



Massachusetts Institute of Technology,  
Cambridge 59, Massachusetts,  
May 23, 1947

Professor Frederick J. Adams,  
School of Architecture and Planning,  
Massachusetts Institute of Technology,  
Cambridge 59, Massachusetts

Dear Professor Adams:

I hereby submit this thesis, THE PHILADELPHIA  
TRIANGLE - A Study in Urban Redevelopment, in fulfillment  
of the final requirement for the degree Master in  
City Planning.

Respectfully yours,

  
\_\_\_\_\_  
Joe W. Langran

THE PHILADELPHIA TRIANGLE

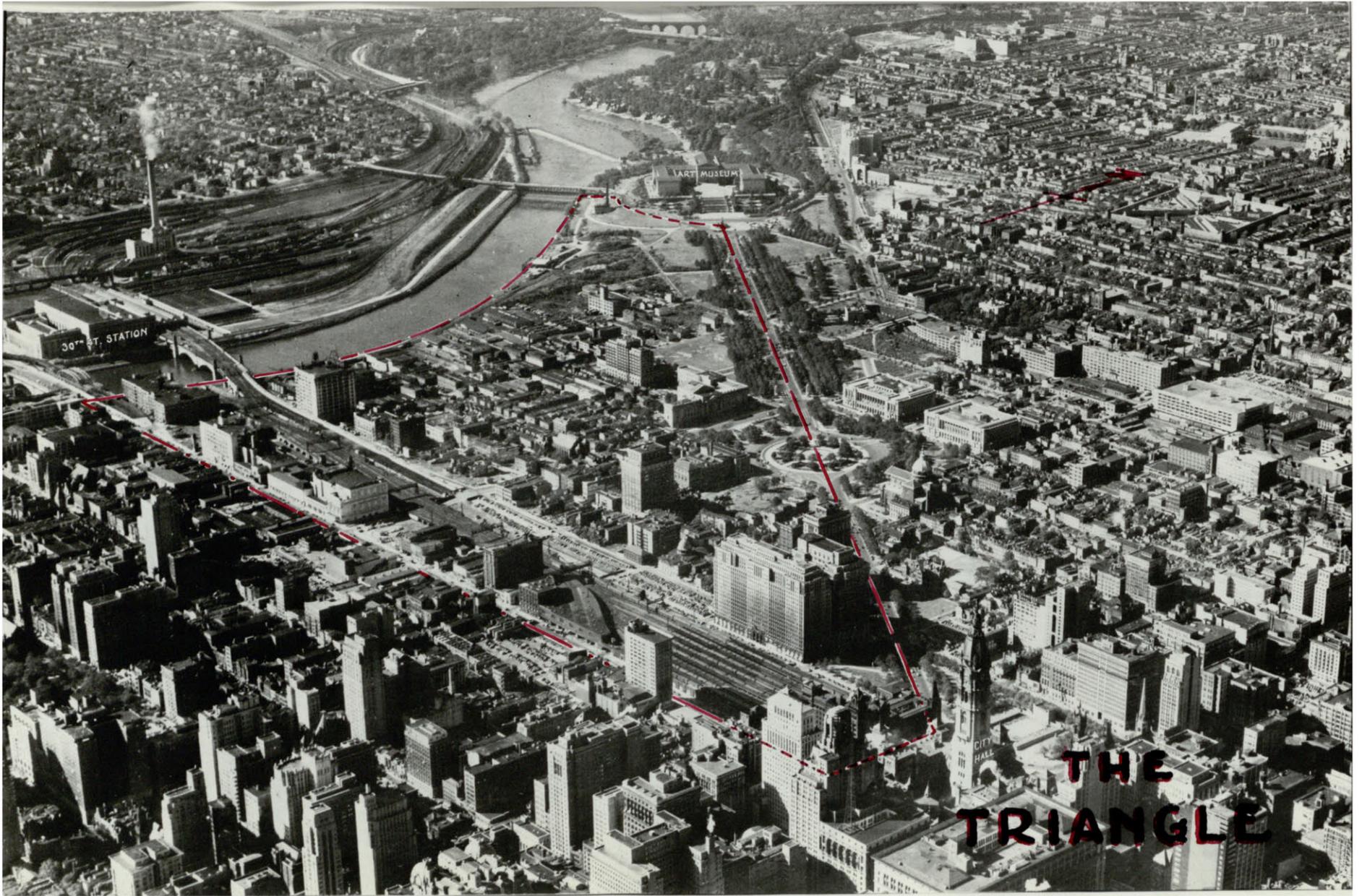
A Study in Urban Redevelopment

by

JOE WALTER LANGRAN

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 1947



## FOREWORD

In October 1946 the City Planning Commission of Philadelphia employed, as consultants, the firms of Stonorov & Kahn (Architects), Wheelwright & Stevenson (Landscape Architects), and C. Harry Johnson (Realtor), for the purpose of preparing studies leading to redevelopment of the triangular parcel of the Central City bounded by Market Street, Franklin Parkway, and the Schuylkill River, referred to as "The Triangle". This professional group, known as Associated City Planners, worked in coordination with the New York firm of Clarke, Rapuano & Holleran (Landscape Architects and Consulting Engineers), also employed as consultants, to prepare studies for the development of Pennsylvania Boulevard and other Pennsylvania Railroad property, including that released by the future removal of the "Chinese Wall"; the latter is contained within the Triangle area.

For four months the author was an employee of the firm of Wheelwright & Stevenson on the above work; it was during this period that a keen desire developed to use the Triangle area as a Thesis subject; it was through this contact that much of the basic data was obtained. Channels for procurement of additional data were thus made available which otherwise would not have been open. Where data for Charts was obtained through such sources, credit is shown to the City Planning Commission, as Associated City Planners was employed by the Commission at the time.

Most valuable was the opportunity to attend many of the conferences held by the Director of the City Planning Commission and Staff, some of which were attended by officials of the Redevelopment Authority, the Department of Public Works, and the Department of Public Safety. During these meetings, such necessary background as the underlying political ecology, the general concept of the Master Plan, standing commitments, and previous studies by the City were brought out.

