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THE EVOLUTION OF THE D.C. HIGHWAY SYSTEM

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CONTENTS

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PART I: 1791 - 1890's

As the National Capital was planned before it was built, and as the major principles of this plan have been adhered to through more than a century and a half, Washington is unique among capital cities, and the history of this plan and its evolution must be of interest to the Nation.

Immediately after the formation of the National Capital Parks and Planning Commission in 1926, a study of the L'Enfant correspondence and reports was undertaken, so that the Commission might be fully advised of the ideas which actuated him in making his design and the modifications which had been made in those ideas, or which should be made in order to meet the changed conditions of a growing city. The genesis of the L'Enfant plan had been reviewed by the McMillan Commission in 1901 and that Commission had been sufficiently great-minded to acknowledge the merits of the L'Enfant plan and to base its recommendations upon his work.[1/]

However, the McMillan Commission was chiefly concerned about beautification of the city, the development of the park system, and the adequate treatment and development of the Federal public buildings. It was the duty of the National Capital Parks and Planning Commission, under the law instituting it, to include in its consideration all the elements of city planning, including such purely utilitarian questions as traffic, water supply, sewage, and housing.[2/]

Immediately on being authorized by the Act of July 16, 1790 to select the site for the new Federal city and to proceed with laying it out and with construction of the public buildings, President Washington proceeded to find an expert city planner to make the plan. For this duty he selected Major Charles Pierre L'Enfant, a French engineer who had served with distinction during the American Revolution. Major Andrew Ellicott, another Engineer officer and Geographer General of the United States, was appointed surveyor of the new capital, apparently on the recommendation of Thomas Jefferson, then Secretary of State in Washington's Cabinet. Within 20 days, Major L'Enfant had a preliminary report and outline plan ready to present. He worked on perfecting his plan as rapidly as the survey of the territory permitted, and he submitted the final plan and report to Washington at Philadelphia on August 27, 1791. Three months thereafter, an incident occurred between L'Enfant and three Commissioners appointed under the Act of 1790 that may be considered the initial cause of his subsequent dismissal at the end of February 1792.

The most unique characteristics of L'Enfant's plan are its grand scale and the fact that it was laid out so as to utilize to the fullest extent the natural topography, as seen in Map #1.

[1/] Transportation in the City of Washington, An Abstract of 1925 Transit Survey, p. 14

[2/] Elizabeth Kite, L'Enfant and Washington, p. 54, 1890


TERRITORY OF COLUMBIA.
M A R Y L A N D
WASHINGTON CITY
GEORGE TOWN
Mason's Island
Alexander's Island
POTOMAK RIVER
ALEXANDRIA
Four Mile Run
Scale
Drawn by Andr. Ellicott. Engraved by P.A.F. Tardieu. Paris 1815

Map # 1 1800's

It is felt that L'Enfant's plan bears great resemblance to that of Versailles--since he lived there for many years--where Louis XIV had attempted to found a new capital.[3]

Washington as it was known then consisted of everything below Florida Avenue, which was considered to be the northern boundary of Washington, D. C. The land north of Florida Avenue was known as Washington County, and it was not until 1896 that the county became a part of Washington, D. C.

At this time and preceding the development of L'Enfant's plan, there was very little development north of Florida Avenue. Most roads came through Georgetown, which at that time was not a part of Washington and was not so officially until February 11, 1895. A map of the period (see Map #1) shows Rock Creek Road, Roads to Bladensburg, Road to Great Falls, Road to Frederick Town, Road from Leesburg and Spout Run road.

This was also the first indication of the boundaries of Washington, approximately 10 square miles, showing clearly the boundaries between Maryland and Virginia. During the 19th century, there were other developments such as streets, sewers, and the like.

In about the middle of the 1880's, there was the Organic Act of 1878, which created a Commission consisting of three persons, including an officer of the United States Army Corps of Engineers, which set a general administrative pattern for organization.

There is also shown, on Map #2, further development above Florida Avenue. Up until this time, no significant changes had taken place in Washington, D. C. There was 14th Street Extension, Piney Branch, Pierce Mill Road, and some indication of street development in Washington proper and Georgetown, Rock Creek, Church and Ridge Road. There were also others, such as Leesburg Turnpike, Bladensburg Turnpike, and Columbia Turnpike.

Parallel with this street development, there was a population growth development which started in 1791 with about 8,000 people and increased to 200,000 in 1925.

As the population increased over the years, there was need for public transportation, and in 1862 the first street car operation in Washington was inaugurated. It was run over the lines of the Capital Traction Company, which was formerly operated by the Washington and Georgetown Railroad Company and Rock Creek Railway Company.

In 1895, the Capital Traction Company owned 318 cars which were in active service and another 331 cars of which some were in operating condition. The 318 cars in active service were all of double-track box-car type, with fully enclosed platforms and seating capacities ranging from 38 to 48 passengers.[4]

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[3] Ibid, p. 96

[4] Ibid, p. 20

Map # 2 1867 - 1870

Prior to 1895 (in 1893), there were laws relating to the system of highways outside the cities of Washington and Georgetown. The Act of March 2, 1893 provided a permanent system of highways in that portion of the District of Columbia outside the cities of Washington and Georgetown:

> "An Act to provide permanent system of highways in that part of the District of Columbia lying outside of the cities. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the Commissioners of the District of Columbia are hereby authorized and directed to prepare a plan for the extension of a permanent system of highways over all that portion of said District not included within the limits of the cities of Washington and Georgetown. Said system shall be made as nearly in conformity with the street plan of the city of Washington as the Commissioners may deem advisable and practicable. The highways provided in such plans shall not in any case be less than ninety feet nor more than one hundred and sixty feet wide, except in case of existing highways, which may be established of any width not less than one hundred and sixty feet in width."

Section 5 of the Act states that:

> "The Commissioners of the District of Columbia are authorized to name all streets, avenues, alleys and reservations laid out or adopted under the provision of this Act."[5/]

This noted the beginning and development of the street system in the areas north of Florida Avenue, as indicated on Map #3, and it is apparent why there is still some irregularity in the pattern in the upper northwest and northeast areas.

