

It also tends to perpetuate a number of non-logical items from one ordinance to another. An example of this is found in the Independence Township Zoning Ordinance. The highest or most restrictive district is the Residence 1 District; the next district is the Commercial District; then comes the Manufacturing District 1, and so on including Manufacturing District 2, Suburban Farms, and Agricultural District. Manufacturing uses and commercial uses, as one would expect, are not allowed in the Residential 1 District, but residences are permitted in the commercial and manufacturing districts. This is not necessarily undesirable per se; but, this ordinance is, as are most others, negative in approach, i.e., not permissive, but exclusive; allowable uses are not listed, only the undesirable uses. A good example from this ordinance is the following one: "MANUFACTURING DISTRICT 2 - USES. Any use not excluded by law or ordinance, or which by

its nature does not, through noise, dirt, soot, offensive odor, or unsanitary conditions or other means, constitute either a public or private nuisance." Not only is this negative, but it is fairly ambiguous as to what use one could put land. A performance zoning ordinance which would specify standards or conditions which a use must meet would be more useful. This type of ordinance would be to land use what the new performance building codes are to construction. Instead of an arbitrary absolute, there would be substituted a "desirable" standard which would allow the unusual method or use and the innovator to demonstrate their ability to fulfill the conditions which are deemed desirable.

One feature of the ordinance which is interesting is the inclusion of the following paragraph: "Any firm, corporation, or person who is convicted of violating any of the provisions of this Ordinance shall be fined not less than $25.00 nor more than $100.00 for each offense or shall be punished by imprisonment in the County Jail for a period not to exceed 90 days for each offense, or may be both fined and imprisoned as provided herein. Each day a violation occurs shall constitute a separate offense." This inclusion is essential. To those who may not know why, an explanation is important. The enforcement of a zoning ordinance and a building code is difficult. When and if a case reaches the courts, the penalty which is exacted very often is inconsequential when compared to the profits the individual concerned may have garnered as a result of the violation. This is seen

most often in large cities in areas which are in transition from single family residences to multi-family uses. Usually the agency which checks violations and issues notices is the building department. The staff in the field is usually too small to handle the situation completely, and must rely on private citizens' complaints which notify them of violations. An example is a rooming house operating in a single family area. There are, say, 10 roomers at only six dollars a week or 3,000 dollars a year roughly. A neighbor complains. The building department investigates. A violation notice is issued. The violator ignores it. Another is issued after a routine check after 30 or 60 days. Then another is issued and ignored. Finally a summons is issued. The individual goes to court and is fined $15, $25, or if the judge is really rough $100; meanwhile our violator who charges a modest $6 per week per roomer could have grossed a cool thousand or two, and we still have no assurance that he will desist. The Independence Township ordinance effectively precludes this type of farce.

There is no provision made for two-family or multi-family residential uses in the township. The reason, one would suspect, is that the disposal of wastes is a problem about which the drafters of the ordinance were concerned. It is possible that provision for these uses could be made with certain restrictions or conditions pertaining to sanitation. Developments of this type could help broaden the township's economic base, and if studio apartments or one bedroom units

were allowed may not increase the burden imposed on the township by public services, the largest part of which is the school problem.

Schools

There are a number of factors which are relevant in the presentation of statistics showing the change in the school "situation" in Independence Township; the following are considered to be of primary importance to aid in the development of a clear, concise picture of the changing pattern: (1) changes in school age population, (2) changes in school enrollment, (3) changes in the physical plant (quantitatively measured), (4) changes in location of the plant, and (5) changes in school district boundaries.

The school population in the Clarkston Community School District more than tripled between 1945 and 1957 (from 976 to over 3,000). Figure XXI shows very well how this increase has been spaced and the changes in the rate of increase; most important, it shows the rapid increase since 1952. Figure XXII shows the rates of change for the smaller districts within the high school district and shows the distribution of school age children within the district.

Table XII shows the number of children enrolled in the various grades in the school system and also presents a "survival percentage" for groups from year to year. From the data in this table it is possible to develop further data, which may be of use in analyzing or determining some population characteristics which cannot be gotten from census data.

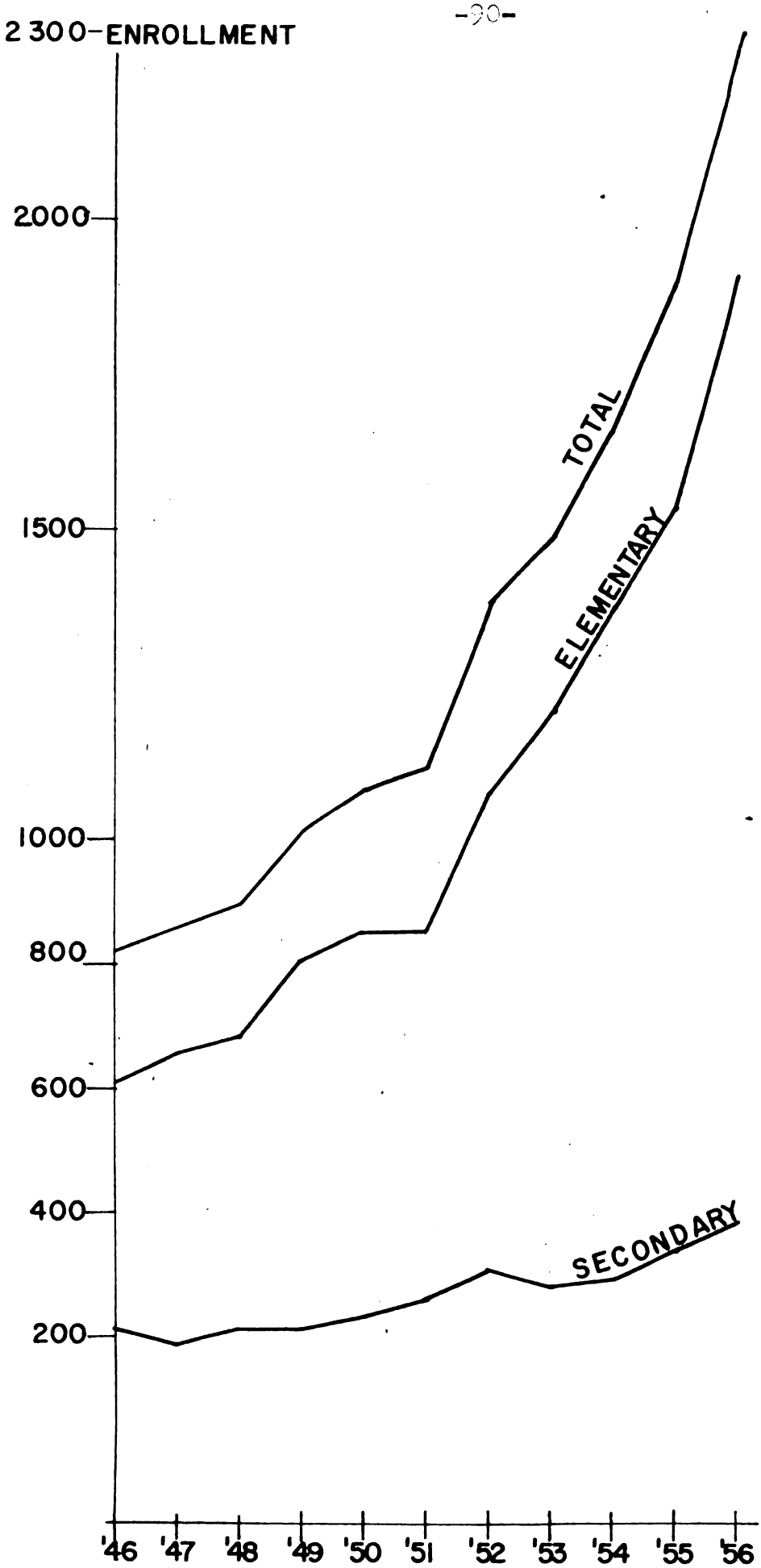
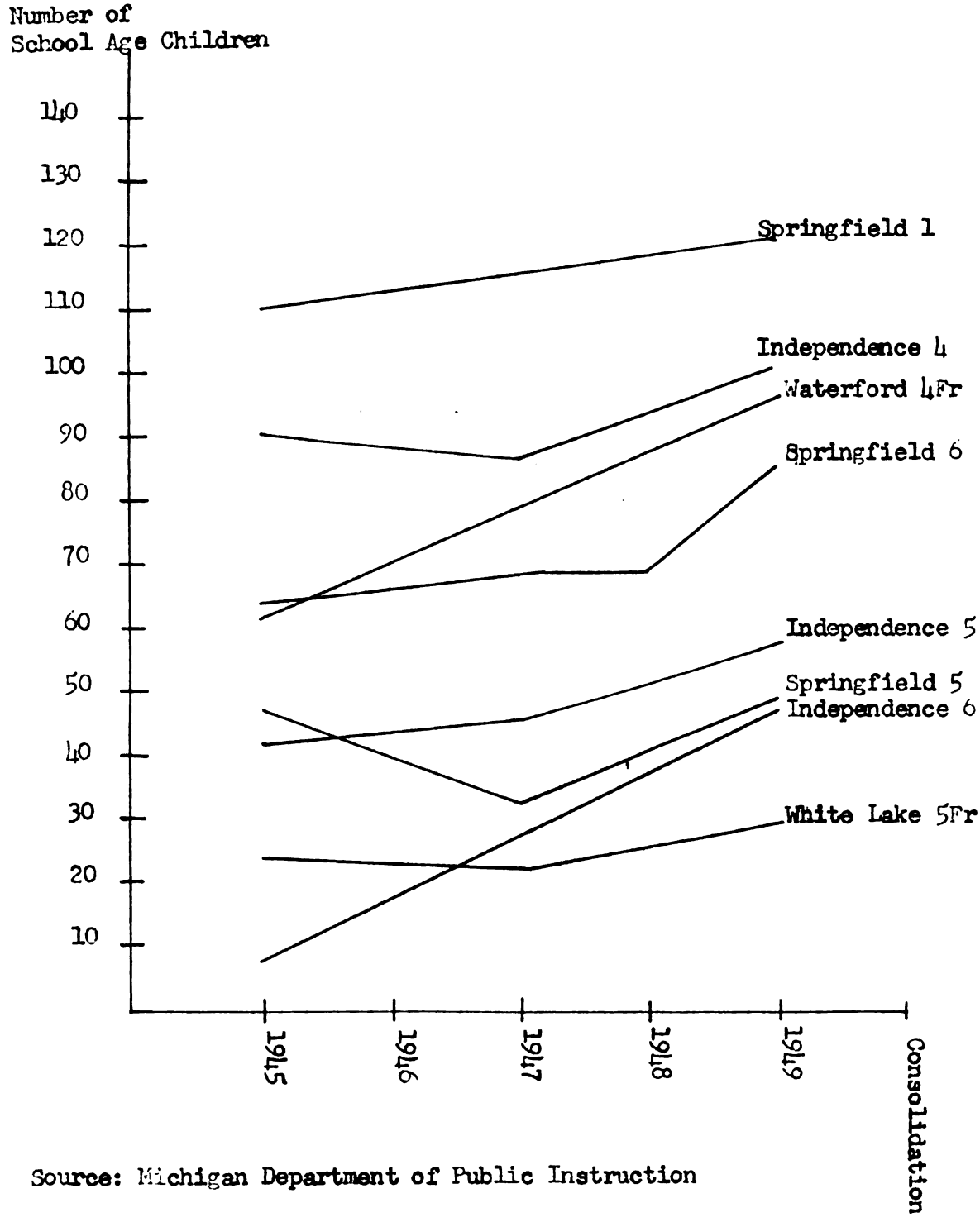


FIGURE XXI
SCHOOL ENROLLMENT
CLARKSTON
COMMUNITY SCHOOLS
1946-1956

Figure XXII

School Census of individual districts 1945 - Consolidation with Clarkston Community Schools



Source: Michigan Department of Public Instruction

TABLE XII

INDEPENDENCE TOWNSHIP CHILDREN, PRE-SCHOOL AND SCHOOL POPULATION

Year Ending 6/30		0-1 Yr.		1 Yr.		2 Yr.		3 Yr.		4 Yr.		5 Yr.	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Year	1946	80	112.5	80	102.5	82	109.8	114	115.0	85	109.4	79	101.0
	47	99	123.2	90	122.3	82	134.2	90	102.2	131	106.1	93	101.0
	48	120	95.0	122	78.0	110	80.0	110	87.3	92	81.5	139	66.2
	49	82	154.9	114	136.0	95	139.0	88	140.0	96	128.0	75	138.7
	1950	88	130.7	127	100.0	155	95.5	132	111.2	123	109.0	123	95.2
	51	98	113.3	115	84.4	126	101.1	148	104.0	147	89.8	134	112.7
	52	131	136.6	111	147.8	97	126.9	127	138.6	154	116.1	132	134.0
	53		1	179		164		123		176		179	108.4
	54												
	55												
	56												

