III. LAND AND ITS USES IN THE DISTRICT OF COLUMBIA

Report to the National Capital Park and Planning Commission, prepared by S. G. LINDHOLM, June, 1927

An intensive study of the use of land within the District of Columbia, particularly in relation to the effect of zoning on the growth of the city, was undertaken by the commission to provide information which could be used as a basis for future studies of various elements of the city and regional plan. The following statements, tables, and charts show the results of this study:

SCOPE AND SOURCES OF DATA

Area.—The District of Columbia has, for the purpose of this report, been divided into nine districts. They are shown on the attached map and the boundaries are—

District 1.—Rock Creek, Q Street, Florida Avenue, Barry Place, College Street, Channing Street, North Capitol Street, South Capitol Street, and Potomac River.

District 2.—Rock Creek, extension of R Street to Rock Creek, R Street, Thirty-fifth Street, northern and western boundaries of Convent of the Visitation and of Georgetown College, and Potomac River.

District 3.—Northern and western boundaries of Georgetown College and Convent of the Visitation, Wisconsin Avenue, District line, and Potomac River.

District 4.—Rock Creek, Rock Creek Park, District line, Wisconsin Avenue, R Street, and R Street extension to Rock Creek.

District 5.—Q Street, Florida Avenue, Barry Place, College Street, Channing Street, North Capitol Street, Michigan Avenue, McMillan Park, Park Place, Rock Creek Church Road, Spring Road, Rock Creek Park, and Rock Creek.

District 6.—Spring Road, Rock Creek Church Road, Riggs Road, District line, and Rock Creek Park.

District 7.—North Capitol Street, Michigan Avenue, McMillan Park, Park Place, Rock Creek Church Road, Riggs Road, District line, Anacostia River, Benning Road, and Florida Avenue.

District 8.—South Capitol Street, North Capitol Street, and Anacostia River.

District 9 (east of Anacostia River).—Potomac River, Anacostia River, and District line.

LAND AREA OF DISTRICT OF COLUMBIA

No authoritative statement of the land area of the District of Columbia has been found, and the area given here has been figured from planimeter readings on the Map of the Permanent System of Highways prepared under the direction of the engineer commissioner, District of Columbia, 1921, scale 1,000 feet to the inch. The result obtained—39,365.5 acres or 61.5 square miles—closely conforms to a statement in the 1925 Transportation Survey, a report to the Public Utilities Commission, District of Columbia, page 27: "The District had a land area of approximately 60 square miles in 1920. The present area (1925) is about 61.4 square miles."

The area of streets and alleys has been obtained in districts 1 and 8 from a report, Title of the United States Lands in the District of Columbia, compiled under the direction of the Secretary of War, 1915. In districts 2, 5, and 6, the street lengths were measured on the above-mentioned map and the widths from Baist's Real Estate Atlas. The percentage of street areas to the total area served by the streets, as obtained in district 6, was used in computing street areas in districts 3, 4, 7, and 9. Alley areas in districts outside of 1 and 8 were obtained by taking the alley areas in typical squares and using the percentage in computing the alley area of the total area laid out in streets. Details are found in Table 6.

Land for Government, commercial, and industrial uses, as well as vacant land, was estimated from the Baist's Atlas, interpreted in the light of other information, such as building permits issued, land set aside for proposed parks, etc. Land occupied by existing parks and institutions was computed from official sources.

Lot area, occupied for residential use, was obtained from Baist's Real Estate Atlas. Lot areas of unusual size were listed separately and areas occupied by representative numbers of detached, semidetached and row houses were measured and averages for each established in each section. Lot areas occupied by apartment houses are each listed as found.

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HOUSING

Housing.—The number of residential buildings was obtained by counts, using the Baist's Real Estate Atlas and the Sanborn fire insurance maps. The number of buildings erected from the date of issuing these maps to January 1, 1927, were taken from the files of building permits issued by the building inspector and from assessment records in 1920.

In the tables no separate mention has been made of what is known as "flat" houses. Thirty-five such were found in district 7 and 218 in district 8, as well as about a score in the permits examined from July 1, 1920, to December 31, 1926. These have all been included in one-family row houses.

Zoning restrictions.—Table 9 (p. 17), showing areas under zoning regulations, was obtained by planimeter measurements on an official use map. Parks and Government property not under zoning regulations are excluded, but streets between and adjoining zoned squares are included.

Other tables showing relations of zoning to other features under consideration are estimates to the extent that the unit of measurement in compiling the data of the report is the city square or block. The square, however, may be covered by more than one zoning regulation. Complete accuracy has therefore not been arrived at.

Types of residential buildings.—Building permits are issued for two types of residential buildings—dwellings and apartment houses. A dwelling may be a one or two family dwelling; in the latter case the permit is issued for two dwellings. If the permit includes a store with a dwelling, it is usually classed by the building department as an apartment permit. In very rare occiasions it is designated a flat, but the designation is not recognized in the reports of the building department.

In order to tabulate the permits by type of dwelling, such as detached, semi-detached, and row, the permit record must be searched for a lot plan which is required by the department in order to attest the conformity to the zoning law. As a rule these plans establish the type of the house. Such search was made of every permit issued between July 1, 1924, and December 31, 1926, and upon the percentages computed from this information estimates were extended to all permits issued since July 1, 1920.

The type of buildings found in the real estate atlases was interpreted from the atlas. As the Baist atlases covering districts 1 to 6 bring the information down to 1925, the results in these districts are reasonably accurate. For districts 7 to 9 the Sanborn Atlas, amended to 1926, and the Baist Atlas were searched.

The building permit for an apartment house requires that the number of apartments—and for the last two or three years the number of rooms—be stated. All apartment houses found in the permit files since July 1, 1920, have been checked against the real estate atlas. Duplicate permits have been eliminated and this fact as well as differences in interpretation of what shall be defined as an apartment house are in part the causes for differences in totals in this report and reports by the building department.

DEFINITIONS

This report defines an apartment house as a residence accommodating three or more families and providing entrance or entrances, and usually, also other essential features in common to all.

A detached dwelling is a one-family house with open spaces on all sides provided by the lot or adjacent street or alley. A semidetached dwelling is provided with open space the same as a detached, but houses two families, separated by a party wall. The row house is joined to others by party walls and has no separate side yards provided by its lot, unless it be an end house.

In districts 1 and 8, which correspond in the main to the old city of Washington, it is frequently difficult to decide what is a semidetached dwelling in case a house has been attached to another, either by a joining of a side wall in full or only partially so. In the latter case the existence of side yards on the lot determines the classification of the report. In case a building permit for one dwelling shows no side yards on the attached lot plan the dwelling is classed as a row house.

In Table 1 (p. 10), showing the use of land 1910, 1920, and 1927, the data for 1920 and 1910 relating to residential use were obtained by deducting the lot areas required for permits issued 1920–1927 and 1910–1920, respectively, from the totals of 1927. The differences for commercial and industrial use and for Government use, at the dates given, were estimated on the number of building permits for such uses; for institutions the estimates were based largely on guess; for present and proposed parks, on official information, and the remainder of the total land in 1920 and 1910 was considered as vacant area.

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HOW THE PEOPLE ARE HOUSED

Conditions January 1, 1927.—This report counts in the District of Columbia 85,975 houses, which provide 115,968 family accommodations. (See Table 3.)

If 2.5 persons be considered the average occupancy of an apartment in an apartment house and 5.5 the average in a dwelling (the term "dwelling" meaning a detached, semidetached or row house, and a two-family dwelling counted as two dwellings), the distribution of the population would be as follows:

District of Columbia, 1927

	Population in 1927	Per cent
In apartment houses	67,137	12.1
In detached houses	100,039	17.9
In semidetached houses	46,255	8.3
In row houses	343,827	61.7
	557,258	100.0

Projecting these figures back to the census year 1920 by deducting from the totals of 1927, the building permits issued July 1, 1920, to December 30, 1926, we have the following:

District of Columbia, 1920

	Population in 1920	Per cent
In apartment houses	30,352	7.1
In detached houses	57,513	13.6
In semidetached houses	36,685	8.7
In row houses	298,655	70.6
	423,205	100.0

This total does not tally with the census population, which was 437,571 in 1920, and this for obvious reasons, the chief, probably, being that it does not take into account the population living in houses originally designed as dwellings but since then converted into business uses. The census enumerated 72,175 dwellings, while our tables show only 69,614 houses. The census enumerates as dwellings all houses or places which it finds used as sleeping places, and its definition is to that extent very vague. But it may safely be assumed that the discrepancy in the figures—2,561—consists in part at least of the number of dwellings converted into business blocks.

Another reason why the table of 1920 does not tally with the census figures is that the average occupancy in 1920 was higher than the normal assumed in this report for 1927 and also used in the 1920 table. The census gave the average of 6.1 while the table is calculated on an average of only 5.5 for 60 per cent of the accommodations and 2.5 for the remaining 40 per cent.

Washington still houses 61.7 per cent of its population in row houses; the apartment houses coming the third in rank with 12.1 per cent.

But this relation is rapidly changing. Six and one-half years of building from July 1, 1920, to December 31, 1926, brought about an increase in apartment house accommodations of not less than 121.2 per cent while the row house was a bad fourth with only 15.3 per cent. (See Table 5, p. 14.)

The population that can be housed in this addition to the city is as follows—

Population provided for by the building program of 1920–1926

	Number	Per cent
In apartment houses	37,785	28.0
In detached houses	42,526	31.1
In semidetached houses	9,564	7.5
In row houses	45,171	33.4
	135,046	100.0

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During this period the apartment house has approached closely the rank previously held by the row house as a means of housing the population. The advance of the detached house, particularly in the third, seventh, fourth, and sixth districts, where there is available land, is also important. The apartment house construction has continued heavily in the first and fifth districts, but is also following Connecticut and Wisconsin Avenues into districts 3 and 4.