During this period, there was the task of renaming the streets. In 1905, a newspaper reported:

> "The Commissioners today issued a list of names which have been tentatively adopted, stating at the same time that the system indicated is in accord with other changes made in the northwest and northeast sections of the city. This new list takes in all the portion of the District bounded generally by Rock Creek Park and the Zoological Park on the west, and North Capitol street on the east, and includes many outlying subdivisions. All the names have been carefully selected by the Commissioners with a view to having them conform to the system, but suggestions for minor changes will be considered, provided that the names suggested conform to the system adopted."[6/]

5/ Permanent System of Highways, Laws relating to, Outside of the Cities Washington and Georgetown, p. 3, 1893

6/ Washington Star Newspaper, Street Name Changes, Radical Action Contemplated in Future, August 1, 1905

Carrying out their plan, the Commissioners stated that the numbered streets would carry their titles northwardly to the District line, and the lettered streets, as far as the end of the alphabet, would be extended into the District outside of the old city limit at Florida Avenue. When the alphabet was exhausted, names of two syllables, alphabetically arranged, were to be given until the alphabet was again exhausted, and then names of three syllables would be used.7/

This street naming system still stands today. The following is from an order that was given under authority of Section 5 of the Act approved March 2, 1893, to provide a permanent system of highways for the District of Columbia:

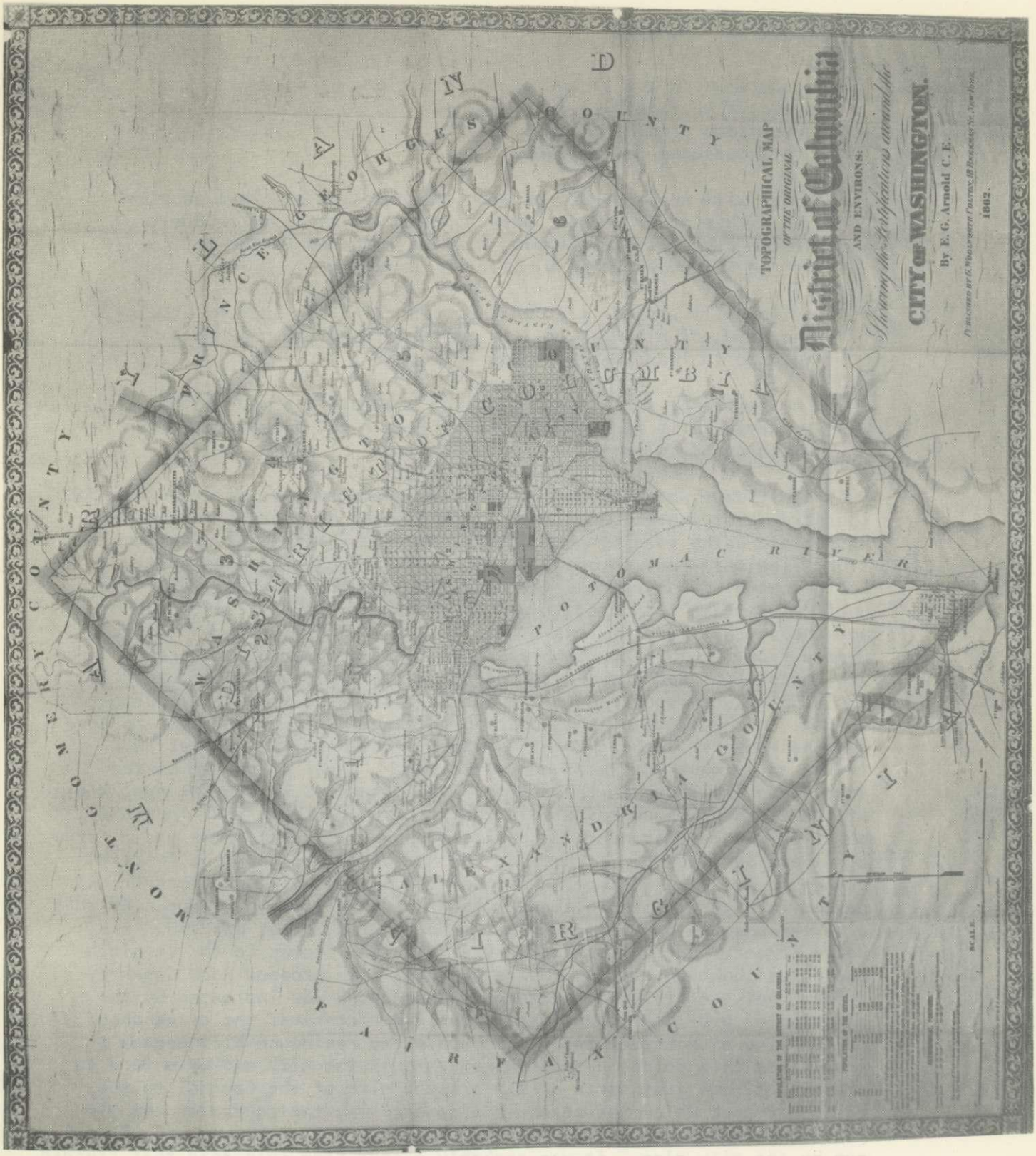
> "That the Commissioners of the District of Columbia are authorized to name all streets, avenues, alleys and reservations laid out or adopted under the provisions of this act."

Another order was issued, under authority of the following clause in the District appropriation act approved June 30, 1898: "That the Commissioners of the District of Columbia shall hereafter have power and authority to change the name of any street, road, avenue, or other highway whenever any two of such highways have the same name."8/

> The following system of naming is adopted for the highways in the District of Columbia outside of the limits of the city of Washington:
>
> North and south streets will be designated by numbers, the present city system being extended into the county.
>
> East and west streets will be named after distinguished Americans. Taking East Capitol street as a dividing line, and running north, names of one syllable will be used, arranged in alphabetical order. Upon completion of the one-syllable series, a two-syllable series will begin, and upon completion of this, a three-syllable series until the northern limit of the District of Columbia is reached.
>
> East and west streets in the county south of the line of East Capitol street will be named with the letters of the alphabet. Upon completion of this, a series of one-syllable names of American cities or prominent geographical objects, arranged in alphabetical order, will be started, and so on, until the southern limit of the District of Columbia is reached.
>
> A minor or place street will be designated a "place" and will bear the number or initial of the nearest parallel main street between it and the Capitol.
>
> The broad diagonal highways will be designated avenues and will be named after the States and Territories of the Union.

7/ Ibid.

8/ Executive Office, Commissioners of the District of Columbia, Washington, August 6, 1901.