		Kind.		Gr. 1		Gr. 2		Gr. 3		Gr. 4		Gr. 5	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Year	1946	66	118.2	76	102.6	79	103.8	77	111.8	79	100.0	79	96.2
	47	80	116.2	78	102.6	78	101.2	82	103.8	86	102.2	79	107.8
	48	94	117.0	93	121.5	80	124.8	79	114.0	85	101.2	88	106.8
	49	92	115.2	110	105.3	113	112.2	99	94.0	90	95.5	86	102.2
	1950	104	105.8	106	97.2	116	86.2	127	81.9	93	105.3	86	102.2
	51	117	125.6	110	111.8	103	123.3	100	147.0	104	102.0	98	103.1
	52	151	102.0	147	90.5	123	104.1	127	121.3	147	102.7	106	108.5
	53	177	116.9	154	108.4	133	107.5	128	103.9	154	95.5	151	104.6
	54	194	111.9	207	112.1	167	99.4	143	114.7	133	108.3	147	110.9
	55	172	139.0	217	112.4	232	115.9	166	109.6	164	108.5	144	113.9
	56	254		239		244		269		182		178	

Table XII continued

Year Ending 6/30	Gr. 6		Gr. 7		Gr. 8	
	No.	%	No.	%	No.	%
Year 1946	69	65.3	43	116.2	38	113.1
47	76	44.8	45	104.5	50	124.0
48	85	67.2	34	179.5	47	131.9
49	94	69.2	57	110.5	61	191.0
1950	88	52.3	65	113.9	63	135.0
51	88	102.2	46	174.0	85	104.7
52	101	104.0	90	95.5	80	102.5
53	115	98.3	105	108.6	86	90.7
54	158	110.8	113	98.2	114	109.6
55	163	118.4	175	102.9	111	115.3
56	164		193		180	

	Gr. 9		Gr. 10		Gr. 11		Gr. 12
	No.	%	No.	%	No.	%	No.
Year 1946	41	97.5	53	111.2	58	89.6	59
47	43	109.2	40	120.0	59	86.4	52
48	62	96.9	47	95.8	48	93.8	51
49	62	90.4	60	81.7	45	88.9	45
1950	86	89.5	56	89.4	49	100.0	40
51	85	90.6	77	103.9	50	108.0	49
52	89	76.4	77	79.2	80	82.5	59
53	82	101.2	68	95.6	61	96.7	66
54	78	98.7	83	101.2	65	90.8	59
55	125	92.0	77	89.6	84	92.9	59
56	128		115		69		78

Table XIII shows the enrollment in the elementary grades, enrollment in secondary grades, total enrollment and percentage of total school enrollment in the elementary grades. The enrollment figures are graphically presented in Figure XXIII; the percent enrolled in elementary grades is precented in Figure XXIV.

Total enrollment has increased from 1946 to 1956. The rate of growth increased in 1948-1949 school year, slackened slightly from 1949-1951, increased again in 1951-1952, slackened in 1952-1953 and has increased since 1953. Enrollment in the elementary grades follows this trend line closely. Enrollment in high school seems to be a minor part of the trend, although by 1956 it was almost double that of 1946. Family size has dropped in Independence Township. This coupled with the high proportion of students enrolled in the elementary grades would lead one to think that the increase in families in the township is predominately composed of young families. This one would suspect from the size of the homes and the price ranges and payment terms which exist. The school figures corroborate this.

The increased enrollments, about 1950, necessitated an increase in the physical plant of the schools. The increased construction was accompanied by the consolidation of the school districts. The consolidation of the districts is shown by Figures XXV through XXVII. The consolidation was effected between 1950 and 1952. Figures XXVIII through XXX show the relative growth in the school population for the

TABLE XIII

ENROLLMENT IN HIGH SCHOOL AND ELEMENTARY SCHOOL CLARKSTON COMMUNITY SCHOOLS
1946-56 TOTAL ENROLLMENT AND PERCENTAGE ENROLLED IN ELEMENTARY GRADES

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Elementary	606	654	685	802	848	851	1072	1203	1376	1543	1903
High School	211	194	208	212	231	261	305	277	285	345	390
Total enrolled	817	848	893	1014	1079	1112	1377	1480	1661	1888	2293
Percent enrolled in elementary grades	74.2	77.1	76.7	79.1	78.6	76.5	77.9	81.3	82.8	81.7	83.0

Figure XXIII

School Census (children ages 5-19) Clarkston Community Schools
1945 - 1957

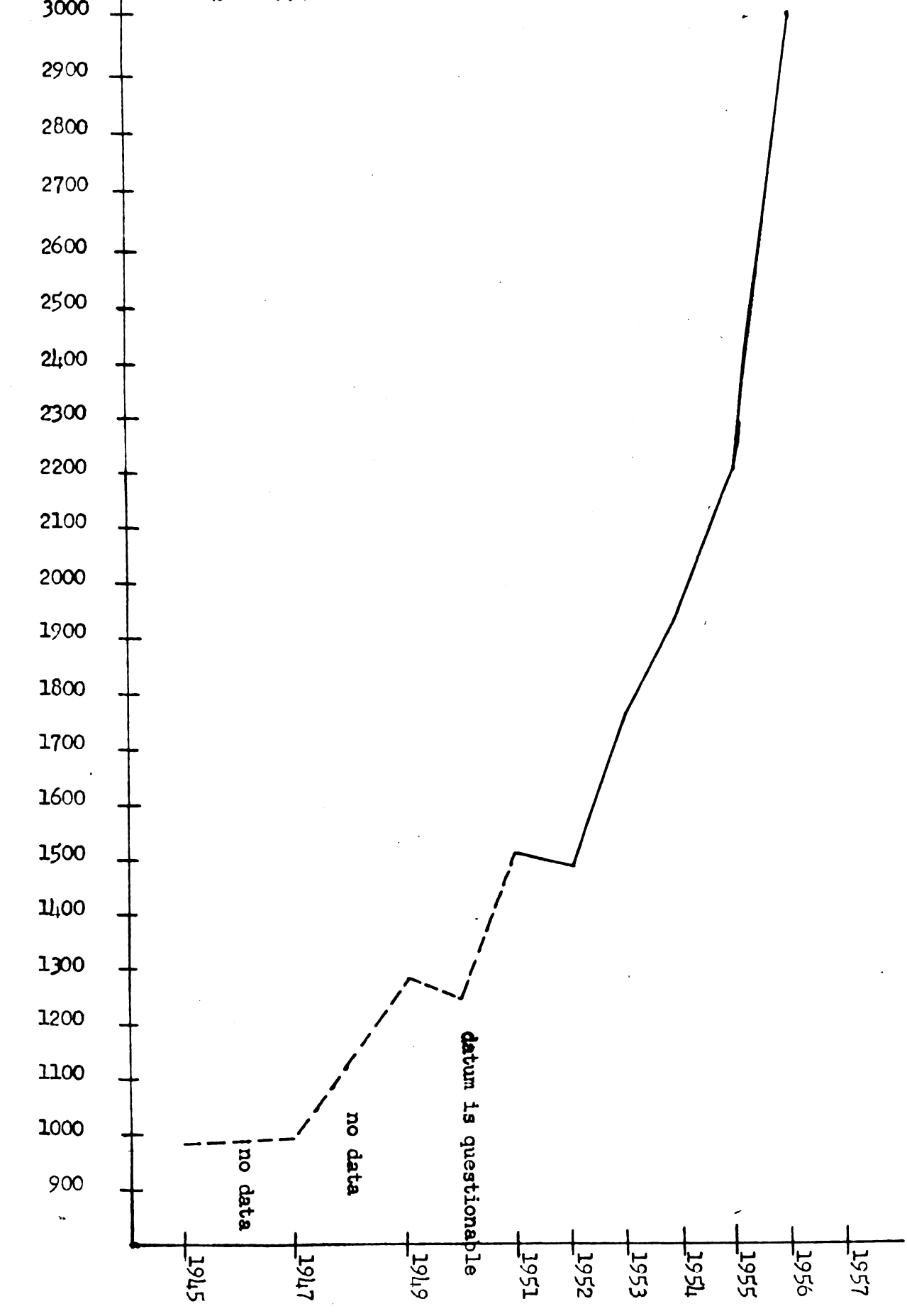


Figure XXIV

Percentage of total school enrollment of Clarkston Community Schools in the primary grades, 1946 - 1956

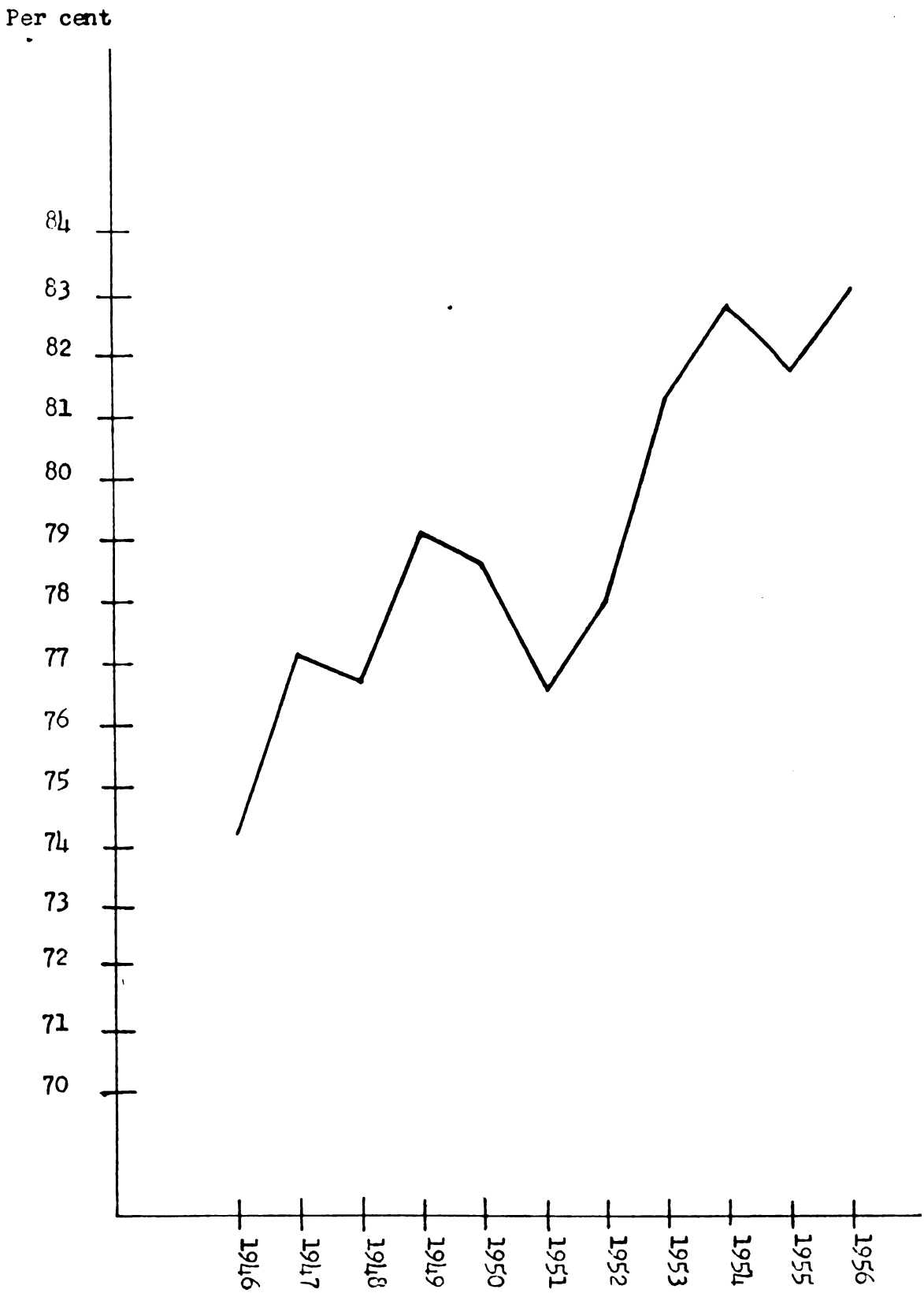
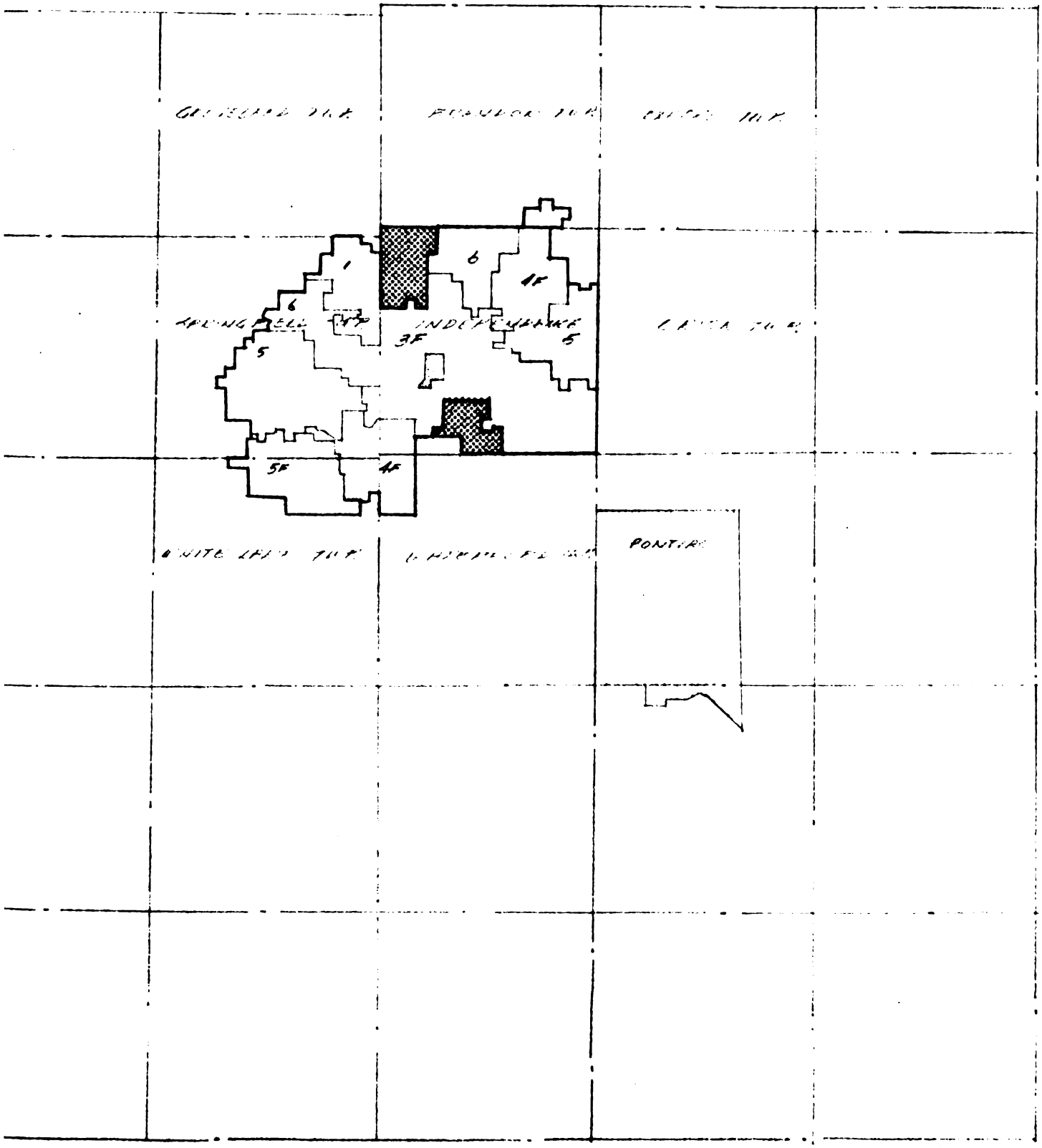