In order to show how adequately the housing accommodations meet the demand upon them several factors enter which are beyond the scope of this report, but to which attention will be called in passing. One is housing accommodations provided by hotels and institutions. Another is house vacancy. In 1920 there were but few vacant habitable houses, with the exception of houses built on speculation and still unsold. In 1927 the proportion of vacant houses, both old and those still carried by the speculator-builder, is much larger. A third factor is the conversion of one-family houses into two, three, or four family houses, of which there are but scant records but which must have assumed a considerable importance in Washington during the years of house famine. For the purpose, therefore, of establishing the actual population the tables do not furnish all the data; but they analyze the permanent conditions of housing accommodations for a growing population.

INCREASE BY DISTRICTS

Tables 3 (p. 13), 4 (p. 13), 5 (p. 14), and 7, (p. 16) elaborate the data of the distribution, number, and types of accommodations.

Housing accommodations have increased by 38.6 per cent since 1920. This means an annual increase of 4,985 accommodations, sufficient to house 22,160 people. The annual increase in population from 1910 to 1920 was only 10,650, and the Census Bureau estimates the annual increase, 1920–1926, to be 15,071 (Monthly Labor Review, October, 1926, p. 77, gives the census estimate of population for 1926 as 528,000).

The increase in accommodations is least in districts 1 (18.9 per cent), 2 (10.4 per cent), and 8 (12.5 per cent). These districts form the old city and Georgetown. District 5, another settled district, barely exceeds the average. District 3 shows the highest percentage of increase—243.7—because it started with the low number of 784 accommodations. District 4, on the other side of Wisconsin Avenue, increased 187.3 per cent, or from 2,290 to 6,579. District 7 increased 107.8 per cent, from 3,741 to 7,772. District 6 increased 85.8 per cent, or from 7,531 to 13,993. The vast territory east of Anacostia River showed a rapid settlement. The building permits showed an increase of 1,846 accommodations. The data as to buildings existing in 1920 in district 9 are not very definite, but they have been estimated to have been 3,102, with 3,300 accommodations, which would make the increase, 1920–1927, 56 per cent.

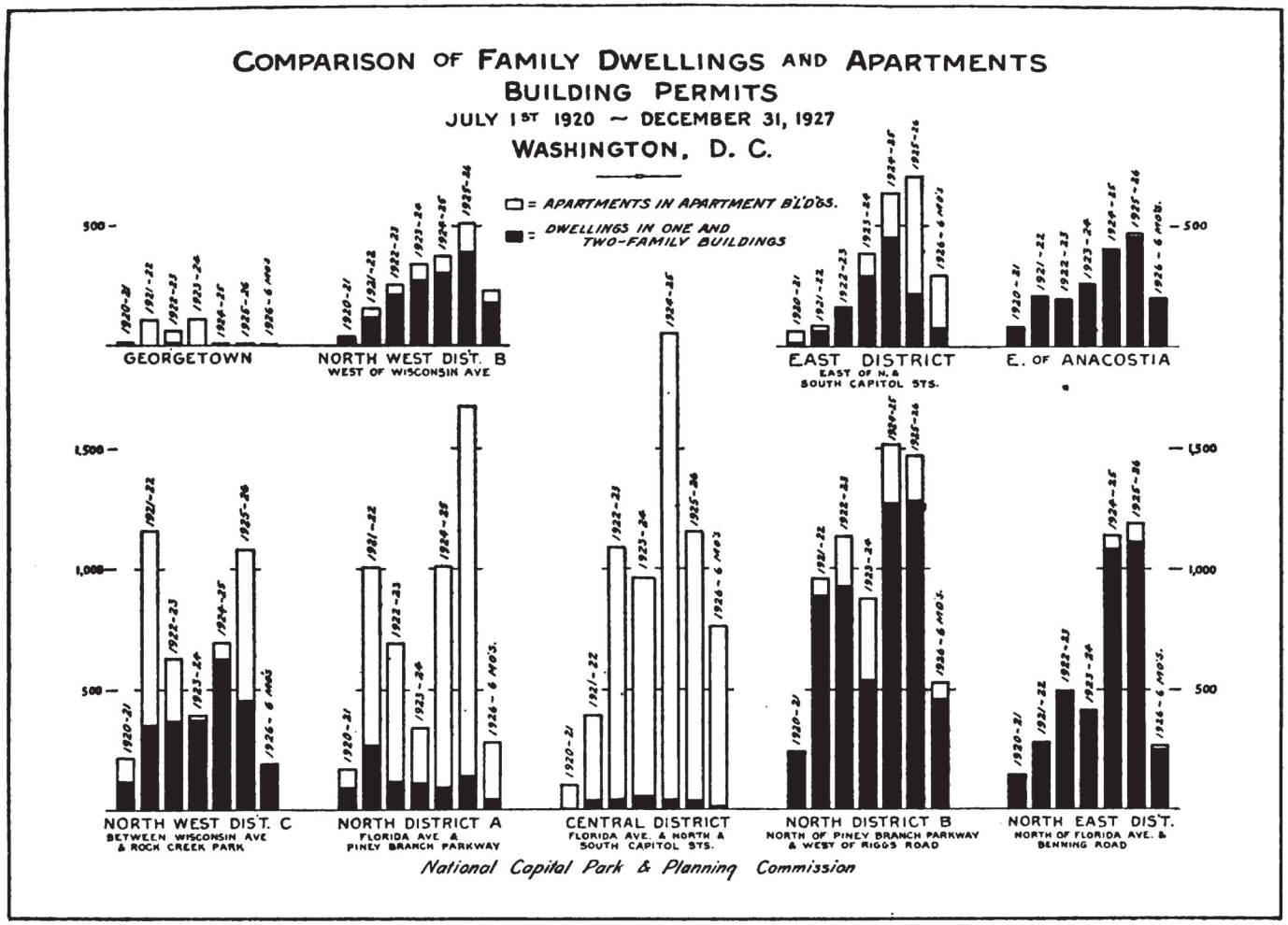
DENSITY OF POPULATION

The rapid increase in apartment house construction—apart from its social significance—has an important effect upon the real estate situation. Apartment houses with a population of 37,785 and built during the 6.5 years under consideration occupy a lot area of only 99.7 acres while the detached houses with a population larger by only 4,741 occupy a lot area of 996 acres, ten times as large. Add to this the necessary street and alley space and the disparity becomes still greater, as is vividly seen by the following comparison in which the different types of building are included—

Lot and street areas provided

	Per person	Per family
In apartment houses, square feet	158	395
In detached houses	1,367	7,518
In semidetached houses	498	2,739
In row houses	362	1,991

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New dwellings and apartments (1920–1927), Washington, D. C.

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Put in the terms of acreage needed to house the population the comparison may be made in the following terms—

Acres needed to house 100 families

	Gross area	Lot area
In apartment houses	0.899	0.671
In detached houses	17.259	12.878
In semidetached houses	6.288	4.694
In row houses	4.570	3.581

If less than one acre can bear the burden of 100 families (selected for their smallness though they be) the type of house that makes this possible has a dominant real estate importance.

By examining the permits issued July 1, 1925 to December 31, 1926, it was found that 139 apartment houses reported the number of rooms. These houses contained 3,872 apartments—907, or 23.4 per cent were 2-room apartments; 324 or 8.4 per cent 1 and 2 room apartments; 138 or 3.6 per cent were 2 and 3 room apartments; 1905, or 49.2 per cent were 3-room apartments; 54 or 1.4 per cent were 3 and 4 room apartments; 433 or 11.2 per cent were 4-room apartments; 33 were 5-room apartments; 50 were 6-room apartments and 28 were 7-room apartments. The 5, 6 and 7 room apartments were contained in five of the houses.

The needs of the occupants are not limited to the floor or lot area offered. They need public approach to the house, facilities for disposing of waste, storage for their automobiles, etc. The part that each type of dwelling receives of adjoining streets and alleys is shown in this table.

Street and alley area per family [1]

	Square feet
In detached houses	2,244
In semidetached houses	818
In row houses	624
In apartment houses	154

Of the 154 square feet of public area that fall on the average apartment house family, 8 per cent consists of alley. If one considers furthermore that the average computed in the table is based on all existing houses and that the average apartment house lot built upon since 1920 is considerably less (see table 6) one finds an explanation of the long rows of automobiles parked in every direction aroumd apartment houses.

Apartment house zones.—What areas are open for such development? Apartment houses may be erected in the A, B, C, and D Zones. Disregarding for the moment the district east of Anacostia River there are now vacant lands as follows—

	Vacant lot areas in districts 1–8 (acres)
A area	678.5
B area	548.4
C area	93.5
D area	307.1
Total	1,627.5

Permissible building area is therefore abundant, but past experience shows that apartment houses have followed certain zones. In the last 6.5 years 66.4 acres of apartment house lot areas were located in the C area; 15.6 acres in the B area; 6.5 acres in the D area (almost all of the last in district 8) and only 0.8 acres in the A area. Of the 93.5 acres which still are vacant in the C area, 32.2 acres are in District 1, where demand for commercial building sites will be heavy competitor. The razing of old buildings in this district will add new sites to satisfy a demand, the strength of which is seen by the fact that nearly 24 per cent of the total apartment house lot area was crowded into this section.