Map # 3 Showing the Original Washington, D.C. 1862

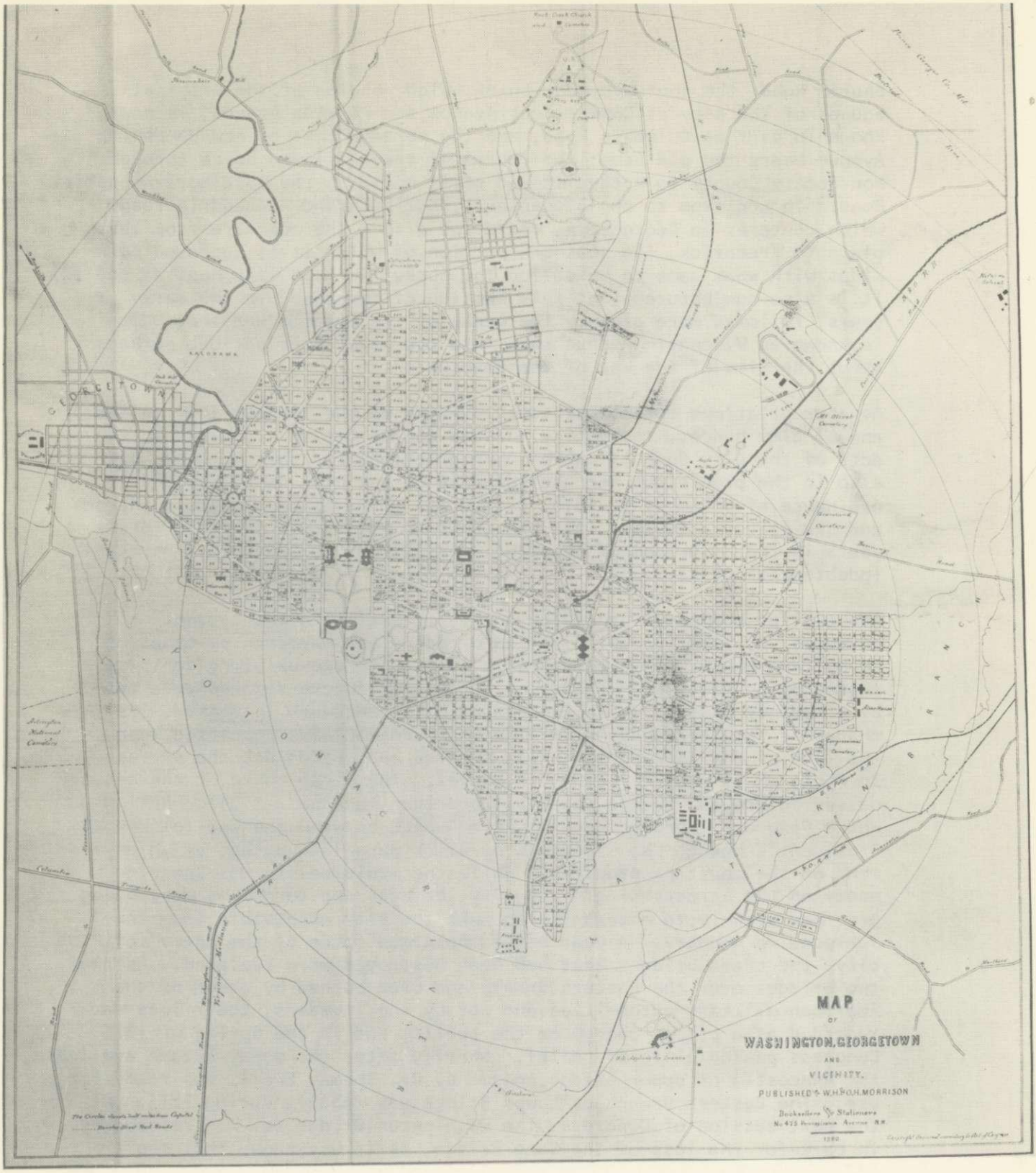
Streets which are irregular in direction, or curved to an appreciable extent, will be termed "roads" and will be named after some prominent local feature in their vicinity, or other distinguishing designation.

A map will be prepared, showing the names of highways adopted under this order, which, when approved by the Commissioners of the District of Columbia, will be recorded in the office of the Surveyor of the District of Columbia.

A list will also be printed, for general distribution, showing the names of highways as they now exist and the new names adopted in lieu thereof under this order.

The new names shall take effect on the date the map above referred to is recorded in the office of the Surveyor of the District of Columbia.

Public highways were unknown at the time the surveyors were marking out the streets of Georgetown. Rolling roads made by tobacco, hogsheads, and bridle paths used by pack horses were the chief means of communication. The main road through the District was that known as the Georgetown-Bladensburg Road (see Map #2), and from the earliest time until steam came into use, it was an artery of travel between the north and the south. Two sections of the road still exist, one is Florida Avenue from the ford at the present P Street bridge to 7th Street. From 7th Street the road trended to the northeast and mounted the encircling rim of hills. A spur ran to the south, the course of which is preserved in part in the lines of the modern Bladensburg Road which comes to the original bounds of the city at Maryland Avenue and 15th Street, N.E. In the early days it passed on to the south, paralleling the Eastern Branch, to the ferry at the foot of 14th Street, S.E. On the east side of the Eastern Branch was also a road from Bladensburg that led to a point on the Potomac nearly opposite Alexandria, where there was a ferry at a very early date. It crossed the Marlboro Road near the Eastern Branch ferry. The western section of the post road beyond Rock Creek passed through Georgetown to near the foot of Wisconsin Avenue. At that time the section of Wisconsin Avenue south of M Street was known as Water Street, and led to the ferry across the Potomac to the Virginia shore, as shown on Map #1. While the post road crossed Rock Creek by a ford, yet the rising importance of Georgetown was indicated by the erection of a bridge--the first in the District--over the creek about on the line of M Street two years before the residence bill became a law. From this point, a road passed through the city and by a ford in the Tiber Creek just north of the present site of the Capitol to the Eastern Branch which indicates in a general way the course of the old thoroughfare between Georgetown and the Eastern Branch that was wiped out by the city plan. It was probably a spur from this road that trended to the north and west of the Capitol site, thence to the east of Massachusetts Avenue and 4th Street, N.W., and on the north, probably connecting with the Rock Creek Church Road. By means of the Rock Creek