Figure XXV School Districts of Independence Township 1943

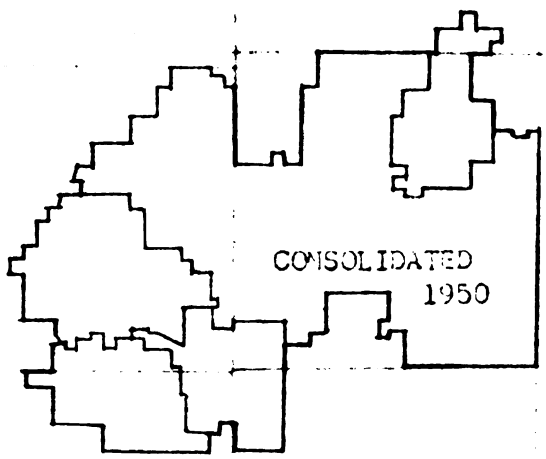


Areas brought into district in attempt to bring all of the Twp. in

Area ceded to Brandon Twp. in return for part of Brandon District.

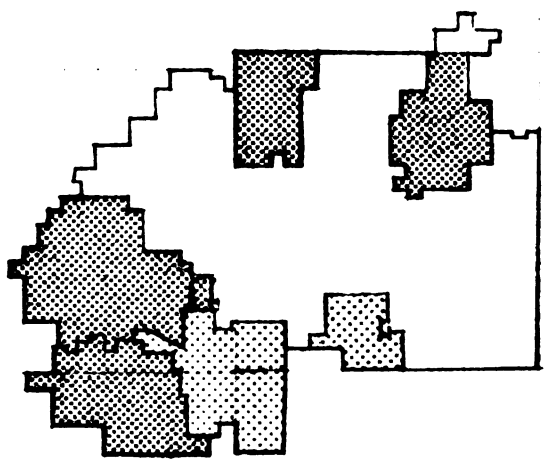
Cessions and acquisitions are subsequent to 1946

Figure XXVI Consolidation of schools; 1950



Source Clarkston Community Schools

Figure XVII : Consolidation of schools 1951 and 1952

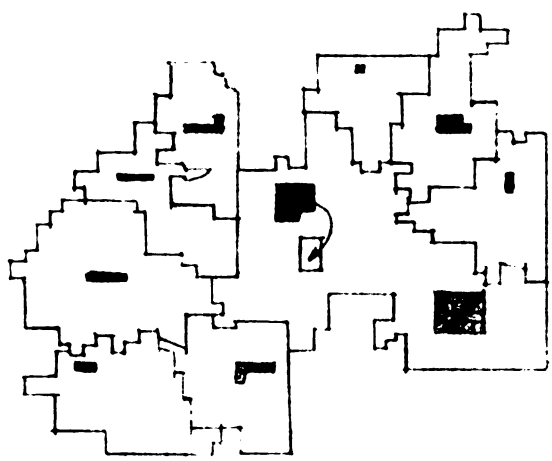


Consolidated 1951

Consolidated 1952

Figure XXVIII

School Population of Clarkston Community Schools by district 1945

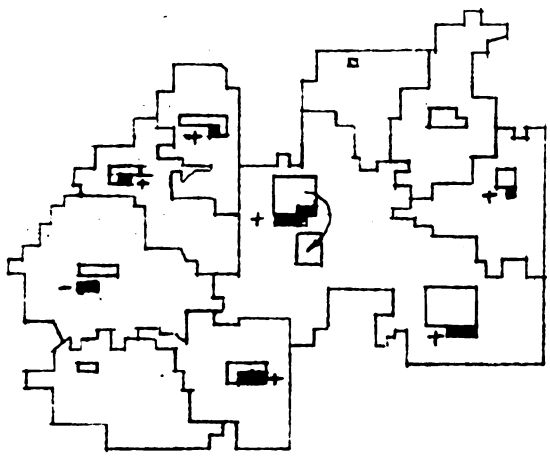


Each black square represents 10 school-age children

Figure XXIX

School Population of the individual fractional districts comprising the Clarkston Community Schools.

Data are for 1945 and 1947



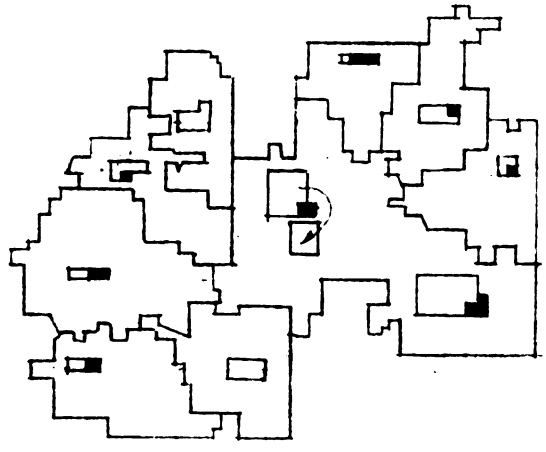
Each enclosed white square equals 10 children in 1945
Each enclosed black square equals 10 children added or subtracted between 1945 and 1947

Source: Clarkston Community Schools

Figure XXX

School Population of the individual fractional districts comprising the Clarkston Community Schools.

Data are for 1947 and 1948



Each enclosed white square equals 10 children in 1947
Each enclosed black square equals 10 children added between 1947 and 1948

Source: Clarkston Community Schools

various districts from 1945-1949. After 1949 it is impossible to separate the districts as the reports are incomplete for some districts, and some reported only every other year. The school district for the Clarkston Community Schools comprises districts in other townships. A portion of Independence Township is in other school districts. An effort has been made and is continuing to be made to incorporate all of Independence Township in the school district. Only one portion of the township will not be included. This is the part of the Village of Waterford which lies within the township. The communal ties in this case are felt to be too strongly oriented towards Waterford Township to be severed.

Table XIV shows the school plant in the school year ending June 1952 and the changes and additions.

There are plans being considered for the construction of a separate high school building and gymnasium; when this is completed, the present junior and senior high school will be used only as a junior high school.

With a school district of approximately 51.4 square miles and an increasing population, school transportation is very important. This has necessitated the purchase and maintenance of a fleet of school buses. Since 1951 when the school district had approximately ten school buses, the district had acquired eight additional buses by 1956. Coinciding with this, they have constructed a three stall bus garage for maintenance and installed hoists and other equipment necessary for repair work on buses.

TABLE XIV

SCHOOL PLANT CLARKSTON COMMUNITY SCHOOLS 1952-1956

Year	Name of Building	No. of Rooms	Grades Served	Status
1952	Clarkston High	22	7-12	operating
	Clarkston Station	1	1-6	closed
	Bailey Lake	2	1-6	operating
	Sashabaw	10	1-8	operating
	Hunter	1	1-6	operating
	Springfield 6	1	1-6	operating
	Andersonville	1	1-6	operating
	Independence 6	1	1-6	closed
	White Lake	1	1-6	closed
	total	40 - 37 operated		
1953	Sashabaw	10	1-6	operating
	Andersonville (new)	7	1-6	operating
	Clarkston (new)	7	1-6	operating
	Clarkston High	22	7-12	operating
	total operated	46		
1954	Bailey Lake (open)	2	1-6	operating
	Hunter (open)	1	1-6	operating
	Andersonville (open)	1	1-6	operating
	Clarkston Sta. (open)	1	1-6	operating
	Sashabaw	10	1-6	operating
	New Andersonville	7	1-6	operating
	New Clarkston	7	1-6	operating
	Clarkston High	22	7-12	operating
	total operated	51		
1955	Sashabaw	14	1-6	operating
	New Andersonville	11	1-6	operating
	Clarkston	14	1-6	operating
	Jr.-Sr. High School	33	7-12	operating
	total operated	72		
1956	Sashabaw	14	1-6	operating
	New Andersonville	11	1-6	operating
	Clarkston	14	1-6	operating
	New Sashabaw	24	1-6	operating
	Jr.-Sr. High School	33	7-12	operating
	total operated	96		

In addition in the school year 1956-1957 a seven room addition was started on the Clarkston Elementary School and a five room addition to the Jr.-Sr. High School.

The above material presents us with a picture of an increasing fixed plant and material which the school district has had to acquire to enable it to adequately serve the increasing school population.

Taxation

The tax load in Independence Township has increased greatly since World War II. The increase has mainly been in school taxes which were necessarily increased to provide facilities and services for the increased school population. This has been intensified by the rapid growth in population and school enrollment shown in the previous section. Future population growth will further intensify this problem, and probably bring with it a desire for additional community facilities such as fire, police, lighting and very possibly water. The addition of a community water supply may be imminent. A proposal for a county water authority is now pending. The bond issue necessary to provide this service will raise county taxes, aggravating an already aggravated tax picture.

The load on the individual property owner (of residential property) is great, especially in light of the services the community offers. One individual interviewed paid $175 property taxes in 1956 on a home which cost $10,500 in 1955. Remember there is only one constable, 3 fire trucks (partially volunteer service), a small county library, no water system or sewer system, no public lighting or streets

paid by the township. The intensity of the load on the home owner is a product of a narrow tax base; most of the assessed value in the township is residential properties.

The other individual hit by the urban encroachment via taxes is the farmer. When land is being sold and bought for subdivision purposes, agricultural land is most often taxed on the basis of its value for residential uses. This often forces operators out of agriculture. In Independence Township only six operators are farming full-time, and the part-time operators were actually hobby-farming. This has in Independence Township provided land for development, but much of it has apparently been purchased for speculation and is at present lying idle. The opposite approach would be to tax all undeveloped land as agricultural land and would most likely encourage speculation as holding costs would be reduced as far as taxes are concerned. Either alternative using an equal assessment for both, or an equal classification, has inherent problems. However, it is presently impossible legally to assess them on different bases. One possibility is offered by using similar logic to that applied in urban areas; one would not think of assessing land zoned for residential use on the basis of its value for industrial purposes, and in this area the master plan usually precludes such spot rezoning. If there were a township planning act, allowing townships to develop a master plan, it is possible that this reasoning could also apply to lands zoned for agriculture, which offers hope of saving agricultural lands in areas where

it is desirable to save high-quality farm land.

