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URBAN LAND USE

BURLINGTON, IOWA

IOWA STATE PLANNING BOARD
IN COOPERATION WITH
WORKS PROGRESS ADMINISTRATION

1936

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DES MOINES, IOWA

URBAN LAND USE

* * *

BURLINGTON, IOWA

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A Report by the
Urban Planning Division
of the
IOWA STATE PLANNING BOARD
in Cooperation with the
WORKS PROGRESS ADMINISTRATION

ACKNOWLEDGMENT

The Iowa State Planning Board is indebted to the city officials of Burlington for their cooperation in this work. The encouragement and assistance of the following especially were valuable: the late Mayor, Honorable E. G. Marquardt; City Engineer, Mr. Harry Vollmer; and Mr. C. C. Bond, Secretary of the Chamber of Commerce.

Credit is due the Agricultural Extension Service of Iowa State College for the services of Mr. Fitzsimmons as technical adviser.

The field work upon which this report is based was made possible by the Works Progress Administration. (Work Project No. 1433).

I N T R O D U C T I O N

Much has been accomplished within the area now designated as Burlington since the city was first laid out in 1834. From the original beginning of the town with the first settlements on the great Mississippi in 1829, the increase in population, the laying out of streets, the erection of housing facilities, the building of mills and industrial plants, and the development of civic and cultural centers has resulted in that complex organic urban structure named Burlington.

During the busy years of physical growth and human occupancy many factors have been at work to determine and shape this structure. Many busy hands and minds have contributed technical and lay-technical advice in the shaping of separate phases in the growth. Streets, blocks, lots, alleys, etc., have been appended to the original city base. Onto this skeleton frame has been moulded the flesh and vital organs of an urban body. Its life, its animation, its growth and its decay result from the constant functioning of its corpuscular cell activity in the form of humanity.

In this modern age when periodic individual human, physical and functional check-ups are the rule rather than the exception; when people attempt to prevent diseases by timely adjustments in their environment, their functional activity or their routine of life; it is not surprising that a rather definite form of civic therapeutics is manifesting itself. We are beginning to give thought to that science and art which treats of the discovery and application of remedies for urban civic diseases.

Questions are constantly arising in the civic-conscious mind as to the adequacy of the physical structure of the city, as to the perfection of its functional organization, and as to many other phases which tend to interfere with the beauty, health, orderly disposition, and convenience of the city.

The plain, practical man might say that he knows his city from top to bottom. But actually there is much that is physical or functional about his city that he does not know. He may be, and often is, totally unaware of certain conditions or practices which, if allowed to persist, might lead to serious consequences in many walks of civic life.

By carefully examining and studying the physical make-up and functional administration of any portion of the city, the city as a whole, its tributary region, or even greater sections of land with a definite and conscious objective in mind to attempt the modeling and moulding of that unit to fit its complex use -- that is PLANNING.

City planning is no mysterious formula, the application of which will solve all of the ills that are now so apparent in the urban region. On the contrary, it is a method of approach, a program of activity which, in most instances, follows a rather commonly accepted trend. Briefly this method and program is: (1) obtaining a comprehensive picture of the existing physical, social, economic, hygienic, historic, and esthetic resources; (2) the compilation of the data gathered by such surveys on which to base the predictions of the future uses and administration of the unit; (3) the thorough analysis of these data as a guide to present and future planning; (4) the preparation of comprehensive plans and programs to be used as the guides for present and future activity; (5) the adoption of these plans and programs, through the lawfully constituted channels, as the official guides to use and administration; (6) the constant enforcement of the plans and programs or their adjustment to new and unforeseen factors through the medium of lawfully constituted authorities and legal methods of procedure.

As an incentive and as encouragement to the people in towns and cities in Iowa who are desirous of shaping or reshaping their environment for physical, economic, and social welfare, the Iowa State Planning Board, through a technical advisory committee and with the aid of funds and relief labor made available through the Federal Works Progress Administration, has conducted certain existing condition surveys of land uses in Burlington which are compiled and summarized in this report.

These basic data constitute a substantial part of the initial step of a series looking forward to the preparation, adoption and enforcement of adequate plans for the future welfare of Burlington.

U R B A N L A N D U S E

TERMINOLOGY

Urban Land within any municipality, whether self-contained or satellite, naturally divides itself into two major classifications:* (1) developed, and (2) vacant or unused property. The term "developed" area as used in this report includes all of the area that is used for any urban purposes, whether public or private, such as streets, railroads, parks, dwellings of all kinds, and all commercial and industrial uses. "Vacant" property is that portion of the city which at the date of this survey was unused for any urban purpose. It should be noted that portions of the area indicated as vacant property were often being used for farming and truck gardening. Such uses are rural in character as distinguished from urban. In this report only those portions of the farm tracts which actually have been built upon have been considered as in urban use.

The developed area of any city logically may be subdivided into two separate classifications: (1) the area privately developed and (2) that used for public and semi-public purposes.

PRIVATELY DEVELOPED AREAS

The areas privately developed comprise all land which has been developed by private capital for strictly private use, and constitute a large portion of the average city. These areas may be subdivided according to the following uses:

1. Single-family Dwellings.
2. Two-family Dwellings.
3. Multi-family Dwellings.
4. Commerce.
5. Light Industry.
6. Heavy Industry.
7. Railroad.

The titles of these classifications are almost self-explanatory. The single-family dwelling is that which is used by one family alone. This general classification, because of the method of procedure in the field survey, also includes those residences which house incidentally one or two roomers. All rooming houses which are operated primarily as such, and which are sufficiently well advertised by signs and other

*The following discussion is based upon "Urban Land Uses", Bartholomew.

methods so that their presence can be noted, are placed in the multi-family group.

Two-family and multi-family dwellings are considered separately. By multi-family dwellings are meant such residence structures as apartments, flats, lodging and rooming establishments, tenements, and all other structures housing three or more families.

Commercial uses here include all structures and land that are used for retail purposes; this classification does not include wholesale establishments. Where an area is developed with a single structure in which there is a combination of uses, it has been designated according to the predominating use, except in the case of a commercial enterprise located in a portion of a dwelling, where it is classified in the less restricted use.

Industry is divided into two distinct categories, light and heavy. All industries which could be objectionable to adjacent residences due to the emission of smoke, dust, noise, or odor have been classified as heavy industry; all others are considered as light industry. The term "heavy industry" is used instead of "nuisance industry" because of the obvious objections to the latter term.

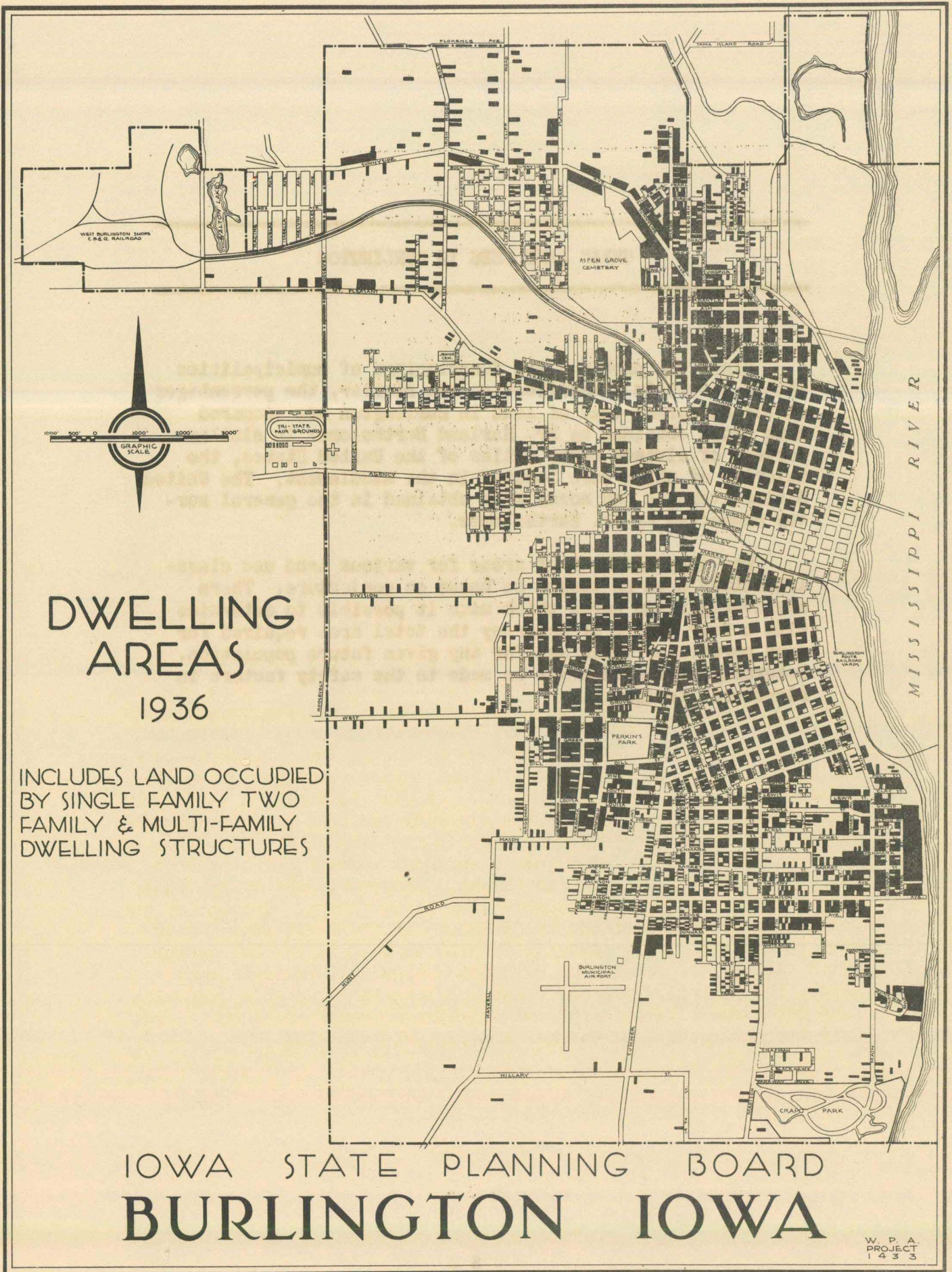
PUBLIC AND SEMI-PUBLIC AREAS

While the lands occupied by streets, railroads, and parks and playgrounds come within the classification "public and semi-public", they have, for the purpose of this report, been considered separately. As here used, "public and semi-public property" includes such items as city property, institutions, cemeteries, churches, libraries, golf courses and clubs. While all of these items are not necessarily available to the entire population, they are so used by a portion of the public that even those privately owned assume a quasi-public character. In this survey, schools (public and parochial, grade and high schools), churches, libraries, cemeteries, and city property have been tabulated separately.

URBAN LAND USES IN BURLINGTON

Since the problems and functionings of municipalities within a certain classification are similar, the percentages of the different uses of land in Burlington are compared with those obtained by Mr. Harland Bartholomew in similar surveys of sixteen other cities of the United States, the majority of which were located in the middlewest. The United States averages and norms were obtained in the general survey conducted by Mr. Bartholomew.

The apportionment of areas for various land use classifications need no longer be based on conjecture. There are averages and norms which make it possible to determine with a fair degree of accuracy the total area required for each particular urban use for any given future population. Naturally, comparison may be made to the safety factors in structural design.



DWELLING AREAS

1936

INCLUDES LAND OCCUPIED BY SINGLE FAMILY TWO FAMILY & MULTI-FAMILY DWELLING STRUCTURES

IOWA STATE PLANNING BOARD
BURLINGTON IOWA

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 1433

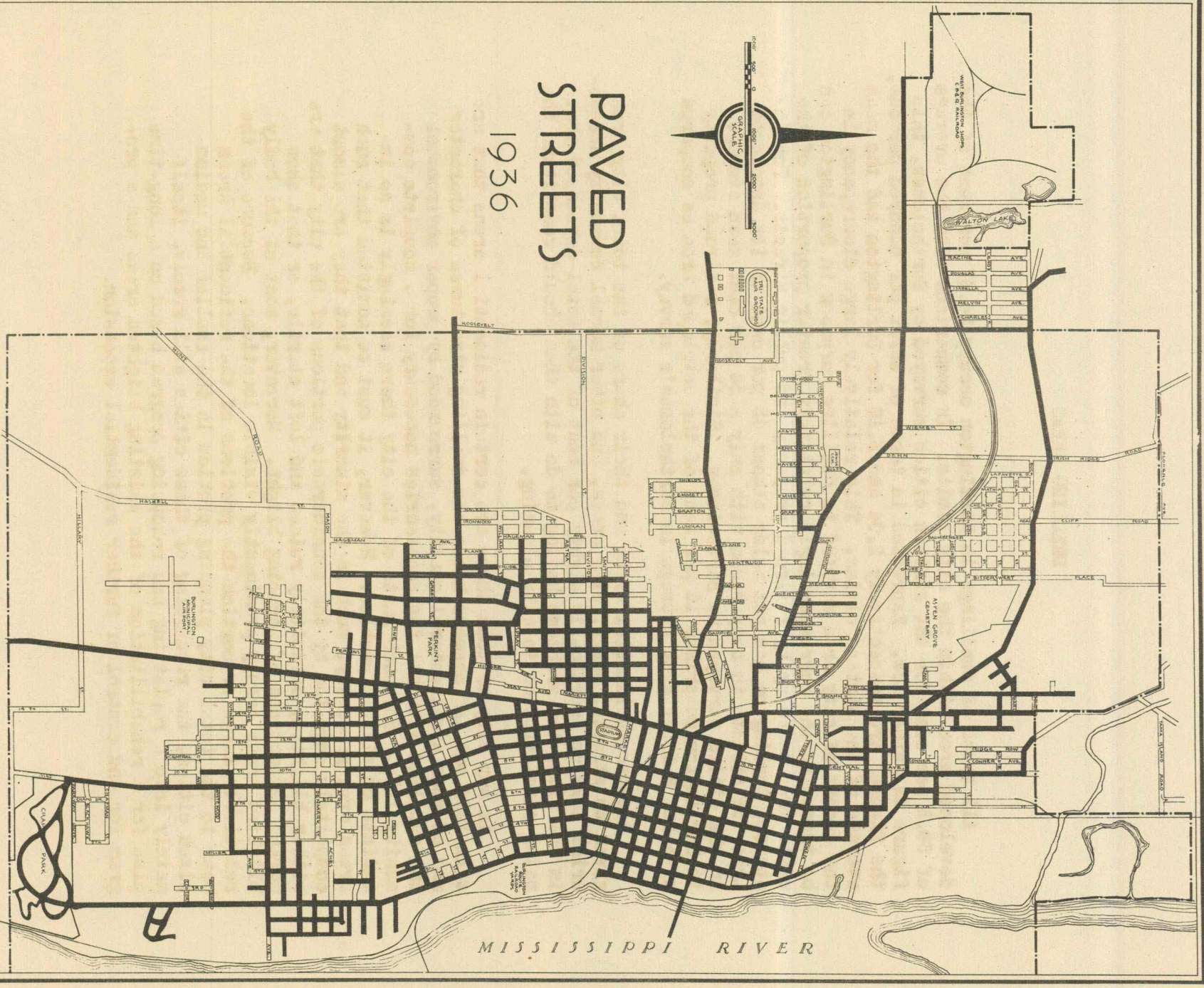
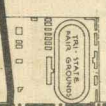
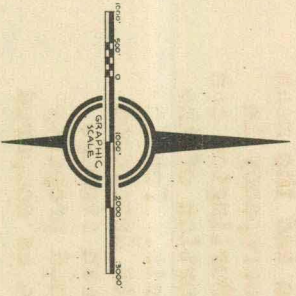
DWELLING AREAS

All types of dwellings in Burlington occupy 24.37 per cent of the developed area within the city limits. In comparison with the average of 39.3 per cent for the sixteen cities surveyed by Bartholomew, this figure is rather low. Expressed in terms of acres per hundred persons, the figures are respectively 2.04 and 3.16 for Burlington and the mean average of the sixteen cities. This relatively large discrepancy in the amount of city area devoted to dwelling purposes in Burlington can be traced to the correspondingly relatively greater proportion of the urban area taken up by railroad property and public streets. For instance, Burlington has set aside almost 45 per cent of its developed area for streets in comparison with only a 34 per cent mean average in the cities surveyed by Bartholomew. Similarly, railroad property in Burlington comprises 15 per cent of the developed area as compared with but 5.5 per cent average in Bartholomew's survey.