Some of the conclusions and proposals shown on plan are the product of Associated City Planners and the author deserves no credit for their conception. These include the traffic mechanism on the west bank of the Schuylkill River, the basic idea of the half-clover leaf traffic interchange between Vine Street Express-way and East River Drive, and the extension of Pennsylvania Avenue to 20th Street. It is impossible, as well as unimportant, to draw a line between basic ideas and conclusions which were conceived while an employee of Associated City Planners and those which were developed as a student.

The chief purpose of this report is to investigate the establishment and sound justification of proper land uses within the Triangle area and the physical plan has been subordinated thereto. It is the method of approach to accomplish this aim, demonstrated herein, for which the author assumes responsibility and occasions where a conclusion coincides with work of others should be considered mere confirmation. Generous professional criticism and kind assistance afforded by all members of Associated City Planners were utilized to the utmost

and sincere appreciation is expressed.

Many others gave generously of their facilities and time; appreciation is expressed specifically:

To Robert B. Mitchell, Director of the City Planning Commission of Philadelphia, for extensive use of the library, for copies of certain charts contained herein, and for the kindness extended by his Staff. Harold M. Mayer, Chief of Planning Analysis Division gave excellent criticism and much of his time and advice; others include Lucile T. Caldwell, Research Librarian; O'Brien Boldt of the Division of Planning Analysis; Talbot Jones and Richard May, Jr., of the Land Planning Division.

To Dorothy Schoell Montgomery, Managing Director of the Philadelphia Housing Association.

To Thomas F. Eagan, Jr., Executive Secretary of the Building Owners' and Managers' Association of Philadelphia.

To Louis P. Hoyer, Associate Superintendent, Board of Education.

To Raymond B. Poeppel, Land Planning Consultant, Federal Housing Administration.

And finally, to my wife, without whose patient and able criticism the writing of this report would have been handicapped.

Joe Walter Langran

Philadelphia, Pennsylvania  
May 23, 1947

TABLE OF CONTENTS

	Page
PART I. Historical Background and Statement of Problem . . .	1
The setting . . . . .	6
Growth pattern in the Central City . . . . .	7
The Benjamin Franklin Parkway . . . . .	15
The "Chinese Wall". . . . .	16
 PART II. Existing Conditions	
A. Physical . . . . .	19
Function pattern in the Central City . . . . .	20
Land Uses . . . . .	22
Traffic Flow . . . . .	25
Transit Flow . . . . .	32
Rail Facilities . . . . .	34
Utilities . . . . .	34
Housing . . . . .	36
B. Economic . . . . .	41
Tax Delinquency . . . . .	44
Assessed Valuations . . . . .	44
Construction Cost Trends . . . . .	47
The Housing Market . . . . .	49
Commercial Office Buildings . . . . .	51
Industry . . . . .	57

	Page
C. Social . . . . .	58
Population Characteristics . . . . .	58
Educational Facilities . . . . .	60
General Health & Welfare . . . . .	60
Religious & Benevolent Institutions . . . . .	62

**PART III. Proposals**

A. Proposed Land Use . . . . .	64
1. Commercial . . . . .	66
2. Public & Semi-public . . . . .	67
3. Light Industrial . . . . .	69
4. Residential . . . . .	70
(a) Rehabilitation . . . . .	72
(b) Bachelor Apartments . . . . .	73
(c) 6 Story Apartments . . . . .	73
(d) 12 Story Apartments (South) . . . . .	74
(e) 12 Story Apartments (North) . . . . .	75
(f) Elementary School Site . . . . .	76
B. Proposed Circulation Pattern . . . . .	76
1. Removal of B & O Railroad Tracks . . . . .	76
2. East River Drive . . . . .	78
3. Vine Street Express-way . . . . .	78
4. Removal of Spring Garden Street Bridge . . . . .	79
5. Widening of Market Street . . . . .	79
6. Pennsylvania Boulevard . . . . .	79
7. Widening of 20th Street . . . . .	80
8. Pennsylvania Avenue extended to 20th Street . . . . .	81
9. Intersections on Parkway reduced in number . . . . .	81

10. 21st, 22nd, & 23rd Sts. closed to thru traffic .	82
11. 22nd St. over-pass at Vine Street Exp'y . . . .	82
Transit . . . . .	82
Parking facilities . . . . .	82
C. Economic Recapitulation . . . . .	83
Purchase price of total area . . . . .	83
Street-area "subsidy" . . . . .	84
Land acquisition by individual area . . . . .	85
Residential area summarized . . . . .	86
"Write-down" of land costs . . . . .	86
"Write-up" of land costs . . . . .	87
"Profit and Loss". . . . .	88
 PART IV. Summary . . . . .	 89
 Bibliography . . . . .	 91
 Appendix . . . . .	 93

INDEX to CHARTS

	Page
Frontespiece . . . . .	
Distribution of Total Population - 1940 . . . . .	5
Thomas Holme Map of Philadelphia - 1683 (Facsimile). . . . .	8
Facsimile Map of Old Philadelphia - 1776 . . . . .	9
Plan of Philadelphia and Adjoining Districts - 1828 . . . . .	10
Philadelphia - 1840 . . . . .	11
Philadelphia - 1890 . . . . .	12
Philadelphia - 1892 . . . . .	13
Philadelphia - 1916 . . . . .	14
Surrounding Land Use Summary . . . . .	18
Existing Land Use . . . . .	21
Traffic Flow Summary . . . . .	26
Existing Traffic Flow . . . . .	28
Public Improvements 1947 - 1952 . . . . .	30
Existing Transit Flow . . . . .	31
Functional Pattern of Railways - Phila. & Vicinity . . . . .	33
Existing Utilities . . . . .	35
Existing Housing Facilities in the Triangle Area . . . . .	37
Tax Delinquent Property as of 1946 . . . . .	40
Trend in Assessed Valuations & Tax Rate for the City . . . . .	42
Trend in Assessed Valuations for Ward 10 . . . . .	43
1946 Assessed Valuations - Land & Buildings . . . . .	45
Trend in Factors Relating to Real Estate . . . . .	48
Trend in Office Space Occupancy . . . . .	52
Office Buildings in the Central City . . . . .	56
Population Distribution by Age & Sex for Ward 10 . . . . .	59

	Page
Existing Social Institutions . . . . .	61
Summary of Area Functions . . . . .	63
Proposed Land Use . . . . .	64
Circulation Map . . . . .	77

## THE PHILADELPHIA TRIANGLE

- - -

### PART I. Historical Background & Statement of Problem.

Even the most conservative citizen of Philadelphia today realizes that definite action must be taken to counteract an ominous trend - the decline and decay of the Central City. Various steps have already been taken with the best of intentions and with some temporary results. Taxes have been imposed upon the incomes of those employed in the City, upon parking lots, places of amusement and upon the use of sewers. All such devices have aimed at maintaining sufficient municipal income in the face of declining revenue sources. It is only logical and just that surrounding communities deriving benefit from services offered by the City should assume their rightful share of the responsibility for their maintenance.