Map # 4 Showing Washington, D.C. & Georgetown 1880

Church Road, the southern section of which, ending at the original bounds of the city at Connecticut Avenue and Florida Avenue, is now known in part as Columbia Road, and the portion east of New Hampshire Avenue bears the old name; the course of travel flowed north through Montgomery County to Rockville and still north to the Baltimore-Frederick Road. In addition to the Bladensburg, Marlboro and Alexandria roads which centered in Georgetown, there was also a thoroughfare from that place to Frederick, the southern portion of which it is supposed coincides with what came to be called the Rockville Road (see Maps #1 and #2). It is also conjectured that this section of the road, in the early years, followed more closely the banks of the Potomac and that which is known as Wisconsin Avenue came into use at a later period, perhaps about the time of the War of the Revolution.[9/]

As appropriations for streets continued to be the largest item in the annual city budget, the policy pursued can be traced not alone in the acts of the City Council making appropriations for this purpose, but also in the provisions for the interest on the City debt. By the ordinance of November 3, 1814, $1,300 was voted to pay interest charges, and six years later this item had grown to $3,000, an increase in six years in the principal of the debt from $21,000 to $50,000, a per capita indebtedness of $3.77.[10/]

The earlier method of providing for deficiencies in the current revenues, at first in anticipation of delay tax payments by means of loans from banks, was superseded in 1818, when the existing debt was funded by an issue of corporation stock, and future demands were met by a further issue. While the amount of street work increased, its character remained unchanged. The improvements were completed when the line of the thoroughfares was cleared and graded and the surface in whole or in part covered with gravel. The first third of the century passed before any change was made, and then macadam was used, but only where Congress improved Pennsylvania Avenue between the Capitol and the President's house. No sidewalks of brick were laid except by an assessment on the abutting property. While the municipality was spending money on the streets within the city, bridges and turnpikes were being provided by private enterprise to make the city accessible from the surrounding country. A year after the armed force of the enemy left the city, the three bridges that had been destroyed were replaced. As the two bridges over the Eastern Branch had been burned by order of the American military authorities and not by the invaders, their loss was regarded as a proper charge on the public, and in the Spring of 1815 Congress passed bills of relief. Shortly after the money became available, the Anacostia or upper bridge, owned by Dr. Thomas Ewell, was ready for use. The Eastern Branch or Lower Bridge was rebuilt during 1815. At the next session of Congress, the Washington Bridge Co. was reimbursed in part for the loss of the Long Bridge, as it was shown that the

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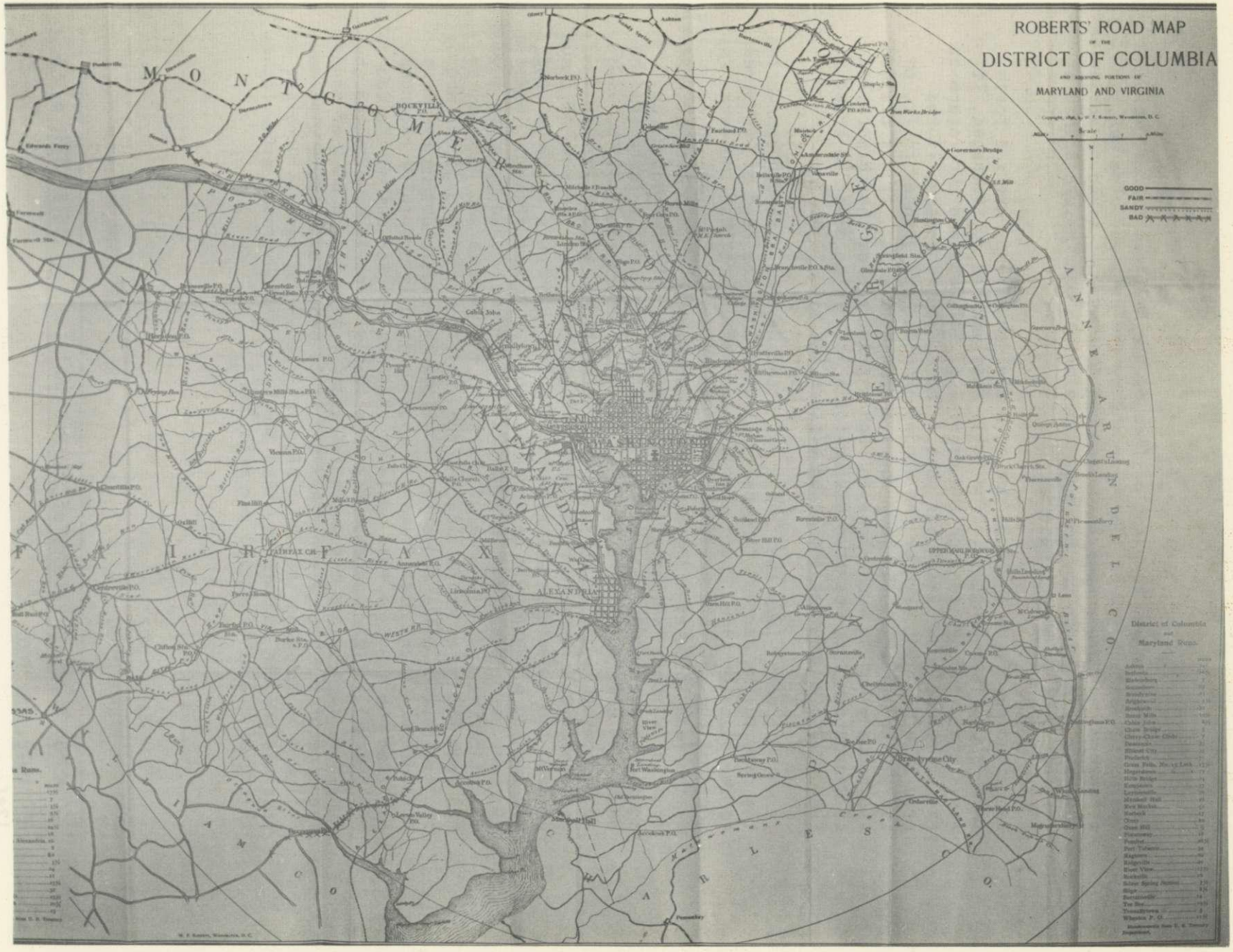
[9/] W. B. Bryan, A History of the National Capital, 1790-1814, pp. 61-63