Because residential areas and their share of the total city area given to streets, parks, play areas, and other normal community access-ories take up practically eighty per cent of the total developed area in the city, the problems having to do with them should constitute the major consideration in city planning.

In any city or town there are certain residential areas that are well laid out and possess homes and dwelling structures of character and of good architectural quality, surrounded by proper environment and supplied with all the accessories necessary for a complete community life. For such parts of the city there seemingly is no immediate or visible problem. However, it must be admitted that such areas are, generally, much in the minority and that they are almost completely engulfed by the considerable portions of the city that are either blighted, definitely ruined and left sterile, or that show marked indications of oncoming blight. Moreover, most of the badly blighted areas occupy prominently visible locations. Because of the relatively large proportion the problems of the residential areas bear to the total city planning problem in the smaller and medium sized cities, the rebuilding of these cities will resolve itself mainly into a replatting and rehousing program based on a long-time plan for a rehabilitation of the existing blighted areas and a program for and control of further residential expansion.

PAVED STREETS 1936



IOWA STATE PLANNING BOARD
BURLINGTON IOWA

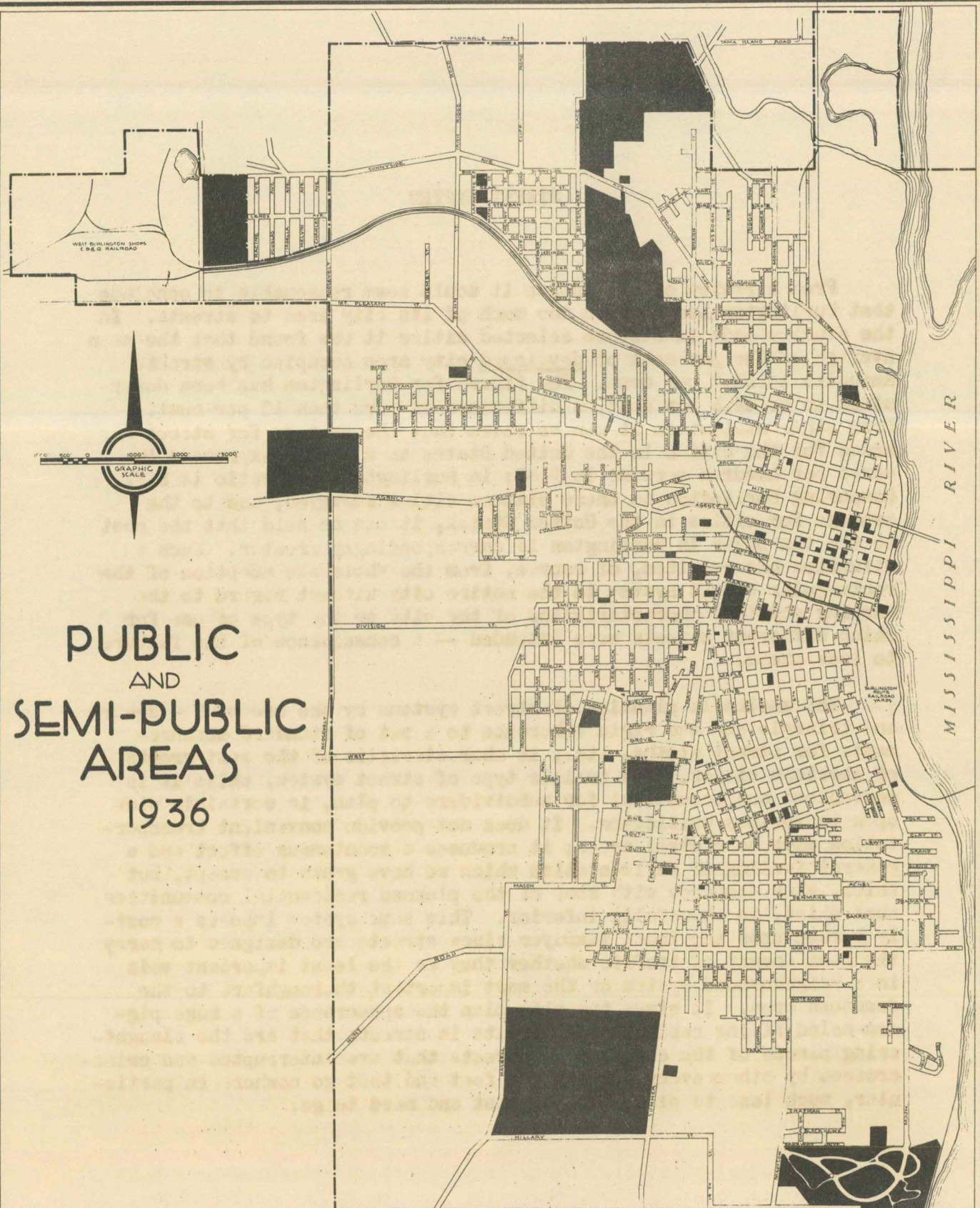
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STREET SYSTEM

From a review of statistics it would seem reasonable to conclude that Burlington has devoted too much of its city area to streets. In the studies made in sixteen selected cities it was found that the mean average of the per cent of developed city area occupied by streets amounted to 33.6 per cent. The figure for Burlington has been determined to be 44.5 per cent, a difference of more than 10 per cent.

From other statistics it can be shown that the average for street areas for the cities in the United States as a whole, expressed in acres per hundred persons is 2.82; in Burlington this ratio is 3.72. Comparing Burlington to these sixteen cities surveyed, and to the average for cities in the United States, it can be said that the cost to the tax payer in Burlington is correspondingly greater. Such a situation has resulted, of course, from the wholesale adoption of the rectangular street system to the entire city without regard to the varying physical characteristics of the site or the type of use for which different streets were intended -- a consequence of the failure to look ahead.

The wholesale planning of street systems by the use of T - square and triangle and the rigid adherence to a set of standard measurements for street widths, etc., is characteristic of the past growth of American cities. The trellis type of street system, while it is convenient and economical for subdividers to plan, is certainly wide open to serious criticisms. It does not provide convenient transportation ways to central areas; it produces a monotonous effect and a general feeling of regimentation which we have grown to accept, but which, when compared with some of the planned residential communities that exist, is shamefully inferior. This same system imposes a costly burden upon the local taxpayer since streets are designed to carry the same amount of traffic whether they be the least important vein in a neighborhood system or the most important thoroughfare to the downtown area. It gives the city plan the appearance of a huge pigeon-holed filing cabinet, and results in streets that are the slaughtering places of the citizens -- streets that are interrupted and criss-crossed by others every few hundred feet and that go nowhere in particular, much less to places people want and need to go.



PUBLIC
AND
SEMI-PUBLIC
AREAS
1936

IOWA STATE PLANNING BOARD
BURLINGTON IOWA

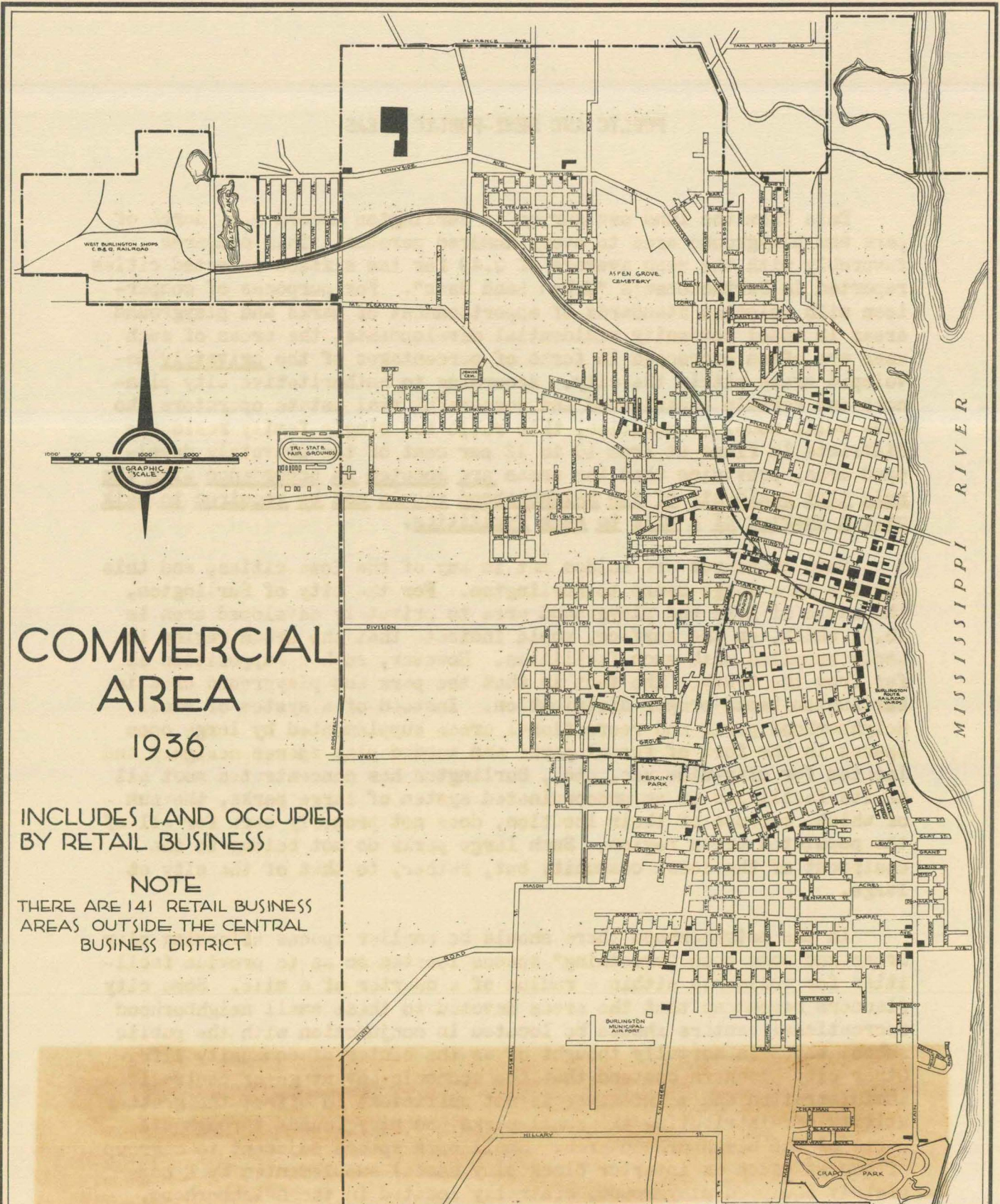
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PUBLIC AND SEMI-PUBLIC AREAS

Data from the land use survey in Burlington accord 0.54 acres of park and playground area to every hundred persons. This compares favorably with the mean average of 0.49 for the sixteen selected cities reported in Bartholomew's "Urban Land Uses". For purposes of comparison with selected standards of apportionment of parks and playground areas in model community residential developments, the areas of such uses are often expressed in terms of percentages of the privately developed areas within the city. According to authoritative city planners and certain experienced and successful real estate operators who have built model communities, this ratio for single family residence districts is fixed at from 10 to 12 per cent of the privately developed area, providing that the areas are located in accordance with the rule that residents of the neighborhood should not be required to walk over a quarter of a mile to such facilities.

Such standards are seldom met in any of the Iowa cities, and this applies in a large sense to Burlington. For the city of Burlington, the ratio of park and playground area to privately developed area is 15.2, which, on the surface, would indicate that the urban region is amply supplied with such facilities. However, such a supposition is far from the truth. The fact is that the park and playground area in Burlington lacks proper distribution. Instead of a system of small neighborhood parks and recreational areas supplemented by large open spaces in the form of formal parks and wooded play spaces designed and located for city-wide use, etc., Burlington has concentrated most all of its facilities in an uncoordinated system of large parks, the sum of which, because of their location, does not properly care for all of the populated urban region. Such large parks do not belong to the equipment of the local community but, rather, to that of the city at large.

In the neighborhood there should be smaller spaces affording play areas and some open "breathing" spaces located so as to provide facilities for residents within a radius of a quarter of a mile. Some city planners recommend that the areas devoted to these small neighborhood recreational centers should be located in conjunction with the public school which is normally thought of as the center of community life. Other city planners contend that the economic advantage of centralized administration and maintenance is not sufficient to offset the greater utility of distributing the small parks and playgrounds through all parts of the neighborhood area. Small open spaces adjacent to a group of houses (such as interior block play space) supplemented by a completely equipped playground, centrally located in the neighborhood, would undoubtedly be the most desirable distribution.