But just how long can such policy continue? Is it not reasonable to assume that these surrounding communities may one day awaken to the fact that they are supporting a parasite; that for sentimental reasons they are burdened with the support of a worn-out structure when the benefits therefrom no longer justify it?

The Central City cannot live on its history alone. It must continually replenish its stock with desirable and up-to-date merchandize to hold its customers. The greatest asset held by the City lies in its real estate and the "ad valorem" system of tax levy definitely places the City in

the real estate business. In a sense, the revenue derived from taxation of real estate might be construed as "rent", being levied against private property whether it earns income or not. As the wise landlord repaints, repairs and services his apartment building, is it not sounder in the long run for the City to set as its major policy the rebuilding and maintenance of its real estate values, its major source of income, rather than relying too heavily upon artificial stimulants which at best afford only temporary relief? The passage of the Urban Redevelopment Law<sup>1</sup> in May 1945 is heartening evidence that the people of the Commonwealth of Pennsylvania subscribe to the sounder policy and are giving their cities the necessary authority to carry it out.

With street and land-use pattern established to satisfy the needs of a City before the advent of the horseless carriage, it is obvious that the mere rebuilding of certain decadent facilities will not suffice. The very function of an area may have grown obsolete yet structures within it remain sound. Therefore, the ultimate solution of the problem facing Philadelphia, as well as our other major cities, lies not in new ways of levying taxes, not in new buildings in the place of old ones, but fundamentally in the proper choice and development of the most efficient use of the land.

The present housing shortage, acute though it may be

-----

<sup>1</sup> Act of General Assembly No. 385, May 24, 1945. See Appendix.

and deserving of immediate attention, should not be allowed to assume greater than its rightful share of importance in the redevelopment process. Industry, commerce, transportation and social facilities must all be given equal consideration, for without any one of these housing would be without point. It is understandable, though unfortunate, that urban redevelopment is popularly thought synonymous with "slum-clearance" and "low-rent housing". Let it be clearly set forth here and now that true urban redevelopment implies the primary establishment of the proper land use, whether it be heavy industry, retail shops, recreation, or housing for any income level. It involves deriving the maximum utility from an area no matter what the use may prove to be.

The choice of the proper area in Philadelphia in which to begin redevelopment is as much psychological as it is social, economic, or physical. The first "stroke" must be bold and must have some assurance of completion within a reasonable length of time. With the Vine Street Expressway practically underway and the removal of the "Chinese Wall" at last imminent, the City Planning Commission has wisely chosen to begin redevelopment in a central area with a powerful ally in the Pennsylvania Railroad. From a purely social viewpoint there are conditions of blight, poor housing and over-crowding existing in other areas far more evident than in the Central City, but the approach must be practical. The decision as to place of beginning rests in a nice balancing of certain psychological and political factors within the bounds of existing enabling legislation.

Briefly, the Pennsylvania Redevelopment Law provides that an Authority shall prepare a redevelopment proposal for any area certified by the planning commission to be a redevelopment area and for which the planning commission has made a redevelopment area plan. In the certification process,<sup>2/</sup> evidence must be exhibited that the area is physically, economically, and socially on the decline; that such conditions endanger the public health, safety, convenience and welfare; that the decline of the area is causing further depreciation of general community-wide values; that such conditions are beyond remedy or control by regulatory process and cannot be effectively dealt with by private enterprise due primarily to difficulties in land assembly without effective aid of the public power of eminent domain; and finally, that sound redevelopment of the area will promote public health, safety, convenience and welfare.

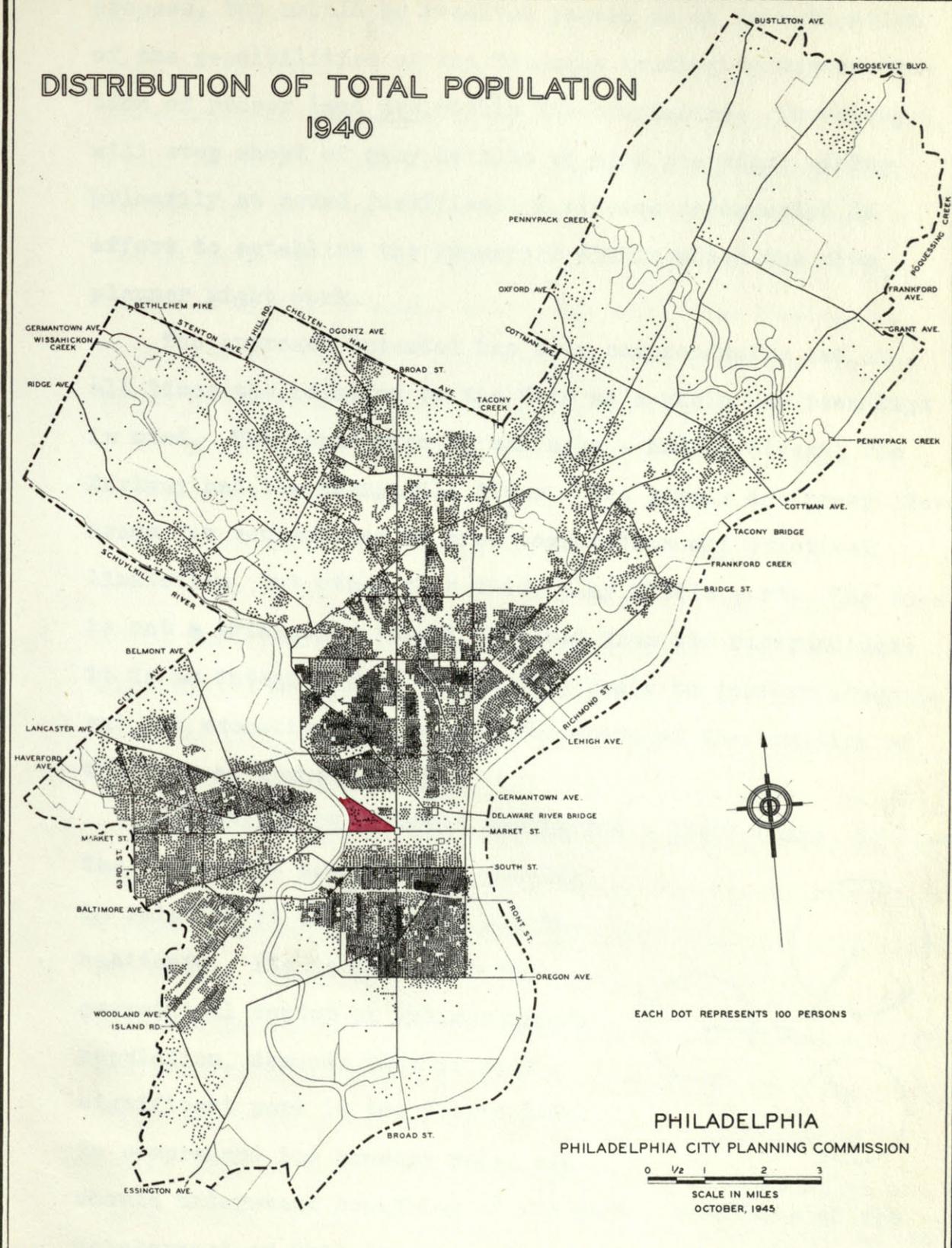
The area selected for this study,<sup>3/</sup> bounded by Market Street on the south, Benjamin Franklin Parkway on the north and east and Schuylkill River on the west - hereinafter referred to as "The Triangle" - has not to date been officially certified by the City Planning Commission as a redevelopment area. However, it will be assumed that The Triangle is at least under consideration and that certain other more detailed studies of the same area are being made pursuant to its certification.<sup>4/</sup> In other words, this study is in no way