The tax problem then has two general areas; the first is the heavy load brought to bear on the individual home owner, and the second one concerns shifts in land use, which often may run counter to a desired rate of development, effected by the equal assessing of all undeveloped land.

To determine the extent to which the tax load of the individual has increased, we need only compare the services offered in a given period with that of a previous one, and also compare the taxes that a family paid to support these services. The services offered in Independence Township in 1957 differ little from those offered in 1940. The schools are larger and their facilities have been improved. An additional fire truck has been added; however, the force is still a voluntary one. The township has acquired a few water systems in some of the newer subdivisions; these are nothing more than central wells supplying an entire subdivision. Aside from these minor additions or improvements, services are basically the same now as in 1940.

The taxes supporting them are not. On the basis of a constant dollar (using the consumer price index for all services, 1947-49, as a deflator) the rise per family is not spectacular, only $74.17 from $112.90 to $187.07 per average family. Individuals usually do not figure this way, however; they think in terms of $67.63 per average family in 1940 and $255.72 per average family in 1957. This is an increase of almost 300%, or a total of slightly under 400% of the taxes

paid in 1940. This is a considerable difference when inflationary trends are not considered.

The taxes per one thousand dollars of assessed valuation have also increased from $18.70 to $34.80, and this in terms of a 1947-49 dollar. This, too, is quite an increase and helps to explain why agricultural lands shift prematurely into speculators' hands. Assessments may be four to five times as high as pre-war and a tax rate which has doubled may serve to convince a farmer that agriculture in such an area, where taxes may have risen to as much as ten times their original pressure, is not feasible.

The allocation of tax monies also has changed. In 1940, 15.47% of tax monies was allocated for township operating costs, 22.97% for the county, and 61.56% for schools. By 1957, the schools received 74.67% of the tax dollar, the county 16.78%, and the township only 8.55%. Schools had obviously become the major service which the township offered. A full breakdown of taxes, assessed valuation of the district, allocation, and load per family for the years 1940, 1944, 1949, 1953 and 1957 is shown in Tables XV, XVI, XVII, XVIII, and XIX.

TABLE XV

TAX SITUATION 1940

	Raw tax levy	Tax levy 1947-49 Dollar	Assessed Valuation	Equalized Valuation	Equalized Valuation 1947-49 dollar
Schools					
operating	11,993.25	20,021.53	1,585,054	1,585,054	2,646,900
debt	6,327.76	10,563.56	"	"	"
total	18,321.01	30,585,09	"	"	"
County					
operating	6,836.82	11,413.39	"	"	"
Township					
operating	3,283.67	5,481.76	"	"	"
fire tax	1,317.81	2,199.95	"	"	"
total	4,601.48	7,681.71	"	"	"
grand total		49,680.19	"	"	"

Taxes/$1000 assessed valuation $18.70; equalized valuation $18.70 (1947-49 dollar)

% allocated to	schools	61.56%
" " "	county	22.97%
" " "	township	15.47%

Average family's taxes: (1) 1947-49 dollar, $112.90; (2) raw dollar, $67.63.

TABLE XVI

TAX SITUATION 1944

	Raw tax levy	Tax levy 1947-49 dollar	Assessed Valuation	Equalized Valuation	Equalized Valuation 1947-49 dollar
Schools					
operating	13,670.51	18,177.68	3,002,490	2,817,270	3,746,124
debt	21,930.06	29,160.40	"	"	"
total	35,600.57	47,338.08	"	"	"
County					
operating	8,874.40	11,800.29	"	"	"
debt	1,573.72	2,092.58	"	"	"
total	10.448.12	13.892.87	"	"	"
Township					
operating	13,670.51	18,177.68			
grand total		79,408.63			

Taxes/$1000 assessed valuation $19.80; equalized valuation $21.10 (1947-49 dollar)

% allocated to	schools	59.61%
" "	county	17.49%
" "	township	22.90%

Average tax load per family could not be calculated since there was no population data.

TABLE XVII

TAX SITUATION 1949

	Raw tax levy	Tax levy 1947-49 dollar	Assessed Valuation	Equalized Valuation	Equalized Valuation 1947-49 dollar
Schools					
operating	38,999.41	38,309.00	4,279,715	4,448,978	4,370,231
debt	15,937.18	15,655.10	"	"	"
voted increase	20,027.47	19,072.98	"	"	"
total	74,964.06	73,637.20			
County					
operating	24,202.44	23,774.05	"	"	"
debt	176.91	173.78	"	"	"
total	24,379.35	23,947.83	"	"	"
Township					
operating	3,381.22	3,321.37	"	"	"
voted increase	13,346.93	13,110.69	"	"	"
total	16,728.15	16,432.06			
grand total		114,017.09			

Taxes/$1000 assessed valuation $27.10; equalized valuation $26.00 (1947-49 dollar)

% allocated to	schools	64.58%
" " "	county	21.00%
" " "	township	14.42%

Tax load per average family 1947-49 dollar $124.74; raw dollar $122.53.

TABLE XVIII

TAX SITUATION 1953

	Raw tax levy	Tax levy 1947-49 dollar	Assessed Valuation	Equalized Valuation	Equalized Valuation 1947-49 dollar
Schools					
operating	61,887.66	54,096.00		6,284,427	
debt	73,757.74	64,471.64		"	
total	180,262.32	157,567.29	*5,994,205	*7,072,876	
County					
operating	37,469.30	32,751.92	"	"	
Township					
operating	7,135.34	6,237.00	"	"	
grand total		196,556.21			

Taxes/$1000 assessed valuation $37.50; equalized valuation $35.70 (1947-49 dollar)

% allocated to	schools	80.2%
" " "	county	16.7%
" " "	township	3.1%

Tax load per average family: (1) 1947-49 dollar, $174.09; (2) raw $199.16.

*includes fractional districts not within Clarkston Community Schools.

TABLE XIX

TAX SITUATION 1957

	Raw tax levy	Tax levy 1947-49 dollar	Assessed Valuation	Equalized Valuation	Equalized Valuation 1947-49 dollar
Schools					
operating	141,845.55	103,760.02	10,830,095		
debt	51,971.94	38,017.47	"		
voted increase	216,546.20	158,403.54	"		
total	*447,418.88	*327,286.91	*11,428,765	*17,199,382	*12,581,348
County					
special education	9,144.06	6,688.88	"	"	"
operating	91,430.36	66,881.30	"	"	"
total	100,574.42	73,570.18			
Township					
operating	32,910.10	24,073.74	"	"	"
voted increase	18,282.78	13,373.85	"	"	"
total	51,192.88	37,447.59	"	"	"
grand total		438,304.68	"	"	"

Taxes/$1000 assessed valuation $55.30, equalized valuation $34.80 (1947-49 dollar)

% allocated to schools	74.67%
" " " county	16.78%
" " " township	8.55%

Tax load per average family: (1) 1947-49 dollar, $187.07; (2) raw $255.72.

*includes fractional districts not in Clarkston Community Schools.

CHAPTER VI

PROBLEM AREAS

The delineation of problem areas is at best a subjective process. What would appear to be undesirable to one individual may not appear so to another. With this implicit warning for bias in mind, the reader should examine the following delineated areas and accept or reject them on the basis of the supporting statements role in validating the denotation of these areas as problem areas.

Planning, Land Classification and Zoning

A zoning ordinance is a tool of planning conceived as a method by which a master plan may be effectuated. If a zoning ordinance is adopted and mapped as the zoning ordinance in Independence Township has been, then it is only a stop-gap measure and possibly a deleterious one.

In the absence of a rational assessment of the future growth of an area, a classification of land based on expected growth, and a provision for serving that development with municipal services and a coordinated system of roads, the zoning ordinance is easily challenged. Changes in the mapped portion of a zoning ordinance such as this are common occurrences, as the purposes of the mapped districts are often not

clearly thought out or based on a rational plan of action.

Variances, as mentioned, are usually changes of district boundaries rather than wavers of restriction within a district. The result is often a loosely connected development with gaps between developments due to by-passing land which was zoned for a use, but for some reason not developed. This pattern may be difficult to service with the necessary roads, utilities and supporting activities necessary to a community.

Another problem is the inclusion of districts or land categories which are not reasonable. Such a classification, as "suburban farms," tends to be overworked in township zoning ordinances. The development of the area should be analyzed carefully to determine the land best suited for large parcels as required in a "suburban farms" district. A district which is overzoned, and is a low density or low intensity economic use, will often be rezoned into a more intensive use on the basis of a petition of a developer's pointing out the excess capacity for this use. To a degree this is justified, but the result, as mentioned above, is often haphazard and not consistent with the intent of the original mapped districts.

A township such as Independence which finds itself becoming a part of the limited rural-urban fringe should classify its land according to its adaptability to the various economic alternatives possible. This means that topography, drainage, and transportation should be considered, that the

tax base supporting community facilities must be considered, that the market possibilities or economic use possibilities should be considered, and that the development of non-public supporting uses be considered. These factors must be considered and integrated into a comprehensive plan for development which the zoning ordinance is designed to implement. If there is such a plan, the zoning ordinance is no longer a stop-gap measure and defending it against changes becomes a more rational process providing more insurance that changes in the plan will be more thoroughly considered and their effects on the whole plan will be analyzed.

The problem of a useful zoning ordinance and plan is intensified or alleviated by the amount of available help which the township has in providing for its future. County planning agencies can play an important role in guiding these units. The county planning agency should be interested in coordinating the planning programs of the local units as the sum of these programs is the heart of the county's development. The position of the county agency should enable it to at least disseminate information about the advisability of an integrated planning program, and informing local governmental units about the alternatives for professional guidance in the formulation of a plan which is available to them. If it does not do this, then it should feel delinquent in its duties. This would appear to be the case in Oakland County, at least, as it affects the northern townships which are feeling the pangs of urban encroachment.

Platting

The approval of subdivision plats is a major problem area for Independence Township. Within its boundaries there is considerable local relief in topography. This coupled with upland soils of a sandy or gravelly nature causes problems in handling grading within subdivisions. The plat act allows local units to require information in excess of the required survey plat map if they feel this is warranted. At present topographic maps showing original topography and proposed changes are not required, nor is information about the stability of the soil concerning erodability and value for use as fill for a construction base. At one time only one or two percolation tests were required before septic tanks could be installed. However, the variation in permeability within a subdivision was found to be so great that the county health agency has required the taking of percolation tests at finished grade for every septic tank in a subdivision.

An example of the importance of topographic information and soil engineering qualities is Jack's Greens Lake Subdivision. Topographic changes were made here, using soil cuts as fill for other parts of the subdivision. The northern boundary of the subdivision lies from 2 to 8 feet below the property adjacent in a straight drop at finished grade. Soil cut from here was used as fill and built upon. The V.A. required piers to be used when construction was done on this uncompacted fill. One house built on piers solely on uncompacted fill has shifted three times. Open ditches were used

to dissipate surface runoff into a tamarack swamp below the subdivision. These have in the space of two years eroded, in places where gradients were steep - about 10 percent grade, to depths of 6 to 8 feet and are undermining the roads. (See Figure XXXI.) Why does this happen? The building inspector of Independence Township indicated that the evaluation of soil qualities and the effect of topographic changes is impossible for him to check. First, he has no information, and he relies on county agencies familiar with these problems to assess their import. This apparently is not done.