In district 5—the next important apartment house section—there are still 29.2 acres of C zone area vacant. Another building period like the last 6.5 years will exhaust this if something shall be set aside for commercial use, because during the 6.5 years 22.8 acres were covered with apartment houses. In district

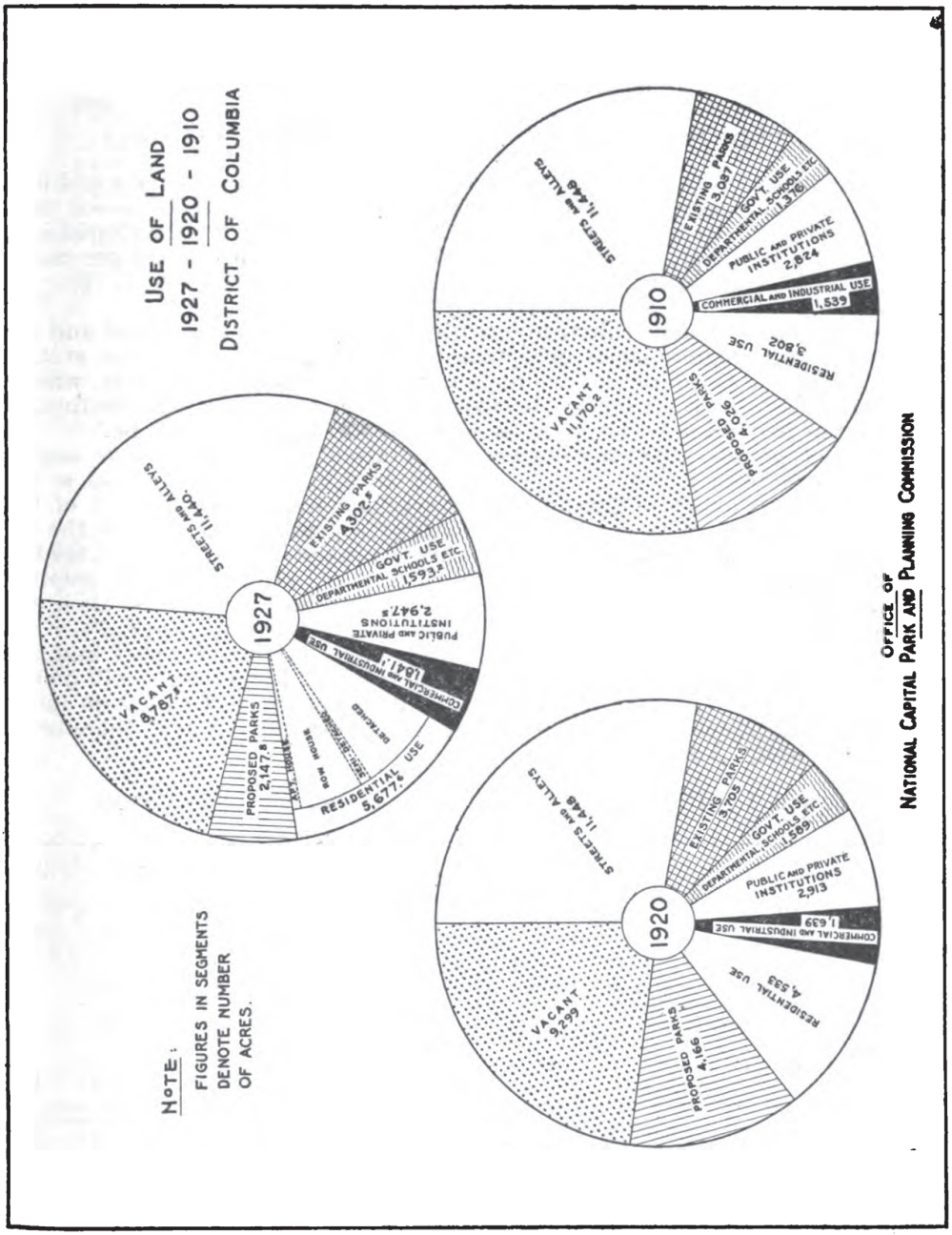
[1] In this table the public area has been calculated on a 40 per cent addition to the lot area.

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4 where apartment houses are increasing fast, 15.1 acres were given to apartment house sites in zone C. It has still 6.1 acres in zone C, 2.0 acres in zone B, 13.8 acres in zone A and nothing in zone D. For further details compare Tables 8–10. If the site question be permitted to become the decisive one the pressure to open up new zoning areas for apartment house construction will become irresistible.

Important as the site question is, there are other facts of vital importance. The parking of the automobile—now a necessity—the landing platform of the

CHART 2



NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Use of land, 1910, 1920, 1927, Washington, D. C.

aeroplane—which will be a necessity during the life of the present buildings—street traffic, water, sewer, air and, as standards of living change, privacy—these are problems before which the individual household group is defenseless and the real estate functionary in most cases powerless. Both are shifting the problems to the shoulders of the city planner and zoner.

The site problem is presented also by the row house. If all of C area and one-tenth of the B area be reserved for apartment-house sites, and the D for

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commercial and industrial use (the needs of the railroads for example must not be ignored), there remain as possible paper row-house sites 500 acres in the B area and 113 acres B restricted. A considerable part of this does not make suitable building sites and part will be used for other types. Using one-half of the 613 acres would give sites to 8,500 houses, or slightly more than was built in the last 6.5 years. The use of the D area, of which the largest remaining portion is in district 7 must be anticipated as well as pressure for modifications of the zoning regulations relating both to types of row houses and to areas.

In the preceding discussion the district east of Anacostia River has been excluded. As yet this district is untouched by the apartment house of conspicuous size. It has on paper 3,191 acres of A area land, 117 acres of A restricted, and 125 of B area. It offers, therefore, ample opportunities for real-estate development for a long time to come.

USES OF LAND OTHER THAN RESIDENTIAL

Streets and alleys.—Of the total land area, including parks, the streets and alleys as laid out in the permanent system of highways (including streets shown on the plan as proposed), occupy 29.3 per cent. Measured within the developed areas, the proportion is higher; in district 1, 44.9 per cent; in district 8, 46.1 per cent; in district 2 (old Georgetown), 26.5 per cent; in district 5, 32.6 per cent, etc. (See Table 2.)

Government use.—Under this title has been included sites of Federal and local Government buildings, such as departmental buildings, schools, police stations. The White House Grounds are included, but not the Capitol Grounds, which is classed as parks. The distinction between this title and parks is, therefore, not clear cut, nor is it vital for the purpose of the report that it should be.

Public and private institutions.—An enumeration of all institutions come to our notice has been made, and the ground held by each shown on a map, because they are under obligation to serve public welfare on account of their immunity from real-estate taxes. They occupy a considerable part of the land of the district—in all 2,947.5 acres (including National Training School for Boys and St. Elizabeths Hospital)—and some of them may in time revert to other uses. The immunity from taxation is an ever-present inducement to increase their holdings, particularly in sections where land is still comparatively cheap.

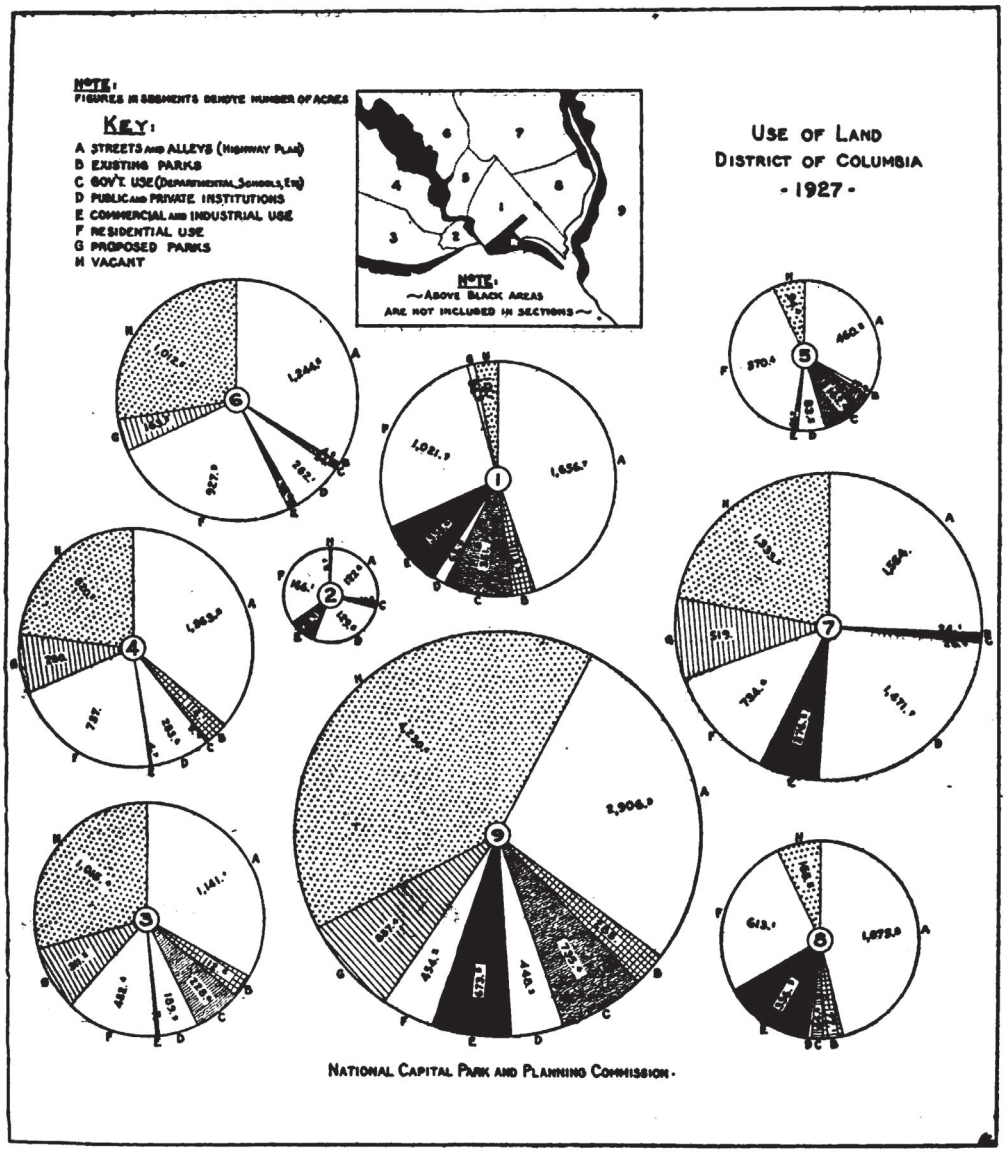
Proposed parks.—The proposed parks include areas intended for park and highways, arboretum and other similar uses. The total—2,533.5 acres—will increase the present park system about 50 per cent. Whatever part of this item fails to be acquired will, of course, remain available for private use and may, therefore, be added to the item "Vacant ground."