[10/] Ibid., p. 62


ROBERTS' ROAD MAP
OF THE
DISTRICT OF COLUMBIA
AND ADJOINING PORTIONS OF
MARYLAND AND VIRGINIA
GOOD
FAIR
SANDY
BAD
M O N T G O M E R Y
P R I N C E G E O R G E S
A N N E A R U N D E L C O.
F A I R F A X
A L E X A N D R I A
A R L I N G T O N
A M C O.
C H A R L E S C O.
WASHINGTON
ROCKVILLE P.O.
Alexandria
Fairfax C.H.
Arlington
Bladensburg
Upper Marlboro
Port Tobacco
Pomonkey
Piscataway
Chaptico
Leonardtown
Benedict
Hyattsville
Laurel
Beltsville
Bowie
Annapolis
Baltimore
Washington City
Georgetown
Anacostia
Tenallytown
Falls Church
Vienna
Chantilly
Centreville
Manassas
Occoquan
Dumfries
Quantico
Aquia
Fredericksburg
Potomac R.
Rappahannock R.
Occoquan R.
Bull Run
Cabin John
Rock Creek
Anacostia R.
Patuxent R.
Piscataway Cr.
Mattawoman Cr.
Port Washington
Mt Vernon
Fort Washington
Indian Head
Chesapeake & Ohio Canal
Alexandria Canal
Washington Aqueduct
Long Bridge
Aqueduct Bridge
Chain Bridge
Georgetown Bridge
Benning Bridge
Navy Yard Bridge
Potomac Bridge
Woodrow Wilson Bridge
Alexandria & Washington R.R.
Washington Branch B. & O. R.R.
Metropolitan Branch B. & O. R.R.
Baltimore & Potomac R.R.
Washington & Ohio R.R.
Alexandria & Fredericksburg R.R.
Alexandria & Washington R.R.
Washington & Alexandria Electric R.R.
Washington & Great Falls Electric R.R.
Washington & Rockville Electric R.R.
Washington & Maryland Electric R.R.
Washington & Baltimore Electric R.R.
Washington & Annapolis Electric R.R.
Washington & Mount Vernon Electric R.R.
Washington & Arlington Electric R.R.
Washington & Alexandria Electric R.R.
Washington & Fairfax Electric R.R.
Washington & Manassas Electric R.R.
Washington & Occoquan Electric R.R.
Washington & Dumfries Electric R.R.
Washington & Fredericksburg Electric R.R.
Washington & Richmond Electric R.R.
Washington & Petersburg Electric R.R.
Washington & Norfolk Electric R.R.
Washington & Newport News Electric R.R.
Washington & Old Point Comfort Electric R.R.
Washington & Virginia Beach Electric R.R.
Washington & Cape Henry Electric R.R.
Washington & Cape Charles Electric R.R.
Washington & Eastern Shore Electric R.R.
Washington & Ocean City Electric R.R.
Washington & Assateague Electric R.R.
Washington & Chincoteague Electric R.R.
Washington & Wallops Island Electric R.R.
Washington & Tangier Island Electric R.R.
Washington & Smith Island Electric R.R.
Washington & Crisfield Electric R.R.
Washington & Somerset Electric R.R.
Washington & Wicomico Electric R.R.
Washington & Worcester Electric R.R.
Washington & Sussex Electric R.R.
Washington & Kent Electric R.R.
Washington & Queen Anne's Electric R.R.
Washington & Talbot Electric R.R.
Washington & Caroline Electric R.R.
Washington & Dorchester Electric R.R.
Washington & Somerset Electric R.R.
Washington & Wicomico Electric R.R.
Washington & Worcester Electric R.R.
Washington & Sussex Electric R.R.
Washington & Kent Electric R.R.
Washington & Queen Anne's Electric R.R.
Washington & Talbot Electric R.R.
Washington & Caroline Electric R.R.
Washington & Dorchester Electric R.R.

Map # 5 1896

southern portion had been set on fire by the American forces, while the match was applied at the other end by the British. The new structure had hardly come into use when Congress was asked to authorize the Navy Yard Bridge Co. to span with a bridge the Eastern Branch at the foot of 11th Street east.[11/]

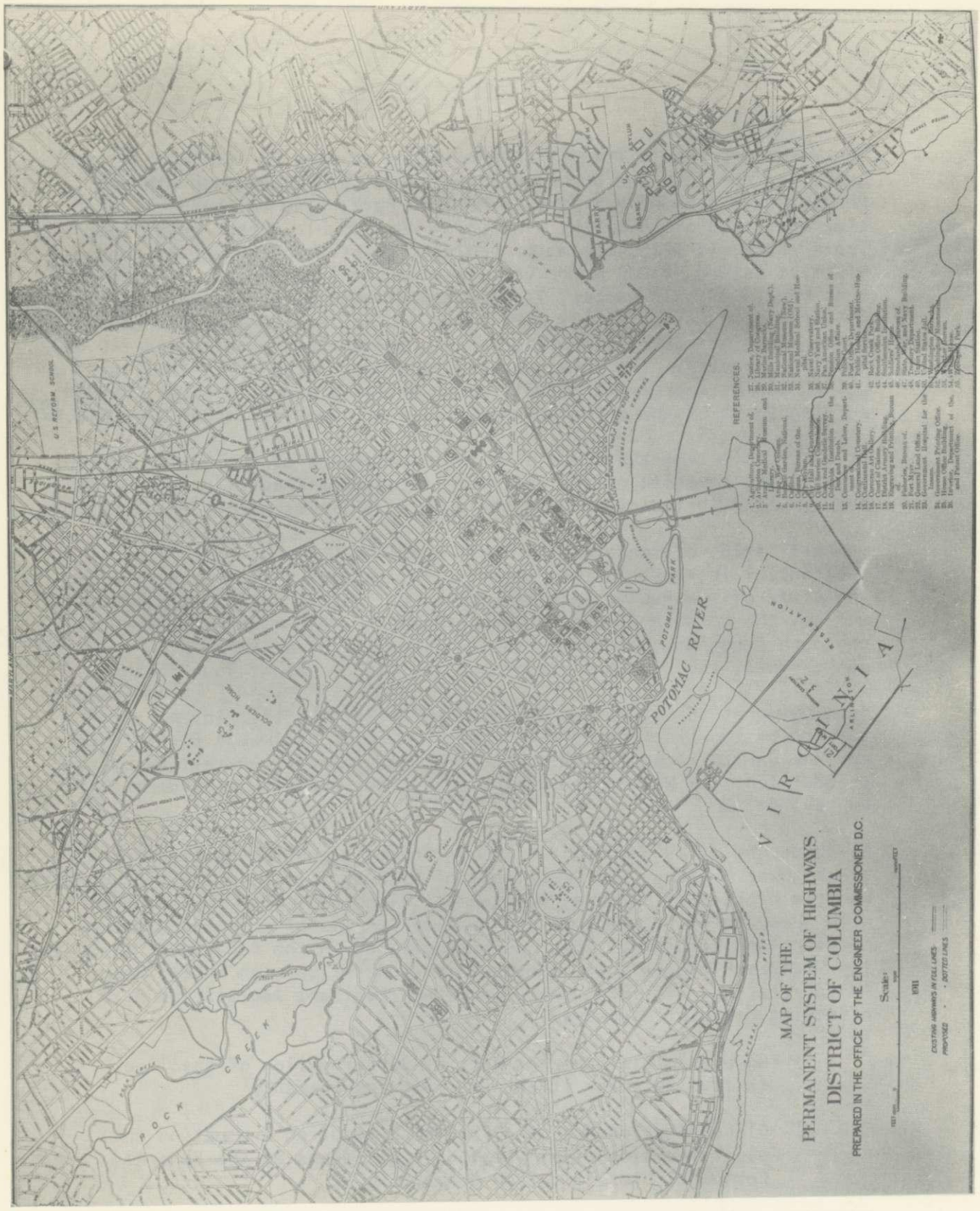
The standing of the Chain Bridge as a dividend earner was set forth in a memorial to Congress. The tolls received had not averaged, it was stated, one per cent on the capital of $81,000, and the return at that time was about 2-1/4 per cent. The company proposed, if the privilege of a lottery for the amount expended was granted to it, to assign the bridge to the levy court and make it free. It was claimed the company had as much right to such a privilege as the corporation of Georgetown that was then asking for a lottery in order to erect a free bridge at or near the Three Sisters.[12/]