COMMERCIAL AREA 1936

INCLUDES LAND OCCUPIED
BY RETAIL BUSINESS

NOTE
THERE ARE 141 RETAIL BUSINESS
AREAS OUTSIDE THE CENTRAL
BUSINESS DISTRICT

IOWA STATE PLANNING BOARD
BURLINGTON IOWA

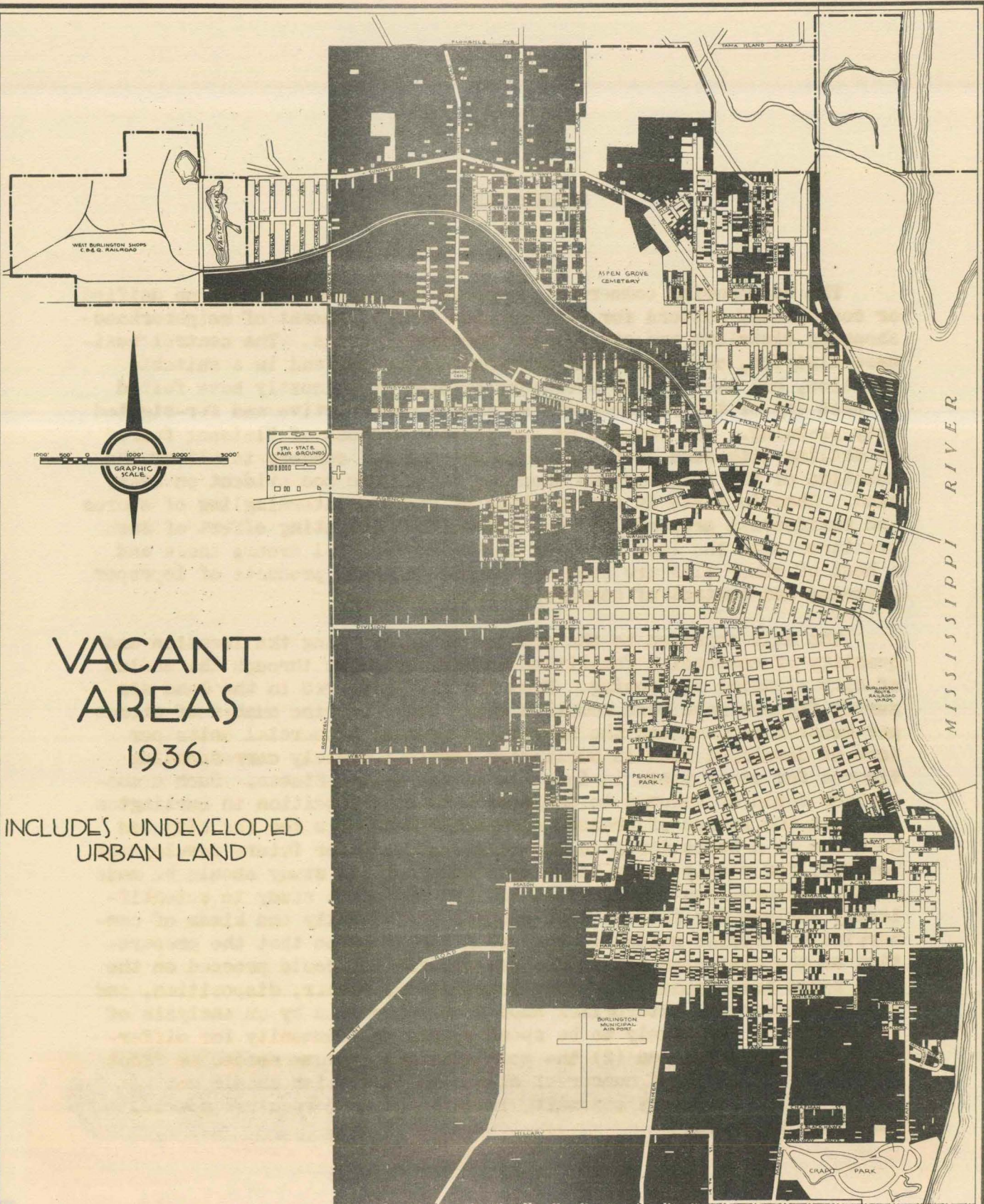
W P A
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COMMERCIAL AREAS

The map showing commercial areas in Burlington exhibits no unified or coordinated pattern for the location or arrangement of neighborhood shopping districts and other minor commercial areas. The central business district, of course, has developed naturally and in a suitable location, but the smaller accessory trading spots mostly have failed to meet any of the requirements of sound, constructive and far-sighted city planning. The results of our present methods of "laissez faire" in dealing with such problems of importance and concern to all as the location of the neighborhood shopping center are too evident on every hand. Chaotic waste in construction of stores; intermingling of stores and residential property and the concomitant blighting effect of such practices plus the loss in value to the residential areas; these and a host of other ills are some of the more visible products of improper planning and control of commercial development.

The only solution to the problem of controlling the location and quantity of commercial facilities in Burlington is through the medium of city planning and zoning. From the data gathered in the land use survey figures have been compiled which show that the number of stores per hundred persons and the number and area of commercial units per acre of developed land in Burlington parallel closely corresponding figures for other towns in Iowa and in the United States. Such a comparison could be assumed to indicate a healthy condition in Burlington and that the ratios of present commercial land uses for the city can be taken as a basis for planning quantitatively for future development. However, for really sound planning a more careful study should be made of the picture, and it should be the aim of such a study to scientifically analyze the factors that control the quantity and kinds of commercial enterprise needed in the urban territory so that the preparation of the city plan and future use-districting could proceed on the most sound basis possible. The distribution, number, disposition, and kind of commercial enterprises should be determined by an analysis of (1) the total sum likely to be spent within the community for differ-

ent kinds of goods; and (2) the most efficient volume needed for success in each category. Rule-of-thumb methods based on "foot frontage" and ratio of number of stores to population should not be relied upon since every community is different and requires special study and analysis.



VACANT
AREAS
1936

INCLUDES UNDEVELOPED
URBAN LAND

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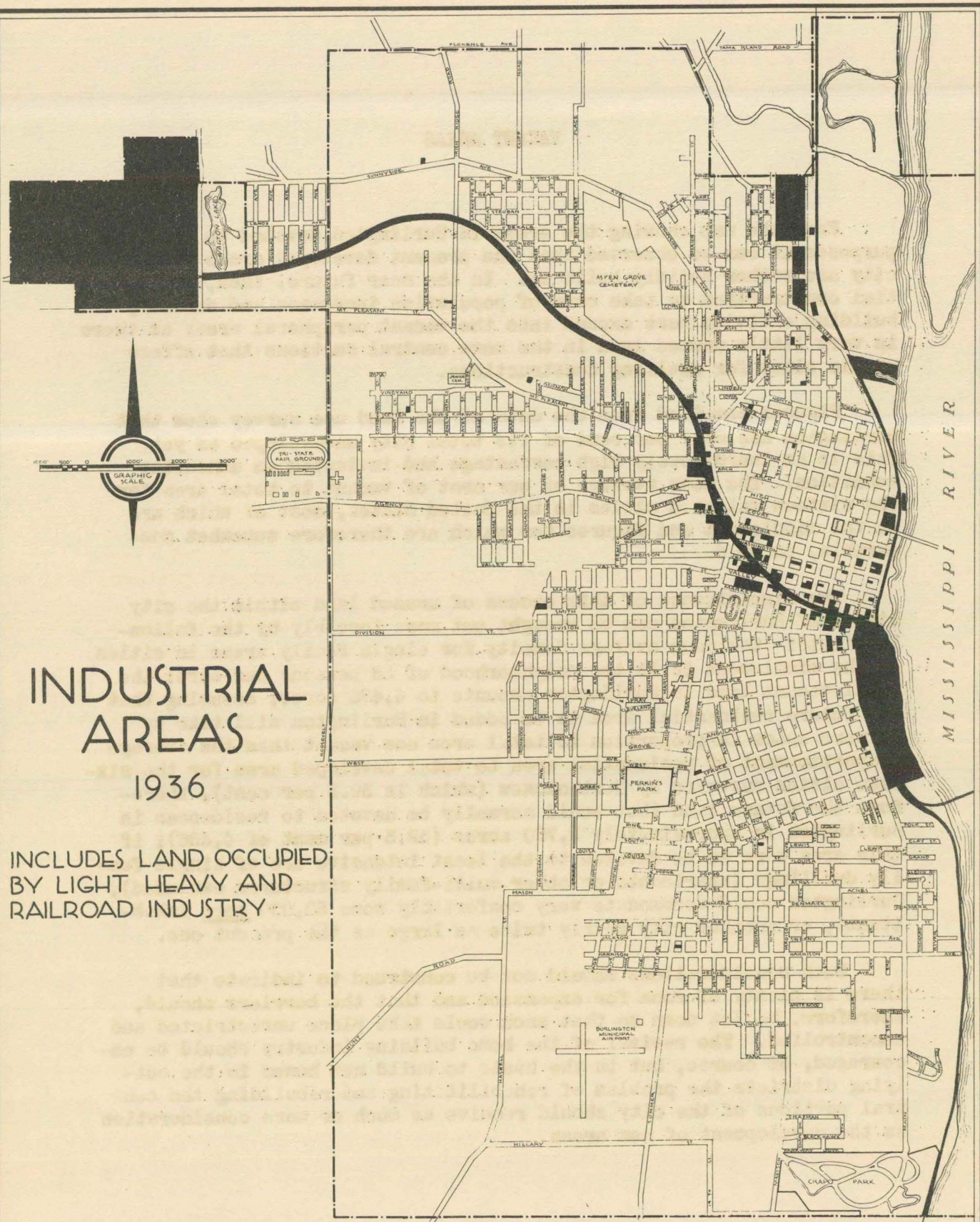
VACANT AREAS

From the map showing the areas in Burlington devoted to dwelling purposes it can be observed that the present developed areas in the city are rather solidly built up. In the near future, then, residential construction to take care of population increases and ordinary building activity must expand into the vacant peripheral areas as there is very little unused land in the more central sections that offers usable sites for dwelling constructions.

Figures compiled from the data of the land use survey show that Burlington has 66.7 per cent of its total city undeveloped as yet. This is an inordinately high percentage and indicates an unhealthy condition. The mean average of per cent of vacant to total area for the sixteen selected cities in the United States, most of which are in the middlewest and figures for which are therefore somewhat comparable, is 39.8.

The significance of this excess of unused land within the city limits of Burlington can be brought out more forcibly by the following facts: the mean average density for single family areas in cities in the middlewest is in the neighborhood of 28 persons per acre; the total vacant land in Burlington amounts to 4,486 acres; assuming that the future residential area to be added in Burlington will take up no more space in proportion to total area now vacant than the average proportionment of residential area to total developed area for the sixteen cities surveyed by Bartholomew (which is 39.3 per cent), therefore the future land that would normally be devoted to residences in Burlington is approximately 1,760 acres (39.3 per cent of 4,486); if this area were to be devoted to the least intensive use of single family dwellings (apartments or other multi-family structures excluded), Burlington could accommodate very comfortably some 50,000 more inhabitants, or another city nearly twice as large as the present one.

Such considerations should not be construed to indicate that there is plenty of room for expansion and that the barriers should, therefore, be let down so that such could take place unrestricted and uncontrolled. The revival of the home building industry should be encouraged, of course, but in the haste to build new homes in the outlying districts the problem of rehabilitating and rebuilding the central portions of the city should receive as much or more consideration as the development of new areas.



INDUSTRIAL AREAS

1936

INCLUDES LAND OCCUPIED
BY LIGHT HEAVY AND
RAILROAD INDUSTRY

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BURLINGTON IOWA

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INDUSTRIAL AREAS

The large percentage of railroad property and the small percentage of combined light and heavy industrial property, as compared to total developed area in Burlington, combine to give figures on land use ratios for the city that are somewhat peculiar as compared with like ratios for other cities. For instance, for the sixteen cities in the United States in which land use surveys were conducted, the mean average for light industrial areas was 3.21 per cent of total of developed area. In Burlington, land use data show that only 0.66 of the developed area is taken up by light industry, or, in other terms, the average city surveyed by Bartholomew devotes nearly five times as much area to light industry as does Burlington. Similarly, heavy industry in Burlington uses up less area than it does in the Bartholomew's average city, the figures being 1.13 and 2.70 respectively. When it comes to railroad property, however, Burlington is so far in excess of the average city that, for the total of all industrial and railroad property, Burlington not only makes up the deficit but even exceeds the average. Railroad property in Burlington comprises 15 per cent of the developed area as compared with the mean average of 5.50 for the sixteen cities. Burlington's figure of 15 per cent is approached only by that of 8.13 per cent reported for Fort Worth, Texas.

The problem of the segregation of expanding industrial and railroad property from residential areas and the greater problem of rehabilitating areas already blighted by such an intermingling of different land uses assume serious aspects when the industrial sites and attendant railroad lines are scattered remotely over the city's areas instead of being concentrated in one location or following a definite zone of development, such as along a valley or river. In this respect, the present location of industrial and railroad property in Burlington would seem to have certain admirable features from the standpoint of city planning and possibilities of inclusion in a future comprehensive city plan. In the first place, the railroad has clung to the river, and, where it has penetrated into the city, it has generally made use of valleys and land that is not particularly suited for residential purposes. The industrial areas have followed the railroad naturally and have not, to any serious extent, created spotty blighted areas within the city. The location of the railroad shops, far enough removed from the developed urban city itself, completes what appears to be a fairly excellent pattern of industrial land uses that can very likely be adapted to advantage to a city plan.

