Detroit Suburban Planning

Report to the City Plan and Improvement Commission

By ARTHUR COLEMAN COMEY
Landscape Architect

Based on the
Preliminary Plan for Detroit
By EDWARD H. BENNETT, Architect

DETROIT
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Detroit City Plan and Improvement Commission

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Publications of the Detroit City Plan and Improvement Commission

Report No. 1. City Tree Planting, by T. Glenn Phillips, Landscape Architect. First edition, 1910; revised edition, 1914.

Report No. 2. A Center of Arts and Letters; report to the Mayor of Detroit from a joint committee consisting of representatives of the Museum of Art, the Library Commission, the City Plan and Improvement Commission, the School of Design, the Orchestral Association, and the Michigan Chapter of the American Institute of Architects; together with plans and a report by Edward H. Bennett and Frank Miles Day, November, 1913.

Report No. 3. Preliminary Report on a programme for the competition to select an architect to design the James Scott Fountain; by E. J. A. Duquesne, November, 1913.

Report No. 4. Programme of Competition for the selection of an architect to design and supervise the construction of the James Scott Fountain; by E. J. A. Duquesne, professional adviser, February, 1914.

Report No. 5. Report of progress to the Mayor of Detroit on the results of the competition to select an architect to design the Scott Fountain.

Report No. 6. Detroit Suburban Planning. Report to the City Plan and Improvement Commission by Arthur Coleman Comey, based on the Preliminary Plan for Detroit by Edward H. Bennett; May, 1915.

Report No. 7. Report on Conditions in Detroit by Prof. Frederick Law Olmsted. (In press.)

Report No. 8. A Prelimanry Plan for Detroit; by Edward H. Bennett, Architect. (In press.)

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Detroit Suburban Planning

DETROIT'S suburban districts are being laid out in a haphazard and often short-sighted way, which, if allowed to continue, is certain to cause serious and irreparable injury to its future development. Each piece of property is apt to be sub-divided as the owner sees fit, without regard to his neighbor or the community, without providing wide through streets, and seldom connecting up with any adjoining plats.

Furthermore, several special abuses of individual rights have crept in in these plats, which apparently do not occur elsewhere in the United States. Extremely long blocks, often a half-mile, and occasionally double that length, are very numerous, particularly in the more recently laid out districts to the north and west. In one place in Grosse Pointe, where adjoining owners held narrow claims one hundred to two hundred feet wide, running back from the Detroit River, one owner has been left with his one hundred foot strip a mile long between the back yards of the lots platted on the two others, thus rendering his property practically valueless.

The loss to the community resulting from these conditions, through depreciation in real values and corresponding loss in taxes, through inconvenience in getting about, and finally through the inevitable expense in years to come of correcting the worst mistakes, can hardly be computed. Yet such conditions are quite unnecessary. A reasonable scientific control would benefit not only the city at large, but every property holder, by protecting him from his neighbor and, it may be added, from himself as well. For it is now recognized by many of the more progressive real estate operators that such "laissez-faire" methods are unbusinesslike, even in developing small tracts. With an intelligent plan, however, to guide this development, order and convenience will replace chaos, and real values will be constantly enhanced.

In this brief study of ways and means of accomplishment, the subject matter will be taken up under the heads of Surveys, Street and Parkway System, Blocks and Lots, Public Lands, and Control.

I. Surveys

In the planning of the suburban area certain surveys are essential for intelligent action.

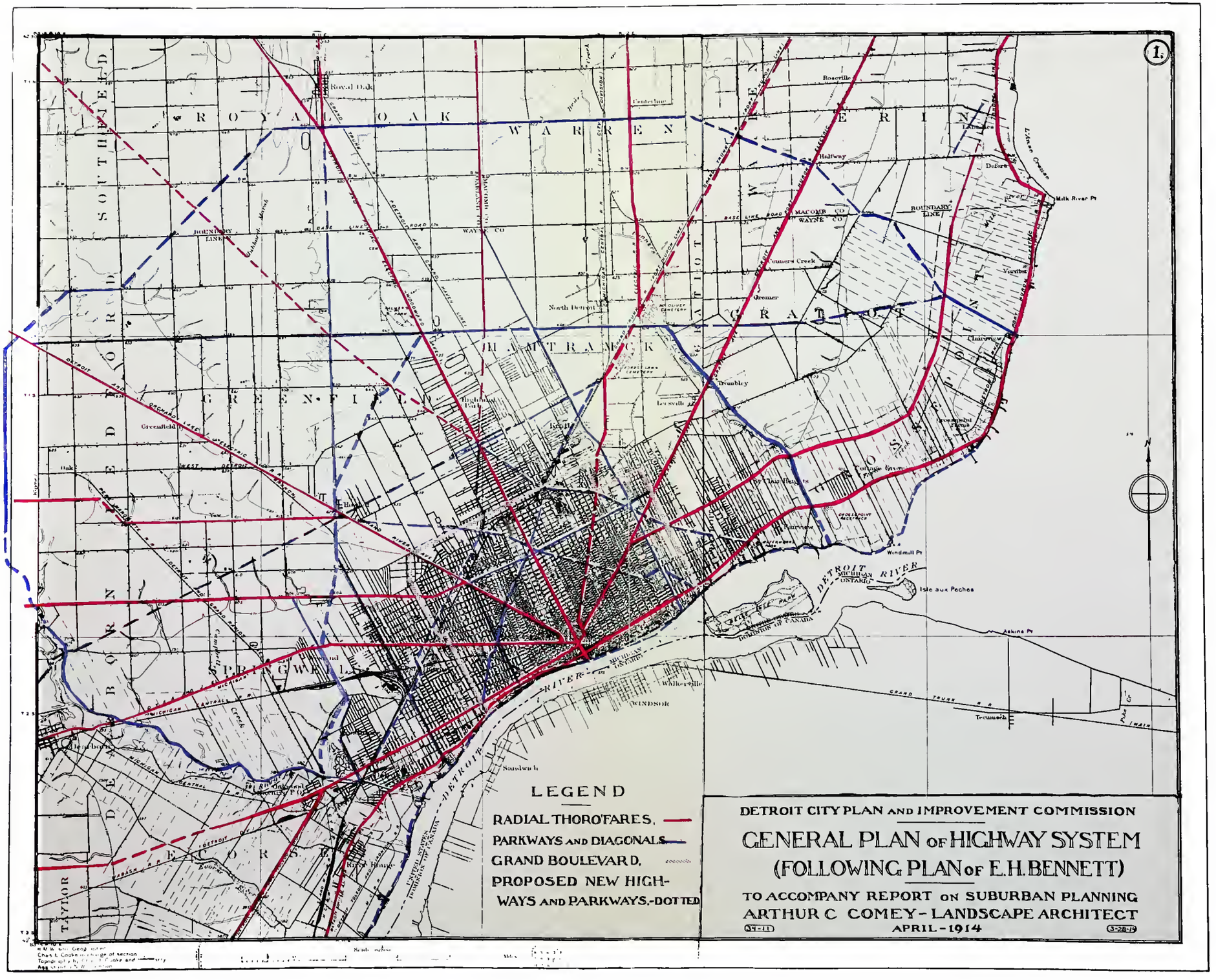
A. **Topography.** Controlling factors are the topographical characteristics of the region—extreme flatness and, except for the Detroit River, lack of streams of any size. The few shallow creek valleys are the only slopes and are therefore important to preserve.