TABLE 1.—*Use of land, District of Columbia, 1927, 1920, 1910*

	1927	1920	1910
	Acres	*Acres*	*Acres*
A. Streets and alleys [1]	11,440.0	11,448	11,448
B. Existing parks	4,302.5	3,705	3,037
C. Government use (departmental, schools, etc.)	1,593.2	1,589	1,376
D. Public and private institutions	2,947.5	2,913	2,824
E. Commercial and industrial use	1,841.1	1,693	1,593
F. Residential use	5,677.6	4,698	3,967
G. Proposed parks	2,533.5	4,166	4,026
H. Vacant	8,787.5	9,299	11,172
Not accounted for	242.6	----------	----------
Total	39,365.5	39,511	39,443
	Per cent	*Per cent*	*Per cent*
A. Streets and alleys	29.3	29.0	29.0
B. Existing parks	11.0	9.4	7.7
C. Government use	4.1	4.0	3.5
D. Public and private institutions	7.5	7.4	7.2
E. Commercial and industrial use	4.7	4.3	3.9
F. Residential use	14.5	11.9	10.1
G. Proposed parks	6.5	10.5	10.3
H. Vacant	22.4	23.5	28.3
Total	100.0	100.0	100.0

[1] Existing and as proposed by highway plan.

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Land use by districts, Washington, 1927

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TABLE 2.—*Use of land by districts, District of Columbia, 1927*

	District of Columbia	Central 1	Northwest		
			A—2	B—3	C—4
Total	*Acres* 39,365.5	*Acres* 3,661.7	*Acres* 507.9	*Acres* 3,470.6	*Acres* 3,674.7
A. Streets and alleys	11,440	1,656.7	127.6	1,141.1	1,263.8
B. Existing parks	748	113.3	----------	112.6	114.1
Parks not included in sections	3,554.5	----------	----------	----------	----------
C. Government use (departmental, schools, etc.)	1,593.2	351.0	10.8	228.6	9.4
D. Public and private institutions	2,947.5	63.8	129.6	189.9	283.6
E. Commercial and industrial use	1,841.1	335.6	45.9	7.0	4.7
F. Residential use	5,677.6	1,021.9	166.1	452.4	737.0
G. Proposed parks	2,147.8	36.7	----------	311.2	280.0
Proposed parks not included in sections	385.7	----------	----------	----------	----------
H. Vacant	8,787.5	113.1	2.7	1,015.4	820.2
Not accounted for	−242.6	30.4	−25.2	−12.4	−161.9
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
A. Streets and alleys	29.3	44.9	26.5	33.0	36.0
B. Existing parks	11.0	3.1	----------	3.2	3.2
C. Government use	4.1	9.5	2.2	6.6	.2
D. Public and private institutions	7.5	1.7	26.8	5.5	8.1
E. Commercial and industrial use	4.7	9.1	9.5	.2	.1
F. Residential use	14.5	27.7	34.4	13.1	21.0
G. Proposed parks	6.5	1.0	----------	9.0	8.0
H. Vacant	22.4	3.0	.6	29.4	23.4

	North		Northeast, 7	East, 8	East of Anacostia, 9
	A—5	B—6			
Total	*Acres* 1,402.4	*Acres* 3,613.9	*Acres* 6,056.2	*Acres* 2,467.4	*Acres* 10,570.5
A. Streets and alleys	460.2	1,244.5	1,564.0	1,075.8	2,906.3
B. Existing parks	17.2	4.6	24.1	77.1	285.0
C. Government use (departmental, schools, etc.)	162.4	24.8	26.4	44.4	735.4
D. Public and private institutions	83.5	262.1	1,471.7	15.0	448.3
E. Commercial and industrial use	21.7	39.6	376.2	336.9	673.5
F. Residential use	570.4	927.9	734.6	613.1	454.2
G. Proposed parks	----------	163.5	519.0	----------	837.4
H. Vacant	94.4	1,012.5	1,333.3	165.5	4,230.4
Not accounted for	7.4	65.6	−6.9	−139.6	----------
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
A. Streets and alleys	32.6	33.8	25.7	46.1	27.6
B. Existing parks	1.2	.1	.4	3.3	2.7
C. Government use	11.6	.7	.4	1.9	6.9
D. Public and private institutions	5.9	7.1	24.4	.7	4.2
E. Commercial and industrial use	1.5	1.1	6.2	14.4	6.3
F. Residential use	40.4	25.2	12.1	26.3	4.2
G. Proposed parks	----------	4.4	8.6	----------	7.9
H. Vacant	6.8	27.6	22.2	7.3	40.2

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TABLE 3.—*Number and types of dwellings, District of Columbia, 1927*

	One and two family houses					Apartment houses		
	Detached	Semidetached	Row	Families	Lot area (acres)	Number	Apartments	Lot area (acres)
District of Columbia:								
Number	18,189	4,205	62,514	89,113	5,440	1,067	26,855	238
Per cent of type	22	5	73					
1. Central district:								
Number	965	633	23,874	26,105	946	397	12,320	76
Per cent of type	4	2	94					
2. Northwest district A:								
Number	414	179	2,052	2,824	157	33	573	9
Per cent of type	16	7	77					
3. Northwest district B:								
Number	1,178	243	644	2,308	448	26	390	5
Per cent of type	57	12	31					
4. Northwest district C:								
Number	2,668	505	701	4,379	716	55	2,200	21
Per cent of type	69	13	18					
5. North district A:								
Number	736	214	8,115	9,279	476	338	8,422	94
Per cent of type	8	2	90					
6. North district A:								
Number	3,508	982	7,401	12,873	912	69	1,120	15
Per cent of type	30	8	62					
. Northeast district:								
Number	3,678	486	2,775	7,425	731	26	347	5
Per cent of type	53	7	40					
8. Eastern district:								
Number	1,119	719	16,242	18,799	600	119	1,457	13
Per cent of type	6	4	90					
9. East of Anacostia River:								
Number	3,923	244	710	5,121	454	4	26	
Per cent of type	80	5	15					

TABLE 4.—*Number and types of dwelling according to permits issued July 1, 1920, to December 31, 1926, District of Columbia*

	One and two family houses					Apartment houses		
	Families	Per cent distribution, July, 1924–December, 1926			Lot area (acres)	Houses, number	Apartments, number	Lot area (acres)
		Detached	Semidetached	Row				
District of Columbia	[1] 17,684	45	9	46	1,652	528	14,714	99.7
District 1	235	1		99	8	160	5,887	23.6
District 2	38	33		67	2	13	283	4.9
District 3	1,538	43	17	40	224	25	375	5.2
District 4	2,468	76	17	7	268	40	1,821	18.0
District 5	876	26	1	73	42	156	4,282	29.7
District 6	5,627	27	13	60	516	45	834	7.7
District 7	3,789	56	6	38	379	20	243	2.6
District 8	1,293	7		93	42	65	963	7.5
District 9	1,820	67	5	28	171	4	26	.5

[1] In this column semidetached houses are counted as containing two families.

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TABLE 5.—*Housing in 1927 and 1920 and building permits issued July 1, 1920, to December 31, 1926, District of Columbia*

	Family accommodations				Increase, being permits issued	
	1927		1920		Number	Per cent
	Number	Per cent	Number	Per cent		
District of Columbia:						
Apartments in apartment houses	26,855	23.2	12,141	14.5	14,714	121.2
Families in detached houses	18,189	15.7	10,457	12.5	7,732	73.9
Families in semidetached houses	8,410	7.1	6,670	8.0	1,739	26.1
Families in row houses	62,514	54.0	54,301	65.0	8,213	15.3
Total	115,968	100.0	83,569	100.0	32,398	38.6
1. Central district:						
Apartments in apartment houses	12,320	32.1	6,433	20.0	5,887	91.5
Families in detached houses	965	2.5	962	3.0	3	----------
Families in semidetached houses	1,266	3.3	1,266	3.9	----------	----------
Families in row houses	23,874	62.1	23,642	73.1	232	1.0
Total	38,425	100.0	32,303	100.0	6,122	18.9
2. Northwest district A:						
Apartments in apartment houses	573	16.9	290	9.5	283	94.1
Families in detached houses	414	12.2	401	13.1	13	----------
Families in semidetached houses	358	10.5	358	11.8	----------	----------
Families in row houses	2,052	60.4	2,027	65.6	25	1.2
Total	3,397	100.0	3,076	100.0	321	10.4
3. Northwest district B:						
Apartments in apartment houses	390	14.4	15	1.9	375	2,500.0
Families in detached houses	1,178	43.6	517	65.8	661	127.1
Families in semidetached houses	486	18.0	224	28.7	262	116.0
Families in row houses	644	24.0	28	3.6	616	2,200.0
Total	2,698	100.0	784	100.0	1,914	243.7
4. Northwest district C:						
Apartments in apartment houses	2,200	33.4	379	16.5	1,821	479.0
Families in detached houses	2,668	40.5	792	34.6	1,876	237.8
Families in semidetached houses	1,010	15.4	590	25.8	420	71.2
Families in row houses	701	10.7	529	23.1	172	32.4
Total	6,579	100.0	2,290	100.0	4,289	187.3
5. North district A:						
Apartments in apartment houses	8,422	47.6	4,140	33.0	4,282	103.4
Families in detached houses	736	4.2	508	4.0	228	44.8
Families in semidetached houses	428	2.4	420	3.3	8	2.1
Families in row houses	8,115	45.8	7,476	59.7	639	8.5
Total	17,701	100.0	12,544	100.0	5,157	41.1
6. North District B:						
Apartments in apartment houses	1,120	8.0	286	3.8	834	291.6
Families in detached houses	3,508	25.0	1,989	26.4	1,519	76.3
Families in semidetached houses	1,964	14.0	1,232	16.4	732	59.2
Families in row houses	7,401	53.0	4,024	53.4	3,377	84.0
Total	13,993	100.0	7,531	100.0	6,462	85.8
7. Northeast district:						
Apartments in apartment houses	347	4.4	104	2.8	243	233.6
Families in detached houses	3,678	47.4	1,556	41.6	2,122	136.0
Families in semidetached houses	972	12.5	746	19.9	226	30.3
Families in row houses	2,775	35.7	1,335	35.7	1,440	107.5
Total	7,772	100.0	3,741	100.0	4,031	107.8
8. Eastern district:						
Apartments in apartment houses	1,457	7.2	494	2.7	963	192.4
Families in detached houses	1,119	5.5	1,029	5.7	90	8.7
Families in semidetached houses	1,438	7.0	1,438	8.0	----------	----------
Families in row houses	16,242	80.3	15,039	83.6	1,203	8.0
Total	20,256	100.0	18,000	100.0	2,256	12.5
9. East of Anacostia River:						
Apartment houses	26	----------	----------	----------	26	----------
Detached houses	3,923	----------	2,703	----------	1,220	45.2
Semidetached houses	488	----------	396	----------	92	22.9
Row houses	710	----------	201	----------	509	523.2
Total	5,147	100.0	3,300	100.0	1,847	56.0