-----  
<sup>2/</sup> Loc. cit., Section 1., The Redevelopment Law.

<sup>3/</sup> See "Foreword".

<sup>4/</sup> Ibid.

# DISTRIBUTION OF TOTAL POPULATION 1940



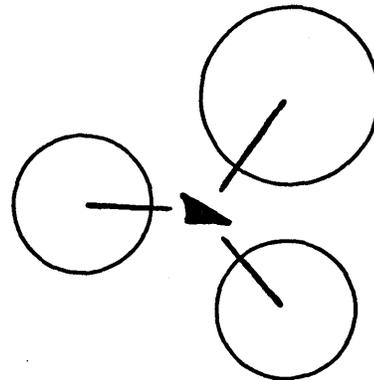
PHILADELPHIA  
PHILADELPHIA CITY PLANNING COMMISSION  
SCALE IN MILES  
OCTOBER, 1945

P.C.P.C.452.1-45

presented as being self-sufficient for such certification process, but should be received purely as an investigation of the possibilities of the Triangle leading to recommendation of proper land use within its boundaries. The study will stop short of many details of site planning, aiming primarily at sound justification of uses recommended in effort to establish the framework within which the site planner might work.

The approach intended has been comprehensive and at all times the relation to the City as a whole has been kept in mind. The boundaries of the area - Market Street, the Parkway and the Schuylkill River - are simply arbitrary lines drawn for convenience of area computation and practical limitation, but other than this, play little part. The area is not a triangular island isolated from its surroundings; it is an integral part of the City ready to perform adequately, but not excessively, its rightful share of the function of the City as a whole.

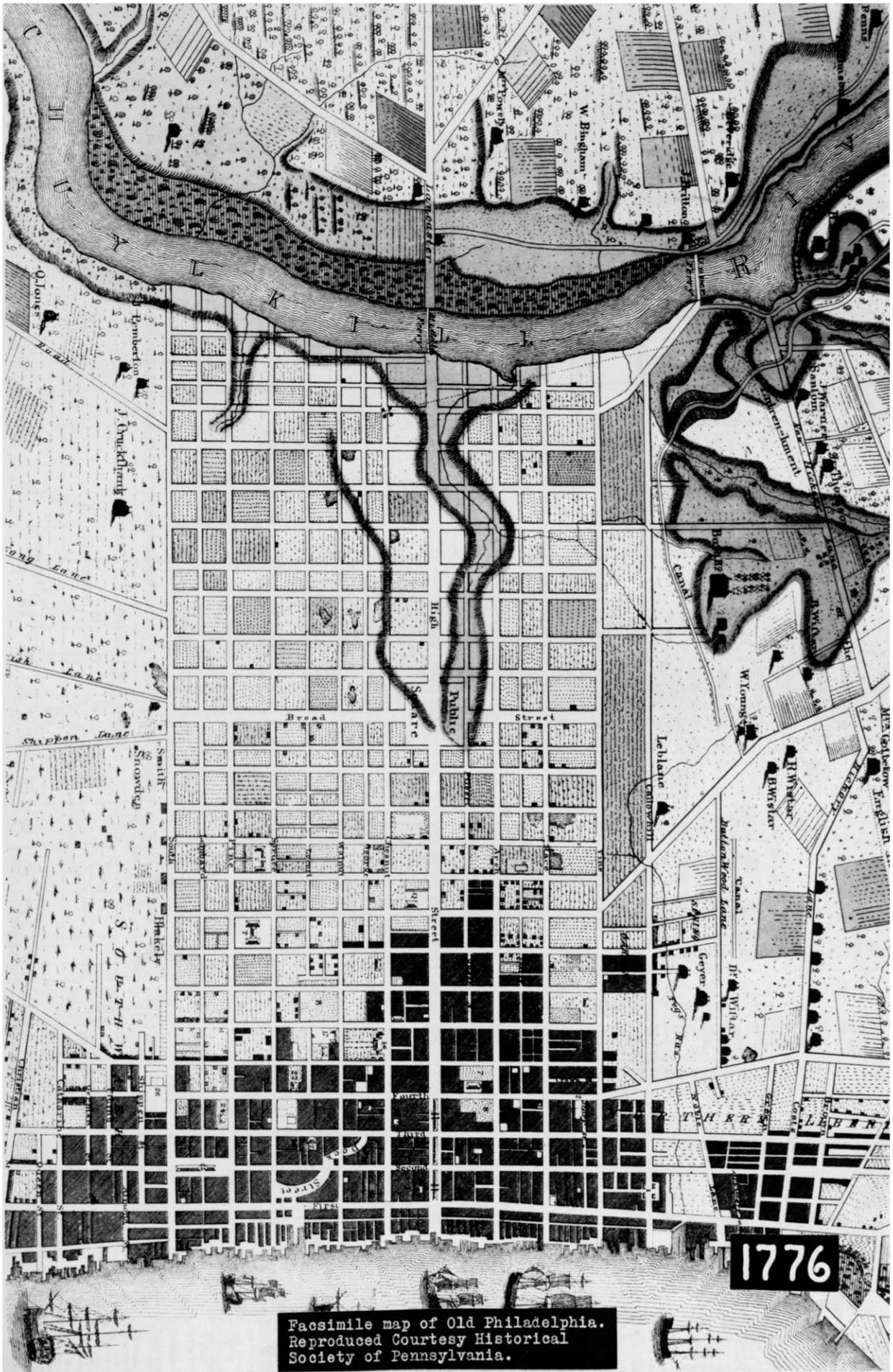
"DISTRIBUTION OF TOTAL POPULATION - 1940" (page 5) shows the Triangle's geographical setting in relation to the City and its inhabitants. Its location, at the geometrical center of Philadelphia's population, demands that it play a significant part in the City's life. To comprehend its present role, one should understand something of its past - something of the development of Philadelphia and its relation to the area.