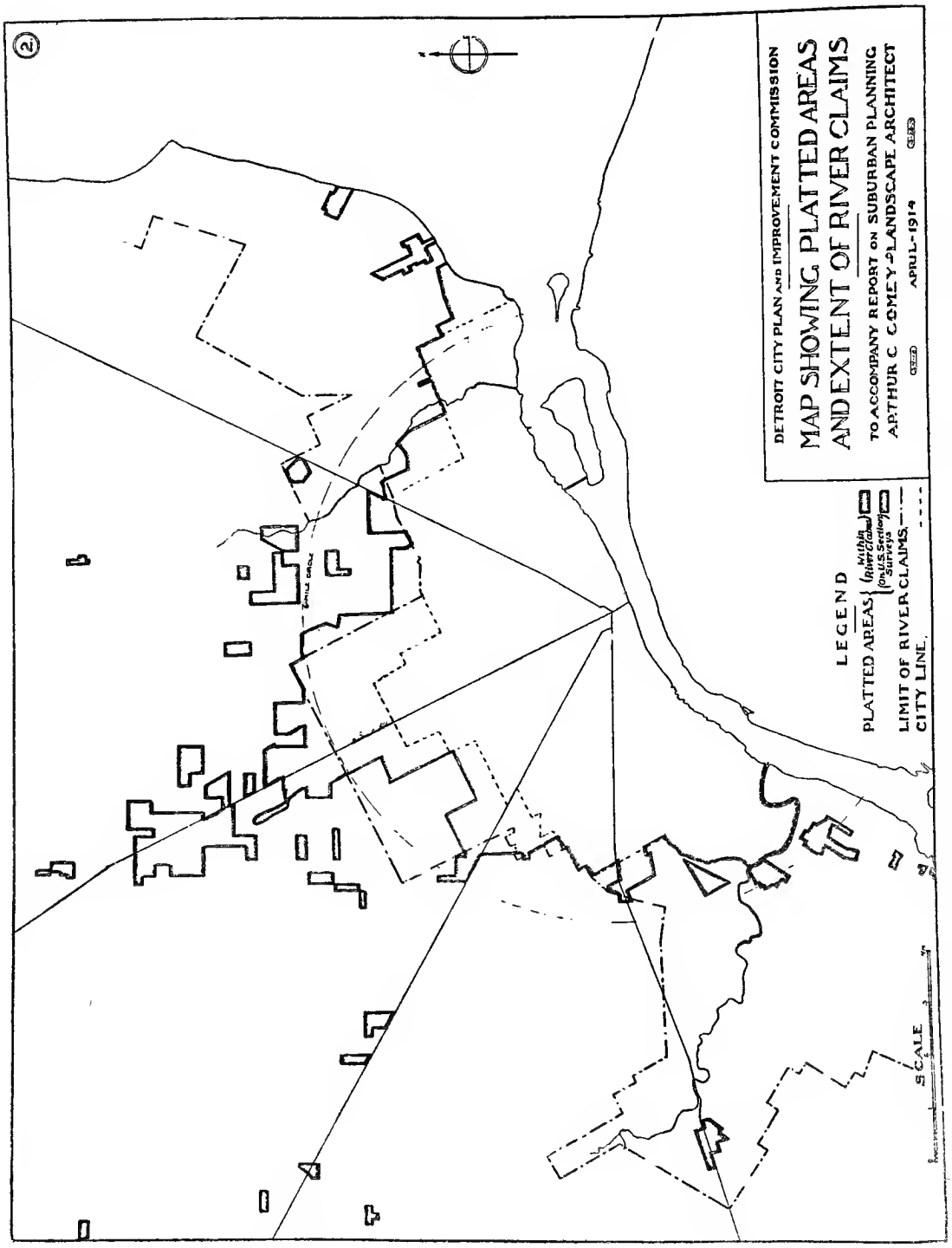
1. **U. S. Section Lines.** The method of land subdivision also exerts a powerful influence over the planning of the future. Along the river a narrow belt of varying width, but averaging about three miles, was laid out at an early date in river claims running back at right angles to the bank. Beyond this, however, all the land is laid out on the United States Sectional basis, in one mile squares with the boundary roads running approximately North and South and East and West. On Map 2 the extent of the river claims is indicated, showing that the great majority of unplatted areas lie within the United States Sectional Surveys.

2. **Standard Maps.** Existing maps of the suburban district are defective, especially when enlarged to such a scale as two hundred feet to the inch. As a basis for physical plans accurate topographic surveys and maps are necessary. If these are carried out comprehensively over the entire district, standard maps can be prepared once and for all, thereby avoiding repeated expenditures as each small improvement is undertaken. These should show such information as location of waterways, railways, streets, curbs, property lines, buildings and other structures, grades, contour lines, and established reference points.

Such a survey may properly begin with the area immediately outside the city limits and subsequently extend over all land likely to be built upon, finally completing the work by standardizing the city maps as well.

The most effective procedure will be: first, to establish reference points around the city and gradually throughout the Metropolitan District, by accurate triangulation and precise levelling; second, to refer all existing and future monuments and topography in general to these reference points, by means of a system of co-ordinates; third, to locate street and property lines; fourth, to establish a filing system of records, surveys, and other data; fifth, to prepare standard maps of a uniform scale of two hundred feet to the inch, and a uniform size, say, a mile by a mile and a half in extent, and overlapping slightly. Outside the river claims these may be apportioned so as to cover a Section and a half of the land


1.
ROYAL OAK
WARREN
SOUTHFIELD
GREENFIELD
HAMTRAMCK
GRATIOT
SPRINGWELLS
DEARBORN
TAYLOR
Roseville
Halfway
Delray
Milk River Pt
Conners Creek
Gremer
North Detroit
Trombley
Windmill Pt
Isle aux Peches
Askins Pt
Walkerville
WINDSOR
Tecumseh
Sandwich
River Rouge
Dearborn
DETROIT RIVER
MICHIGAN
ONTARIO
DOMINION OF CANADA
UNITED STATES
DOMINION OF CANADA
LEGEND
RADIAL THOROFARES.
PARKWAYS AND DIAGONALS.
GRAND BOULEVARD.
PROPOSED NEW HIGHWAYS AND PARKWAYS.-DOTTED
DETROIT CITY PLAN AND IMPROVEMENT COMMISSION
GENERAL PLAN OF HIGHWAY SYSTEM
(FOLLOWING PLAN OF E.H. BENNETT)
TO ACCOMPANY REPORT ON SUBURBAN PLANNING
ARTHUR C COMEY - LANDSCAPE ARCHITECT
APRIL - 1914


DETROIT CITY PLAN AND IMPROVEMENT COMMISSION
MAP SHOWING PLATTED AREAS AND EXTENT OF RIVER CLAIMS
TO ACCOMPANY REPORT ON SUBURBAN PLANNING
ARTHUR C. COMEY LANDSCAPE ARCHITECT
APRIL-1914
LEGEND
PLATTED AREAS (Inside Section Lines) (On U.S. Section Surveys)
LIMIT OF RIVER CLAIMS
CITY LINE
SCALE

surveys. The maps should be printed on a thin firm paper, which may be used to make blueprints to show any improvements or changes drawn on the plan. These standard maps will probably find a considerable sale to the public.

The results obtained in other cities, particularly New York and Baltimore, should be studied in order to adopt the best methods. The first cost of such a survey will be large, but for Detroit it should be considerably less than the figure of $7.81 per acre for Baltimore's Survey, which was over rough ground. In a very few years the saving in expense otherwise necessary for repeated fragmentary surveys should more than make up for this outlay.