It was not until 1829 that there was a secure road directly connecting the city to the north. Then one was built from the head of 7th Street to the District line, the result of years of effort that, however, fell short of the original purpose, which was to extend the road to Rockville. By the year 1830, at all the principal approaches to the city by road or bridges, that familiar figure of the period, the toll-gatherer, stopped the traveller and exacted a charge. It was a tribute that no doubt was cheerfully paid by those who recalled the contrast between conditions then and as they had been. For it was said when the Washington-Baltimore road was nearly completed, that the time of travel between the two places was reduced from 12 or 15 hours to about six. The opening of what came to be called the 7th Street pike was looked upon, no doubt, as a great public benefit. For if one wished to go by a good road into the country north of the city, the way was not limited, as had been the case, to passing through the streets of Georgetown and up the everlasting hills above it. How long this satisfaction over the improvement in the facilities of travel lasted is not fully recorded, but from the style of road building that was carried out on the Georgetown and Rockville Pike it does not seem probable it could have lasted any length of time unless the companies spent yearly a good deal of money. The line of the Georgetown Pike--and it is probable the same plan was followed in building the other District roads--was made as straight as possible and the surface levelled and covered with gravel a few inches thick, at a cost of $2,500 per mile.[12a/]

[11/] W. B. Bryan, A History of the National Capital, 1815-1878, p. 99

[12/] Ibid., p. 100

[12a/] Ibid.



Map # 5 Showing the Development of Washington, D.C. in early 1900's

1911

PART II: 1900's - FUTURE

The Washington Rapid Transit Company began service in 1921 with a motor bus line from 14th and Buchanan Streets via 16th Street, to 8th and Pennsylvania Avenue, N.W. and to Potomac Park. The equipment at that time consisted of 46 buses, 9 of which were double deck. About four years later, in 1925, the motor vehicle registration bureau of the District issued 98,000 motor vehicle licenses from January to June of that year. Of this number, 72,482 were private cars, 553 were taxicabs, 85 were motor buses, 10,631 were motor trucks, and 80 were tractors. Also, there were 59 sightseeing buses, aggregating an estimated 340,687 seating capacity. The total seating capacity of the street railway and bus companies aggregated 36,051, which brings a grand total of 376,738 serving 75.9% of the permanent population of the District of Columbia.[13/]

At about this time there was also the development of the Public Service Commission, composed of the District of Columbia Commissioners, which had complete jurisdiction over the public utilities within the District.

In April 1925, officers of the North American Company, which had substantial interest in the public utilities, met with the members of the staff of the Public Service Commission. There was an agreement whereby the North American Company offered to have made a complete and thorough study of the transportation situation by McCellan & Junkersfeld, Inc. A complete report was done in about four months.

Washington at this time was one of the few large cities in the country service by two traction systems--the Washington Railway & Electric Co. and the Capital Traction Co., each operated an electric railway system. In addition, the Washington Rapid Transit Co. operated an independent bus system.[14/]

At about the early part of the 1900's, there began the development of the Highway System. The Department of Highway's main interest or concern was the process of "Highway Development Planning", with some concern with adequate connections to the roadway systems of adjacent areas of Maryland and Virginia. This was accomplished in the Department through its Highway Planning Unit, operated in cooperation with Public Roads Administration. In 1924, there were two important legislative acts affecting District Highways:

1) Motor Vehicle Fuel Tax Act, of 2¢ per gallon of gasoline. (Exclusively for street and road improvement)

2) Classification Act of 1923, which required evaluation and classification of all statutory positions by the Federal Personnel Classification Board.[15/]

[13/] Transportation in the City of Washington, D.C. - An Abstract of the 1935 Transportation Survey, p. 20, 1925

[14/], [15/] The Washington Traffic Survey by McCellan & Junkersfeld, Inc., p. 10, 1925

Map # 6 Showing the growth pattern of Washington, D.C. and the surrounding vicinity

The Highway System of D.C. includes all streets, bridge structures, alleys, and sidewalks, except those controlled by the Federal Government. This has been in accordance with the permanent Highway Plan established by law, extended or modified from time to time by the D.C. Government as approved by the National Capital Parks and Planning Commission.

A look now at the present and future of the transportation and highway system:

> "Planning to meet future transportation requirements for the Region should provide for a coordinated system including both efficient highway and mass transit facilities, making full use of the advantages of each mode of transportation. Major thoroughfares and rapid transit lines should be located so that they will support the high density residential and commercial areas planned for each section of the Region, especially the centers of new communities in the radial development corridors. Every effort should be made to encourage the use of public transit in hours of peak traffic loads especially for trips to and from Metro-Center and other radial trips, including the designation of exclusive rights-of-way for express buses to supplement the proposed subway system."16/

Virtually all local and subregional policies call for a balanced and coordinated transportation system. Such a system should include rapid rail transit, radial and circumferential highways, feeder buses, and fringe parking facilities.