The county road and drain commissions review the plats submitted. What they can do without topographic data and soils data is a question. The county drain commission was asked by the author for information about permeable and impermeable soils in the county and was told that they had none. This lack of basic information to use in the review of plats heightens the problem. The county planning commission also gives a cursory review to plats and its director is aware of the problem. Concern with the problem appears to end here. No effort is made to acquaint township supervisors with the advantages of obtaining information of this kind or the possibility of requiring this information from those platting property. Although the comment was made by the director of the commission that the townships with problems of this type did not have professional help from consultants or actually from the commission in reviewing their plats, interest in informing them of the value of obtaining professional help or

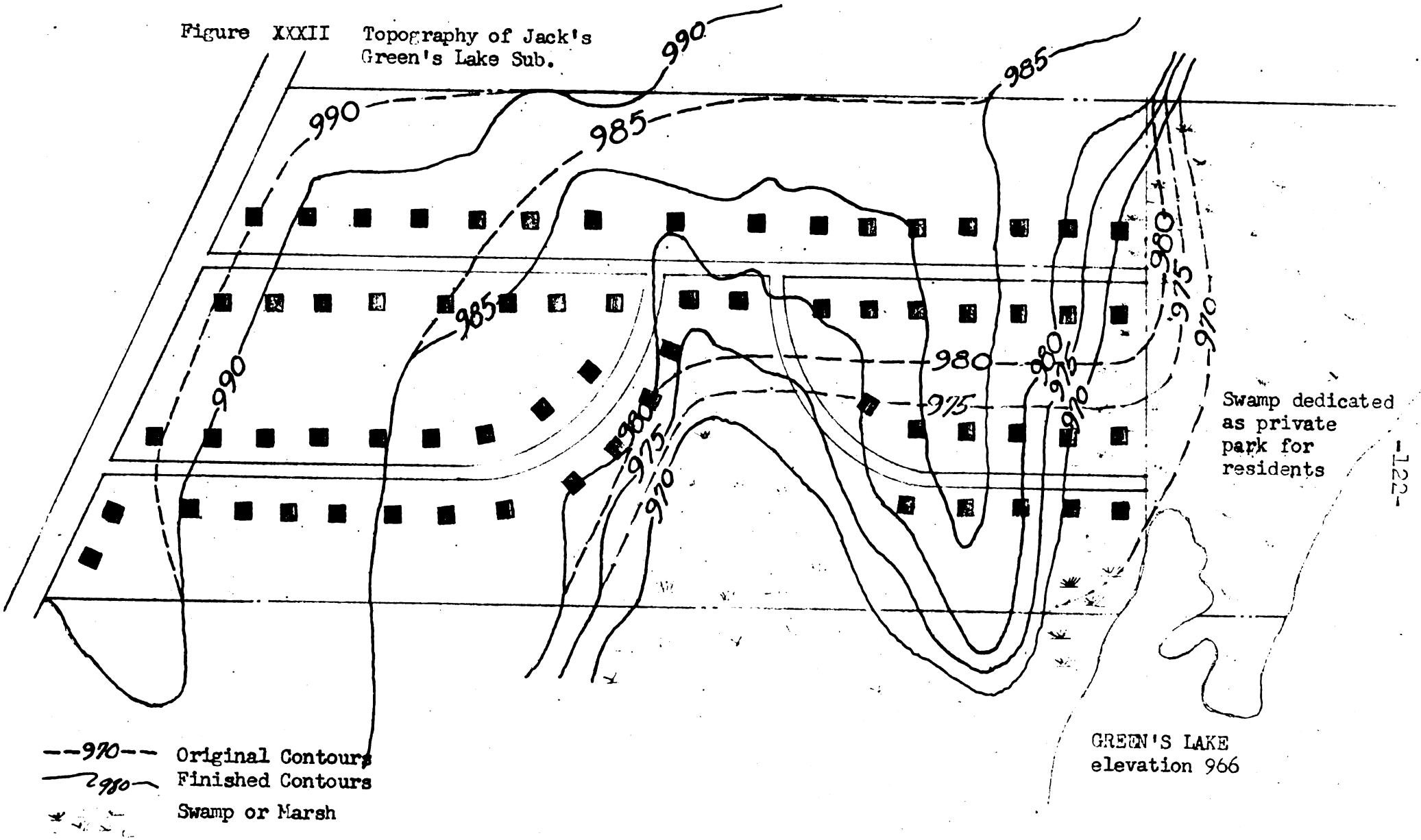
Figure XXXI Photographs of two Examples of Sub-standard Site Planning and one Excellent Example of the Use of Site Amenities

of assuming this role was seemingly absent.

Lest it be thought that the culpability is the developers, a circularity must be indicated; the developer, the engineer responsible for the plat, and governmental personnel associated with the platting process all share, to an indeterminate degree, the blame. A builder very often may suffer from situations arising from this problem. Repairs may be necessitated because of settling or poor drainage. The building inspector may refuse to issue occupancy permits for completed, but vacant homes, until repairs are made on occupied units in the development. The home builder who often has his working capital tied up in the completed non-occupied homes, may not be able to effect repairs until he sells more, which he is forbidden (not allowed) to do and a circularity is established which is difficult to resolve. An example of this occurred in Independence Township.

Jack's Greens Lake subdivision is built upon fill which was uncompacted and poorly graded for drainage; (Figure XXXII showing original contours and approximate finished contours) damage to occupied units was sustained through excess runoff not draining properly and the uncompacted fill shifted, settling some houses unevenly. The process outlined above occurred and the circularity was established. Resolution of the problem is extremely difficult, and everybody concerned is hurt to some degree. Many times, of course, a project is sold out before this type of problem arises. If this happens, the problem is even more difficult to resolve and may involve

Figure XXXII Topography of Jack's Green's Lake Sub.



Scale: 1 Inch equals 300 Feet

Note that in some areas of the subdivision substantial cuts and fills were necessary. Also note that a number of home sites are mainly fill and that others are left with poor lot drainage.

resorting to the removal of V.A. and F.H.A. certification of the builder's future projects to effect repairs.

The formal examination given to plats by the county planning agency tends to heighten another problem. This problem is the integration of platted land into a working unit. Much of the platting is done without consideration of the relation of one subdivision to another nor are standards accepted by city planners adhered to. An example of such a standard is limitation of "cul-de-sacs" in a subdivision to a 200 to 300 foot maximum length. This restriction is based on serving them with water, sewers and allowing fire fighting apparatus to reach the end of a "cul-de-sac." An example of a violation of this "rule-of-thumb" is evident in Clarkston Ridge Estate Subdivision, in which the single access street is a cul-de-sac one-half mile in length. (See Figure XI.)

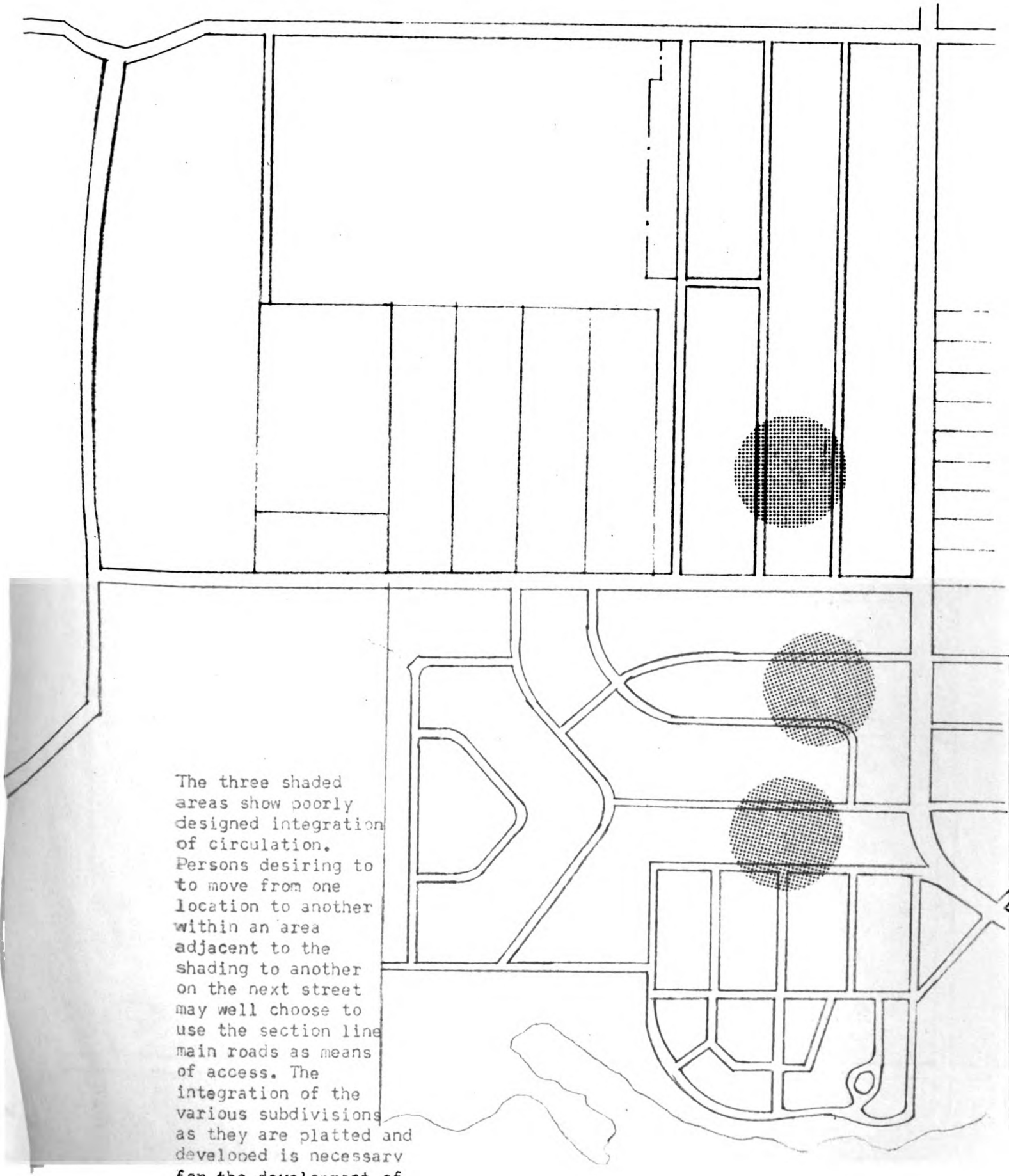
This non-integration of plats also leads to the development of a street system which may overload access roads and not functionally serve residential areas. For an example of this see Figure XXXIII.

Another problem associated with development concentrated on section-line roads is the isolation of interior land which becomes extremely difficult to develop. For an example of this see Figure XXXIV.

The control of platting is important; its importance was pointed out very well by Karl J. Belser who said, "...anyone with a piece of land that is zoned to permit subdivisions may at any time file a map for the subdivision of his land.

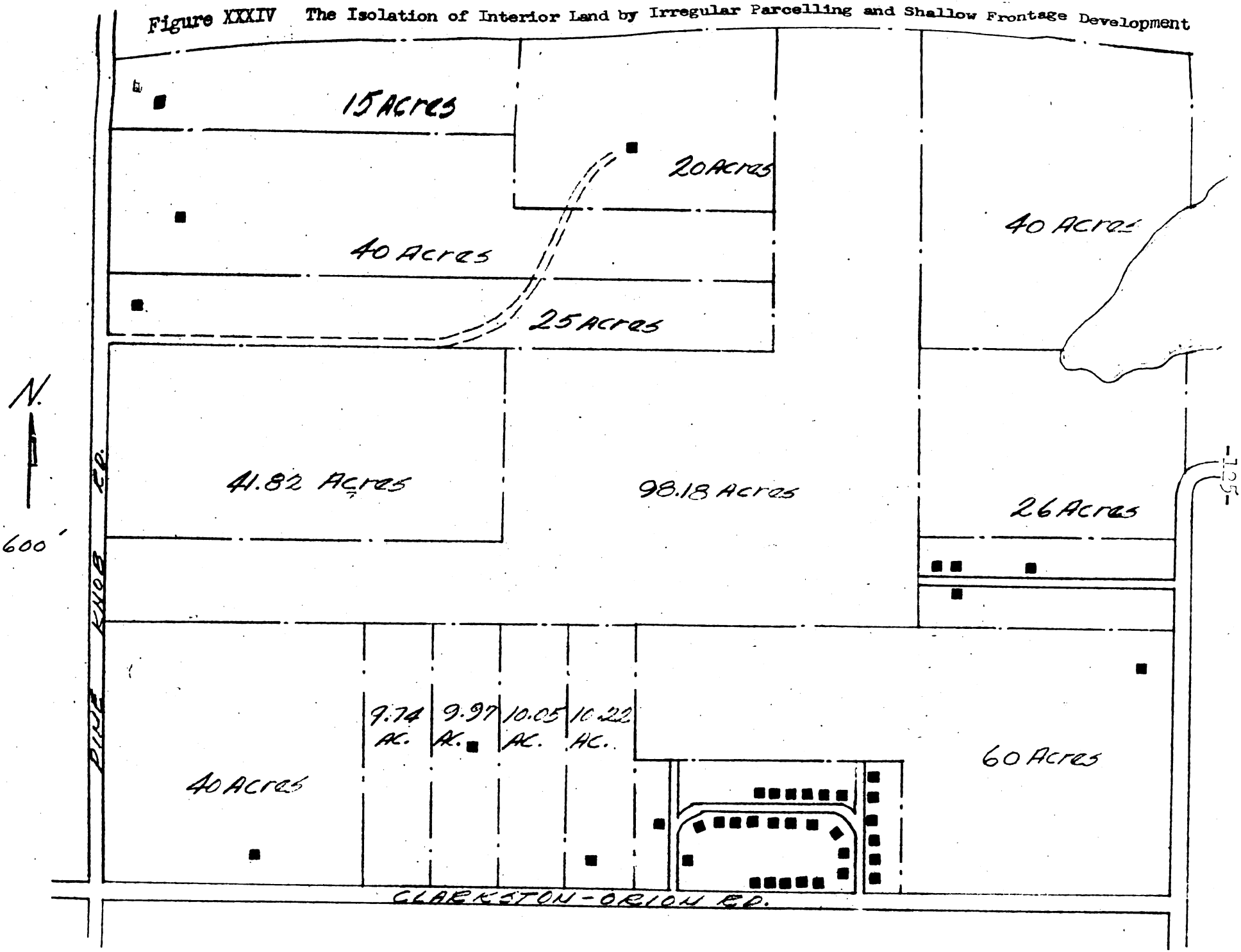
Figure XXXIII

Poor Interior Circulation in platted areas



The three shaded areas show poorly designed integration of circulation. Persons desiring to to move from one location to another within an area adjacent to the shading to another on the next street may well choose to use the section line main roads as means of access. The integration of the various subdivisions as they are platted and developed is necessary for the development of an efficient pattern of internal circulation

Figure XXXIV The Isolation of Interior Land by Irregular Parcelling and Shallow Frontage Development



Thus...it is easy to understand the chaos and confusion that results from the fact that subdivisions are not designed in relation to one another. The urban growth pattern does not extend itself in an orderly, contiguous manner, carrying with it related urban type services; rather, it has a leap-frog quality so that large open spaces are by-passed to reach cheaper land in a more outlying position. This produces either unserved areas or areas difficult to serve economically with urban utilities."[19]

"Sub-standard" Housing

The 1930's and the period from 1942 to 1948 left a heritage of some poorly built, poorly maintained houses. It is a definite possibility that areas within the township which contain these may be retarded in development, and that the development which takes place may not be particularly desirable. This may in some cases explain why some subdivided land left from the 1920's has not developed completely. Another factor similar to this is the outside storage which is common in fringe areas. The combined sight of poorly-maintained homes and ill-kept littered grounds tends to discourage the individual considering building for himself who has an eye on property value and also the project builder who considers environment as fairly important in affecting

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[19]Karl J. Belser, Director of Planning, Santa Clara County, California, in an address entitled "Urbanism and the County," presented at the National Planning Conference, San Francisco, California, March 17-21, 1957.

salability of his homes.