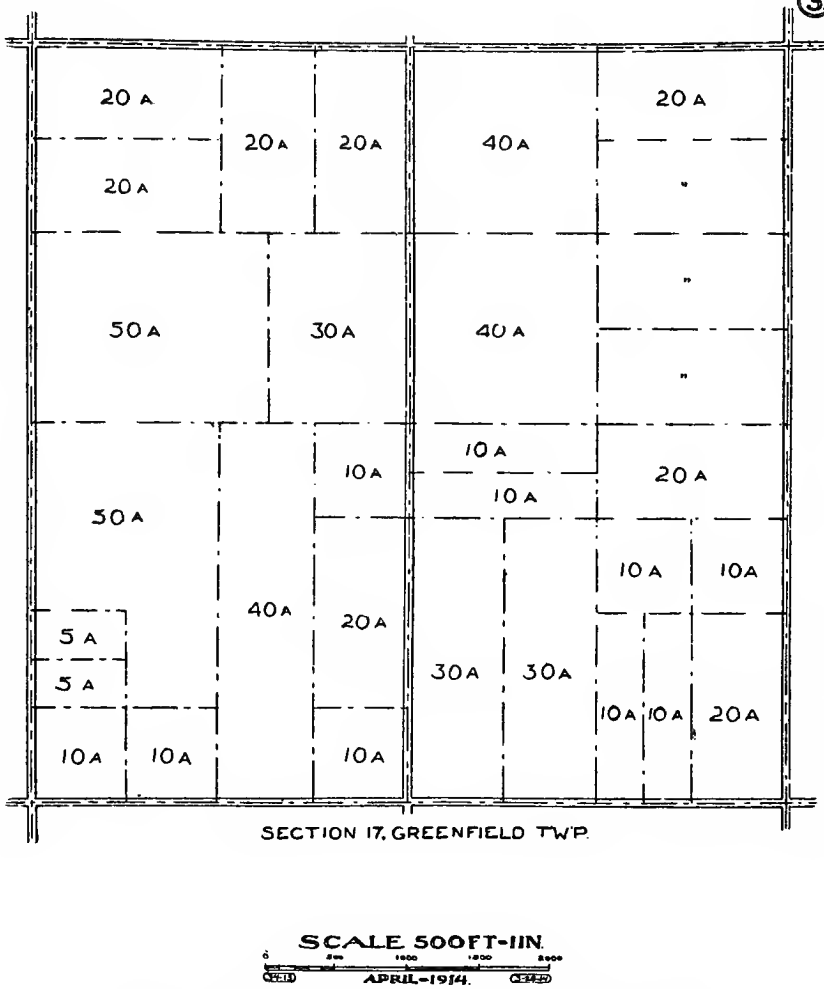
B. **Graphic Maps.** The study of social welfare and other conditions in the district will be greatly enhanced in value by plotting such information on maps and diagrams, since in this way relationships are clearly brought out. In the suburban districts, however, many maps of great importance for the urban areas are relatively unimportant.

1. **Range in Land Values** is of particular significance and should be shown graphically by plotting values on a map and drawing lines through lands of equal value. If similar maps are prepared in successive years or two-year periods, the tendencies in land values will be clearly indicated. And an analysis of increases and decreases, which may be plotted on another map, will show at a glance the so-called "blighted districts," where land values are stationary or falling, the "boom" sections, where abnormal rise is taking place, and the regions of normal healthy improvement. A study of the data exhibited in this way should go far to check irrational civic development.

2. **Woodlands** throughout the Metropolitan District should be plotted on the United States topographic maps. This may normally be done by inspection, without measurements, by comparing with the county map showing farm property lines. The particular value of this map will be in locating outlying park reserves, whether of large or small extent.

3. **Other Maps** may be prepared showing the location of factories and probable factory sites, and the present distribution of population and its density (using a dot for every fifty or one hundred people). The relative rates of increase of population may be shown on a map of the district, and also diagrammatically by population curves, plotted preferably on paper drawn with one set of ordinates on a logarithmic scale, so that a uniform rate of increase is represented by a straight line on the diagram.

"Wind Roses," showing graphically the prevailing winds, will be of value in locating industrial districts so that the smoke may blow away from the residential sections, and also in determining the proper exposure of buildings. The location of paved streets, sewers, water supply, etc., will all tend to show the direction and



DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

TYPICAL SECTION IN FARMING DISTRICT SHOWING PROPERTY LINES

TO ACCOMPANY REPORT ON SUBURBAN PLANNING

ARTHUR C. COMEY- LANDSCAPE ARCHITECT

character of the suburban development, and at the same time draw attention to localities in need of such improvements.

C. **Difficulties in the Way of City Planning.** The difficulties that impede progress in carrying out a comprehensive scheme of suburban planning in Detroit now will be considered.

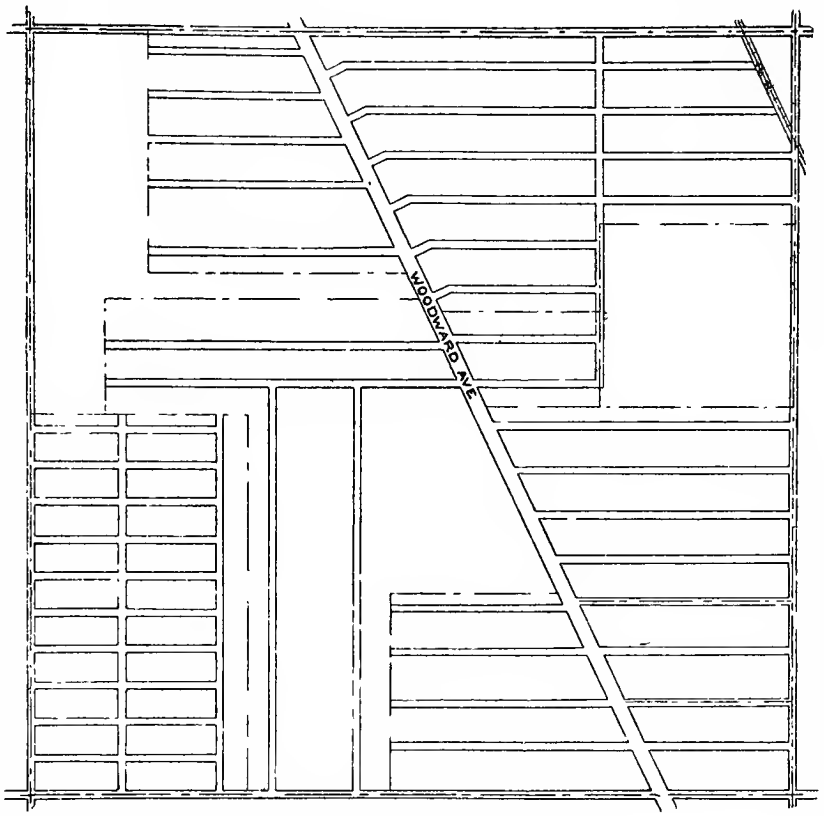
1. **Rectangular Farms of Small Area.** The rectangular system of land holding in Quarter Sections and smaller fractions constitutes a serious obstacle to scientific city planning. In all of Wayne County and the adjoining parts of Oakland and Macomb Counties the majority of the Quarter Sections are divided into ten to forty acre tracts, their boundaries almost invariably running with the cardinal points of the compass, except in the belt of claims along the river. Map 3 shows the property lines of a typical Section in Greenfield Township.

2. **Large Areas Already Platted** interfere still further with the establishment of a logical city plan. Map 2 shows the extent of plats already filed; and it is known that many other plats have been drawn and grading done, though no plat is recorded. Map 4 shows a platted Section on Woodward Avenue. The typical rectangular system, with very long blocks and few or no cross streets, adjoining plats bearing no relation to one another, streets interrupted in a haphazard way, and uniform undifferentiated widths, combined with the extreme flatness of the district, make a particularly poor basis for city planning. It is the purpose of this report to show how these conditions may be corrected and their recurrence in the future prevented.

II. Street and Parkway System

A. **General Scheme.** The general plan for Detroit as submitted by Mr. E. H. Bennett (cf. Map 1) shows a system of radial thoroughfares and diagonals and two parkway circuits around the city. This proposed plan distributes traffic coming by each radial into the city, to whatever section it is bound, without forcing it either to go through the heart of the city or to make a right-angled turn and go out of its way around the city to reach its destination. The congestion at present existing on Detroit's downtown arteries would be largely eliminated if this system of by-pass diagonals could be cut through. The same principles govern in the suburbs, where it is still possible to lay down and open diagonal ways. It should be the concern of each township supervisor that all plats approved make provision for such a highway system (cf. Map 6).