Highway plans often recommend facilities up to 20 years in advance of their need. On the other hand, highway construction programs cover a period of about five years. For rail rapid transit, there is another set of time dimensions to consider: the authorized system is the first stage to be built, taking 5 to 7 years from start of construction; the adopted system is an extension of the authorized system, to be completed by 1980; future extensions, then, are to be added to the adopted system after 1980.17/

There were four basic schemes that were taken into consideration for the development of the transportation system for Washington and its surrounding metropolitan area; there was the planned sprawl, dispersed cities, peripheral communities, and the radial corridor plan.

The programmed and planned highway and transit facilities generally support the radial corridor development concept. Transportation plans call for 7 corridors served by 9 radial freeways: I-70S, Route 50 (John Hanson Highway), I-95 (south), I-66, the Dulles Access Road-Route 7, I-95 (north), the South Potomac Freeway, the Northern Parkway, and the Monticello Freeway. The first five of these corridor freeways now exist outside the Beltway. I-95 (north) is programmed and partially

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16/, 17/ The Changing Region, The Metropolitan Washington Council of Governments, p. 41

under construction. The remaining three are included in current long-range studies of highway needs now underway by the Maryland and Virginia highway agencies. The committed I-95 (north) and the five existing freeways provide access to five of the seven proposed corridors. Parallel lanes to the Dulles Access Road would provide local access from the Beltway to Dulles Airport.

Within the Capital Beltway, little has been done to implement the radial freeways basic to the corridor development concept. Interstate-I-95 (south) is the only operational radial freeway route which exists within the Capital Beltway. Route 50, John Hanson Highway, extends only to the District of Columbia line. The right-of-way extending I-66 to the Potomac River has been acquired but construction has not taken place. The construction of I-66 will serve the Dulles Airport corridor as well as the I-66 corridor.

The proposed extension of I-70S, the North Central Freeway, and the extension of I-95 (north) within the Beltway are subjects of great controversy, making their implementation uncertain. The result has been a virtual halt in the construction of radial highway facilities--a "freeze" which has now been in effect for several years.

Consequently, the proposed radial corridor areas lack the necessary accessibility to downtown Washington which would strengthen their economic advantage over non-corridor areas. As a result, land use development outside of these radial corridor areas is encouraged beyond the Beltway. This has served to weaken the implementation of the radial corridors concept.[18/]

With the present and proposed service of the beltways, freeways, and highways, there is consideration being given to other means of transportation.

The proposed rail rapid transit network for the metropolitan area is also radial in nature. The programmed portion of the transit network, scheduled for construction before 1980, pairs some transit lines with radial highways within the Capital Beltway. Along Route 66, Rockville Pike, and Georgia Avenue, programmed transit lines extend beyond the Beltway for several miles. Virtually none of the programmed lines will serve community centers proposed for development in corridors outside the Beltway.

Some of these areas could be served after 1980, however, since extensions of transit service are planned for six of the seven proposed corridors.

There are two proposed freeways which are circumferential rather than radial: the Outer Beltway and the Western Freeway in Fairfax County. Moreover, the bulk of the remaining planned highway improvements (the

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[18/] Ibid., p. 42

Map # 7 Showing the Capitol Beltway around Washington, D.C.
1962

arterial network) is oriented to interconnecting the 9 radial freeways and the radial transit lines. Through these interconnections, these arterial highways will provide access throughout much of the area proposed for relatively low densities between the corridors. These areas are, of course, the wedge open space areas recommended in the 1964 COG policies. The access provided by these arterial highways will make these open space areas attractive for a more intensive development than that for which they were originally planned.

An analysis of highway and transit plans as described above discloses a functional specialization between these proposed facilities beyond 1980. Prior to 1980, improvements in the highway and transit systems will emphasize circumferential connections (the planned Outer Beltway, the Western Freeway, and the arterial network), whereas transit plans continue to emphasize radial lines. The bulk of the highway improvements is designed to interconnect outlying centers along the existing and proposed radial freeways. On the other hand, the rapid rail transit network is primarily a radial system focusing on central Washington.

A second functional specialization will be experienced prior to 1980. Highways will be virtually the only travel mode beyond the Capital Beltway. Rapid transit lines programmed to 1980 extend no further than the Beltway, with the few exceptions noted earlier. Hence, highways during the period prior to 1980 must be relied upon to guide growth in the developing area around Washington.

During this period, new arterial highways will also begin to interconnect the radial freeways as noted. Transit will have its impact in this period in the already urbanized area, but generally transit will follow, not lead, land development.[19/]

Even though there is some coordination that can be demonstrated between planned and programmed highway and transit facilities, there are also major shortcomings relative to regional development policies that exist.

> The staging of transit improvements is such that transit can only follow, not lead, land development.
>
> Although the freeway and transit networks are radial and will encourage corridor growth, the proposed arterial network will interconnect these radial routes and encourage growth outside of the corridors in the wedge areas originally contemplated for no urban development or for low intensity development.
>
> Current transportation plans and programs do not propose the full range of facilities in each corridor called for in the 1964 regional development policies.

To maintain the viability of the general development concept, interim improvements to the existing radial arterial highway network are needed unless freeways are built within the Capital Beltway. Buses and

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19/ Ibid., p. 42

commuter rail rights-of-way could be used to supplement the authorized transit system beyond the Beltway prior to 1980. At least the programming of transportation facilities must be considered in light of probable effects on the land development pattern.[20]

To be taken into consideration with this growth of the communities is the fact that the staging of the highway and rapid rail transit system is important to the proper development of high density residential and commercial areas and community centers.

For the most part, existing high density residential and commercial areas are served by major highways. Most areas planned for high density residential and commercial uses, including community centers, will be served by major thoroughfares or freeways either existing or planned.

The programmed transit system, in conjunction with its feeder bus system, will serve virtually all high density areas within the Capital Beltway. The only major commercial concentration unserved by transit and feeder buses within the adopted system is Bailey's Croosroads in Virginia. This area would be served by a Columbia Pike Line proposed after 1980. Extensions of the transit system, planned after 1980, will serve existing and proposed high density residential and commercial areas in six of the seven proposed corridors.