School Plant

A problem which may be important in the future is the present rate of construction of physical school plant. As population increases and a more normal distribution of ages is reached over a period of time, there is a strong possibility of having excess school plant. Some thought should be given to conversion to other uses when school buildings are designed and constructed. This approach has been used in the construction of local public libraries in Detroit. The libraries are located on major or secondary thoroughfares bounding the neighborhood units which they serve. They are built in commercially zoned areas and the structures are simple shells which are easily converted into store space for retail business. This approach merits attention in areas which will have a large population making feasible small neighborhood shopping centers.

Premature Subdivision and Speculation

It would appear from the data presented concerning percentage of platted lots built upon, that premature subdividing is not a great problem as far as most present trends are concerned. The appearance on the scene of the developer-builder has eliminated to a great degree the mass platting of lots which occurred in the 1920's. However, the lots remaining from the 1920's are a problem. Some of the plats from the 1920's were poorly laid out. Many street patterns are not

adapted to the topography of the sites. Lots are generally much smaller than the accepted minimums now common. Blocks are also small, and servicing such units would be costly. Many of the plats do not include easement for public utilities which tends to increase the difficulty of developing them. The pattern of streets in many of them is frozen to a degree by the lots which have been developed. In many cases the ownership of lots is unknown. Personnel in the Independence Township Hall indicated that for some lots in Thendara Park Subdivision the person to whom a tax bill should be sent was unknown. Some properties are parts of estates which have not been probated or are tied up in other litigation. In some cases the existence of "sub-standard" dwellings deters individuals and builders from purchasing property for development. If the situation does not change radically, it would appear that this pool of excess platted lots will be in existence for some years to come.

It is not possible to determine to what extent land is being bought for speculative purposes. It is in all probability safe to say that some is purchased for this purpose. Even if this is not the case, the high prices paid for agricultural land for residential subdividing poses some questions. If land is bought for between $1500 and $2500 per acre, as is common in this area, what effect does this have on the timing and composition of future developments? With the present minimum of 15,000 square feet per lot, a developer can expect to develop only slightly over two lots per acre from the raw

land, assuming all his lots will not front existing roads. He must also grade and pave roads and provide a water system for the subdivision. His land costs are relatively high. His development costs are relatively high and can in the future be higher as much of the land remaining has considerable local relief. With high land costs and high property taxes, a developer may be forced into premature development of his property. Or if his time preference is low, he may wait a longer period of time. In either case he may have three alternatives available for development. The first is high value residential development with homes selling from $30,000 upwards. This is one method of absorbing costs. The second is land development without construction, i.e. the selling of improved lots. This may not be a possibility if there is a reservoir of lots in the area or if the environment of the plat does not enhance its esthetic values. His third alternative is the construction of low-cost housing. Very often this means the using of materials which are cheap, but presentable, when built. His choice of the three would depend on the market in the area for the good involved. In Independence Township the third alternative would probably be the most feasible. It is impossible to say just what the effects of high land costs in advance of imminent development are, but there is little doubt that they affect timing and quality of future residential development.

Township Services

The township does not provide many services beyond

those mentioned in the tax section.

In outline form, these are the community facilities and services provided within the township:

1. Fire Protection
   a. Two fire stations - one at the corner of the Clarkston-Orion Road and Sashabaw and the other at East Church and M-15 in Clarkston.
   b. Equipment
      1) two pumpers
      2) one tanker
      3) one power wagon
      4) one Model-T pumper
   c. Personnel - entirely volunteer; no full-time personnel are employed.
2. Police protection consists of three or four elected constables; there are no salaried policemen. The Township depends on the County Sheriff's Department for police protection.
3. Road maintenance - The township has two trucks equipped with blades for snow removal. The County Road Commission maintains other roads.
4. Library - A small library is supported by contributions; no tax money is allocated to it.
5. Lakeview Cemetery is supported by tax money and operated by the Township.
6. The Township hall and the offices of the supervisor, building inspector, township clerk, and treasurer are maintained by tax money.

This is not a very impressive list of services. Street lighting and sidewalks if established would be paid for by special assessments against the subdivision in which they are installed.

Further population growth would almost certainly bring with it pressure for additional services beyond those provided and necessitate the intensification of those which are maintained. This would aggravate further the tax load on the individual property owner.

Most of the people moving into areas such as Independence are accustomed to many more services than the Township provides. While the Township is still a semi-rural fringe area, this lack of services may be compensated for by low densities and much open land. The problem will be very important after the area has changed into a definite suburban enclave, and many of the esthetic values are decreased.

Supporting facilities associated with urban development

The population in Independence Township is not served very well with the commercial and business facilities associated with urban development. The Clarkston Shopping area is small (only two blocks long on one street, part of which is occupied by a post office, a car dealer, and a hotel). Businessmen in Clarkston do not appear to be disposed towards expanding the development, and most residents of the Township shop in Pontiac, either downtown or at the Tele-Huron Shopping Center on the U.S.10-U.S.24 by-pass around Pontiac. This

shopping center is from 8 to 12 miles away depending on where one lives in the Township.

The commercial development on U.S. 10 is a strip development aimed at a tourist market. U.S. 10 is a main route north from Detroit to Flint, Saginaw, Bay City and beyond. Its connection with U.S. 24 at Pontiac funnels much of the traffic from Ohio into it also. It is also an important truck route as it links the cities previously mentioned.

The development is a hodge-podge mixture with gasoline stations, drive-ins, and motels dominating the scene. (See Figure XXXV.)

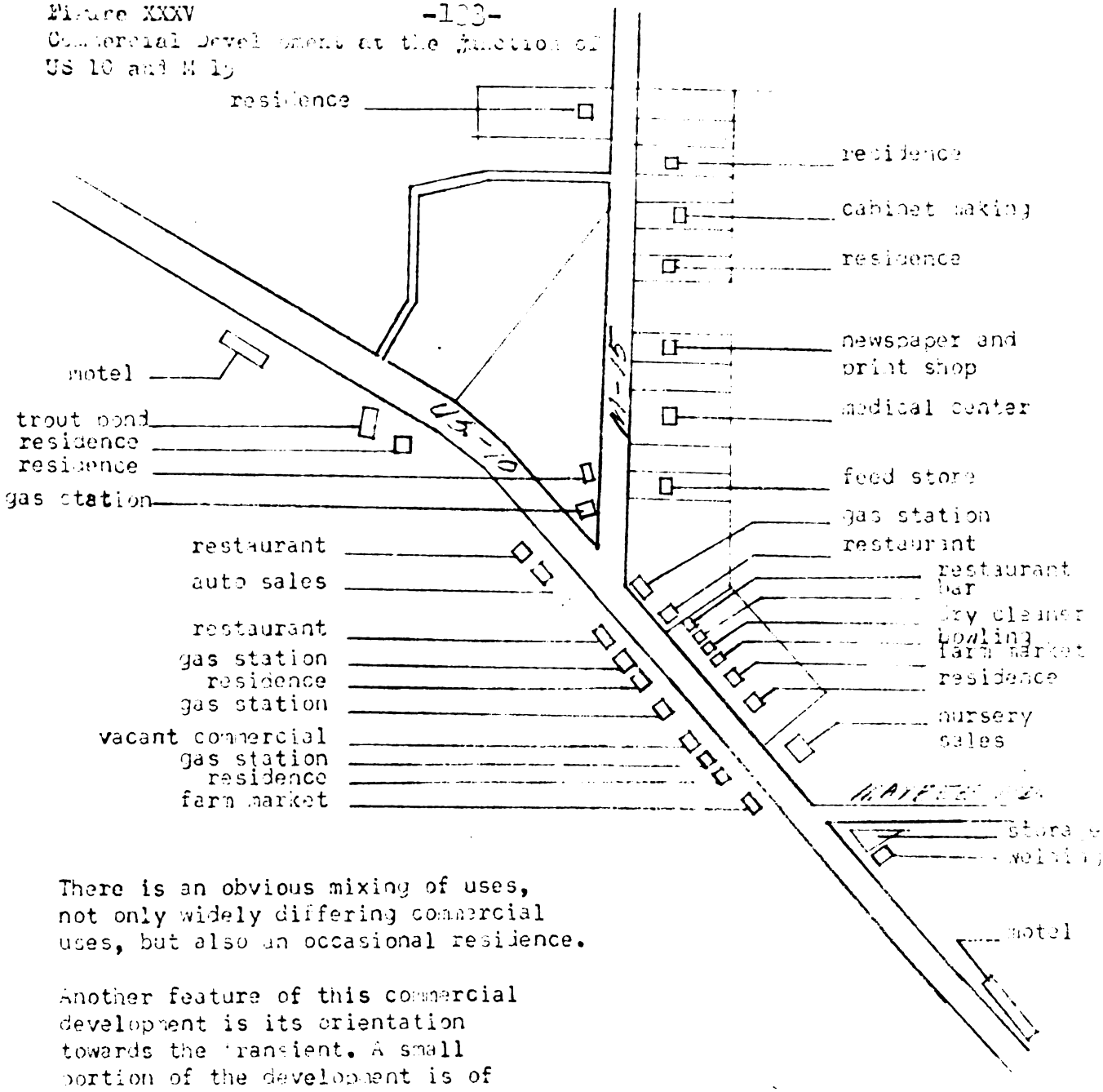
Further south in Waterford Township bait shops and sports shops are plentiful. The area is one of many fine lakes and is easily reached from Detroit.

The development of supporting business is necessary to insure a balanced community and to serve efficiently the population centered in the area. U,S. 10 is a heavily traveled, congested highway; the funneling of traffic onto it from the townships through which it passes aggravated the condition. As long as residents of the area must travel to Pontiac to shop, this will continue.

Geological and Topographic Limitations on Land Use

The local relief in some parts of the township is severe. This may not prove a limitation if luxury developments can be encouraged. Large lots would be necessary to provide sites for homes. If this cannot be developed this way,

Figure XXXV
Commercial Development at the Junction of US 10 and M 1[illegible]



There is an obvious mixing of uses, not only widely differing commercial uses, but also an occasional residence.

Another feature of this commercial development is its orientation towards the transient. A small portion of the development is of a supporting nature; i.e. service commercial providing convenience goods or services for the population of the township.

development may well be blocked. Much of this rolling land is very attractive. Many sites are available adjacent to small lakes or overlooking them. Vistas of from two to ten to twenty miles are not uncommon. Much of this land is partially wooded. These factors may enhance its value for high value residential development if a market is developed (see Figure XXXVI).

Drainage is interrupted throughout the area and occurrences of swampy or marshy land is common. Some of this is in potholes, from which peat can be extracted and sold, and the area then filled or allowed to form small lakes, but adjacent to the Clinton River and its branches is an extensive swamp and marsh which would be difficult to drain as in this central basin the slope is as low as five feet in a mile and a half. This also makes difficult flooding the area by damming. It would appear that the development of this area may be difficult enough to preclude future development.

Land in the northwest corner of the township is heavy clay and designated as impermeable soil by the Detroit Metropolitan Area Regional Planning Commission. Development of this area would be extremely difficult unless it were served by sewers. Chances of this seem slim as this area is not in the drainage basin of the Clinton River and pumps would be necessary to integrate it into a county drainage and sewerage district.