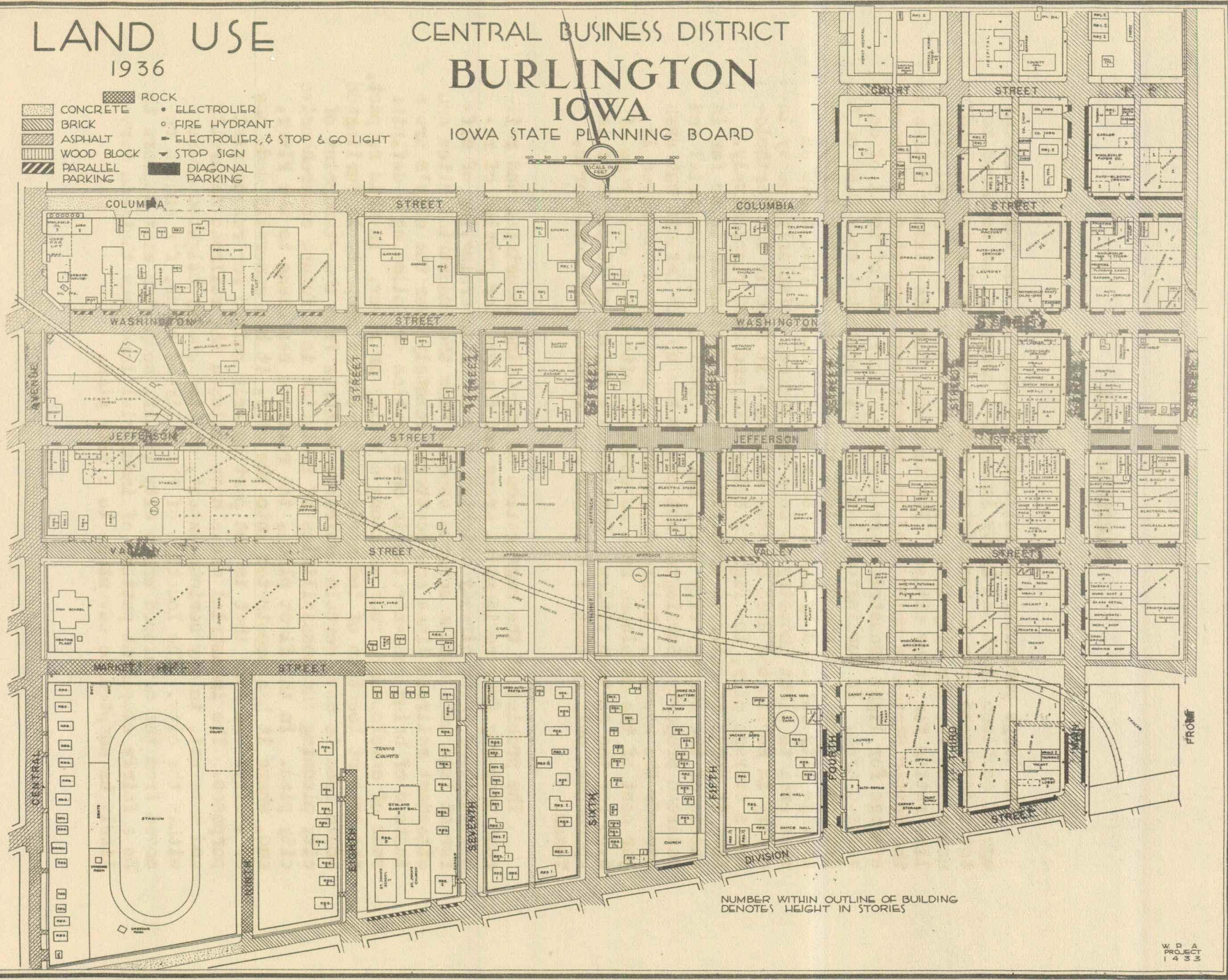
LAND USE

1936

CENTRAL BUSINESS DISTRICT BURLINGTON IOWA

IOWA STATE PLANNING BOARD

- CONCRETE
- BRICK
- ASPHALT
- WOOD BLOCK
- PARALLEL PARKING
- ROCK
- ELECTROLIER
- FIRE HYDRANT
- ELECTROLIER, & STOP & GO LIGHT
- STOP SIGN
- DIAGONAL PARKING



NUMBER WITHIN OUTLINE OF BUILDING DENOTES HEIGHT IN STORIES

BURLINGTON
POPULATION TREND

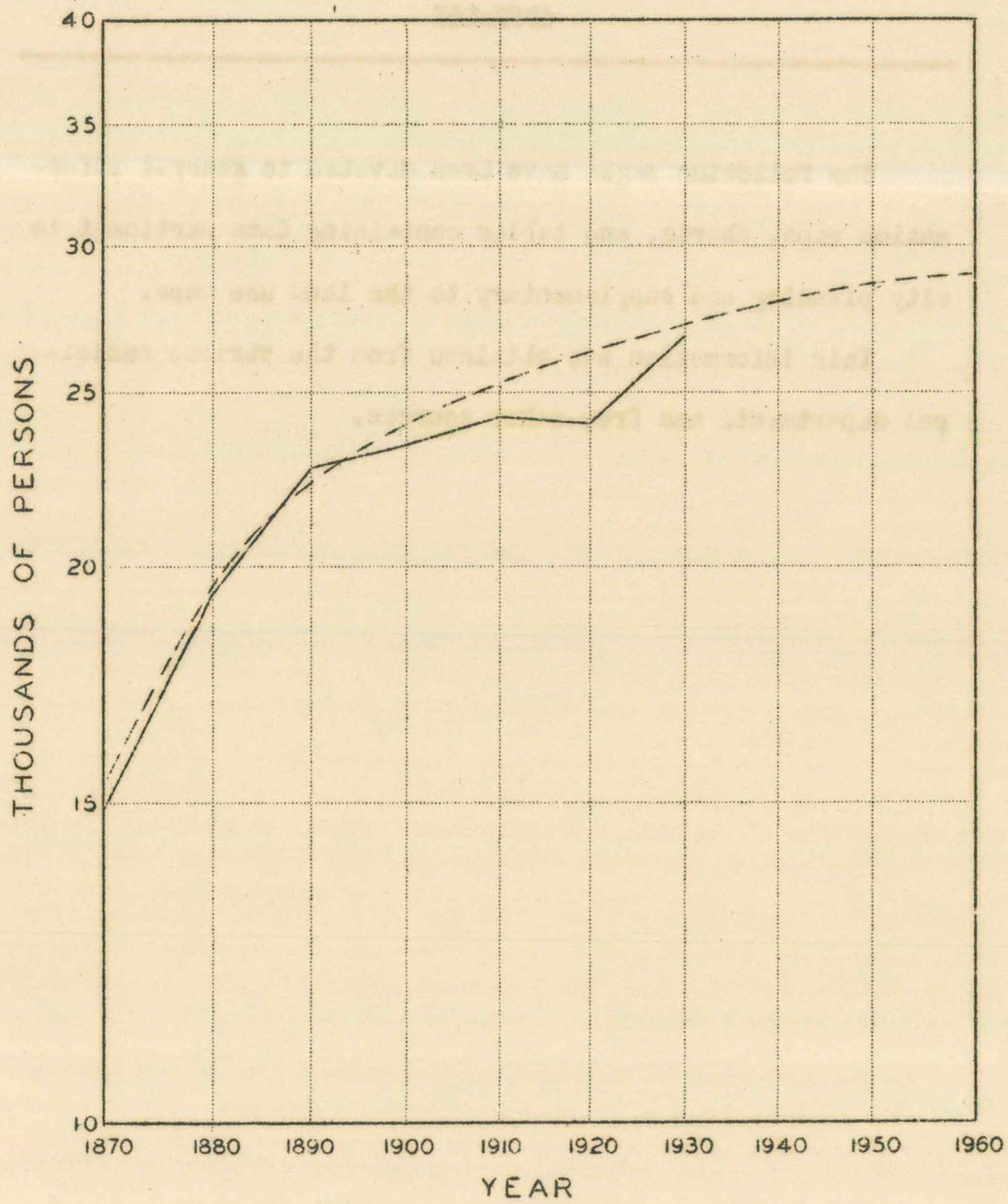
APPENDIX

The following pages have been devoted to general information maps, charts, and tables containing data pertinent to city planning and supplementary to the land use maps.

This information was obtained from the various municipal departments and from other sources.

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990
YEAR
LOW STATE PLANNING BOARD

BURLINGTON POPULATION TRENDS



IOWA STATE PLANNING BOARD

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POPULATION TRENDS

"It may be surprising to some to find that present indices, properly understood, point to a stationary population in Iowa forty-five or fifty years hence and to a stationary population of approximately 3,000,000 as compared with the present population of 2,500,000. This probability may be especially surprising to those familiar with the published fact that the yearly excess of live births over deaths is now 6.7 for each one thousand individuals in the population; this rate of natural increase should, it would seem, yield a population fifty years hence much larger than 3,000,000. But Dr. Karpinos* has shown how deceptive this crude rate of natural increase is unless one takes into account the age-composition of the population. In other words, the number of women of child-bearing age will probably be a smaller and smaller proportion of the total population during the next fifty years, and this change in age-composition will be reflected in a declining rate of growth.

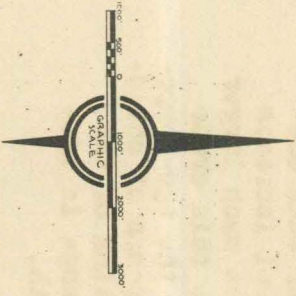
"But although the probability may be surprising, its bearing upon planning, whether public or private, should be apparent. It should be taken into account in the construction of city plans, in planning programs of institutional development -- educational and recreational facilities, for example, in calculations of future industrial and commercial developments, and so on. Incidentally, to the extent that it is taken into account in planning for the future, the emphasis may be shifted from size -- mere bigness -- as a criterion of value to more worthy conceptions of community development.

"The forecasts developed should not be looked upon as predictions. These assumptions, which should be kept clearly in mind, may well be reviewed here.

1. It is assumed, for the purposes of this forecast, that there will occur no further decline in specific birth-rates -- that is, in the number of children born per thousand women of child-bearing age. This assumption is, at least, conservative, as birth-rates have declined sharply in the past and are still declining. But the history of birth-rates in older populations than ours warrants the assumption, supportable also on other grounds, that the rates in Iowa will likely become constant at about the present figure.

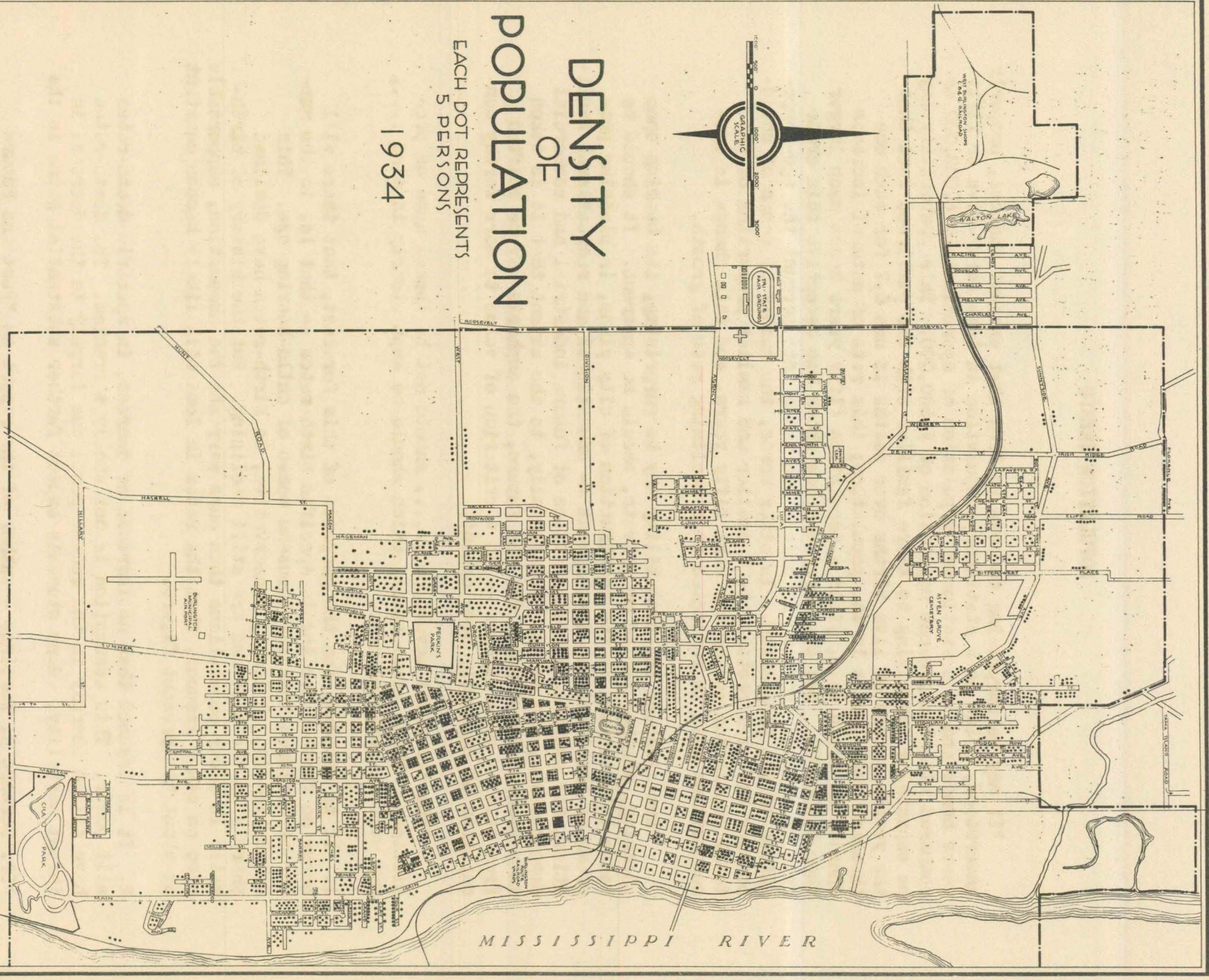
2. It is assumed that no increase or decrease in specific death-rates will occur. This assumption is not wholly warranted. The death-rates have fallen sharply in the recent past, due largely to the decrease in infant mortality. Many students expect further substantial gains in the

*Dr. Bernard K. Karpinos - author of the report on "Past and Future Growth and Structure of the Iowa Population", Iowa State Planning Board Committee on Population and Social Trends.