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TABLE 6.—*Average net area per type of dwelling and percentage of street and alley area, District of Columbia*

	District of Columbia	Central district 1	Northwest		
			District A—2	District B—3	District C—4
Detached house:	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*
Lot area, estates excluded	5,610	4,534	5,000	6,095	6,350
Lot area, all	6,780	4,869	6,712	13,958	9,821
Lot and street area, estates excluded	7,517	6,998	6,555	8,401	8,763
Semidetached house:					
Lot area	4,089	5,170	5,082	5,570	7,063
Lot and street area	5,479	7,977	6,662	7,687	9,747
Row house:					
Lot area	1,560	1,400	1,551	2,600	2,440
Lot and street area	2,090	2,160	2,033	3,568	3,367
Combined average, above types:					
Lot area	2,850	1,543	2,148	4,346	4,726
Lot and street area	3,819	2,381	2,819	5,998	6,522
Apartment house:					
Lot area, built before 1920	10,187	9,248	9,432	9,111	10,684
Lot area, built after 1920	8,223	6,666	16,305	9,111	19,456
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Street area	----------	47.0	29.1	30.0	30.5
Alley area	----------	7.3	2.0	8.0	5.8

	North		North-eastern district 7	Eastern district 8	East of Anacostia River district 9
	District A—5	District B—6			
Detached house:	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*
Lot area, estates excluded	5,182	5,486	7,510	2,588	----------
Lot area, all	5,703	5,735	7,510	2,655	----------
Lot and street area, estates excluded	7,063	7,571	10,364	3,926	----------
Semidetached house:					
Lot area	5,281	5,281	7,510	5,000	----------
Lot and street area	7,198	7,268	10,364	7,585	----------
Row house:					
Lot area	1,900	2,298	1,460	1,210	----------
Lot and street area	2,589	3,271	2,015	1,635	----------
Combined average, above types:					
Lot area	2,081	4,000	4,361	1,446	4,026
Lot and street area	2,836	5,520	6,038	2,193	5,556
Apartment house:					
Lot area, built before 1920	12,132	12,958	8,226	4,503	----------
Lot area, built after 1920	8,260	7,918	5,550	4,876	----------
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Street area	30.0	30.0	30.0	44.7	30.0
Alley area	8.0	8.0	8.0	8.0	8.0

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TABLE 7.—*Population, based on housing accommodations 1927 and 1920, District of Columbia*

[Under an occupancy of 2.5 persons per apartment in an apartment house and 5.5 persons per dwelling]

	Population 1927	Population 1920	Increase per cent
District of Columbia:			
In apartment houses	67,137	30,350	121.2
In dwellings	490,121	392,854	24.7
Total	557,258	423,204	31.6
Census, 1920		437,571	
1. Central district:			
In apartment houses	30,800	16,082	91.5
In dwellings	143,577	142,285	.9
Total	184,377	158,367	16.4
Census, 1920		188,717	
2. Northwest district A:			
In apartment houses	1,432	725	94.1
In dwellings	15,532	15,323	1.3
Total	16,964	16,048	5.7
Census, 1920		16,581	
3. Northwest district B:			
In apartment houses	975	37	2535.0
In dwellings	12,694	4,235	199.7
Total	13,669	4,272	220.1
Census, 1920		4,555	
4. Northwest district C:			
In apartment houses	5,500	947	480.8
In dwellings	24,084	10,510	129.1
Total	29,584	11,457	158.2
Census, 1920		9,102	
5. North district A:			
In apartment houses	21,055	10,350	103.4
In dwellings	51,034	46,216	10.4
Total	72,089	56,566	27.3
Census, 1920		59,303	
6. North district B:			
In apartment houses	2,800	715	291.6
In dwellings	70,801	39,853	77.6
Total	73,601	40,568	81.4
Census, 1920		20,199	
7. Northeast district:			
In apartment houses	867	260	233.4
In dwellings	40,837	19,998	104.2
Total	41,704	20,258	104.8
Census, 1920		22,757	
8. Eastern district:			
In apartment houses	3,642	1,235	195.0
In dwellings	103,394	96,283	7.4
Total	107,036	97,518	9.8
Census, 1920		94,551	
9. East of Anacostia River:			
In apartment houses	65	0	
In dwellings	28,165	18,155	55.1
Total	28,230	18,155	55.5
Census, 1920		21,806	

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TABLE 8.—*Areas vacant for building in 1927, Washington, D. C.*

	Total acres	Zoning restrictions					
		A area	B area	C area	D area	A, restricted area	B, restricted area
1. Central district	113.1	0.2	40.3	32.2	38.9		1.5
2. Northwest district A	2.7			.3			2.4
3. Northwest district B	1,015.4	226.5	18.2	10.4	1.7	758.6	
4. Northwest district C	820.2	13.8	2.0	6.1		797.7	.6
5. North district A	94.4		8.7	29.2		40.3	16.2
6. North district B	1,012.5	193.8	133.0	5.2	14.1	654.1	12.3
7. Northeast district	1,333.3	343.3	215.1	8.5	223.3	463.1	80.0
8. East district	165.5	3.7	131.1	1.6	29.1		
9. East of Anacostia River	3,433.4	3,191.4	125.0			117.0	
Total	7,990.5	3,869.9	673.4	93.5	307.1	2,830.8	113.0

A area permits detached, semidetached, community, and apartment houses, but not row houses.
B, C, and D areas permit all types of habitation.
A, restricted area permits detached houses, but not semidetached houses, row houses, community houses or apartment houses. Semidetached houses, however, were permitted prior to Jan. 1, 1928.
B, restricted area permits detached, semidetached, row, and community houses, but not apartment houses.

TABLE 9.—*Areas under zoning regulations, District of Columbia*

	Area zoned	A	A, restricted	B, restricted	B, C, D	First commercial	Second commercial	Industrial
	Acres	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*
District of Columbia	31,609.3	9,068.4	8,654	785	6,375	3,265	1,843.9	1,618
1. Central district	3,083.0			35	1,170	1,210	621.0	47
2. Northwest district A	385.4	1.4	186	11	98	35	54.0	
3. Northwest district B	3,430.0	571.0	2,070	16	293	160	320.0	
4. Northwest district C	3,419.0	71.0	3,012	48	193	95		
5. North district A	1,372.9		94	179	811	286	2.9	
6. North district B	3,352.0	223.0	1,827	258	766	179	99.0	
7. Northeast district	5,095.0	1,181.0	1,257	238	1,312	343	235.0	529
8. Eastern district	2,180.0	38.0			1,331	382	249.0	180
9. East of Anacostia River	9,292.0	6,983.0	208		401	575	263.0	862

TABLE 10.—*Sites of apartment houses granted building permits, July 1, 1920, to December 31, 1926, and their location within building zones*

	Total acres	Located in zoning area					
		A	B	A, restricted	B, restricted	C	D
District of Columbia	99.7	0.8	15.6	5.2	5.2	66.4	6.5
District 1	23.6		.3			18.0	5.3
District 2	4.9		2.0	.2	2.6	.1	
District 3	5.2	.2	1.2			3.8	
District 4	18.0		.3	2.6		15.1	
District 5	29.7		4.1	.8	2.0	22.8	
District 6	7.7		2.0	1.6	.6	3.5	
District 7	2.6	.6	.8			.6	.6
District 8	7.5		4.4			2.5	.6
District 9	.5		.5				

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TABLE 11.—*Apartment house and one and two family dwelling averages*

	Apartment house averages			Dwellings averages	
	Apartments	Number per acre	Population per acre	Number per acre	Population per acre
1. Central district	37	6.7	520	29.4	161
2. Northwest, A	22	2.6	144	19.0	104
3. Northwest, B	15	4.8	180	6.8	38
4. Northwest, C	45	2.2	253	9.2	51
5. North, A	28	5.2	360	20.9	115
6. North, B	19	5.8	271	10.9	60
7. Northeast	12	8.0	235	10.0	55
8. Eastern	15	8.7	321	30.8	169
9. East of Anacostia				10.6	58

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TABLE 12.—*Exhaustion of vacant land and increase in population, 1927–1950*