B. **Differentiation According to Use.** The general scheme of the street system is based upon the concentration of traffic on certain main thoroughfares, as shown on Map 6, which may be made wide to accommodate it, leaving the remaining streets but slightly travelled and therefore correspondingly narrow. This is directly opposed to the current imperfectly defined system of uniformity,



SECTION 34, ROYAL OAK T'W'P

SCALE 500 FT = 1 IN.

0 500 1000 1500 2000

APRIL 1914.

DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

SECTION IN, SUBURBAN DISTRICT SHOWING TYPICAL PLATS

TO ACCOMPANY REPORT ON SUBURBAN PLANNING

ARTHUR C COMEY - LANDSCAPE ARCHITECT

by which travel through large sections of the suburbs is apt to be distributed over a number of parallel streets, each of which has to be fairly wide and expensively paved to handle it. In this matter as in others the interests of the community must rule, though here again it will be found that the interests of the vast majority of property owners are identical and will be most effectively served by planning in advance on scientific lines.

This differentiation of streets separates them naturally into four main classes: Radials, diagonals, parkway girdles, and minor streets. In each class there will be several types, varying according to the particular needs of the traffic for which each thoroughfare is designed. These types, however, may well be standardized, and especially the method of determining their proper widths.

Streets are subdivided into pavement and walks, with usually in the suburban areas parking for trees, and occasionally central grass strips or reservations for electric cars, etc. The proper width of a pavement depends upon the number of lines of traffic expected to flow along it. Measurements of many vehicles elsewhere, paying particular attention to tendencies in the widths of motor trucks, prove that the majority are not over five and one-half feet wide, and very few indeed over seven feet wide. Furthermore makers and users of trucks do not favor widening them beyond seven feet as a standard, as above this width they become difficult to handle. Since, after all, the streams of traffic on a street are flexible, it appears extravagant to provide for greater widths than seven feet. Allowing on thoroughfares one and one-half feet for clearance, this gives a unit width of eight and one-half feet per line of vehicles. On minor streets, where the proportion of wide vehicles is apt to be less, this may safely be reduced to eight feet.

Electric cars in Detroit vary from eight to nine feet in width. On the double track lines the centers of the tracks are ten feet apart. The allowance for outside clearance, however, need not be so great as for vehicles, since the cars run on fixed rails. Therefore, a space twenty feet wide is sufficient to accommodate a double-track line.

The number of lines of travel to be provided should be gauged as exactly as possible in advance. As in the suburban districts it is future traffic that is to be provided for, "traffic counts" will have relatively slight bearing on such estimates. The minimum provision, except possibly for short "one-way" lanes, is two lines. The majority of local streets should have pavements wide enough for three lines and no more. It has been the custom throughout the middle west to pave local streets thirty-five and forty feet wide, thereby wasting large sums of money, and usually making it impossible to lay the best type of pavement, owing to the great expense. Twenty-four feet of pavement is wide enough to allow a vehicle to pass down the middle of the street between two others standing at either curb, or to pass on either side of a vehicle moving slowly down the middle.

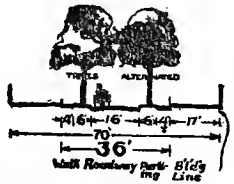
DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

CROSS-SECTIONS FOR SUBURBAN STREETS AND PARKWAYS

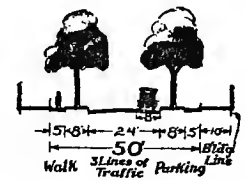
TO ACCOMPANY REPORT ON SUBURBAN PLANNING
ARTHUR C. COMEY - LANDSCAPE ARCHITECT

SCALE. 20 FT. - 1 IN.

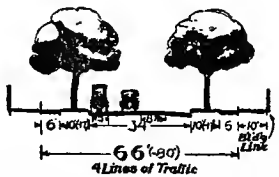
APRIL - 1914.



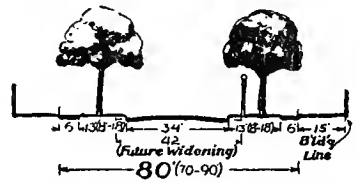
① SHORT MINOR ST.



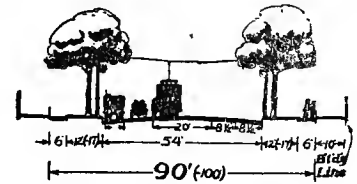
② LOCAL STREET



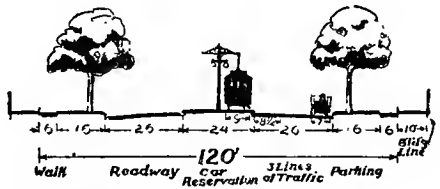
③ SECONDARY STREET



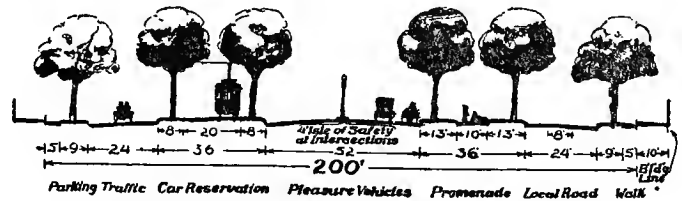
④ RESIDENCE AVENUE



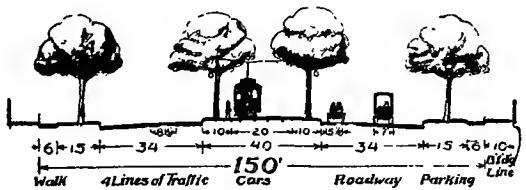
⑤ THOROUGHFARE



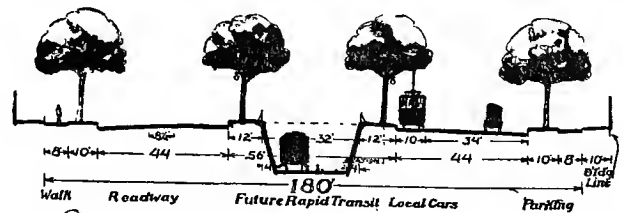
⑥ MAIN THOROUGHFARE



⑨ PARKWAY GIRDLE - MINIMUM SECTION



⑦ TRAFFIC PARKWAY



⑧ TRAFFIC PARKWAY ON MAIN RADIAL

Except on local streets, however, there should normally be an even number of lines of traffic, for the central one would be of little value. Four lines are sufficient for secondary highways. Thoroughfares should normally include a space for a two-track car line and four lines of traffic, thus providing room for a vehicle to pass another at the curb without turning out upon the car track. Where the heaviest traffic is anticipated three or even four lines on either side may ultimately not be too many, and the electric cars may require a central reservation, in order to maintain a reasonable speed. These main routes are shown on Map 6.

The determination of the widths of the other units that go to make up the street width is not so subject to exact calculation. Pedestrians normally require a space about two feet wide; but certainly above ten feet this unit is lost, as, unlike vehicular traffic, pedestrians do not travel in streams. A tree requires for healthy growth a space about six feet wide, but this should be considerably increased on thoroughfares, where conditions are more severe. On main highways the walk and parking taken together should be of the proper width for a possible future sidewalk along a shopping block, that is, about twenty feet.

The sum of all the units making up the street will give the proper over-all width in each instance. On Diagram 5 are shown the widths proposed for nine standardized types of highways for Detroit's suburban district, showing in each case the ultimate construction. For several years to come a much narrower pavement will, as a rule, suffice. Map 6 indicates in a diagrammatic way the proposed network of thoroughfares throughout the district. Township supervisors should endeavor to open radial thoroughfares to the full width, as far in towards the city as possible, and should accept no new plats which do not dedicate all these and the diagonal highways shown on Map 6. Detailed plans showing the location of these thoroughfares at a scale of 900 feet to the inch have been drawn in connection with this report and are on file at the office of the City Plan and Improvement Commission.