DENSITY
OF
POPULATION
EACH DOT REPRESENTS
5 PERSONS

1934



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BURLINGTON IOWA

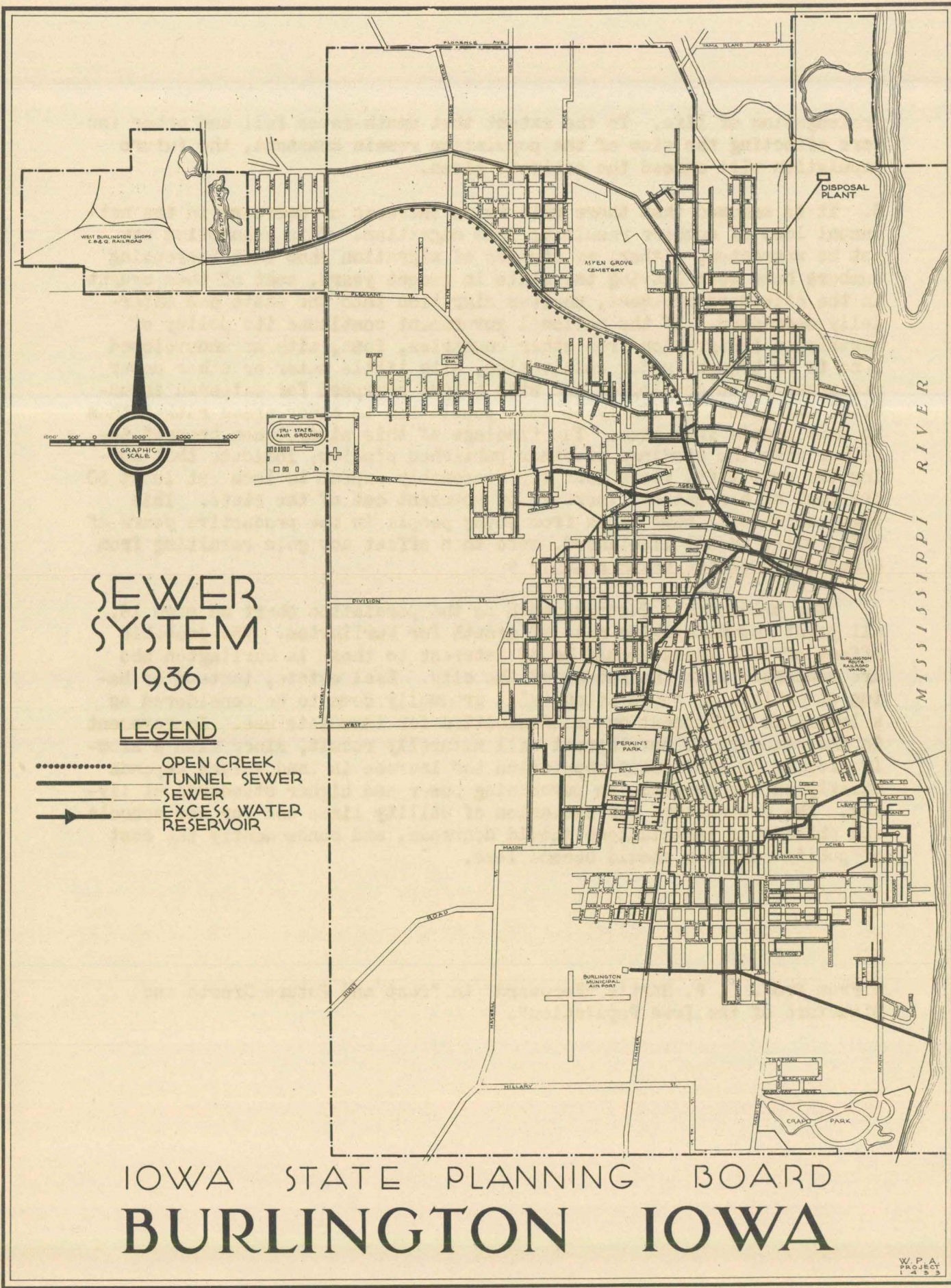
W. P. A.
PROJECT
1934

prolongation of life. To the extent that death-rates fall and other factors affecting the size of the population remain constant, the future population will exceed the estimate given.

3. It is assumed that there will be no increase or decrease in the net-annual loss of numbers resulting from migration. This assumption may not be warranted, either, as studies of migration show that increasing numbers have been leaving the state in recent years, most of them caught in the city-ward movement, whereas migration into the state has materially decreased. If the national government continues its policy of restricted immigration from other countries, Iowa, with no undeveloped land to be brought under cultivation, with little water or other power resources to be developed, and with slight prospect for extended industrial expansion, is likely to lose population to other areas rather than to draw people from them. The findings of this study, when brought together with the findings of other published studies, indicate that during the next fifty years Iowa may reasonably expect to lose at least 50 per cent of her natural increase by movement out of the state. This loss, which will come again from young people in the productive years of life, will, in all likelihood, more than offset any gain resulting from a reduction of the death rates." *

The predictable factors, such as the population chart on page 18, all point to a diminishing rate of growth for Burlington. The probable effect of this trend should be of interest to those in Burlington who are concerned with the future of the city. Real estate, instead of being an article of speculation, will gradually come to be considered as a long-time investment or an acquisition for immediate use. Improvement in the standard of development will naturally result, since with a slowly growing or stationary population the increase in land values depends chiefly on the increase in purchasing power and higher standards of living. The expenditure for extension of utility lines and for new schools and children's institutions should decrease, and consequently the cost of public services should become less.

* From Prof. C. W. Hart's "Foreword" to "Past and Future Growth and Structure of the Iowa Population".



SEWER SYSTEM 1936

LEGEND

- OPEN CREEK
- TUNNEL SEWER
- SEWER
- ➔ EXCESS WATER RESERVOIR

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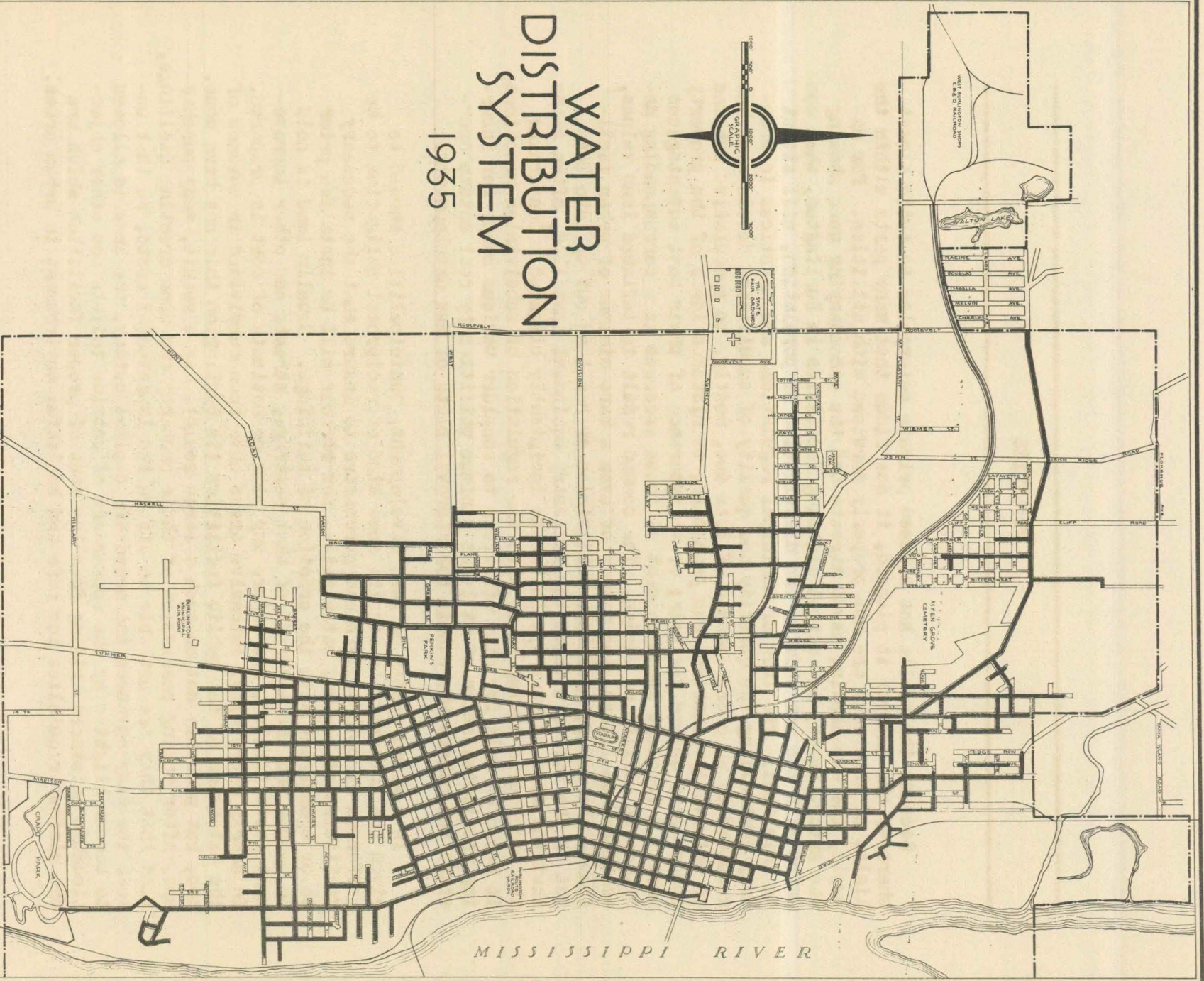
UTILITIES

Because the public has allowed private enterprise to build almost wherever and however it pleased, it now finds that many parts within the limits of that city are not properly serviced with utilities. For example, the map showing paved streets and the accompanying ones showing the water, sewer, and street lighting facilities in Burlington, when compared with the one showing the distribution of population, will attest to this fact. The lack of municipal regulations and practices in properly controlling the quantity and quality of subdivision development has resulted in an overabundance of lots due, mostly, to speculative schemes of not-overly-conscientious promoters; to mistaken ideas of the property owner as to demand for lots; or to ignorance of their best advantageous uses. A frequent accompaniment of these excesses is a corresponding decrease in quality of design. The common result is inflated land values, scattered dwellings, and a lack of even a bare minimum of urban facilities. Moreover, premature subdivision or raw land cut up into lots, put on the market without the necessary equipment installed, often means that the area is very apt to become incipiently blighted. Concerning the procedures having to do with the regulation of subdivision practices, it would be well for city officials to consider various means for insuring the installation of at least minimum utilities by real estate operators and others who submit for approval plats of new developments.

In a sound system of land development, municipalities should be given the authority to require some kind of reciprocal obligation to be performed by both sellers and purchasers to insure that the necessary facilities of sewers, water mains, and streets will be installed prior to or concurrent with the erection of buildings. Usually land is sold to people who are ignorant of what sewerage, streets and other improvement costs involve, and before any plan or estimate of cost is prepared. In nearly every city, extensive areas have been subdivided in advance of the extension of the public facilities (in Burlington this has been done, too, but probably not on such a large scale). As a result, many purchasers, after taking possession of their property and upon erecting dwellings, find that they are not able to afford the improvement costs, so that unless the city advances the necessary capital outlay, the area is allowed to become blighted by the appearance of outside toilets and other objectionable nuisances arising from the lack of proper facilities which are the minimum requisites for safe and healthful environment in urban areas.

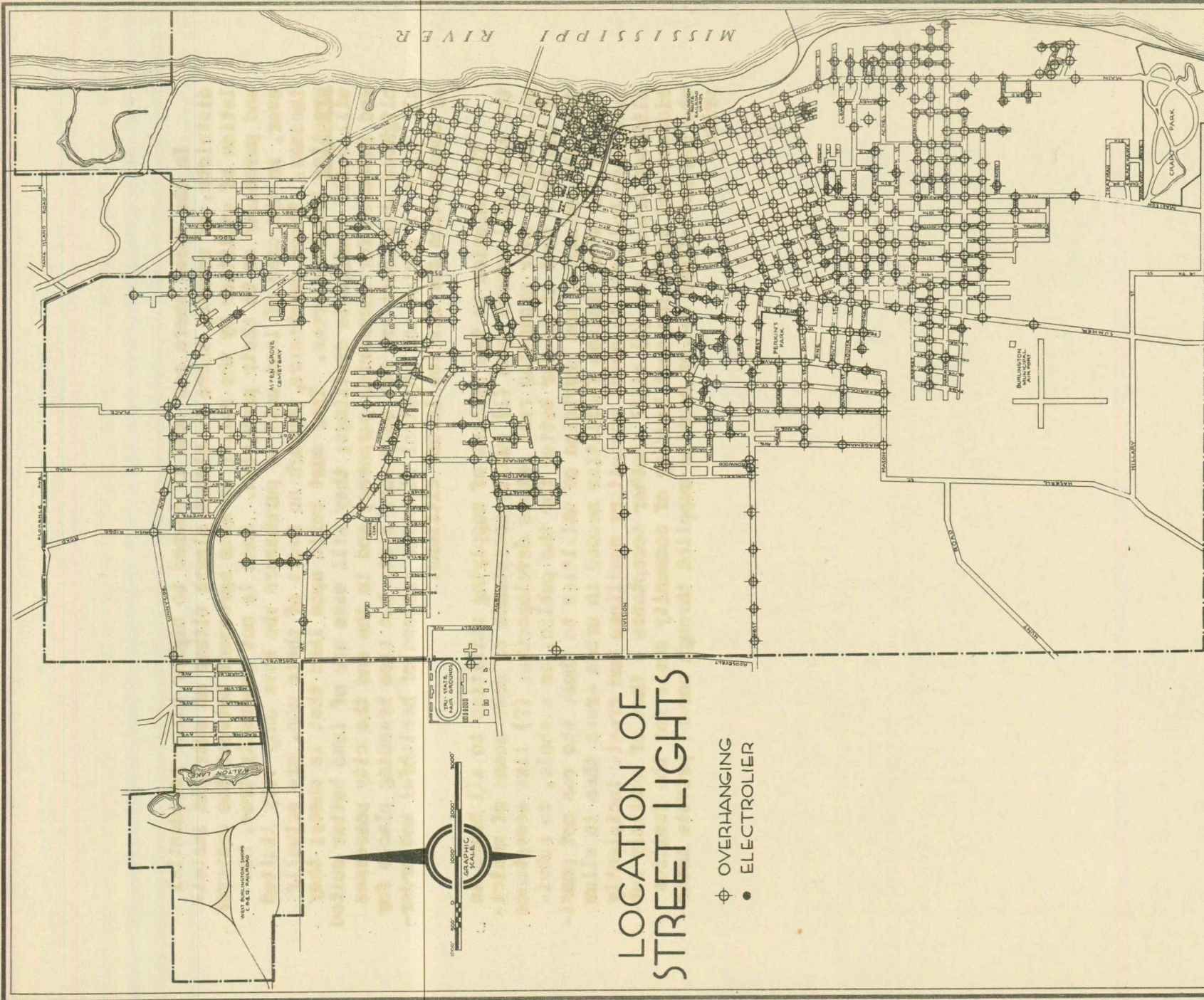
WATER DISTRIBUTION SYSTEM

1935



IOWA STATE PLANNING BOARD
BURLINGTON IOWA

W. P. A.
DESIGNED
1935



LOCATION OF
STREET LIGHTS

- ⊕ OVERHANGING
- ELECTROLIER

IOWA STATE PLANNING BOARD
BURLINGTON IOWA

W.C. GREGG
1925

In the cases where new land is opened to higher class residential districts, of course, there is almost always either an outright installation of utilities by the seller or some agreement between the conveyer and purchaser as to their provision. Such is not generally true, however, in the case of land sold to purchasers who have only very limited incomes. These purchasers, through no fault of their own, are actually creating blighted areas. They must build upon land that is cheap; they will build inadequate dwellings; they will make use of land better suited and intended for industrial purposes; and in the end the city possesses blighted areas that are not only sore spots but also breeding places for all kinds of social and physical diseases instead of healthful and orderly communities for its low income citizens.