The problems posed by excessive grades, organic soils, and poor drainage are not limited to those associated with

Figure XXXVI Photographs of two Lakes with Adjacent Land Suitable for Development of Sites for Homes of $25,000 or above in Cost.

timing of development or costs associated with a thorough development and site preparation. A problem is posed by the necessity of examining closely all plats which are made of these lands, for the inherent difficulties associated with soils and topography of this type may lead to situations or conditions which are costly to overcome, as was stated before and exemplified by Jack's Greens Lake Subdivision, if "good" engineering standards are not adhered to. The social costs involved are also important, although I will not attempt to determine any arbitrarily.

The Flexibility and Aptitude of Township Government

From personal interviews, one gains the impression that although Township officials are interested in handling the problems of urbanization, in many cases they are not able to do so. This is caused by lack of information. Their greatest single problem with which they are concerned is maintaining adequate school facilities. This is the obvious problem. Other problem areas are not as obvious and even when some become apparent, methods of coping with them and indeed the ends towards which they should work are obscure.

Township officials look to the county for technical help in the areas in which the Township does not have personnel qualified to make judgments and decisions. As has been indicated, this help has not been forthcoming in a quantity which is sufficient. The system breaks down upon this point.

If, however, the county were to assume the role which

the individual townships would appear to desire it to assume, there is valid argument for eliminating the townships as a unit of government. This process of referring to the county problems which the township is unable to handle has been variously titled and described. One of the most apt titles and descriptions is that of S. J. Schulman, Chief Planner for Westchester County, New York. Mr. Schulman describes it this way: "The increasing complexities of government and the broader scope of governmental activity, both from area and function views, have, during the past quarter of a century, led to a steady process of "filtering-up" of certain functions and responsibilities. By "filtering-up" is meant the transferral of responsibility to a so-called higher level of government...The impetus for such re-delegation of responsibility is rooted in one or both of two causes: the inability of the government concerned with the particular function to discharge satisfactorily its responsibilities by reason of financial burdens, or the impossibility of viewing as segments a service that must be provided for an area that encompasses several units of the particular governmental level, thereby requiring, for efficient and coordinated provision of such a service, a unit of government large enough."[20]

This "filtering-up" has led to the propensity among planners and urban administrators to promote the establishment of metropolitan districts providing services for an

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[20]S. J. Schulman, An address on Urbanism and the County, presented to the National Planning Conference, San Francisco, California, March 17-21, 1957.

urban complex whose individual political units are interdependent. The main argument for this is that this eliminates the duplication of services from unit after unit (often inefficiently) and allows the political units to maintain their identity.

The maintenance of identity is an important consideration. Urbanized townships in Oakland County are considering incorporation for the purpose. The motivating forces there are one of three possible situations. These are: (1) the possible disintegration of the area into separate political units, (2) the possible annexation of the area, or (3) the desire to increase revenue and powers with which to handle problems associated with urbanization. An article which appeared in the Detroit Free Press in July of 1957 explains the situation very well. "A wave of incorporation fever has hit several Oakland County townships this summer. Cases have been reported in Avon, Commerce, Waterford, and Novi Townships. Underlying reasons are the same: Powers of township government are not enough to cope with growing populations and their problems. Besides officials say they do not want to see their areas divided into a number of municipalities as happened in Royal Oak Township. Novi (8,000 population) and Commerce (14,000) Townships, still largely rural, are thinking about becoming villages.

When Wixom, which lies in both townships, incorporated as a village recently, it took in the tax-desirable Lincoln Plant in Novi Township.

Rankled Township residents want to protect their boundaries and their tax base."

The article proceeds to detail further incorporation plans and sounds a valid warning, "...city status, with its increased responsibilities, would work as much hardship as the present situation with its limited powers...Cities get more revenue from the state, such as fines, but have to take over more functions, such as road maintenance."

CHAPTER VII

POSSIBLE SOLUTIONS (HYPOTHETICAL) TO THE PROBLEMS IN INDEPENDENCE TOWNSHIP AND OTHERS

Tax Load and Narrowness of the Tax Base and Supporting Facilities for Urban Development

The tax load and the tax base are inter-connected, and in fact many of the problem areas are inter-connected. The tax load on the individual is high because of a narrow tax base.

The tax base can be broadened by encouraging the development of commercial and retail business uses which would serve the growing population. Land use planning should direct land use. The problem associated with this is the difficulty inherent in allocating costs of services to various land uses and comparing the tax revenues from the land uses to the cost of supporting them. This has been well stated by Ralph M. Barnes and George M. Raymond in an analysis of current surveys of the relationship between various land use types and the local tax base.[21] They commented:

> "It is common knowledge that with each year that passes, local governments, particularly in our mushroom-

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[21]Ralph M. Barnes and George M. Raymond, "The Fiscal Approach to Land Use Planning," Journal of the American Institute of Planners, Vol. XXI, No. 2-3, Spring-Summer 1955, pp. 73-74.

rooming suburbs, are faced with an ever-increasing problem of balancing municipal and school costs against tax revenues. ....The tendency of encouraging new growth that represents high tax value while discouraging growth that represents high service costs has been an implicit municipal policy for many years; particularly so since, through unhappy experience, it has become clear that more often than not unregulated growth leads to higher taxes. With the help of data disclosed by a survey of land uses by the 'income' and 'expense' attributable to each type of use a municipality feels secure in embarking on such a policy explicitly.... The 'land use economic survey,' by presumably enabling the municipality to determine which type of new development will be most beneficial, appears to many local officials to supply an extremely useful collection of facts upon which to base such municipality's future land use policies. ....But whether the techniques used in making such surveys are adequate, whether the results are valid and whether, practically speaking, such conclusions as are drawn are used by the local community in a constructive manner, remains to be determined. .... Endless questions arise when this problem (cost allocation) is considered. In allocating the costs of the local fire department, for instance, how much weight should be given to actual service calls for fires and similar fire department activity and how much to 'protection' in those areas not having frequent use of this service but nonetheless benefiting security and insurance-wise from the existence of a fire department? Is it reasonable to assume that this protective quality can be pro-rated among the various land uses on the basis of the number of properties in each type of use? .... Furthermore, is it reasonable to allocate school costs merely by a pro-rating among all dwelling units, or should this allocation be made by an actual mapping of the households sending pupils to the public schools followed by a determination of the number residing in each type of residential development? In one community, 5% of the school cost was allocated to non-residential uses on the ground that 'schools especially prepare a substantial number of students to enter local employment.' Why 5%? Besides, if this approach is correct, should not all municipal expenditures in residential areas be partly charged to non-residential uses, since, probably, without such services as are provided, clerks and storekeepers and factory managers would move themselves and their establishments elsewhere? .... All these surveys ignore the economic relationship between the various classes of property. Families living in apartment houses or in two-family houses (use types usually found to be productive of a net loss) may work in industries or large one family homes (use types usually productive of net gain). Should, then, the study not charge the net loss from one against the

> net gain from the other? And how about the workers in 'profitable' industries who live in 'unprofitable' homes in adjoining municipalities which obligingly provide them with municipal and school services and facilities? .... The importance of purely fiscal objectives must be weighed in the balance against other objectives such as convenience and community character and tradition, not to speak of the responsibility which devolves upon it to accommodate its share of the problems the 'profitable' uses it encourages bring with them."

This statement is an eloquent one, and brings to light not only problems involved in such an analysis, but the consequences of the pursuit of a policy by one unit which may devolve upon another the net loss uses which are associated quite often with net gain uses. Yet net loss uses are excluded as undesirable from a political unit which welcomes the net gain uses. At the same time a township must recognize the possibility that it will have foisted upon it uses which other townships wish to exclude. The resolution of problems such as this would appear to be impossible unless a regional or metropolitan unit recognizes the problems and cooperates on land use planning and pools assets to provide basic services which are necessary in the area.

Zoning and Platting

The planning of coordinated land uses as emphasized above certainly relates again with the problem of zoning and platting. The solution would appear to be the assumption of the responsibility for land use planning by the county planning commission. If this is not done, then the county planning commission should disseminate information encouraging the rural-urban townships to retain professional help and to

inform them of problems which may be encountered in platting and zoning and the powers that the local unit has in requesting supplementary information with plats.

The problems which are encountered because of physical difficulties in platting could be overcome similarly. There is an obligation on the part of county agencies to provide information about soils regarding permeability and structural qualities of soil types. This could be used by professionals retained by townships to aid them in planning, or the county agencies could assume greater responsibility in assuring that plats conform to minimum standards.

The classification of land and the planning of land uses should also alleviate the problems associated with developing of lands with considerable local relief, and irregular drainage. The cataloging of such land in a land use program would serve to alert the individuals concerned with approving plats to the need for attention to plats in the areas classified as difficult to develop.

The provision of such basic information would appear to be an essential function of a county or regional planning organization. It is widely recognized as such, and frequent mention is made in professional journals that the overall plan is desirable, but that the local units of government must be conscious of planning techniques and problems prior to emphasis on the regional plan.

A good statement of this approach to regional planning is the following, by T. Ledyard Blakeman,[22]

"..... we want actual physical development on the ground; not plans, not pictures, not words, but actual physical land development. We want to provide in the region the economic and mechanical means with which the people can build a socially desirable urban life. .... We believe that standard planning procedures with equal emphasis on widespread and continuous local participation is the way to produce this end result. We do not believe that a group of master minds working behind closed doors can produce a good plan much less one that will be used. On the other hand we do not believe that in our region we can be of much value in planning public services or in helping local governments to do realistic planning unless we prepare and use a regional land use plan. .... our research program was designed to provide the basic and special data we needed to prepare a regional land use plan. In many cases, however, we refined .... data before we actually needed the detail because we knew the local people could use it. .... Unquestionably certain local plans for land use, sewer, water, etc., have been somewhat more realistic than they might otherwise have been."

The Flexibility and Aptitude of Township System

The problem basic to them all is capability of the township to meet the needs of an increasingly urban population and to handle the problems associated with this growth.

It would appear to be more efficient if the county or a metropolitan authority assumed the responsibilities which the township cannot fulfill. If the townships retain professionals to guide their development, the integration of the local political units into the complex cannot be assured, and in all probability this would be exceptional. The problems which lead to land use planning are not confined to individual political units, nor are all the areas within a political unit

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[22]T. Ledyard Blakeman, An address on Planning Organization for a Metropolitan Area presented to the National Planning Conference, Detroit, Michigan, October 11-15, 1953.

such as a township oriented towards each other. Micro-regions within a metropolitan region are usually not delineated by political boundaries.

The other criteria to be considered is the cost involved if individual townships retain the services of professional consultants to aid them as contrasted with the cost involved in maintaining a staff on the macro-level (county or metropolitan). It is impossible without data to determine this, but it would appear reasonable that the cost-benefit ratio is higher with the retention of a staff on the macro-level.

School facilities.

Independence Township's school system has been able to grow with its school population. Students have not been on half-day sessions for any extended length of time. The problem, as mentioned before, is the creation of physical plant which may be excess at a future date. Consideration should be given in building design and site selection to alternative uses for which school plant can be utilized at a future date.

Speculation and Premature Subdividing

The problem caused by the reservoir of lots remaining from the 1920's could possibly be resolved. It would probably be worthwhile to attempt to buy undeveloped land either in tax court or from individual owners. If sizable holdings of this undeveloped land could be acquired, sale of it to

developers may be possible. Another possibility is the re-platting of this land to facilitate development. It is possible that the land could be condemned on this basis and acquired by the township. This last method may be the best way to expedite the rational use and development of this land. Properties which are developed and may hinder this process may also be acquired this way. The use of redevelopment legislation in this area of land use should be investigated. It is possible that it could be extended to cover this area.

The effects of speculation, as noted, cannot be precisely determined at this point. The only way that speculation might be curbed is the assessment of agricultural land which has not been purchased for agricultural purposes. The legality of this, at the moment, is questionable, and court precedents would in all probability be difficult to establish.

General Applicability of Observations and Recommendations

Some of the specific problems mentioned are peculiar to Independence Township, but as a subject for a case study Independence Township is not radically different from other townships which are experiencing urbanization. The rugged terrain and interrupted drainage of the area present individual problems which are representative of the two northern tiers of townships in Oakland County; these are particular problems.

The basic problem of a coordinated plan for land-use is applicable to other areas, varying only in degree.

The question of establishing metropolitan authorities to serve burgeoning suburban populations and provide minor political units with technical assistance is one which is being considered more and more. Individual areas must analyze the force directing urban growth in their areas and provide for the facilitation of orderly growth. Oakland County is an example of an area awakening to the need for such introspection after the situation is difficult to handle. The northern townships which are still partly rural should be advised to seek professional planning help quickly.

Areas just entering a period of urbanization can benefit from the experience of Independence Township; the problems they will encounter will basically be the same.

Areas in which further research seems desirable:

Speculation

The effects of speculation could use illumination. Areas in which land prices rise rapidly either spatially or temporarily in advance of urbanization should be studied to determine the effects of rapidly rising land costs. It would appear to be possible to study samples stratified by type of land, character of the general area, and percentage of the price of the home. If the effects are generally as I induced without formal statistics, but only by observation, then it would seem that agitation for reforms of assessing techniques would be warranted.