	Lot area of houses located in area						Added population, 1950
	A	B	C	D	A, restricted	B, restricted	
District of Columbia:	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	
Vacant lot area, 1927	3,972.7	673.4	93.5	307.1	2,830.8	113.0	.....
Six years' construction—							
Dwellings	203.4	366.4	64.6	32.9	750.3	104.2	.....
Apartment houses	.....	12.6	61.3	10.3	5.2	5.2	.....
Future occupancy—							
Dwellings	274.7	1.0	2.0	55.0	1,590.0	89.5	180,790
Apartment houses	.....	42.0	47.0	15.0	.....	15.4	39,820
1. Central District:							
Vacant lot area, 1927	.2	40.3	32.2	38.9	.....	1.5	.....
Six years' construction—							
Dwellings	.3	.....	2.3	3.2	.....	.....	.....
Apartment houses	.....	.3	18.0	5.3	.....	.....	.....
Future occupancy—							
Dwellings	.....	.....	2.0	5.0	.....	1.5	1,368
Apartment houses	.....	5.0	15.0	5.0	.....	.....	13,000
2. Northwest A:							
Vacant lot area, 1927	.....	.....	.3	.....	.....	2.4	.....
Six years' construction—							
Dwellings	.....	.4	2.1	.....	.....	.....	.....
Apartment houses	.....	2.0	.1	.....	.2	2.6	.....
Future occupancy—Apartment houses	.....	.....	.....	.....	.....	2.4	345
3. Northwest B:							
Vacant lot area, 1927	226.5	18.2	10.4	1.7	758.6	.....	.....
Six years' construction—							
Dwellings	4.4	47.0	1.4	.....	83.6	.....	.....
Apartment houses	.....	.2	1.2	3.8	.....	.....	.....
Future occupancy—							
Dwellings	100.0	10.0	.....	.....	300.0	.....	15,580
Apartment houses	.....	.....	5.0	.....	.....	.....	900
4. Northwest C:							
Vacant lot area, 1927	13.8	2.0	6.1	.....	797.7	.6	.....
Six years' construction—							
Dwellings	9.0	7.5	.....	.....	246.6	9.0	.....
Apartment houses	.....	.3	15.1	.....	2.6	.....	.....
Future occupancy—							
Dwellings	10.0	.....	.....	.....	400.0	.....	20,900
Apartment houses	.....	2.0	3.0	.....	.....	.....	1,265
5. North A:							
Vacant lot area, 1927	.....	8.7	29.2	.....	40.3	16.2	.....
Six years' construction—							
Dwellings	.....	20.4	9.7	.....	13.9	7.0	.....
Apartment houses	.....	4.1	22.8	.....	.8	2.0	.....
Future occupancy—							
Dwellings	.....	8.0	.....	.....	40.0	8.0	6,440
Apartment houses	.....	.....	15.0	.....	.....	8.0	8,280
6. North B:							
Vacant lot area, 1927	193.8	133.0	5.2	14.1	654.1	12.3	.....
Six years' construction—							
Dwellings	36.8	156.6	45.1	.6	152.0	79.5	.....
Apartment houses	.....	2.0	3.5	.....	1.6	.6	.....
Future occupancy—							
Dwellings	100.0	100.0	.....	.....	500.0	5.0	42,300
Apartment houses	.....	5.0	5.0	.....	.....	5.0	4,065
7. Northeast:							
Vacant lot area, 1927	343.3	215.1	8.5	223.3	463.1	80.0	.....
Six years' construction—							
Dwellings	37.6	134.2	4.0	21.5	249.3	8.7	.....
Apartment houses	.6	.8	.6	.6	.....	.....	.....
Future occupancy—							
Dwellings	250.0	150.0	.....	50.0	300.0	75.0	45,375
Apartment houses	.....	5.0	4.0	5.0	.....	.....	3,290
8. Eastern:							
Vacant lot area, 1927	3.7	131.1	1.6	29.1	.....	.....	.....
Six years' construction—							
Dwellings	.....	31.0	.....	2.1	.....	.....	.....
Apartment houses	.....	4.4	2.5	.6	.....	.....	.....
Future occupancy—							
Dwellings	3.0	80.0	.....	.....	.....	.....	14,027
Apartment houses	.....	20.0	.....	5.0	.....	.....	8,025
9. East of Anacostia:							
Vacant lot area, 1927	3,191.4	125.0	.....	.....	117.0	.....	.....
Six years' construction—							
Dwellings	115.3	24.2	.....	5.5	4.9	.....	.....
Apartment houses	.....	.5	.....	.....	.....	.....	.....
Future occupancy—							
Dwellings	500.0	50.0	.....	.....	50.0	.....	34,800
Apartment houses	.....	5.0	.....	.....	.....	.....	650

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TABLE 13.—*Building permits, Washington, D. C.*

Fiscal year ending June 30—	Dwellings	Apartment buildings	Fiscal year ending June 30—	Dwellings	Apartment buildings
1910	2,023	79	1919	749	21
1911	1,922	18	1920	1,124	26
1912	2,174	29	1921	772	14
1913	1,540	14	1922	2,397	60
1914	1,161	34	1923	2,460	81
1915	1,155	42	1924	2,079	81
1916	1,349	60	1925	4,129	120
1917	821	44	1926	4,135	173
1918	529	9	1926 (July–December)	1,538	55

TABLE 14.—*Building in Washington, D. C.*

[From examination of permits in files of the building department]

	Permits issued fiscal year ending June 30				
	Year	Dwellings	Apartment houses		Total families accommodated
			Number	Apartments	
1. Central district	1921	4	4	100	104
	1922	37	13	358	395
	1923	45	25	1,051	1,095
	1924	55	21	909	964
	1925	41	49	1,937	1,978
	1926	35	31	1,122	1,157
	1926 (July–December)	18	22	748	766
		235	160	5,887	
2. Northwest district A (VII)	1921	1	1	12	13
	1922		4	108	108
	1923	11	5	53	64
	1924	5	3	110	115
	1925	10			10
	1926	8			8
	1926 (July–December)	3			3
		38	13	283	
3. Northwest district B (XI)	1921	42			42
	1922	120	3	36	156
	1923	216	3	36	256
	1924	275	4	67	342
	1925	306	5	70	376
	1926	397	7	118	515
	1926 (July–December)	182	3	48	230
		1,538	25	375	
4. Northwest district C (XII)	1921	116	3	101	217
	1922	351	8	769	1,164
	1923	372	11	258	630
	1924	375	1	18	393
	1925	626	3	73	699
	1926	455	14	602	1,088
	1926 (July–December)	193			193
		2,468	40	1,821	
Northwest districts, total	1921	159	4	113	272
	1922	471	19	957	1,428
	1923	599	20	351	950
	1924	655	8	195	850
	1925	941	8	143	1,084
	1926	873	23	751	1,624
	1926 (July–December)	378	3	48	426
		5,476	86	2,458	

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TABLE 14.—*Building in Washington, D. C.*—Continued

[From examination of permits in files of the building department]

	Permits issued fiscal year ending June 30				
	Year	Dwellings	Apartment houses		Total families accommodated
			Number	Apartments	
5. North district A (X)	1921	92	3	80	172
	1922	271	22	736	1,010
	1923	122	25	547	692
	1924	112	12	225	345
	1925	96	39	919	1,015
	1926	141	45	1,538	1,675
	1926 (July-December)	42	8	237	279
		876	156	4,282	
6. North district B (XIII)	1921	248			248
	1922	890	7	74	964
	1923	929	7	215	1,144
	1924	540	5	38	878
	1925	1,275	12	248	1,523
	1926	1,283	11	192	1,475
	1926 (July-December)	462	3	67	529
		5,627	45	834	
North district, total	1921	340	3	80	420
	1922	1,161	30	813	1,974
	1923	1,051	33	785	1,836
	1924	652	18	271	923
	1925	1,371	51	1,167	2,538
	1926	1,424	55	1,716	3,140
	1926 (July-December)	504	11	304	808
		6,503	201	5,136	
7. Northeast district (XIV)	1921	149			149
	1922	284			284
	1923	483	4	16	499
	1924	416			416
	1925	1,088	4	52	1,140
	1926	1,119	10	154	1,195
	1926 (July-December)	250	2	21	271
		3,789	20	243	
8. Southeast district (V, IX)	1921	17	7	48	65
	1922	68	3	25	93
	1923	164	1	4	168
	1924	290	5	57	347
	1925	456	14	182	638
	1926	222	29	480	702
	1926 (July-December)	76	12	219	295
		1,293	65	963	
East of Anacostia district	1921	85			85
	1922	214			214
	1923	199			199
	1924	263			263
	1925	406			406
	1926	460	3	14	474
	1926 (July-December)	193	1	12	205
		1,820	4	26	
Total	1921	754	18	341	1,095
	1922	2,235	65	2,153	4,388
	1923	2,541	83	2,007	4,548
	1924	2,331	52	1,432	3,763
	1925	4,303	126	3,481	7,784
	1926	4,133	154	4,259	8,392
	1926 (July-December)	1,419	51	1,352	2,771
		17,716	549	15,025 (Av. 27.3)	32,741
			528	14,714 (Av. 27.8)	

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TABLE 15.—*Building permits issued for detached, semidetached, and row houses, July 1, 1924–December 30, 1926*