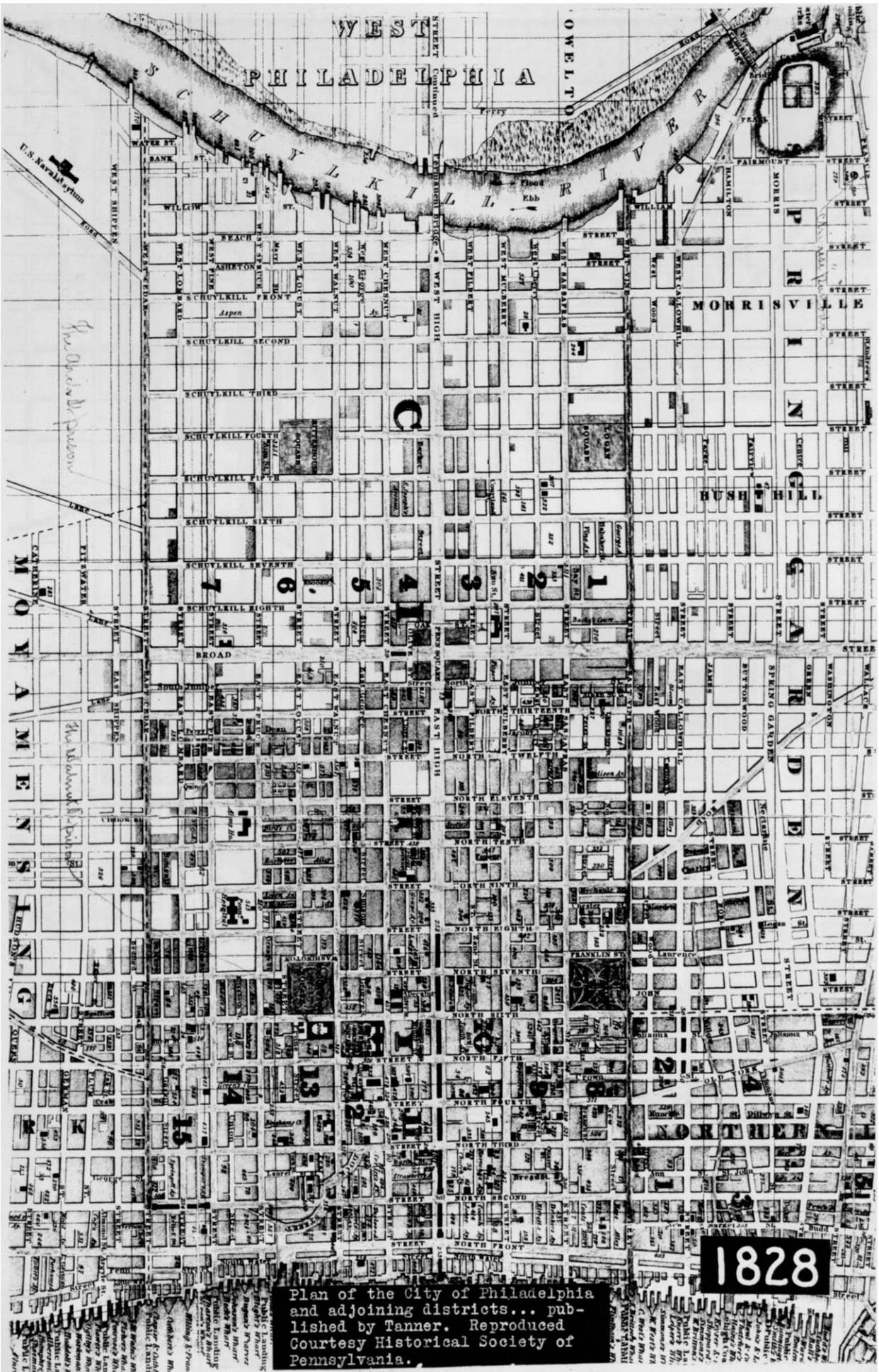
The Thomas Holme version of William Penn's original plan for the City (page 8) establishes the gridiron pattern which has been rigidly adhered to. Following pages illustrate the development of this scheme as of 1776, 1828, 1840, 1890, 1892 and 1916 respectively. Throughout this series, as the City expanded from its small settlement on the Delaware River, we find evidence that the area now occupied by the Triangle was considered "less desirable". True, the plan of 1776 indicates its low swampy character which gives some foundation for such feeling.