1. **Radials.** For effective service every part of the Metropolitan District should be within a half-mile of a radial thoroughfare ninety feet wide, which will afford direct access to the heart of the city. Certain main thoroughfares, which will act as collectors of the traffic on the ninety-foot highways, should be one hundred and twenty feet wide. The extensions of four of the principal arteries, Fort, Grand River, Center Line, and Jefferson Avenues, should be made "traffic parkways" one hundred and fifty feet wide, providing room for a central tree-lined grass strip for electric cars. Finally, upon Michigan, Woodward, and Gratiot Avenues, the interurban electric lines should be concentrated, and an extreme width of one hundred and eighty feet provided, to be laid out for the present with a broad central park strip. This may later, however, be excavated to form an open cut way for the rapid transit lines, either for trains or the interurban type of cars. With the

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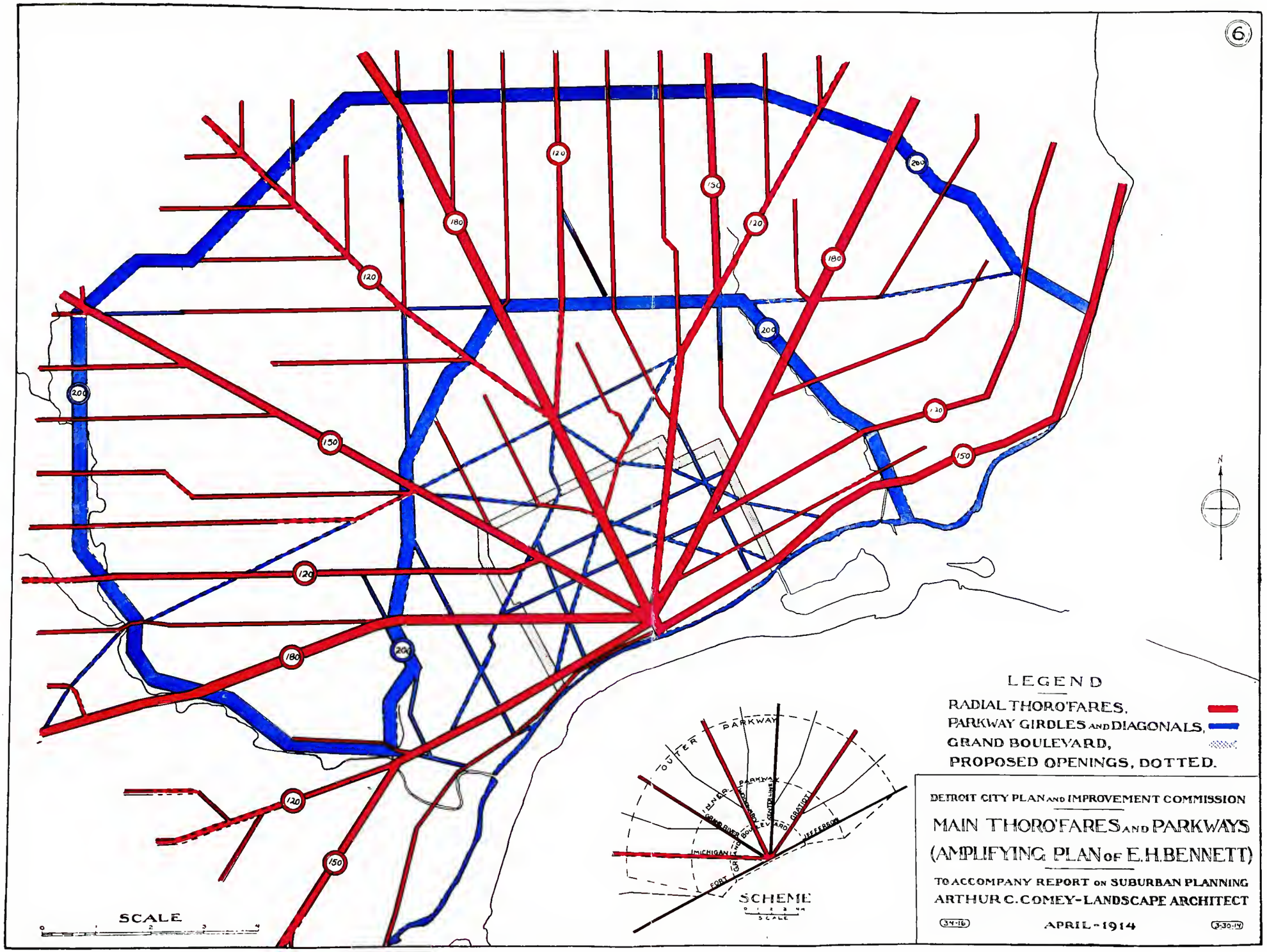
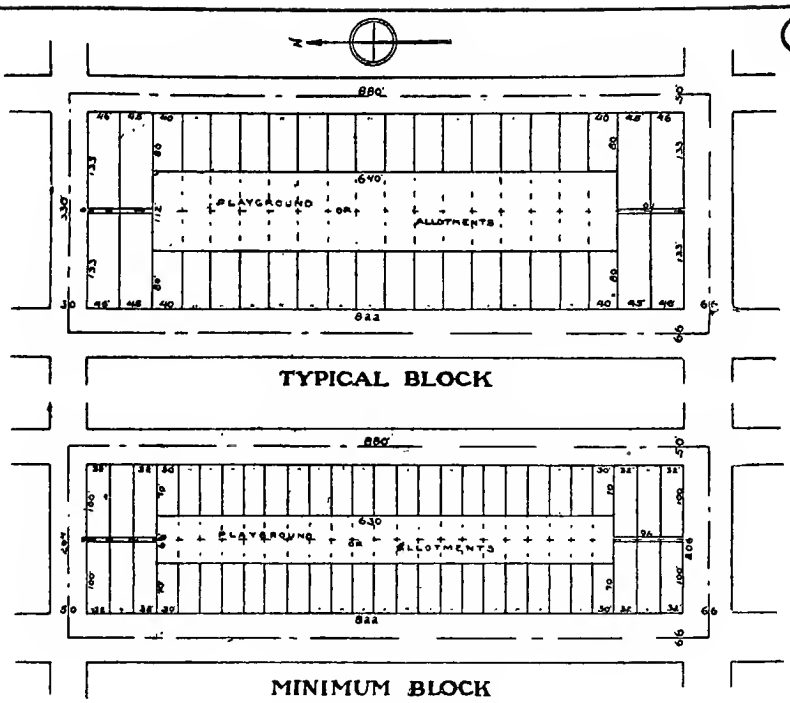

6
LEGEND
RADIAL THORO'FARES.
PARKWAY GIRDLES AND DIAGONALS.
GRAND BOULEVARD.
PROPOSED OPENINGS, DOTTED.
DETROIT CITY PLAN AND IMPROVEMENT COMMISSION
MAIN THORO'FARES AND PARKWAYS
(AMPLIFYING PLAN OF E.H.BENNETT)
TO ACCOMPANY REPORT ON SUBURBAN PLANNING
ARTHUR C. COMEY-LANDSCAPE ARCHITECT
34-16
APRIL-1914
3-30-14
SCALE
SCHEME
OUTER PARKWAY
INNER PARKWAY
MICHIGAN
JEFFERSON
FORT
N



AREAS	TYPICAL BLOCK	MINIMUM BLOCK
Area of Block	880'×330'=96 Blocks to sq mi	880×264=120 Blocks to sq mi
" in Streets	66,816 sq.ft.=1.53 A = 23.0%	62,688 sq.ft.=1.45 A = 27.2%
" " Common	72,772 " " =1.67 A = 25.0%	42,732 " " " .98 A = 18.4%
" " Lots	150,812 " " =3.47 A = 52.0%	126,600 " " =2.90 A = 54.4%
Total Area	290,400 " " =6.67 A =100.0%	232,320 " " =5.33 A =100.0%
Number of Families	6 per acre	10 per acre

Note - Area in Common Ground for Playgrounds and Allotments may be divided among abutting lots.

DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

CONVENTIONAL PLATS OF BLOCKS SHOWING CONTROLLING PRINCIPLES

TO ACCOMPANY REPORT ON SUBURBAN PLANNING

ARTHUR C. COMEY - LANDSCAPE ARCHITECT

the backs of houses is also desirable. In expensive residential sections wider avenues are preferable, as they are more dignified and in keeping with the type of houses expected to be built there. Eighty feet with wide parkings, or even one hundred feet, with a central strip, is suitable for this type of suburb.

III. Blocks and Lots

The street plan controls absolutely the size and shape of blocks, and to a large extent the lot development. Here again no precisely fixed plan should be followed, but it is essential that certain principles be observed.

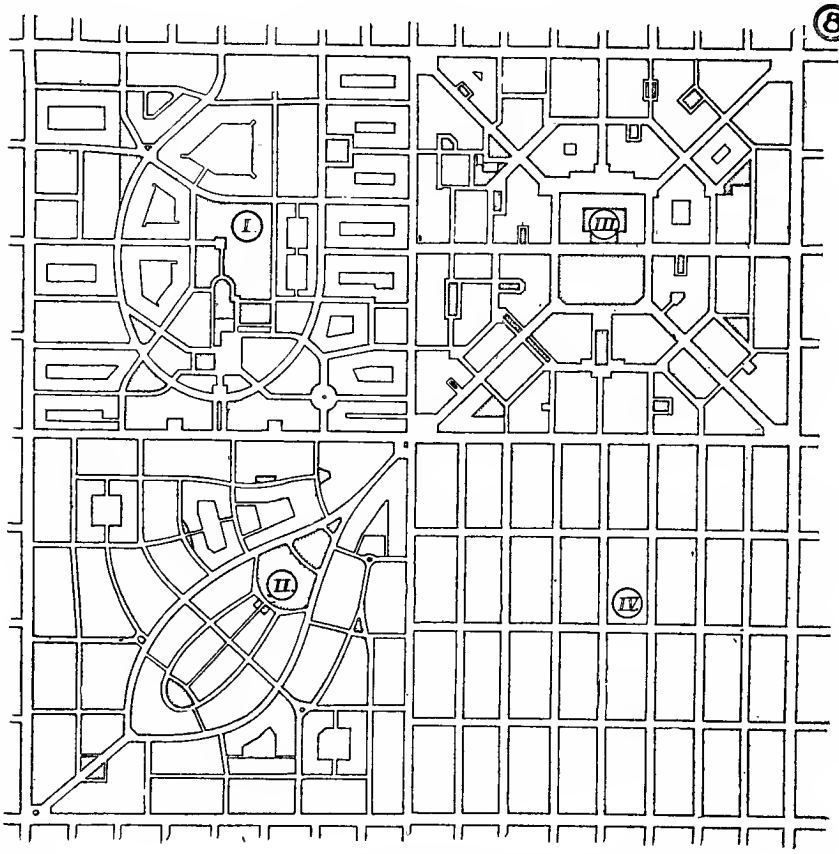
A. **Zones.** One disadvantage under which Detroit is working is the extremely mixed character of its building—fifty thousand dollar houses, warehouses, saloons, institutions, slums, factories of all sorts, inexpensive dwellings, great apartment houses, and huge billboards follow one another almost in the same block, to the great detriment of practically all classes of occupancy. A zone system, if established, would bring order out of this chaos; and it would so stabilize the character of neighborhoods as to greatly increase land values. Though such control may at present be impossible, much may be done to assist in establishing zones or districts confined to one type of use, such as industrial, residential, and the like.

Industries will follow the railway lines and water terminals, and should be encouraged there by proper planning of blocks and lots, with spur tracks and other facilities. In expensive residence sections blocks may be large, with wide avenues; in the workmen's districts shallower, narrower lots are proper; and the street should be narrowed to the actual traffic requirements, always preserving light and air, however, by means of building lines. Convertibility, that is, ease of changing a plan to meet a changed type of occupancy at some future time, may also be desirable, provided that it does not interfere with the full economic use of the property as first developed.

In this report stress will be laid on the less expensive residential development, for where this type of occupancy is to ensue, if the street and lot system is not well adapted to it, there will result serious and at the same time wholly unnecessary waste and expense. Moreover, the added cost in land and improvements is apt to cause a deduction in the cost of the building which will lower the standard of living in an entire district.

B. **Standard Requirements.** There are certain standards which should be established and adhered to.

1. **Size.** Fortunately Detroit has kept its standards in the size of lots reasonably high. With unlimited opportunities for expansion on three sides, the pressure for close building has been little felt, and today few lots are laid out under thirty by one hun-



I. 1st PRIZE PLAN, BY WILHELM BERNHARD, CHICAGO
II. 2nd - - - ARTHUR C. COMEY, CAMBRIDGE
III. 3rd - - - ALBERT LILIENBERG, SWEDEN
IV. TYPICAL CHICAGO GRIDIRON PLAN

SCALE: 500 FT. = 1 IN.

0 500 1000 1500 2000'

APRIL - 1914

DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

PLANS OF QUARTER-SECTIONS PREMIATED IN CHICAGO CITY CLUB COMPETITION

TO ACCOMPANY REPORT ON SUBURBAN PLANNING

ARTHUR C. COMEY - LANDSCAPE ARCHITECT

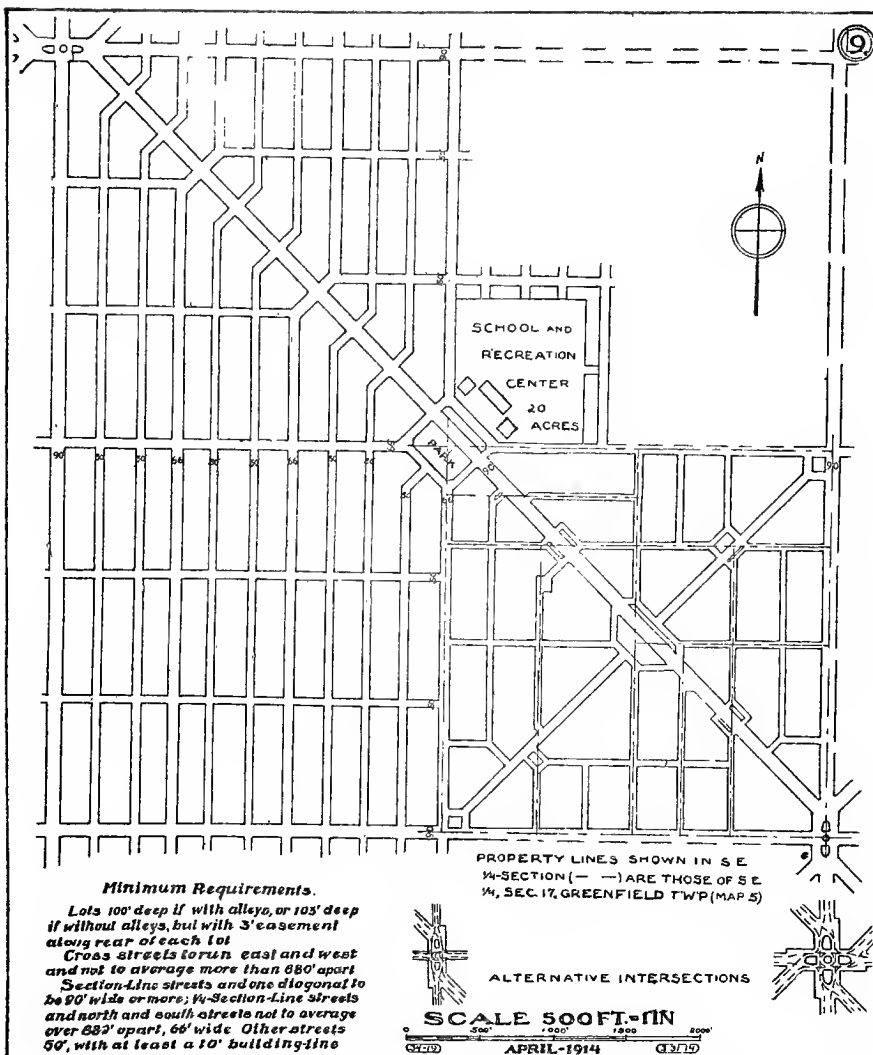
dred feet in size. This should be preserved as the minimum in most new subdivisions, for these districts are designed as a rule for the industrial workman, artisan, or clerk, who is receiving a reasonable wage, and can afford a home costing from $1,800 to $2,500, or renting for from $15 to $20 per month. The house should normally represent three-fourths of the cost, the improvements, such as sidewalks, sewers, etc., about another eighth, and the raw land an eighth, that is about $450 to $600 per lot improved—prices which are readily met in the suburbs of Detroit today. Thousands of skilled workmen and employes of business concerns will prefer a $3,000 to $4,000 home, and for these much of the area about Detroit will probably justify a more liberal development, with forty foot lots or wider and a depth of one hundred and thirty feet or more.