District	Year	Dwellings			Total
		Detached	Semi-detached	Row	
1. Central	1924–25			37	
	1925–26			17	
	1926 (6 months)	1		9	
	Total	1		63	64
2. Northwest, A	1924–25	2		8	
	1925–26	2		6	
	1926 (6 months)	3			
	Total	7		14	21
3. Northwest, B	1924–25	174	12	108	
	1925–26	117	65	150	
	1926 (6 months)	35	54	39	
	Total	326	131	297	754
	Per cent	43	17	40	
4. Northwest, C	1924–25	410	89	38	
	1925–26	2 8	69	29	
	1926 (6 months)	136	24	9	
	Total	834	182	76	1,092
	Per cent	76	17	7	
5. North, A (X)	1924–25	20	1	75	
	1925–26	48	2	89	
	1926 (6 months)	5		37	
	Total	73	3	201	277
	Per cent	26	1	73	
6. North, B (XIII)	1924–25	235	126	778	
	1925–26	355	178	572	
	1926 (6 months)	119	50	243	
	Total	709	354	1,593	2,656
	Per cent	27	13	60	
7. Northeast (XIV)	1924–25	332	45	666	
	1925–26	896	68	87	
	1926 (6 months)	88	20	122	
	Total	1,316	133	875	2,324
	Per cent	56	7	38	
8. East	1924–25	17	3	433	
	1925–26	16		206	
	1926 (6 months)	10		66	
	Total	43	3	705	751
	Per cent			93	
9. East of Anacostia	1924–25	261	16	113	
	1925–26	295	14	147	
	1926 (6 months)	132	13	35	
	Total	688	43	295	1,026
	Per cent	67	5	28	
Total	1924–25	1,451	292	2,256	
	1925–26	2,017	396	1,303	
	1926 (6 months)	529	161	560	
	Total	3,997	849	4,119	8,975
	Per cent	45	9	46	

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TABLE 16.—*Building permits in selected cities*

[From Bulletins of the Bureau of Labor Statistics]

City	Year	One and two family dwellings	Apartment houses		Total unit accommodations
			Number	Apartments	
Washington	1920	660	16	[1]352	1,012
(Population 1920, 437,571.)	1921	1,656	24	539	2,195
	1922	2,707	86	2,559	5,266
	1923	2,232	62	1,971	4,203
	1924	3,038	80	2,331	5,369
	1925	4,625	126	3,861	8,486
	1926 (6 months)	2,041	105	1,070	3,111
Baltimore	1920	2,053	4	108	2,161
(Population 1920, 733,826.)	1921	1,948	11	238	2,186
	1922	3,871	24	363	4,234
	1923	4,739	20	413	5,152
	1924	5,361	10	156	5,517
	1925	5,937	11	296	6,233
	1926 (6 months)	2,798	10	275	3,073
Buffalo	1920	1,267	1	160	1,427
(Population 1920, 506,775.)	1921	2,395	2	10	2,405
	1922	3,052	6	27	3,079
	1923	3,939	19	323	4,262
	1924	4,429	12	306	4,735
	1925	4,054	32	236	4,290
	1926 (6 months)	1,529	33	246	1,775
Cincinnati	1920	394	10	50	444
(Population 1920, 401,247.)	1921	1,094	8	67	1,161
	1922	2,258	26	351	2,609
	1923	1,557	45	342	1,899
	1924	1,805	70	661	2,466
	1925	2,238	33	284	2,522
	1926 (6 months)	1,023	29	329	1,352
Cleveland	1920	2,509	32	259	2,768
(Population 1920, 796,841.)	1921	3,104	121	980	4,084
	1922	3,430	146	1,723	5,153
	1923	4,618	199	2,507	7,125
	1924	5,043	310	3,099	8,142
	1925	5,301	376	2,837	8,138
	1926 (6 months)	2,156	93	678	2,834
Detroit	1920	4,887	179	1,379	6,266
(Population 1920, 993,678.)	1921	4,370	312	2,373	6,743
	1922	9,838	489	6,975	16,813
	1923	15,744	711	7,020	22,764
	1924	18,136	969	7,616	25,752
	1925	18,229	749	7,944	26,173
	1926 (6 months)	9,841	406	5,235	15,076
Kansas City	1920	816	22	748	1,564
(Population 1920, 324,410.)	1921	1,850	91	728	2,578
	1922	2,852	142	1,816	4,668
	1923	2,815	301	3,612	6,427
	1924	2,820	129	1,856	4,676
	1925	3,871	120	1,267	5,138
	1926 (6 months)	1,259	63	1,043	2,302
Los Angeles	1920	9,950	205	1,036	10,986
(Population 1920, 576,673.)	1921	16,605	602	2,967	19,572
	1922	21,021	854	7,012	28,033
	1923	29,215	1,423	14,627	43,842
	1924	21,613	887	8,281	29,894
	1925	15,768	639	6,304	22,070
	1926 (6 months)	6,189	345	4,068	10,257
Milwaukee	1920	707	5	77	784
(Population 1920, 457,147.)	1921	1,837	16	375	2,212
	1922	2,473	25	491	2,964
	1923	2,865	36	677	3,542
	1924	2,844	60	949	3,793
	1925	2,650	69	1,068	3,718
	1926 (6 months)	1,419	39	307	1,726

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TABLE 16.—*Building permits in selected cities*—Continued

City	Year	One and two family dwellings	Apartment houses		Total unit accommodations
			Number	Apartments	
Minneapolis (Population 1920, 380,582.)	1920	1,019	25	553	1,572
	1921	2,898	60	676	3,574
	1922	3,537	111	1,128	4,665
	1923	3,896	101	1,113	5,009
	1924	3,213	81	823	4,036
	1925	3,533	86	918	4,451
	1926 (6 months)	1,363	38	313	1,676
New Orleans (Population 1920, 387,219.)	1920	734	11	55	791
	1921	2,077	86	258	2,315
	1922	2,897	130	529	3,426
	1923	3,004	85	267	3,271
	1924	2,453	93	323	2,776
	1925	2,168	191	573	2,741
	1926 (6 months)	824	71	214	1,038
Pittsburgh (Population 1920, 588,343.)	1920	521	12	64	585
	1921	1,150	25	185	1,335
	1922	2,904	78	807	3,711
	1923	2,243	32	334	2,577
	1924	2,406	25	272	2,678
	1925	2,690	39	412	3,102
	1926 (6 months)	1,113	12	282	1,395
San Francisco and Oakland combined. (Population 1920, 724,937.)	1920	1,910	43	308	2,218
	1921	3,668	260	1,696	5,364
	1922	6,387	498	4,209	10,596
	1923	8,110	476	3,692	11,802
	1924	9,077	729	4,001	13,078
	1925	10,455	588	6,637	17,092
	1926 (6 months)	4,211	262	2,779	6,990
St. Louis (Population 1920, 772,897.)	1920	451	32	[1] 280	731
	1921	1,016	176	1,056	2,072
	1922	2,031	376	1,982	4,013
	1923	3,278	293	2,266	5,544
	1924	3,433	65	1,808	5,241
	1925	4,089	809	4,260	8,349
	1926 (3 months)	1,901	340	3,473	5,374

[1] Estimated.

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SUBURBAN POPULATION IN 1950

The likeliest areas for the growth of urban communities outside of the District limits have been indicated on a map showing the topography of the country and the arteries of travel. These shaded areas cover approximately 40 square miles. They lie within a district measuring 200 square miles, which in 1920 had a population of 64,534.

In 1920 the most thickly settled of these areas averaged from 2,000 to 5,000 inhabitants per square mile.

	Population per square mile
Kensington	1,860
Takoma Park	2,735
Laurel	2,799
Hyattsville	2,936
Riverdale	3,015
Capitol Heights	3,850
Chevy Chase	4,220
Mt. Rainier	5,130

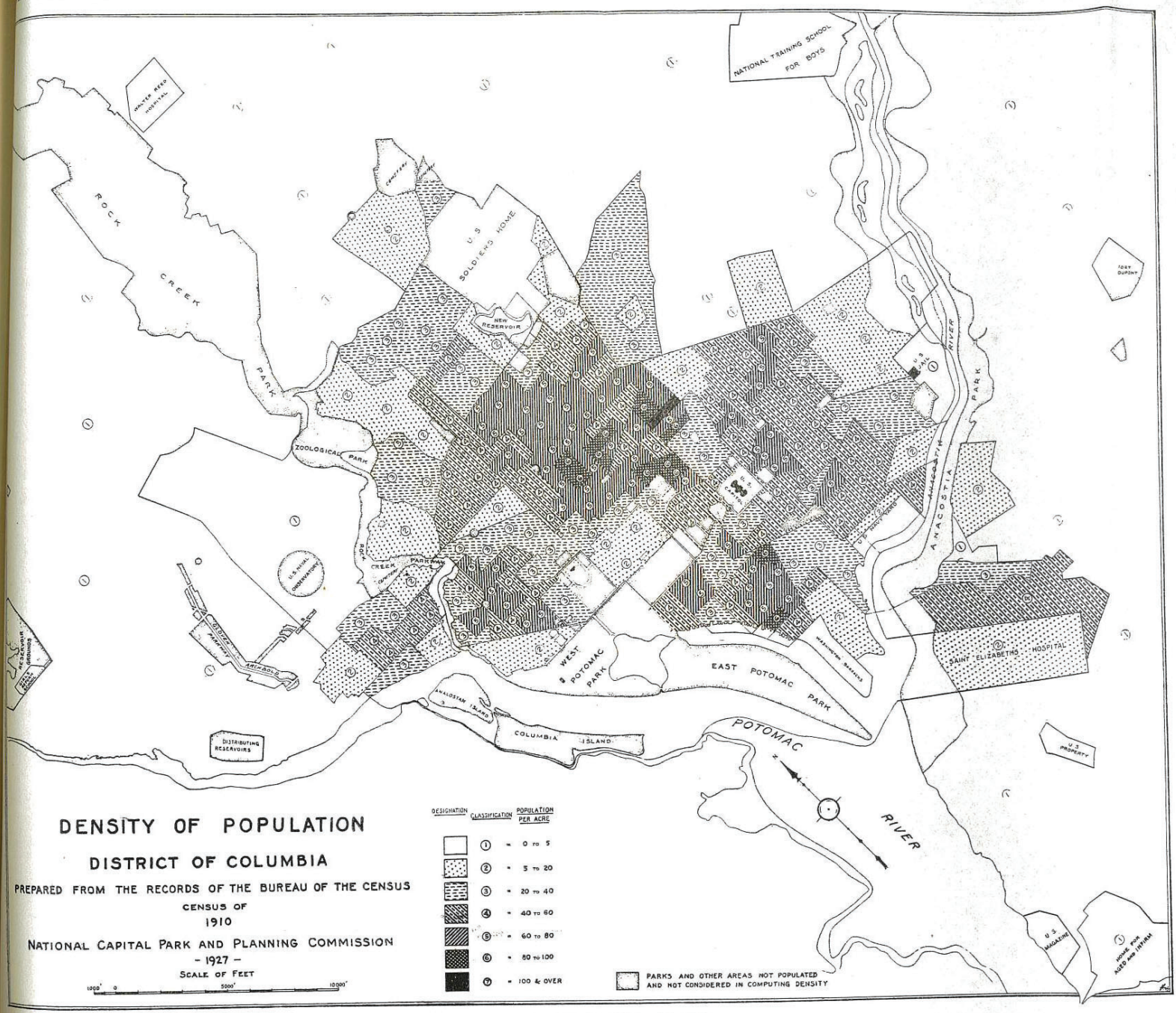
It may be assumed, therefore, that in time these areas, selected because of their accessibility and natural advantages, will have an average population of 3,000 per square mile.