By 1828 such facilities as an Alms House, Powder Magazine, Shot Tower, House of Detention and State Penitentiary were needed by the growing town. These were located west of Broad Street and north of High (Market) Street. By 1840, the area had inherited such facilities as another Prison, the Orphans' Asylum, Magdalen Asylum, Widows Asylum, Wills Hospital, City Hospital, Institute for the Blind, a Gas Works and Water Works. The 1890 picture shows the addition of stock yards and an abattoir immediately across the Schuylkill to the west. Both the Pennsylvania and Baltimore & Ohio Railroad tracks entered the area, together with another Gas Works. Obviously, the land was relatively cheap, hence little opposition to such necessary uses was expressed. If the Pennsylvania Railroad were to adequately serve the City, their Depot at Broad Street was welcomed regardless of how trains were to get there. Engineers no doubt showed that the erection of the "Chinese Wall" was necessary and, after



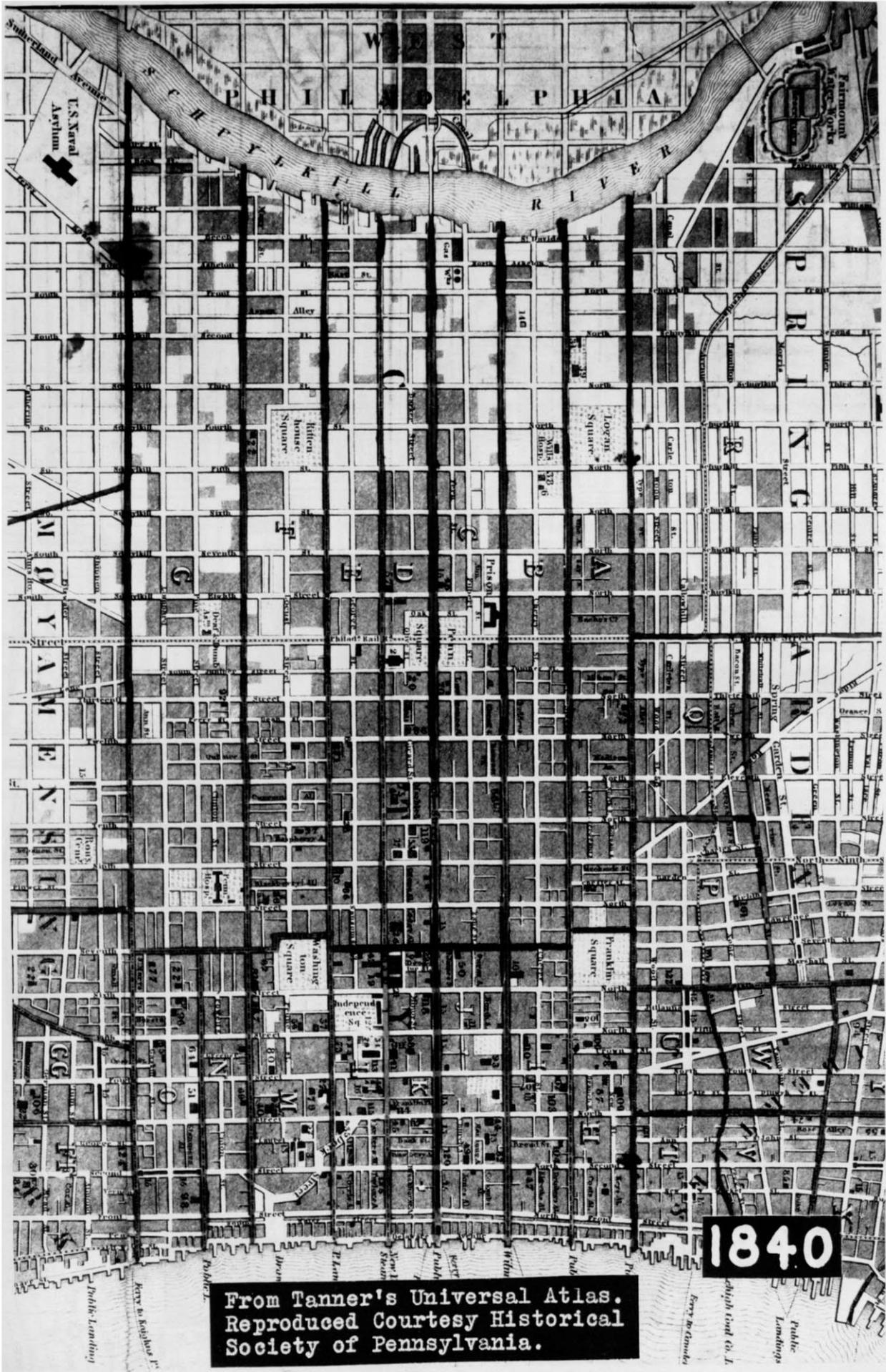


Facsimile map of Old Philadelphia.  
Reproduced Courtesy Historical  
Society of Pennsylvania.



Plan of the City of Philadelphia and adjoining districts... published by Tanner. Reproduced Courtesy Historical Society of Pennsylvania.