The solution to the problem of supplying utilities to all homes in the city will depend upon (1) public acceptance of some means of municipal control over expanding real estate developments; (2) like acceptance of the fact that it is far better for the public, as a whole, to subsidize the extension and provision of utilities to those who can not possibly pay for even minimum facilities needed in urban areas than to allow such home builders to erect unsanitary dwellings and create incipiently blighted areas; and (3) still another acceptance - that of publicly subsidized and built low cost housing of community scale for the families who can not afford decent housing supplied through normal private enterprise.

FIRE ZONE AND RESTRICTED AREAS

Zoning is designed to direct and control growth and development. It is a legal form of public control to insure orderly expansion and to prevent the injuries occasioned by the overcrowding of population and the misuse of land. The value and benefits of zoning are well known and are unquestionable. A properly conceived and well drawn zoning ordinance which comprehends the growth and development of the physical features of the entire city, and which is not subject to frequent and whimsical changes, is essential to preserve the character and value of a home and the stability of neighborhoods.

Proper zoning devices must look to the future. Therefore, zoning should not be approached or looked upon as simply a legal device complete in itself, but, rather, as one of several elements of a comprehensive city plan. The zoning ordinance should be based on the same complete series of thorough studies that are necessary for the preparation of the city plan. Succinctly, the city plan and the zoning plan and its ordinance are so related that neither is effective without the other, although the city plan must come first and must necessarily be the foundation for the zoning plan and its ordinances.

A comprehensive city plan, attempting to lay down a rigid and detailed plan based on nothing more than the existing physical structure of the city without looking far enough into the future to provide for the utilization of new concepts in all elements of city building and rebuilding that are now in existence or that are appearing, will be only a little better than no plan at all. A use-districting plan and accompanying zoning ordinances and regulations based on such a city plan would have inherent short comings. Its operation would be that of standardization at or near the existing level; its main aim would be to prevent conditions from growing any worse than they now are; its weakness would lie in the fact that it could do very little to lift conditions above what they are at present.





Present zoning methods distinguish different uses by such names as single family, two family, commercial, industrial, and other districts. These classifications, with the supplementary regulations designed to give them effect, have tended to produce a certain degree of uniformity in the character of those cities which have comprehensive plans and zoning. Such methods assist in stabilizing property values, but only for a limited time, however, because, even in the best form of restrictive legislation, the zoning has been divorced from constructive planning in advance.

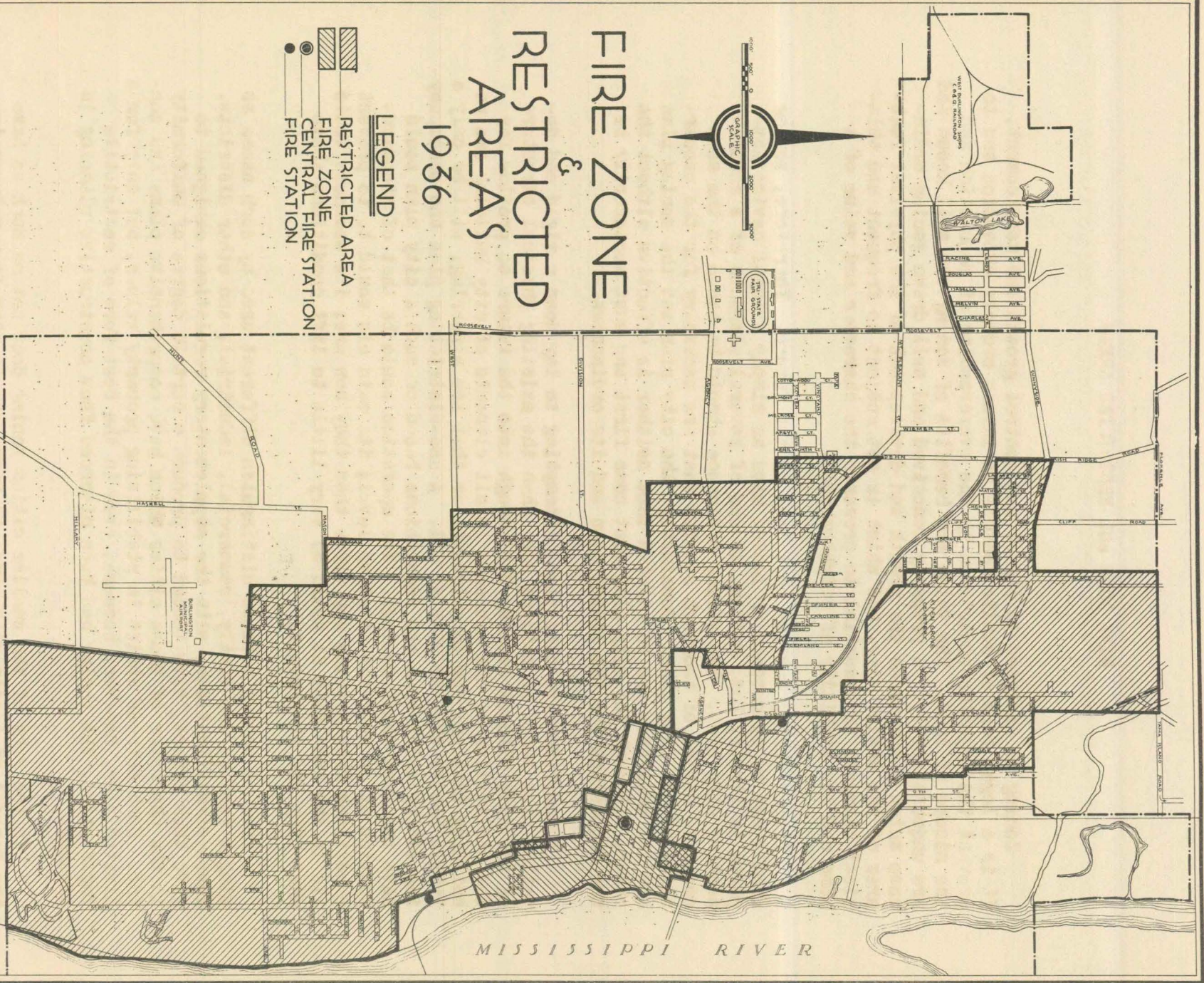
In too many of the smaller cities zoning does not so much as have the benefit of a city plan; and, in many more, zoning is merely an im-

FIRE ZONE & RESTRICTED AREAS

1936

LEGEND

-  RESTRICTED AREA
-  FIRE ZONE
-  CENTRAL FIRE STATION
-  FIRE STATION



IOWA STATE PLANNING BOARD
BURLINGTON IOWA

W.P.A.
PLANNING
1936

potent compromise consisting of a central fire zone and surrounded by a so-called "restricted area" backed up by a loosely organized and totally ineffective ordinance. In such cities the purpose of zoning has been merely that of an exclusion of certain uses. The true purpose of use-districting and zoning is not that of exclusion, but rather one of keeping every use in its proper place as determined by a city plan.

Zoning as it generally exists today is admittedly only a temporary palliative, but in the city where there is no city plan, or where zoning consists of nothing more than an exclusion of certain uses, even the most essential principles of this form of legal control are missing, and, because there is no definite plan for the arrangement and segregation of different land uses, the stability of neighborhoods and of single pieces of property is subject to open violation at any time.

After viewing the results of the zoning that commonly exists in so many of the cities today, perhaps it might be reasoned that the smaller city with no zoning and with no city plan (and this would include a city in which zoning consists of nothing more than a "restricted" residential district) is in a position to accomplish something really significant in initiating a planning and zoning program since it could profit from the experience thus so far gained, and, by so doing, attain a far more rational proportionment, segregation, and placement of different land uses than now exists in most of the cities that began their programs years ago, the defects of which are now becoming rather painfully apparent.

Probably the greatest fault in the past attempts to zone has been the distorted quantitative relationships established between business, residential, and industrial areas. Much of this zoning was done in times when there was a belief that the sky was the limit and some of it was not preceded by any plan whatsoever. The results have been disastrous in instances and very unsatisfactory in general. Business zones adequate for a population of 800,000 have been set aside for cities of 100,000; areas in towns already troubled with problems caused by congestion have been zoned so that the density can be increased; lands that are generally inaccessible and unsuitable for residential purpose have been zoned for multiple dwellings; exorbitantly excessive areas have been set aside for industrial purposes. This practice has resulted in blighting large areas by the scattering of such intensive uses, making large sections of the city unfit for residential uses for which they should have been zoned; street systems and municipal equipment are alike for different zones instead of being adapted to the specific use for which zoned; these and a legion of attendant ills are directly attributable to the past mistakes in the calculations of future probable land needs for the various uses. In certain respects then, this all represents time and energy lost because the results of the past errors and failure to plan are now frozen solidly into the official and zoning plans of the city and the revisions necessary to establish the zoning and use-district plans on a more sane and rational basis will require much difficult and expensive undoing of present plans and regulations and re-educating of the people, all of which will disturb the public confidence to say nothing of the havoc it will create in the readjustment of land values, etc.

In the light of all this, therefore, it might seem plausible to suppose that the smaller city, which has not yet embarked upon a planning and zoning program, should be in a better position to carry out a superior comprehensive zoning based on more scientific and sound principles of population trends, probable future expansion and other related city planning desideratum, than if it already possessed a zoning and use-district plan that lacked the proper qualities and background which so many of the present plans apparently do not have. This would be tantamount to saying that a much more effective and scientific zoning plan can very likely be achieved by making a fresh start in a smaller city not now possessing a plan than by revising an existing plan and its ordinances in a larger and more unwieldy city.

In a sense, it seems that this could be very true and very possible. Surely the process of educating and enlightening the citizens of a small city and then securing their assent and cooperation in drawing up a zoning plan and applying it to the existing official land use map of the city would be a simple task as compared with the vexing and exceedingly touchy problem of re-educating the public in a large city to demand changes and then to effect the necessary revisions in face of the land values which have already been crystallized by the existing device.

These remarks can be said to apply to the situation as it exists in Burlington. However, it is to be kept foremost in mind that zoning is necessarily subordinate to a comprehensive city plan if it is to be more than an attempt to remedy existing conditions. Therefore, before any attempts are made in Burlington to district land uses the city should possess a comprehensive plan. The districting of land uses based on a well worked-out plan would insure an orderly pattern of city development and a stabilization of land values by preventing any misuses of the land or its improvements.

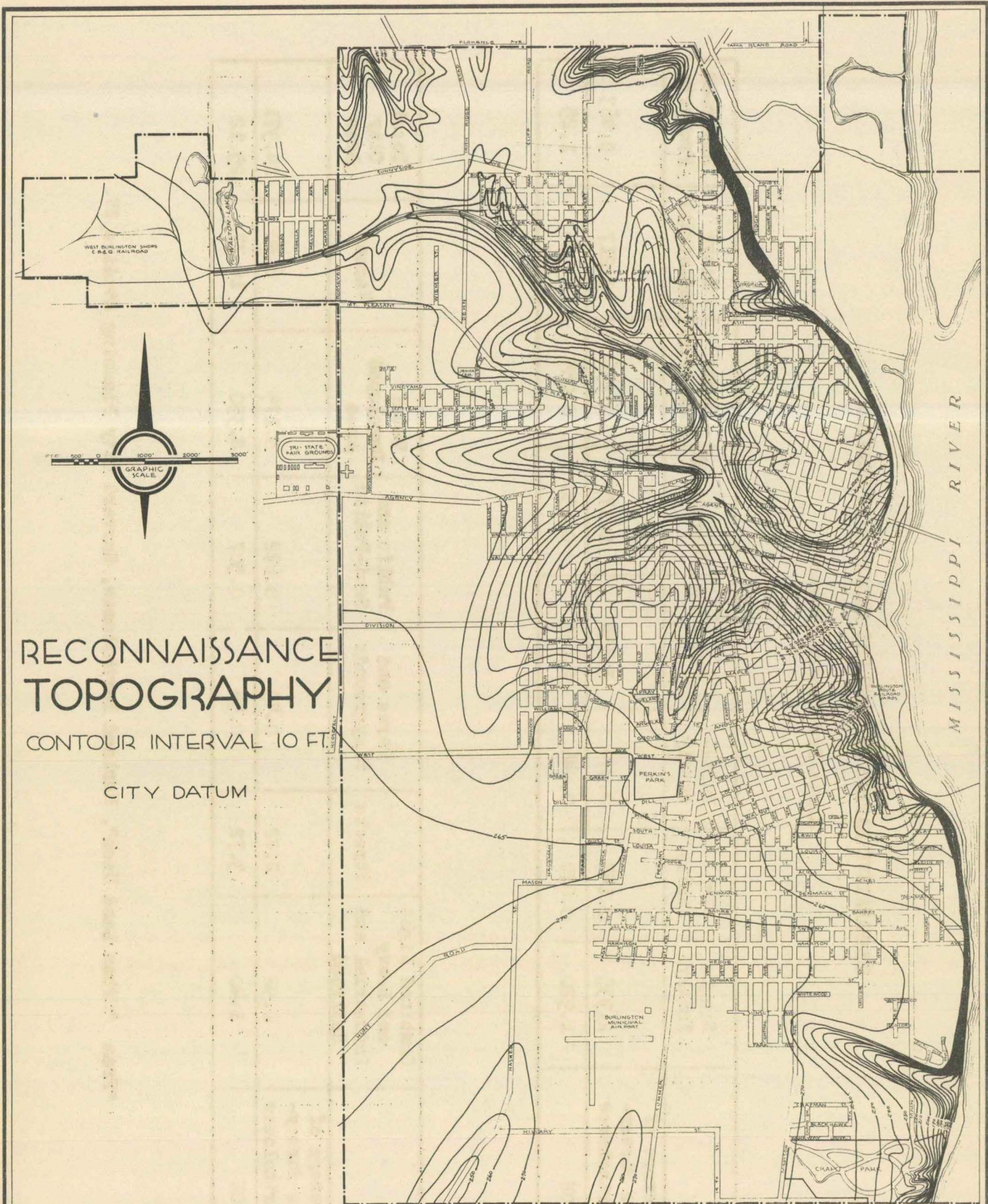
COMPARATIVE RATIOS OF LAND USE AREAS TO POPULATION

Acres Per Hundred Persons

	Single Family	Two-Family	Multi-Family	Total Dwelling Area	Commercial	Light Industrial	Heavy Industrial	Railroad Property
*Mean Average of 16 Cities Surveyed by Bartholomew	2.935	0.143	0.076	3.154	0.179	0.236	0.217	0.463
BURLINGTON	1.920	0.070	0.046	2.035	0.150	0.055	0.095	1.25