The standard depth of lots evidently controls the depth of blocks, but not the length. In many plats on the edge of Detroit absolutely no consideration has been given to the need for cross streets, and cases exist of blocks practically a mile long laid out in thirty foot lots and now being built upon. Even inside the city limits there are several blocks thirty-six hundred feet long and built up, while a half mile is not uncommon in recent plats. The maximum distance between cross streets should be but a fraction of these lengths, and should never exceed eight hundred and eighty feet from center to center, that is, not less than six streets to the mile.

2. **Aspect.** Where houses are built close together it is to be preferred that the majority of the streets run north and south, so that both the front and back rooms will receive sunlight morning or evening, when the sun is low and shines far into the rooms, while at noon, when the sun is high, it will penetrate the narrow space between the houses.

3. **No Alleys.** Alleys are unnecessary and wasteful of room, except where dwellings are in continuous rows or in groups of three or more. For the detached and semi-detached cottage the space between adjacent houses necessary for light and air is sufficient also for a walk from the street to the back door. To take care of pole lines and other public services there may, however, be a three to five foot easement on the back of each lot, in which the poles will be placed and to which access by linemen, etc., will be given. In high class suburbs underground wires should be the rule. To encourage platting without alleys, lots one hundred and three feet deep should be permitted on plats without them, and one hundred feet required if alleys are retained.

4. **Allotments and Playgrounds.** With the density of population as low as in Detroit's suburbs, a greatly increased use can be made of the land in the large back yards if it is thrown into a central area owned in common, and then either apportioned out as allotment gardens to those residents who are ready to undertake gardening, or a part or all of the area given over as a playground



DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

CONVENTIONAL PLAT OF SECTION SHOWING CONTROLLING PRINCIPLES

TO ACCOMPANY REPORT ON SUBURBAN PLANNING

ARTHUR C. COMEY - LANDSCAPE ARCHITECT

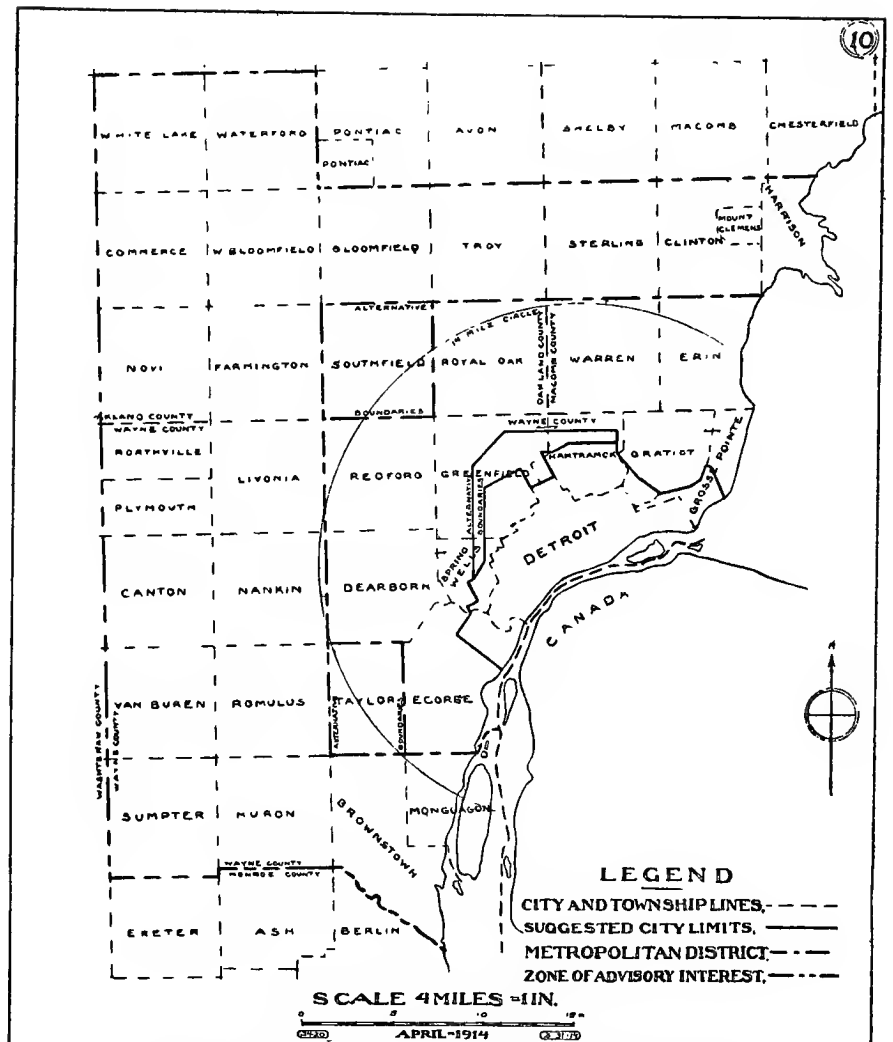
for the little children. If at any time through lack of interest or discord the ground becomes dirty and a nuisance, it may upon two-thirds vote of the residents be divided and a proportionate amount added to each abutting lot, thus restoring the typical plat of today.

5. **Conventionalized Block Plans,** meeting the requirements outlined above, are shown on Map 7. The percentage in streets is the same as though a street ninety feet or more wide occurred every mile, and a sixty-six foot street every sixth of a mile in one direction and every half mile in the other, the remaining streets being fifty feet wide. The combined area of lots and common ground—seventy-three to seventy-seven per cent of the total—is as high as it is normally safe to go. The "minimum" block represents twenty blocks to the mile in width, the "typical" block sixteen to the mile, this latter conforming to the usual farm property lines dividing the Quarter Sections into eighths.

C. **Types of Plans.** There are several types of street planning in use for laying out the minor streets. These may be classified as rectangular, curvilinear, formal, and irregular. In rough topography the rectangular and the formal have no place, as they require a heavy construction expense otherwise unnecessary. Even in such flat country as Detroit, however, the depressingly monotonous effect of the rectangular system should be avoided, on economic grounds if no other, for the dead level of mediocrity to which it brings districts depreciates their total value very materially. While, to be sure, no site is worth very much less than the average, none is worth very much more, whereas with a variety in the layout many lots may be created with unusual value, due to location, attractive outlook, and special shape of lot adapted to the needs of the particular resident.