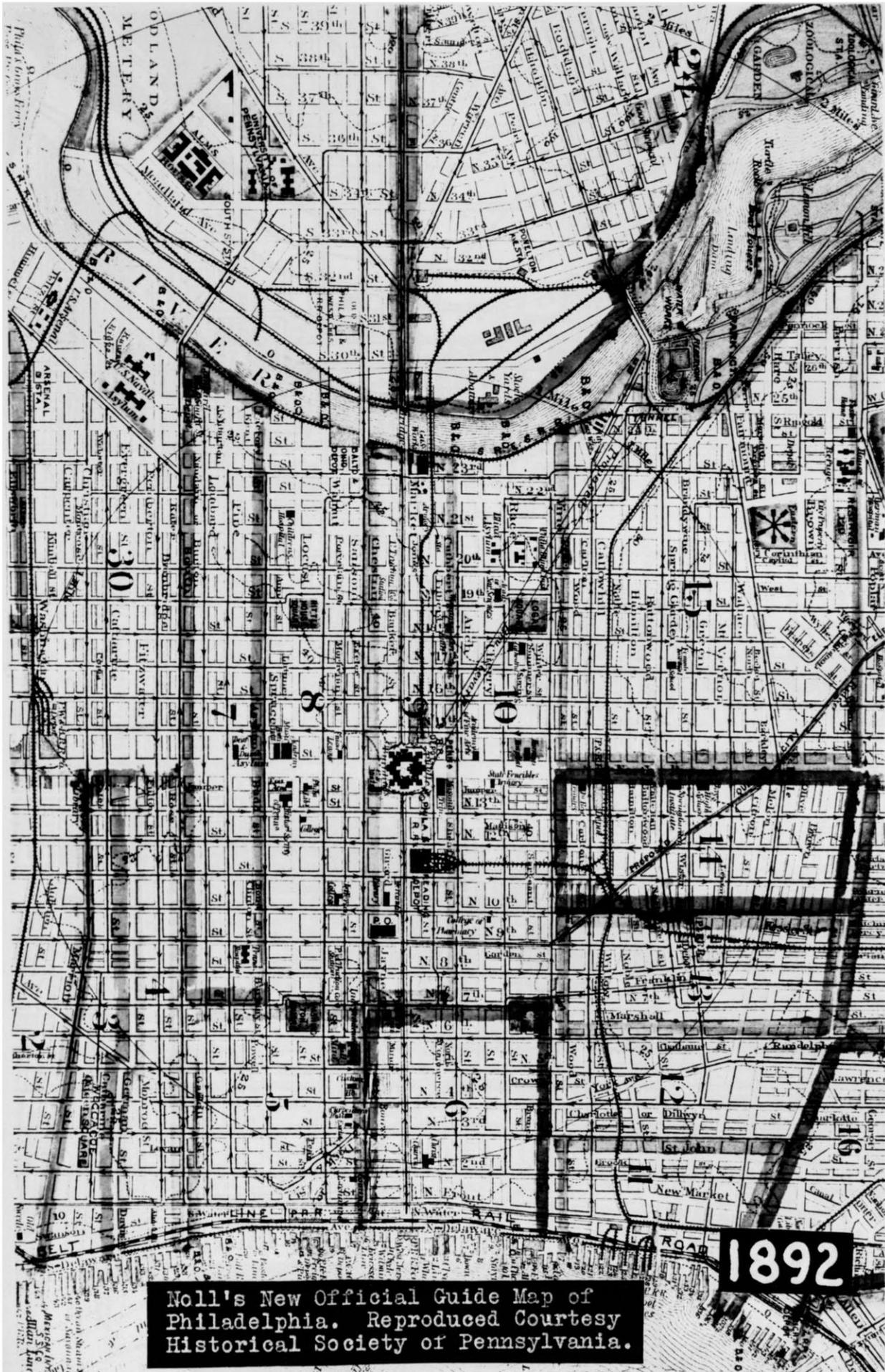
1828



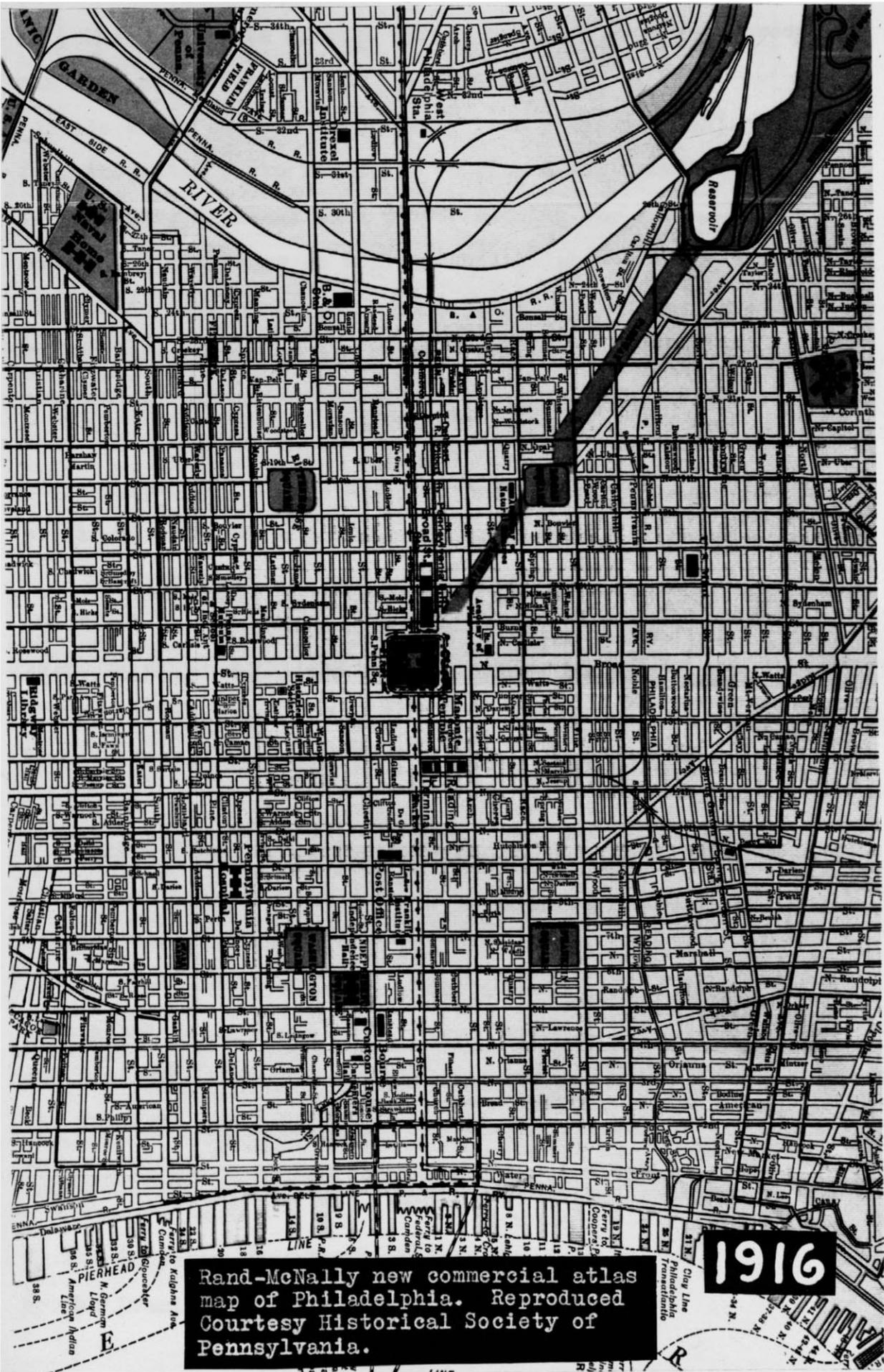


Noll's New Official Guide Map of Philadelphia. Reproduced Courtesy Historical Society of Pennsylvania.