Benefits-Cost Analysis

Techniques for determining the cost of supporting various land uses are not thoroughly developed. The plus or minus values associated with land uses (costs of supporting given minus values and tax receipts plus) are often unrealistic.

Some industrial uses are given plus values although they may bring with them populations which may cancel this surplus. There are indirect benefits and costs associated with land uses which are almost impossible to calculate. Indeed it is often difficult to determine the allocation of direct costs among land uses.

Basic studies of this type would be invaluable guides to the land-use planner.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The horizontal expansion of our urban centers into their hinterlands changes the physical, economic, and social face of our nation. The transition from a predominately rural area to an urban extension of the city core may be long or short in duration. The turbulence generated within the minor political division experiencing the change varies, usually inversely to the length of time expended in the transition. Social structure changes, however, would most generally be an exception, as in rapid development old time residents may be faced with a "fait accompli" and not with a trend which they may otherwise try to resist.

The fiscal problems and the development problems faced by a township may present a bewildering sea of unfamiliar situations into which township officials are plunged. The township may be called upon to provide services, and be required by law to administer regulations which previously had not been necessary in a rural area. The degree of responsiveness and the adroitness of the township in handling its problems depend on a host of variables.

Independence Township was near enough to townships undergoing change to realize the necessity of establishing

land use controls. As many other rural townships in the United States have done, it has enacted a zoning ordinance and building code. Even though this measure had been undertaken, the township soon found that problems were multiplying not decreasing.

Indications are that probably the greatest single problem the "fringe" or "transitional" township has is guiding the direction of land use. Service problems and tax problems, although considerable, dwindle in importance by comparison.

Adequate guidance is absolutely essential. Most township officials are not technically qualified to realize the problems approaching and the alternative methods available with which they can meet them. Adequate counsel, from their own staffs is infrequent. The township payroll is small and planning technicians generally are not included.

In reliance, heavy reliance, on a zoning ordinance, township officials overlook through no deliberate act of commission details which a planning technician would be quick to spot.

The local unit must rely on the county for assistance in judging the qualifications of plats. The county may be overwhelmed with plats, and its planning organization too understaffed to give adequate attention to detail which should be considered.

The major defect observable in the field is the absolute lack of consideration given to the elements of a master

plan.

1. No thorough consideration, beyond a naive attempt in the zoning ordinance, was given to the eventual pattern of land uses in the township.
2. The coordination of roads and streets into a functional circulatory system as under a mapped streets act was not even imagined.
3. Future servicing of areas with water, sewers, fire and police protection were not considerations thought pertinent to platting.
4. The eventual servicing of the areas with school and recreational sites was apparently not considered important enough to motivate a study of possible future sites for reservation.
5. Physical limitations to development were not fully understood and the associated problems used as a basis for requiring of supplemental information with plats.

Conclusions

The township form of government in an urban environment is as much an anachronism as a dinosaur, yet it cannot be blamed nor can township officials be blamed for the land use problems in our fringe areas.

Adequate guidance for them is amazingly lacking. Overall plans for metropolitan development on a highly abstract level coexist with situations of an extremely distressing nature on the local level.

The township officials are most often simply not

informed. The culpability does not lie with them nor is it an easy matter to affix the finger of blame on any of a number of harassed overburdened governmental agencies whom one would expect to be responsible.

The whole framework of legal institutions within which transitional areas must work is badly outmoded. Information must also be made available and sources of technical help should be clearly delineated.

The situation is not a hopeless one, simply an amazingly confused one. Helpful corrections should be forthcoming in the near future, one can only hope that they will be. The following are proposals which would help directly in aiding local governmental units to cope more successfully with the land use problems confronting them.

1. The Plat Act should be rewritten. It would be desirable to have a document not quite as "legalistic" as the present act. Planning considerations should be foremost in a measure concerned with a phase of planning; legal procedures and formalities, although important, are not of foremost importance.

   The necessity for the control measure should be clearly indicated and supplemental information, e.g. topographic changes, which are optional at the discretion of the local unit of government, should be clearly stated and examples given in a news letter or other form of communication from the Auditor General's office.

2. Extension of master plan authority should be given to townships and enabling legislation for mapped improvement acts is sorely needed.
3. Information should be forthcoming on the advisability and indeed the necessity of long-range coordinated master planning. The elements of a master plan are unknown to most township supervisors. County or Regional Planning agencies should be critically concerned with the need for supplying information regarding transitional problems, and the legal methods available for anticipation and solution should be made familiar or at least recognizable to township officials. The advisability of technical help should be stressed and sources of aid outlined for reference.

Transitional problems grow into not-so-transitional problems when the pattern is established. The time to overcome them is while they are developing and are most easily negated.

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A P P E N D I X

Part-time and Full-time Farmers

QUESTIONNAIRE ON LAND UTILIZATION IN RURAL-URBAN FRINGE, (INDEPENDENCE TOWNSHIP)

Michigan State University
in cooperation with the
U. S. Department of Agriculture

I. General Information:

1. Name _____ 2. Address _____

3. Township _____ 4. Location _____

5. Age _____ 6. Married: Yes _____ No _____

7. Number of children (indicate number at home and their ages): _____

8. Ages: _____ _____ _____ _____ _____ _____ _____

9. What is your major occupation? _____

10. Other major sources of income, if any? _____

11. How permanent do you feel you job is or how long do you plan on farming?

_____

12. If employed off-farm, how many miles to place of work? _____

13. Number of years you have lived at this location _____

14. Farm background of husband _____

15. Farm background of wife _____

16. Comments: _____

_____

_____

_____

II. Land Use Data:

1. Acres owned _____ 2. Acres leased out _____ 3. Acres rented in _____

4. Acres operated _____

Acres of: 5. Cropland _____ 6. Pasture _____ 7. Idle crop and pasture land _____ 8. Woodland _____

III. Type of Operation and a Change in Operation:

1. Crop Pattern for 1956

Commercial Value:	Acres	Comment on change in pattern last five years
Small fruits		
Pears		
Apples		
Peaches		
Plums		
Cherries		
Grapes		
Alfalfa		
Timothy & Clover		
Potatoes		
Winter Wheat		
Oats		
Barley		
Rye		
Corn for Silage		
Sweet Corn		
Idle		
Truck Crops		
Plowable Pasture		
Woodland Pasture		
Other Pasture		
Woodland not in Pasture		

2. Livestock Inventory 1956

Commercial Value:	No. Today	Change in last five years
Dairy Cattle		
Cows		
Heifers over 1 year		
Bulls		
Calves		
Beef		
Cows		
Heifers for herd		
Bulls		
Feeders		
Hogs		
Sows (boar)		
Feeders		
Boars		

Commercial Value:	No. Today	Change in last five years
Sheep		
Ewes		
Feeders		
Rams		
Poultry		
Chicks		
Hens		
Roosters		
Broilers		
Turkeys		

3. Buildings:

	None	Idle	In Use	Condition: Exc.	Good	Fair	Poor
Barn							
Tool Shed							
Chicken House							
Hog House							
Granary							
Corn Crib							
Garage							

4. Do you have a full line of machinery for your operations?_____

5. What are your plans for the future use of the land you own?_____

6. Your choice of the most profitable crops or ventures_____

7. Comments:_____

IV. Farm Income Data:

1. Reported net income for 1955: Below $2,000____, $2,000-3,000____, $3,000-4,000____, $4,000-5,000____, $5,000-6,000____, Over $6,000____

2. Proportion of income from farm_____

3. Major dependence upon (check): Crops_____ Livestock_____

4. (Omit if no land is rented) What is your income from rent of land? (Percentage of total net income is acceptable)_____

5. What possibilities have you had or do you have for renting your idle land?

_____

_____

6. Comments: _____

_____

_____

_____

V. Past History of Holding:

1. Years you have owned this holding____; 2. Rented this holding _____

3. Is this the original complete farm? Yes _____ No _____

4. If not, when was it subdivided?_____

5. (If interview is with seller) If you have sold a part of your holding, what was the reason for selling it?_____

6. What was the approximate price? Total_____ Per acre_____

7. Was land idle season previous to purchase or renting? Yes ____ No ____

8. If not, and it is now idle, when did it first become idle?_____

9. Comments:_____

_____

_____

_____

VI. Residential Use Data:

1. Is farm used primarily for residential use? Yes _____ No _____

2. Sale value for residential use_____ 3. Farm value_____

4. Value for building lots_____ 5. Taxes: Total_____ Per acre_____

Status of house: 6. Size in rooms_____ 7. Age_____ 8. Construction___

9. Condition_____ 10. Style _____

Modern facilities: 11. Water_____ 12. Electricity____ 13. Bath _____

14. Inside toiler_____

15. Sale value of house_____ 16. Rental value of house_____

17. Comments:_____

_____

_____

_____

VII. Owner's History:

1. In what year did you settle on this farm? _____

How does it happen that you are on this particular farm?

Inherit

(a) From whom? _____

(b) Under what kind of arrangement?

(c) Did you have to pay off other heirs?

Purchase

(a) From whom? _____

(b) Arrangements: cash, laon, other, etc.

Rent, or operate with father

(a) From whom? _____

(b) Under what arrangements?

(c) Plans for future with regard to this arrangement.

2. If purchased or rented, why did you choose this particular farm? Was it the only one available at the time?

3. Did it have particular qualifications that you were looking for?

4. Additional comments:

5. Let's try to get a picture of the major changes in your farming operations since you have been here.

(a) Crops raised

What crops did you raise when you first started on this farm?

What crops made the most money for you while you have been here?

When was this?

How many acres did you have and what were the yields per acre?

Why did you stop growing this crop?

(b) Livestock raised

What livestock did you have when you first came on this farm?

From what livestock did you make the most money?

When was this?

What do you consider to be the most important changes in your livestock program since you have been here?

How did you make these changes? (Herd increase, or if bought, how financed?)

(c) Forest products

Have you sold any forest products from your farm since you have been here?

When?

In what form and how much?

Do you have any plans for selling forest products in the future?

Amounts and kinds

When?

6. What are you plans for the future? Are you going to build up your size of business, keep it about the same, or decrease it?

Explain.

VIII. We want your reaction to some of the more important suburbanization problems. What effect do you feel the suburbanization movement has on the following, or the need for the following?

1. Community life_____

2. Land values_____

3. Taxes on land_____

4. Demand for public services by suburbanites moving into area_____

5. Tenancy and leasing of farms_____

6. Need for zoning of land or building restrictions_____

7. Conservation of land by farmers in the area_____

8. Problem of weed infestation_____

9. Pressure to sell your farm_____

10. Use of land by other farmers in area_____

11. Of those neighbors recently selling, what do you feel was their reason for selling?_____

12. If you are influenced by similar forces, why haven't you sold?_____

13. Comments:_____

IX. To be filled in by enumerator separately:

1. Short description of land _____
2. Use type_____
3. Highest and best use of land_____
4. Productive capacity of land as compared with present use_____

Suburban Residents

QUESTIONNAIRE ON LAND UTILIZATION IN RURAL-URBAN FRINGE, (INDEPENDENCE TOWNSHIP)

Michigan State University
in cooperation with the
U. S. Department of Agriculture

I. General Information:

1. Name_____ 2. Address_____

3. Township_____ 4. Location_____

5. Age_____ 6. Married: Yes_____ No _____

7. Number of children (indicate number living at home and their ages): _____

8. Ages: _____ _____ _____ _____ _____ _____ _____

9. What is your major occupation?_____

10. Other major sources of income, if any? _____

11. How permanent do you feel your job is? _____

_____

12. How many miles to place of work? _____

13. Number of years you have lived at this location _____

14. Comments: _____

_____

_____

_____

II. Past History of Property:

1. Years you have owned this holding _____

2. What was the approximate price? Total _____ Per acre _____

3. Comments: _____

_____

_____

_____

1. We want your reaction as a suburbanite to some situations and problems that arise because of the suburban movement. What is your feeling or reaction to:

   a. The roads on which you live and travel in this area_____

   b. The isolation and need for two cars when living in the country as you now are

   c. Bus facilities that are offered and the need for this service_____

   d. The community services offered or need for services not offered_____

   e. Schools in this area_____

   f. Health conditions in the country_____

   g. Time you have available for the gardening you would like to do_____

   h. a. Do you feel that this land should have remained in farming instead of being subdivided_____

      b. Do you feel that this subdivision was well planned_____

9. The effect the suburbanization movement has had on the value and resale value of homes (present and future) in the area_____

10. The effect the suburbanization movement has had on tax conditions in the area_____

11. What were your main reasons for moving out into or remaining in the country?

12. Comments on community life_____

13. Comments: _____

IV. Income Data:

1. Reported net income for 1955: Below $2,000_____, $2,000-3,000_____, $3,000-4,000_____, $4,000-5,000_____, $5,000-6,000_____, Over $6,000____

2. Do you have any supplementary income? Yes _____ No _____

If yes, from what source_____

V. Evaluation by enumerator of subdivision and type of housing: _____