1. **Chicago Competition.** The Chicago City Club held in 1913 a competition for the development of a Quarter Section on the outskirts of that city, where conditions prevail very similar to those outside of Detroit. The three prize-winning plans are typical of the three types of planning—irregular, curvilinear, and formal, as opposed to the customary rectangular system. The three plans are reproduced in Plan 8, together with the typical Chicago gridiron plan of today, showing at a glance how totally they differ from it.

The irregular type of planning (First Prize) has been brought to its highest development in German cities. It permits the greatest advantage to be taken of special sites, but at the same time requires that the design of the buildings be closely adapted thereto. In uncontrolled developments it is apt to produce disagreeable results. It is, therefore, adapted chiefly to real estate developments in which the houses and grounds are designed as a whole and carried out by the company. Many excellent examples of the curvilinear type of planning (Second Prize) occur in American suburban developments. The only difficulty in applying this method to Detroit suburbs is the inevitable conflict with rectangular property lines in



DETROIT CITY PLAN AND IMPROVEMENT COMMISSION

MAP SHOWING TENTATIVE LIMITS FOR DETROIT METROPOLITAN DISTRICT

TO ACCOMPANY REPORT ON SUBURBAN PLANNING

ARTHUR C. COMEY - LANDSCAPE ARCHITECT

most sections. The formal type (Third Prize), that is, straight lines for the most part, and a more or less geometric plan, as adapted to open building, is more often used in current English planning than elsewhere. It may readily be adapted to local requirements; and if combined with a certain amount of curving streets, where they fit in readily, it should produce a very effective ground plan for the development of the suburban districts.

2. **Conventionalized Plats.** In the southeast Quarter Section on Map 9 is shown an adaptation of the formal type to a typical Quarter Section outside of Detroit (cf. Map 5), the layout being so designed as to produce no acute-angled building sites or waste land.

Where this advanced type of planning is not feasible, owing to lack of concordant action, a more conventional plat may be unavoidable, but the majority of the underlying principles may still be followed. Map 9 shows a conventionalized Section, with ninety foot thoroughfares on three sides and one hundred and twenty feet on the fourth, and a ninety foot diagonal, slightly offset from the corners in order to prevent traffic congestion, which is certain to arise where more than four streets are brought to a common focus, that is, where more than two streets cross. By offsetting the intersection of the diagonal with one thoroughfare from one hundred to two hundred feet, its traffic is permitted to merge into that of the thoroughfare and with this crosses the other thoroughfare at right angles. By providing added width and "aisles of safety" at such intersections practically all congestion is eliminated, and a focal point or "square" is produced, around which shops and public and semi-public buildings will naturally be grouped, producing a local civic center.

In this conventional plat the quarter section streets and every third or fourth north and south street are shown as secondary thoroughfares sixty-six feet wide, and the remaining ones fifty feet wide. No street is allowed to cross the diagonal except at right angles, and no acute-angled sites are produced. Through traffic on the minor streets is slightly retarded by the occasional turns of forty-five degrees; in practice it would doubtless be much more interrupted by certain of the streets not being continuous from plat to plat. Provided the main thoroughfares are secured, this is of no material disadvantage to the city as a whole, as the traffic will seek these routes and there will result a very desirable added privacy and quiet on the minor streets, and economy of upkeep as well.

IV. Public Lands

Land will be needed for public purposes other than for streets and parkways, as the city grows out into the suburbs now being platted. Detroit should not wait until each actual need arises and then reclaim these areas from the more or less solidly built sections, but should provide them in advance, in the same way as streets are

provided, as a part of the city plan. At present there is no way of enforcing such provision, but real estate operators should be readily convinced that the practice, becoming common in other parts of the United States, of providing school sites, playgrounds, and strips of park lands along streams and woods is a net gain in the sale value of their property.

If the "Gary Plan" of recreation facilities is to be followed—and it is now considered by many experts as the most economical and at the same time most efficient—a combined school and recreation center twenty acres in extent should be provided for approximately every square mile. Such a tract should be central and easily reached, yet preferably not directly on a main thoroughfare, with its noise and dangerous crossings (cf. Map 9). On this center would be located also the branch library, and possibly fire stations and other municipal buildings.

It is hardly to be anticipated that larger areas for park purposes will be provided in the majority of plats, yet it is obvious that the preservation of woodlands and stream banks will result in great and lasting benefit to the neighborhood and a corresponding increase in land values. The provision of such areas will depend largely upon the financial methods adopted and the control exercised.

V. Control

A. **Under Existing Laws** advisory powers only are given in city planning outside the city limits. Plats, before being recorded, however, must be approved by the township supervisor; and if these officials are sufficiently broadminded and independent much can be accomplished. They should realize the benefits accruing from the adoption of the plans and underlying principles of city planning as outlined in this report; and accordingly should approve no plat unless it provides for the radial and diagonal thoroughfares shown on Map 6, and of the full width recommended; nor unless it conforms to the standards laid down for the location of other diagonals, secondary thoroughfares, and minor streets; and preserves at least the minimum standards for blocks and lots. Intelligent control of this sort will go far to ameliorate conditions in the future suburbs, without change in the laws, but effective city planning will be greatly facilitated by certain additional powers.

B. **Financial Methods.** At present it is impossible to equitably distribute the cost of opening a street through several properties, or of taking a park area benefiting a considerable district. The best way to do this would be to establish in each case a benefit district and assess the cost against all the property benefited.

In many cases improvements will be desired by practically all those whose property would be benefited, and they would gladly share in the expense, but there is at present no way of identifying the cost and the benefit, that is, making the property benefited pay

the cost of the improvement or opening. Special assessments not only place the cost where it belongs, but, if the payments are spread over a period of years, they will reduce the annual expense to a very low figure. With this system in effect steady improvement and additions to Detroit's park system, paved and sewered streets, etc., would come about almost automatically. The success of Kansas City in this respect is noted, $11,000,000 having been raised in seventeen years by special assessments for parks, yet the people there are today demanding even more. Denver has acquired an extensive park system and civic center and completed many miles of street opening and paving by means of special assessments under the provisions of its charter.

In certain cases, however, such as where narrow "gores" or odd-shaped bits of property are left, or where restrictions are important, the only satisfactory way is by utilizing the power of excess (or more properly "incidental") condemnation, that is, taking more property than is actually required for the improvement and reselling the surplus, after laying it out in well-shaped lots for building, or with restrictions as to height, character of building, etc., which may be necessary to protect the aesthetic or other value of such improvements as parks and boulevards, and in order to preserve their full economic value. Incidentally much or occasionally all of the cost of the improvement may be recouped through the increase in values due to it.

Certain improvements may be carried out by exercise of the "police power," without compensation, that is, by virtue of the right of the community to abolish nuisances and to secure health and safety. On the other hand, in the United States thus far convenience and beauty have as a rule not been deemed as within the province of the police power.

C. **Metropolitan Legislation.** Ultimately such powers as those touched upon above should be secured from the legislature and vested in a Metropolitan Plan Commission, to be composed, say, of the Detroit City Plan and Improvement Commission and the Supervisor of each township within the Metropolitan Area. On Map 10 are shown tentatively suggested limits for the Metropolitan District, roughly comprising all townships within fourteen miles of the Campus Martius, as follows: Erin, Warren, Royal Oak, Grosse Pointe, Gratiot, Hamtramck, Greenfield, Redford, Springwells, Dearborn, Ecorse, and probably also Southfield, Taylor, and Monguagon.

Beyond this area the Commission should have general advisory powers over all of Wayne County and the southern portions of Oakland and Macomb Counties. In the interest of efficiency, moreover, it would also seem advisable to extend the city limits to include all the built-up area and also that area which is apt to be developed within a few years. A logical limit would approximate one of the lines suggested on Map 10, the outer of these being

drawn to include the first Parkway Girdle and the row of lots facing it.

With an active Metropolitan Plan Commission passing upon all plats and making plans for thoroughfares and parks, the ground work will be provided for Greater Detroit to expand in a convenient, healthful, and beautiful manner throughout the Metropolitan District.