	Combined Light and Heavy Industrial and Railroad	Streets	Parks and Playgrounds	Public and Semi-Public	Total Developed Area	Vacant	Total City Area
*Mean Average of 16 Cities Surveyed by Bartholomew	0.92	2.82	0.49	0.622	8.175	6.80	14.971
BURLINGTON	1.40	3.72	0.54	0.507	8.350	16.77	25.12

*From "Urban Land Uses", Harland Bartholomew, Harvard City Planning Studies IV.



RECONNAISSANCE
TOPOGRAPHY

CONTOUR INTERVAL 10 FT.

CITY DATUM

IOWA STATE PLANNING BOARD
BURLINGTON IOWA

W. P. A.
PROJECT
1433

TOPOGRAPHY

The topographical characteristics of the city's site influence greatly the pattern of development. It is common-place to observe that one of the misfortunes in the development of our cities has been the failure, on the part of private developers and city officials alike, to plan street systems that conform to and harmonize with the existing natural topography of the site. One of the most serious defects of the gridiron plan is its failure to adapt itself to the existing contour of the land. The ridiculous lengths to which many city engineers permitted steep grades, heavy cutting, ugly embankments and destruction of natural beauty have led to situations that are now almost entirely lacking of solutions that could be achieved at costs within reasonable limits.

In addition to the failure of the rectangular street system to suit all kinds of area and conditions, attention should be paid to the esthetic advantages of a well laid out plan of curving streets in residential districts where the levels of the land or other physical characteristics make the use of curves economically desirable. Among the factors that affect the cost of raw land, besides those that are attributed to the design of the layout, topography is probably the most influential. It will increase the cost of street improvements and particularly utilities as soon as it involves heavy grading.

Accurate large scale topographic maps are necessary in the preparation of general city plans and detailed topographic maps are essential in studies for site layouts of residential areas and in estimating costs of construction, etc. The cost for such maps in a small city should not be prohibitive. If it is not possible to make a complete detailed topographic map of all the area within the city limits, then the peripheral growing areas and whatever areas are considered for possible rehabilitation should be concentrated upon. Spot surveys of this character should be supplemented by precise triangulation extending over the entire city area and its environs as a base to which later surveys, including those for land subdivision development, may be related without danger of cumulative error and discrepancy. The aerial photographic map will be found useful in picturing existing development and for use in preliminary plan study. An advantage of the air map is that it is less costly yet more quickly prepared and that it is sufficiently accurate for the purposes of the general planning of the city.

PER CENT OF DEVELOPED AREA OCCUPIED BY VARIOUS USES*

City	Single Family	Two-Family	Multi-Family	Total Dwelling Area	Commercial	Light Industrial	Heavy Industrial
Knoxville, Tenn	42.4	0.23	0.42	43.05	1.82	2.94	4.07
Vancouver, B. C.	29.5	0.48	1.21	31.19	3.06	1.74	-----
San Angelo, Tex.	25.8	0.58	0.52	26.90	1.44	-----	-----
Fort Worth, Tex.	32.1	0.44	0.46	33.00	1.28	1.79	3.11
Cape Girardeau, Mo.	31.7	0.93	0.44	33.07	1.85	-----	-----
Sacramento, Cal.	32.6	3.52	1.82	37.94	3.72	4.64	-----
San Jose, Cal.	44.4	1.20	1.70	47.30	2.40	5.86	-----
Springfield, Mo.	51.5	0.48	0.30	52.28	2.10	1.84	1.80
Cedar Rapids, Iowa	33.3	2.07	1.14	36.51	2.09	2.35	1.72
Tulsa, Oklahoma	40.0	3.26	1.48	44.74	2.59	2.41	2.72
Louisville, Ky.	36.6	2.67	2.32	41.59	2.85	5.90	2.55
Peoria, Ill.	39.3	1.71	1.39	42.40	2.70	2.08	5.22
Jefferson City, Mo.	36.0	1.70	0.52	38.22	2.77	2.84	1.56
San Antonio, Tex.	40.2	1.51	1.07	42.78	2.61	2.47	1.48
Troy, Ohio	35.0	3.20	0.33	38.53	1.14	3.94	4.05
Binghamton, N. Y.	27.8	9.62	2.35	39.77	3.58	4.11	1.39
Mean Averages	36.1	2.10	2.09	39.33	2.38	3.21 ¹	2.70 ¹¹
BURLINGTON	23.0	0.83	0.54	24.37	1.82	0.66	1.13

Note: * Burlington compared with 16 cities surveyed by Harland Bartholomew. Data from "Urban Land Uses" by Bartholomew.

¹ Average in fourteen cities.

¹¹ Average in eleven cities.

PER CENT OF DEVELOPED AREA OCCUPIED BY VARIOUS USES*
(Continued)

City	Railroad Property	Combined Light and Heavy Industrial and Railroad	Streets	Parks and Playgrounds	Public and Semi-Public
Knoxville, Tenn.	7.83	14.84	27.97	0.86	11.46
Vancouver, B. C.	----	3.60	41.39	18.52	2.24
San Angelo, Tex.	----	9.70	58.55	2.36	1.08
Fort Worth, Tex.	8.13	13.03	39.16	7.82	5.74
Cape Girardeau, Mo.	----	17.10	39.28	2.32	6.38
Sacramento, Cal.	----	9.10	35.84	7.09	6.31
San Jose, Cal.	----	10.20	34.94	1.02	4.14
Springfield, Mo.	4.84	8.48	28.36	5.21	3.61
Cedar Rapids, Iowa	7.65	11.72	32.94	7.44	9.28
Tulsa, Okla.	2.54	7.67	36.26	2.95	5.80
Louisville, Ky.	2.71	11.16	25.21	9.98	9.21
Peoria, Ill.	6.13	13.43	30.83	6.62	4.02
Jefferson City, Mo.	6.30	10.70	31.61	5.06	11.64
San Antonio, Tex.	3.43	7.38	30.48	6.01	10.74
Troy, Ohio	4.66	12.65	23.78	8.56	15.34
Binghamton, N. Y.	6.28	11.78	20.75	9.32	14.80
Mean Averages	5.50**	10.79	33.61	6.33	7.61
BURLINGTON	14.95	16.74	44.47	6.53	6.07

Note: * Burlington compared with 16 cities surveyed by Harland Bartholomew. Data from "Urban Land Uses" by Bartholomew.

** Average in eleven cities.

THE UNIVERSITY OF CHICAGO

RESEARCH REPORT IN CHEMISTRY
NO. 1111

EXPERIMENTAL PROCEDURE	ANALYSIS	RESULTS	DISCUSSION	CONCLUSIONS
<p>1. Preparation of the compound</p> <p>2. Purification of the compound</p> <p>3. Characterization of the compound</p> <p>4. Physical constants</p> <p>5. Spectroscopic data</p> <p>6. Chemical reactions</p> <p>7. Molecular weight determination</p> <p>8. Crystal structure</p> <p>9. X-ray diffraction</p> <p>10. Infrared spectrum</p> <p>11. NMR spectrum</p> <p>12. Mass spectrum</p> <p>13. UV spectrum</p> <p>14. IR spectrum</p> <p>15. NMR spectrum</p> <p>16. Mass spectrum</p> <p>17. UV spectrum</p> <p>18. IR spectrum</p> <p>19. NMR spectrum</p> <p>20. Mass spectrum</p> <p>21. UV spectrum</p> <p>22. IR spectrum</p> <p>23. NMR spectrum</p> <p>24. Mass spectrum</p> <p>25. UV spectrum</p> <p>26. IR spectrum</p> <p>27. NMR spectrum</p> <p>28. Mass spectrum</p> <p>29. UV spectrum</p> <p>30. IR spectrum</p> <p>31. NMR spectrum</p> <p>32. Mass spectrum</p> <p>33. UV spectrum</p> <p>34. IR spectrum</p> <p>35. NMR spectrum</p> <p>36. Mass spectrum</p> <p>37. UV spectrum</p> <p>38. IR spectrum</p> <p>39. NMR spectrum</p> <p>40. Mass spectrum</p> <p>41. UV spectrum</p> <p>42. IR spectrum</p> <p>43. NMR spectrum</p> <p>44. Mass spectrum</p> <p>45. UV spectrum</p> <p>46. IR spectrum</p> <p>47. NMR spectrum</p> <p>48. Mass spectrum</p> <p>49. UV spectrum</p> <p>50. IR spectrum</p> <p>51. NMR spectrum</p> <p>52. Mass spectrum</p> <p>53. UV spectrum</p> <p>54. IR spectrum</p> <p>55. NMR spectrum</p> <p>56. Mass spectrum</p> <p>57. UV spectrum</p> <p>58. IR spectrum</p> <p>59. NMR spectrum</p> <p>60. Mass spectrum</p> <p>61. UV spectrum</p> <p>62. IR spectrum</p> <p>63. NMR spectrum</p> <p>64. Mass spectrum</p> <p>65. UV spectrum</p> <p>66. IR spectrum</p> <p>67. NMR spectrum</p> <p>68. Mass spectrum</p> <p>69. UV spectrum</p> <p>70. IR spectrum</p> <p>71. NMR spectrum</p> <p>72. Mass spectrum</p> <p>73. UV spectrum</p> <p>74. IR spectrum</p> <p>75. NMR spectrum</p> <p>76. Mass spectrum</p> <p>77. UV spectrum</p> <p>78. IR spectrum</p> <p>79. NMR spectrum</p> <p>80. Mass spectrum</p> <p>81. UV spectrum</p> <p>82. IR spectrum</p> <p>83. NMR spectrum</p> <p>84. Mass spectrum</p> <p>85. UV spectrum</p> <p>86. IR spectrum</p> <p>87. NMR spectrum</p> <p>88. Mass spectrum</p> <p>89. UV spectrum</p> <p>90. IR spectrum</p> <p>91. NMR spectrum</p> <p>92. Mass spectrum</p> <p>93. UV spectrum</p> <p>94. IR spectrum</p> <p>95. NMR spectrum</p> <p>96. Mass spectrum</p> <p>97. UV spectrum</p> <p>98. IR spectrum</p> <p>99. NMR spectrum</p> <p>100. Mass spectrum</p>	<p>1111</p>	<p>1111</p>	<p>1111</p>	<p>1111</p>

RESEARCH REPORT IN CHEMISTRY
NO. 1111

CONCLUSION

City planning is the public control, through planning in advance, of the physical development and treatment of public and private land and its appurtenances in the interests of the community as a whole.

For every municipality or urban territory there should be some procedure whereby the principles of city planning could be introduced into the process of city development. Obviously, this requires the making of some design or plan of development which, in a more or less outline or general way and with certain amount of detail, will indicate the advisable structure of the city and the recommended uses of the land (zoning), and will result in a tendency to reduce maladjustments, inefficiencies, and wastes so that the community will obtain the best results from the development of its territory, whether such results be measured in terms of money cost or in terms of public health, convenience, safety, harmonious arrangement, or public welfare.

The Iowa State Planning Board, using federal WPA funds, has completed one of the first and most necessary steps in a planning program for Burlington. This step has involved the gathering and compilation of data and the preparation of maps pertaining to the uses of all land within the city. Most of the physical surveys and inventories and much of the planning study for a general city plan will be derived from the data and maps provided by this land use survey.

Zoning, in particular, demands a mapped survey showing the existing uses of property. Quantitative differentiations should not be made for the different future land uses simply by guesswork or estimation, but, rather, should be based on the existing present uses of the land and the probable future requirements and trends. Likewise the allocation of future uses and functions to the various portions of the city and their general interrelated dispositions can not be made by disregarding entirely the existing allocations and dispositions of the several land uses. For example, the districting of that portion of the city which is to be used for future single family residential purposes must be determined, to a large degree, by the present location and trends in development of the urban area now used for such purposes. It is essential for preliminary planning purposes that the picture of the use of all land within the urban environment be had on a single map, otherwise the districting of future land uses can not proceed on a sound basis whereby the different types of uses would be best related one to another and each to the whole.

The major street system is the basic framework of the entire urban

structure upon which the other functional parts are shaped. A comprehensive city plan should embrace only the general thoroughfare pattern consisting of the main traffic arteries. This pattern can be determined only upon the knowledge of the existing uses of the land and upon scientific calculations of traffic requirements as supplied by a survey of the volume, density, flow, and other criteria of existing traffic conditions.

Likewise, the planning for the future development of the other functional and organic elements of the urban structure will require mapped existing conditions. Possession of the facts about the present uses of the land will provide the background for: the planning of a general system of parks; a plan for a unified and integrated development of the central commercial district and the neighborhood shopping centers; a logical and sound selection of land for present and future industrial purposes; and the effective and practicable planning of all other elements of the city's physical makeup.