Thus, existing and planned major thoroughfares and freeways support planned high density residential and commercial areas outside the Beltway. Rapid transit will serve most major residential and commercial concentrations in the already urbanized area, but will not serve the proposed new community centers until after 1980, and thus cannot be used to stimulate their development.

Also considered was public transit and peak hour trips. COG's Resolution on Development Policies for the Year 2000 for the National Capital Region acknowledged that the general development pattern as recommended would create heavy demands for peak hour radial trips and suggested that public transit be developed to handle them.

The adopted rail transit system is consistent with this objective. It is a radial system designed for peak hour use, predominantly work trips from suburban areas to employment locations in the central city.

Bus transit, which is currently oriented to peak hour radial trips, has experienced a 10% increase in patronage since 1955. However. However, population has increased at a much faster rate. Although the region has experienced an absolute rise in the number of transit users, the proportion of total work trips using transit has consistently declined. Improvements in bus routing and scheduling have encouraged public transit use for the peak hour radial trip. Recently, several suburban bus lines have been granted extension into downtown Washington, increasing the accessibility and convenience of public transit for peak hour trips. Such moves may help to slow the decline in bus transit usage during the peak hour.

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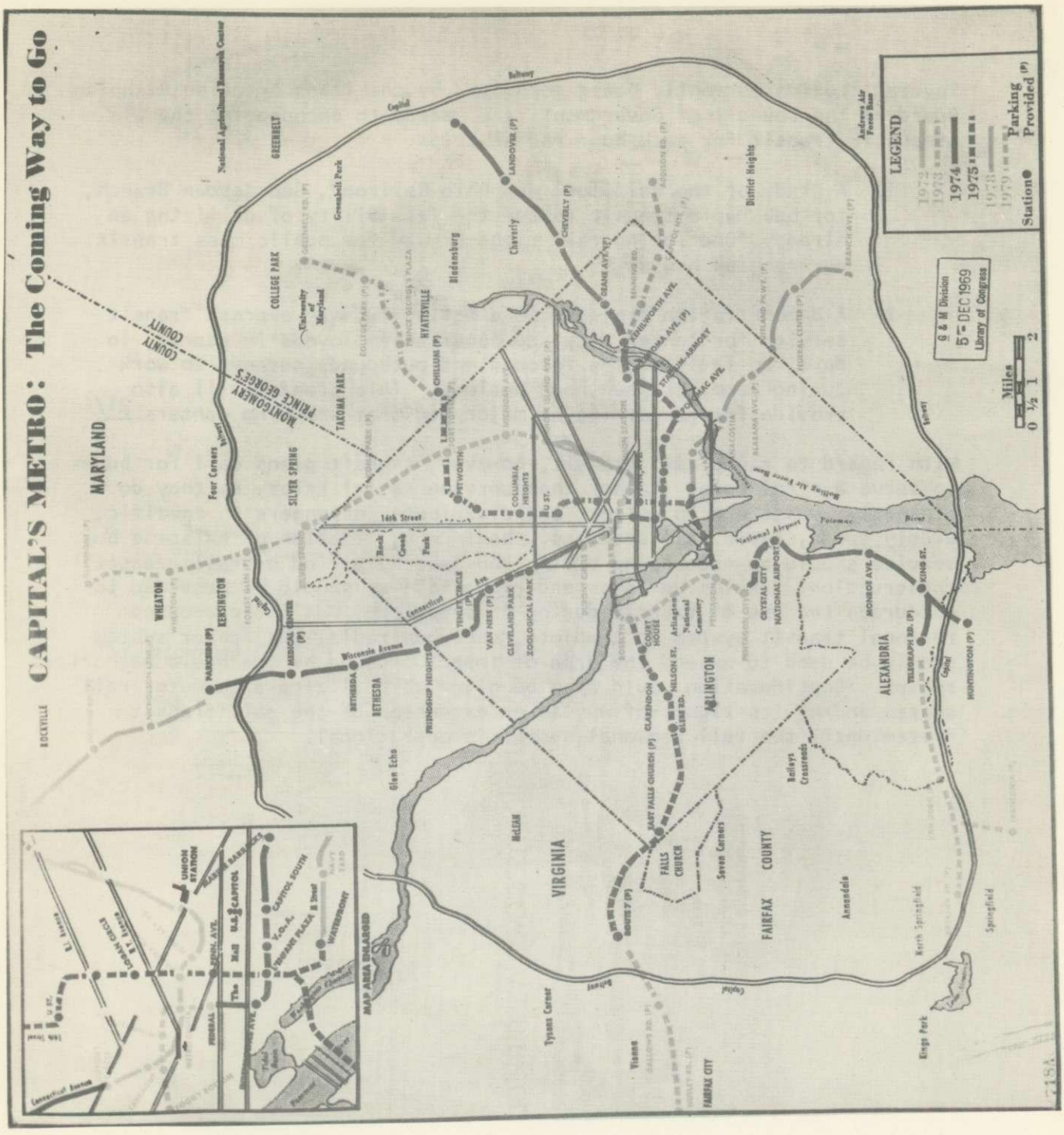
[20] Ibid., p. 42



Map # 8 Indicating the proposed rapid rail transit system
1969

Several studies currently being conducted by the Transportation Planning Board of the Council of Governments are geared to encouraging the use of public transit for peak hour radial trips:

1) A study of the Baltimore and Ohio Railroad, Georgetown Branch, for bus rapid transit tested the feasibility of utilizing an already functioning rail right-of-way for public mass transit during peak hours.

2) A demonstration project coordinating two-way express transit service for center city and suburban employees is geared, in part, to facilitating inbound and outbound journeys to work during commuter peak hour periods. This program will also provide fringe parking at major regional shopping centers.[21]

With regard to rapid rail transit, however, transit plans call for buses to serve a vital role. Rather than serving radial trips, as they do presently, buses are to collect and distribute passengers to specific, widely space, rapid rail stations. Maximum utilization of existing bus service should be encouraged during the lengthy period of rail transit construction. Exclusive lanes and rights-of-way should be provided to encourage the use of transit during this period. Until the adopted regional transit system is complete, suburban radial bus feeder system should be used to extend the area of impact created by the basic authorized system. Consideration could also be given to utilizing a commuter rail system and/or its rights-of-way as an extension of the rail transit system until the full regional system is operational.

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[21] Ibid., p. 43

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