The areas fall naturally into six groups, and the area and probable population of each is shown in the following table:

	Square miles	Population, 1950
I. From Potomac River to Rock Creek	4.67	14,100
II. From Rock Creek to Sargent-Riggs Roads	8.58	25,800
III. From Sargent and Riggs Roads to Pennsylvania Railroad	10.23	30,600
IV. From Pennsylvania Railroad to Brandywine Road	3.85	11,700
V. From Brandywine Road to Potomac River	.96	3,000
VI. Arlington County	11.87	35,700
Total	40.16	119,900

In 1916, 10.6 square miles of these 40.16 were already fairly well settled. In 1926, 7.4 additional square miles had received considerable settlement and the remaining 22.2 square miles are now in the process of intensive settlement.

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DENSITY OF POPULATION

DISTRICT OF COLUMBIA

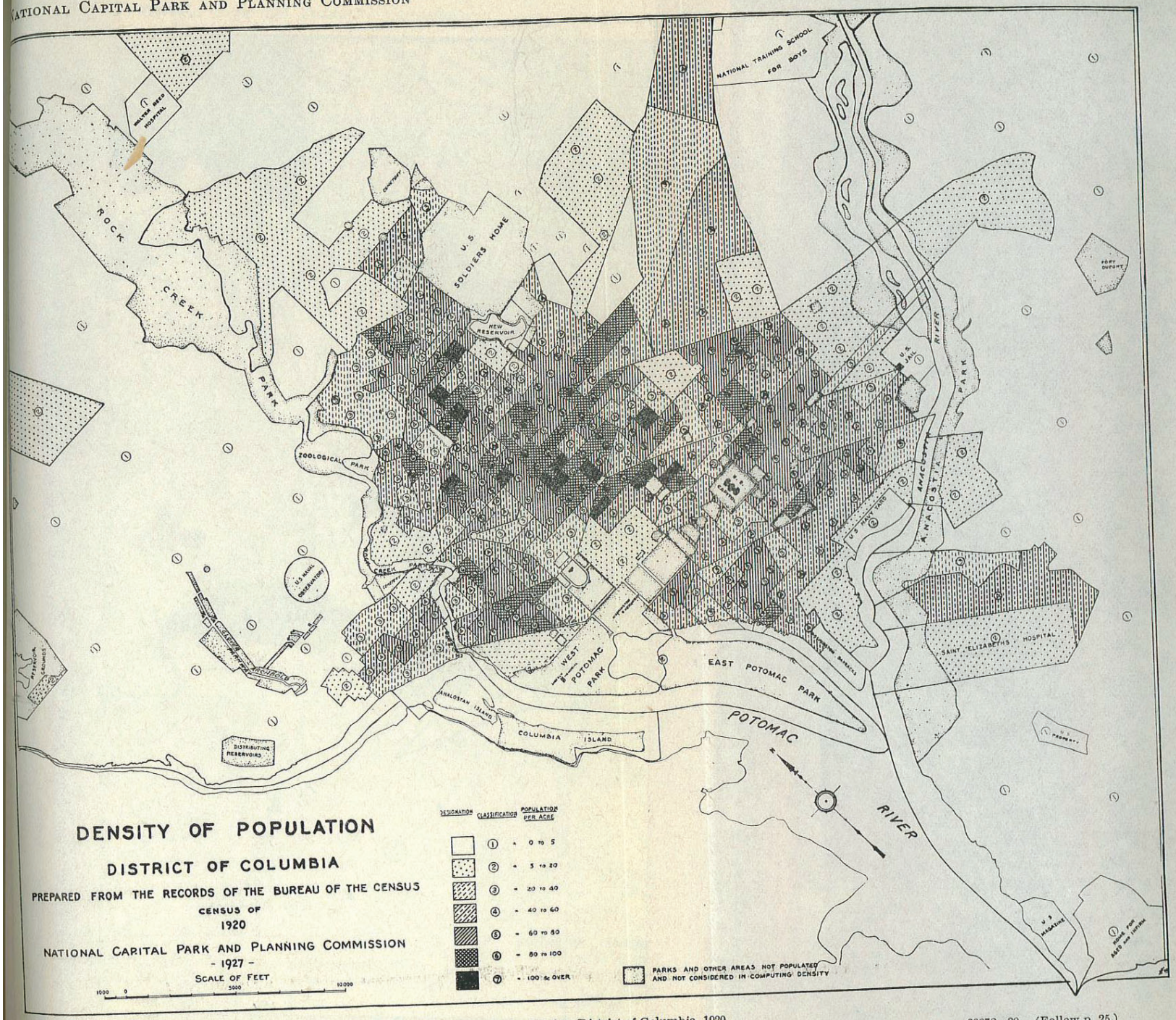
PREPARED FROM THE RECORDS OF THE BUREAU OF THE CENSUS
CENSUS OF
1910

NATIONAL CAPITAL PARK AND PLANNING COMMISSION
- 1927 -

SCALE OF FEET
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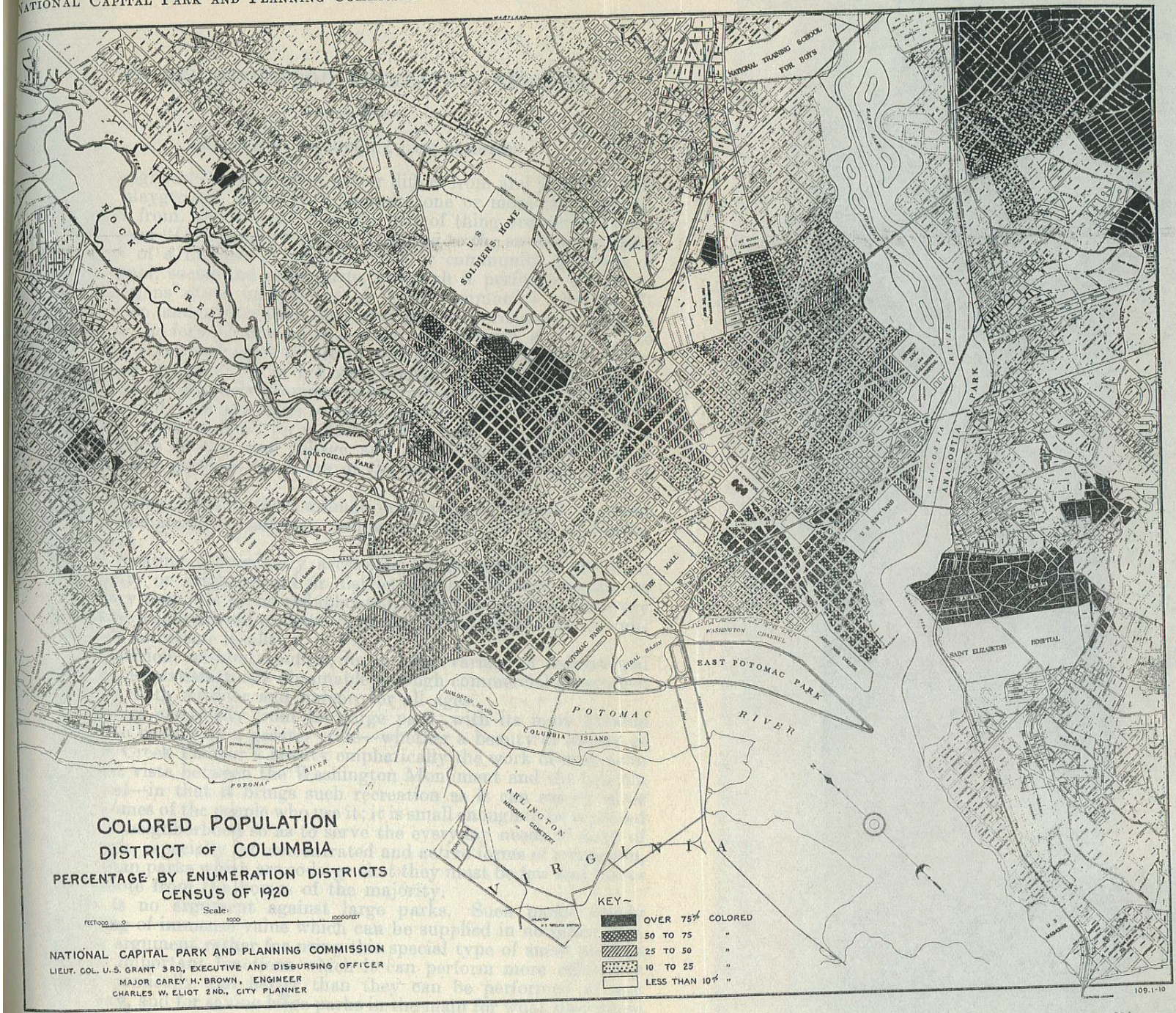
Population density, District of Columbia, 1910

39872—29. (Follow p. 25.)



Population density, District of Columbia, 1920

39872—29. (Follow p. 25.)



Distribution of colored population

39872—29. (Follow p. 25.)