Perhaps of even more importance is the use to which a land-use inventory can be put in detailed planning. For example, land use maps and the data compiled from the results of a land-use survey are obviously much to be desired in the procedure of approving and planning of subdivision plats and other duties delegated to the city planning commission.

The planning of specific projects such as street widenings, grade separations, and public improvements in the form of openings of new parks and playgrounds, and the acquisition of sites for libraries, etc., are all instances of detailed planning for which existing-conditions surveys must be prepared if such have not already been made available. Especially will mapped land-uses be of material assistance in planning specific public improvement projects entailing the use of condemnation proceedings through eminent domain, particularly in cases where several sites are available for one certain project and preliminary investigations are needed to determine the qualifications and practicabilities of each respective site.

In general, it can be pointed out that by skillful and scientific interpretation and use, the land-use maps and the data provided by the land-use survey will insure an effective, sound, and practicable planning of the city; they will supply the necessary data for the detailed planning of individual projects, either of a public or private nature; they will supply supporting data as arguments for the various plan proposals; the material will foster a broad familiarity with the city's fundamental characteristics so essential to successful analysis of civic needs and probable future requirements; and, finally, when property owners or, perhaps, subversive recalcitrants seek legal relief, through court action or otherwise, against one of the plan proposals, zoning provisions, or the like, the municipal administrative officials will have back of their proposals a powerful and convincing array of facts showing not only that their proposals or actions are justified but that they are well founded in their inception and not arbitrarily or hastily conceived.

Although land-use maps and accompanying data related to the ratios of the various uses as compared with developed area and other criteria, constitute an essential and fundamental step in the preparation of a comprehensive city plan and a zoning plan, they provide only a part of the basic data necessary for such operations. Mr. Russell Van Nest Black, a recognized authority on city planning matters has this to say regarding the place of land use surveys in the city planning procedure:

"..... Existing condition surveys -- are, of course, merely a matter of money, men and mechanics. The real and difficult job lies in the prediction and establishment of future land uses, to be based upon visible needs, suitability, adaptability, and probable future demands. The future land-use study must extend beyond the confines of a city to visualize so far as may be possible that city's place in the future regional and national pattern. There should evolve a reasonably well-founded guess as to the qualitative and quantitative future of the city under study. This guess must represent a fine balance between what it appears the city should be and what perhaps irresistible forces are likely to make of it. Within such a guess of quantitative and qualitative probability, the next step is to allocate most logical and most desirable functions to the various portions of the city. This is to be done in accordance with a proper coordination of interrelated functions, in accordance with the relative adaptability of the several land areas; and in accordance with existing and still feasible service facilities."

* * * * *

Suggested Approach to a Planning Program for Burlington

It is obvious that a report of this nature cannot properly include a discussion on even the basic principles of city planning and urban land use, much less enter into recommendations that would prescribe any definite procedures, involving technical details, for the city to follow. The subject of city planning is much too broad a one and embraces far too many problems that are of vital concern to every citizen, to be disposed of in a few pages. At its best the city planning movement in Burlington will require years to develop because no program of such universal effect can be effectively administered unless it has the support of at least a majority of the citizens, and this support simply cannot be obtained in a fortnight, but, rather, will be a matter of years.

Despite the comparatively rapid advance of city planning in recent years, there is still the tendency to treat planning as a nice thing to have if it can be bought with whatever surplus public funds can be scraped together. Those in the city who are conscious of what planning means

and who are sufficiently informed as to the current developments and progresses that are being effected, which relate directly to the possibilities of planning, often fail to understand why their efforts or those of the local planning group fail to bring results and why such a sound and business like procedure as planning should not be recognized by the city administration as a fundamental municipal activity.

There can be only one explanation for this lack of understanding and appreciation of planning endeavors -- that is the wide-spread lack of public education which prevails in regard to what city planning is, why it should be recognized as a fundamental municipal responsibility, and the far-reaching results to be achieved by planning for the good of all in place of continued adherence to unrestricted practices of the policy of laissez-faire and that of putting individual freedom before the general welfare. Of course, there are many adverse factors that may appear to be the stumbling-block for a city planning movement. Some of these might be: a seemingly unsympathetic, or even a hostile, administration; subversive and surreptitious opposition by certain groups of property owners and any other influential individuals or groups prompted by selfish desires to protect their interests at any cost. Although such factors may appear to be the cause of the failure of a continued and uninterrupted progress in a planning movement, the real cause is traceable to the fact that the public, as a whole, has never been educated to know, understand, and support city planning.

There can never be any other way to have truly successful and effective city planning than by popular demand and approval -- a wide-spread understanding of what it is all about and a deep appreciation of the purposes in view. When the local planning groups have accomplished a sufficient education of somewhere near the majority of the people, so that they will demand that planning be made a permanent, as well as a fundamental, part of the city administration, then, and only then, can it be hoped that the subversive and selfish interests of a few will be overcome enough to permit an unobstructed progress in planning and public improvement enterprises designed for the general welfare of all alike.

The only recommendation or suggestion that can be offered here is the very general, but extremely significant one, that what Burlington needs, immediately and above all else, is a thorough public education in the fundamentals, principles, practices, etc., of town planning. There will be plenty of time and opportunity to later go into detail in recommendations that relate to the technical operations of preparing and administering a city plan. Indeed, the fortunate thing, so far, is that Burlington has not attempted to prepare a use-district plan and zoning ordinances without first possessing itself with a city plan as certain other cities in the State have done. Effective zoning depends upon a number of things chief among which is a comprehensive approach, which, in turn, involves the treatment of zoning as one of the several simultaneously studied phases of the town plan.

Suggested Procedures For a First Step

In light of the present local situation, it is evident that the greatest opportunity and most urgent need in Burlington is that of educating and organizing public opinion toward an intelligent understanding of what town planning is. Actual town planning for Burlington, now that it has been postponed this long, can very well wait another year or two until the time is ripe for general public understanding and acceptance. Therefore it would be in accord with wise practice to consider the need for some voluntary organization to undertake a program of educating the general public. Education of the general public is normally a slow and tedious process and not necessarily a function of an official planning commission even if there should be such an agency in existence; therefore, whatever steps could be taken to speed it up should be given consideration.

In some cities where planning has benefited by strong public favor and support, voluntary organizations, formed for the purpose of promoting the establishment of an official city planning commission, or for the purpose of initiating the preparation of a comprehensive plan, have proven of great advantage and, in many cases, have provided the only life-giving stimulus for the initial motivation and the continued advancement of planning. These voluntary city planning groups have often taken the form of large associations of citizens, organized like any other civic association and, when taking such forms, their efforts have been most successful since their prestige and importance carry weight somewhat in direct proportion as the number of their representatives or constituents. In Burlington a small group of progressive citizens might comprise the beginning of such an association. This group would serve as a nucleus from which the idea might gradually spread.

There have been, and still are, many different voluntary planning associations from which examples and ideas can be had for a pattern of such a one as would suit the needs and be adapted to the local practical possibilities in Burlington. For instance, a citizens' association in Burlington might follow somewhat the lines of the Buffalo City Planning Association* which is made up of a great variety of organization memberships, representing all sorts of district, religious, and civic clubs. In 1930 this association had over 800 members. This kind of planning association has been developed even more completely by the United City Planning Committee of Cincinnati, which, a few years ago, was composed of delegates from thirty-two civic organizations, each organization voting its delegates as a unit. This Committee was responsible for the establishment of the official city planning commission and for financing the preparation of the Cincinnati Plan. It is the promoter and protector of the Plan, and is supported by yearly voluntary subscriptions from individuals. Or again the City Planning Association of Los Angeles might be used as a model. This citizens' organization, several years ago, had about 200 members with an annual membership fee of \$2.00 open to all.

* The following discussion adapted from "Our Cities Today and Tomorrow", Hubbard and Hubbard.

Besides the strictly voluntary organizations there are also many advisory committees officially appointed for the purpose of aiding the work of official city planning commissions. In Altoona, Pa., such a group was called "The Advisory Committee to the City Planning Commission" and consisted of 55 citizens appointed by the mayor. This Committee gave support, studied various plan phases through special sub-committees; and it has proved valuable in selling planning ideas to the public in Altoona. In Rochester, Minn., the city manager has appointed five persons as a nucleus of an advisory organization with authority to enlarge the body as much as desired. In Boston there is an "Advisory Committee on Public Improvements" officially appointed to secure intelligent cooperation of the important groups directly affected by city planning enterprises. In quite a few other cities special citizen's committees have been officially appointed for different reasons related to a city planning movement.

Whatever scheme might be considered applicable in Burlington, the possibility of raising modest funds, privately subscribed through a collection of membership fees or voluntary contributions, should be considered, since an official planning agency would probably not be provided with sufficient funds to do extensive educational work. (Besides there is some question as to whether public funds should be so expended.) It should be borne in mind that there is no need to aim at large expenditures for costly reports, publications, etc., especially in cases where funds are known to be limited, which would probably be the case in Burlington. Fancy reports and plans are not for wide distribution, and because of this, are very often not at all the proper mediums for educating the general adult masses. Much better mediums in Burlington would be the newspapers. The press remains the most important vehicle of public, city-wide education. Favorable relations established with the press and skill in employing their news and editorial columns to the best effect will not only be the least expensive educational program possible, but it will undoubtedly be one of the best. Periodical city planning bulletins, educational pamphlets, the theatres, the radio, open forums, etc., are among the other channels through which an active and energetic citizens' association could effectively reach the public at very nominal costs. The inception of a required city planning course in the public school program would insure future advancement of planning, but this is possibly for later consideration, the important thing now being to get pressure up as soon as possible through popular demand for an immediate revival of planning.

Briefly epitomizing the suggestions that can be offered here, it is pointed out that:

- (1) The evident need in Burlington is for educating enough of the general public to get behind a planning movement and keep it going.
- (2) A suggested procedure to accomplish this aim would be the promotion of a voluntary planning association to be composed of citizens; or a representation of all civic and other organizations interested in city planning endeavors; or the official appointment of an advisory

committee or association to represent the citizens and property owners and to promote and protect the city plan and zoning ordinances, etc.; or the origination of some other organization for accomplishing similar results.

- (3) The beginning can possibly be made by a small group of energetic and influential citizens who are known to be civic minded and who will keep the general welfare and future aims above personal desires to profit or immediate gains that can not be consolidated into a plan for the future.
- (4) Although it will be found necessary to raise some funds, large expenditures should not be necessary if it is possible to enlist the support of the press and other groups who are in charge of instruments for conveying information and publicity to the majority of the people, the uses of which could be had at relatively small costs.
- (5) The initial fundamental purpose of a voluntary or advisory association of citizens should be that of educating the public. The entire field of possibilities should be investigated and a consolidation made of all the best adaptable ones selected, so that the local association could carry on the most effective program possible at a cost within the limits of whatever funds are available.
- (6) The program of the association should be planned, and it should have means of coordinating efforts and consolidating gains made. Publications, bulletins, pamphlets, newspaper and radio publicity, etc., should be timed according to a pre-conceived plan so far as is practical. Those who make up the nucleus of a citizens' committee or association in Burlington should seek the advice and assistance of planning consultants and technicians as would be helpful, first, in prescribing a series of educational or training courses which would give themselves a fairly good working knowledge of city planning fundamentals, practices, etc., from the ground up; and, second, in helping to direct the preparation of a plan for a unified and progressive public educational program. With a first-hand knowledge of at least the fundamental principles, current trends, etc., this small group could, in turn, intelligently conduct a series of public forums, newspaper and radio serials, etc., based somewhat on the educational training it had received. Whatever plan is followed, however, it is imperative that, at least, the members of the official municipal planning group and those of the voluntary planning association should be as well grounded and versed as is both practical and possible in the fundamentals of planning and urban land use principles. If those responsible for Burlington's planning movement and educational program have no more than a speaking acquaintance with these fundamentals, there can be small hope held out for the ultimate success of the local planning movement.

In any considerations and deliberations given to the possibility of creating a citizens' association, or some similar representative organization, the distinction between such enterprising groups and an official

planning commission should be carefully and clearly drawn and defined so as to positively prevent any misinterpretation or usurpation of authority or overlapping and conflicting of activities. The purposes and duties of each should be easily distinguishable. A town planning commission would have certain official duties such as preparing plans and ordinances, and keeping in touch with the administering of them, etc.; the citizens' association or other voluntary or official advisory bodies, should be concerned primarily with public education, support and protection of the city plan, and other incidental functions. There should be complete harmony and liaison between the two, and their efforts should be directed toward a common end. To facilitate this it might be a wise move to give some member or members of the official planning group an important place in the organization of the representative association. This is an important point and its significance should not be overlooked. Besides supplying the coordination needed between the two groups, the member or members of the official group will be needed because they will very likely be the ones in the city most familiar with the activities, organizations, etc., in the planning field, and, therefore, will be able to point out the way to the leaders of the citizens representative association. Of course, if the official group is so fortunate as to possess a planning engineer or consultant, such an individual should be in close touch with the association.

So far as is possible and practical, the programs of the two groups should progress simultaneously. That is, while the citizens' association is being concerned with publicizing planning and working up sufficient concerted interest on the part of enough of the people to bring the planning movement to a head, the official group should be engaged in the preliminary technical steps leading up to the preparation of a city plan, and should probably even prepare, or cause to have prepared, several suggested city plans and future land use designs. Proceeding along these two lines of action, it could be hoped that by the time the official group is ready to present to the city council its several suggested plans or a proposal to appropriate funds for the preparation of such, the citizens' association will have enough backing for a town planning movement and the proposals of the official group that favorable action will be reasonably assured, whether that action be the adoption of a town plan or the appropriation of funds to be used for the final draft of such an instrument.

When this goal is attained, the citizens' association would henceforth become the protector of the accepted city plan, and the official planning group could devote all its efforts toward administering the plan and its accessory ordinances, etc. With so many federal and state agencies, as well as private philanthropic planning organizations, ready to lend assistance, financial or otherwise, the present opportunities for carrying out the official planning commission's part in the program should be made use of while they last. Fact-gathering surveys, physical inventories, topographic studies, and many other items necessary for the preparation of a comprehensive city plan can now be had at a reduced cost to the city. This part of the program should be carried on during the period of activity of the citizens' planning association so that it will be fairly well completed by the time that the public is ready to accept and support a comprehensive plan.

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