1890



Noll's New Official Guide Map of Philadelphia. Reproduced Courtesy Historical Society of Pennsylvania.



Rand-McNally new commercial atlas map of Philadelphia. Reproduced Courtesy Historical Society of Pennsylvania.

1916

City Line Philadelphia Pennsylvania

all, the area north of High Street and west of Broad Street was more or less the "back door" anyway!

As early as 1892, a parkway<sup>5/</sup> was proposed leading from the Water Works reservoir to City Hall, conceived by far-thinking citizens as a proper setting for civic and monumental buildings as well as Philadelphia's first effort to reclaim declining real estate values in adjacent areas. We see here attempted the Country's first large-scale employment of excess condemnation. More land was condemned than was necessary in order that the excess could be replanned and sold at its newly created value, thus realizing profit with which to pay for the project.

Condemnation proceedings for the Parkway began in 1902 and first demolitions occurred on February 22, 1907.<sup>6/</sup> By 1915, 3½ million dollars had been spent for land acquisition alone. In 1918 the new Parkway was opened for its full length, total cost amounting to 22 million dollars. Its dedication to Benjamin Franklin occurred September 10, 1937.

Any replanning of the Triangle should not only be cognizant of the money and efforts expended upon the development of the Parkway, but in fact should be considered a continuing process toward broader aims sought in 1902. As with all intelligently-made plans, flexibility is essential and desirable, but all previous efforts must be tied in to the Triangle redevelopment. Whether the Parkway has been successful in restoring values nearby, or whether it has

-----  
<sup>5/</sup> The Benjamin Franklin Parkway today.

<sup>6/</sup> The Evening Bulletin, February 23, 1907.

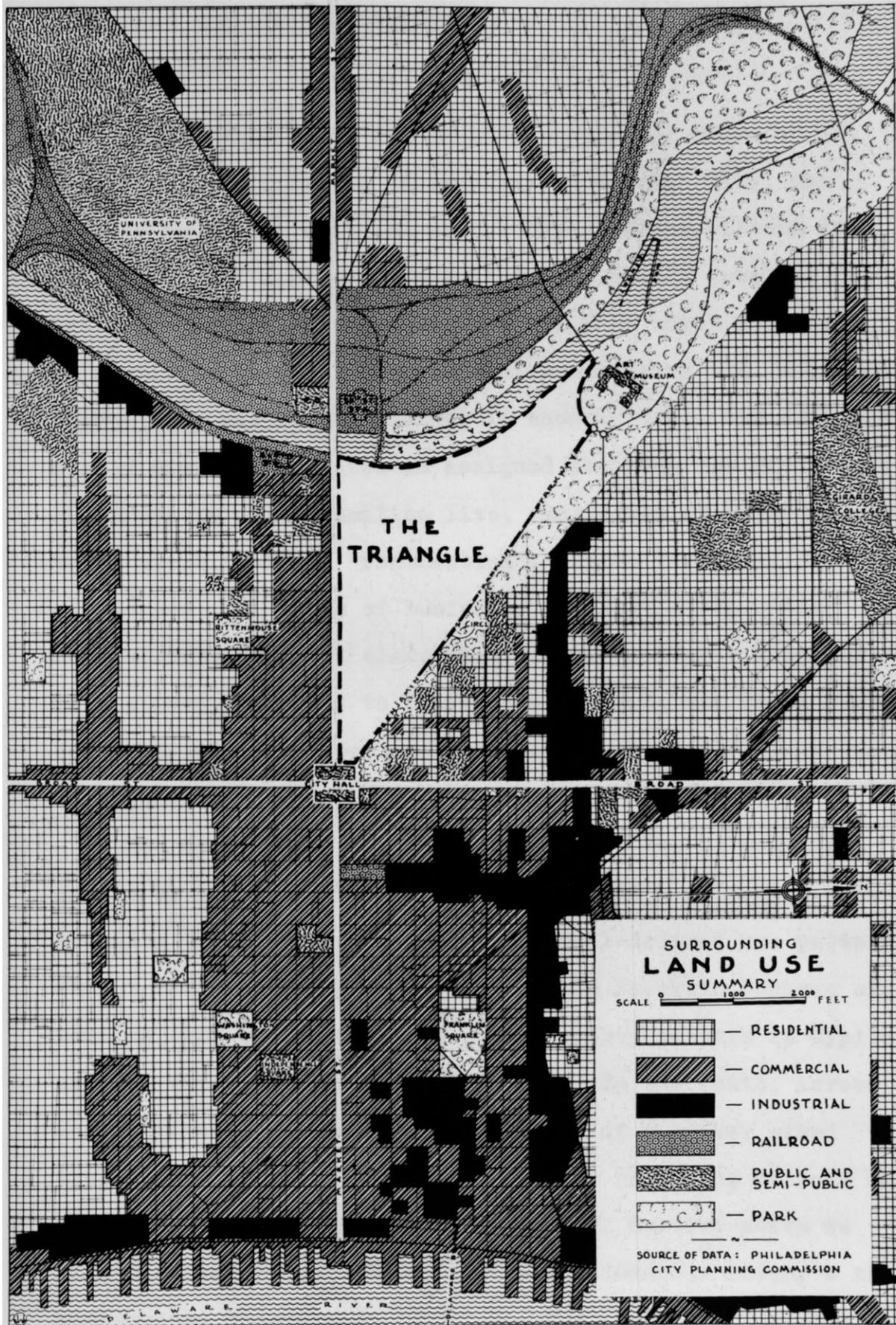
effectively isolated the Triangle area, will be discussed later.

As early as 1915 the City and the Pennsylvania Railroad were considering plans for developing a station at 30th Street, the removal of the Broad Street Station and demolition of the elevated structure leading to it popularly known as the "Chinese Wall". In July 1925 an agreement<sup>7/</sup> was made between the two parties "providing for the carrying out of a comprehensive plan, formulated by the City, for improving and developing certain central sections of the City by constructing and reconstructing highways and transit lines contiguous to the Railroad and, in order to further such plan, for the Railroad to construct certain new terminal facilities." This agreement, modified in 1927, 1939, and 1946 stated in effect that if the Railroad moved their station to 30th Street and removed the "Chinese Wall", the City would remove the Subway-Surface and Subway-Elevated bridge crossing the Schuylkill River, would construct a Pennsylvania Boulevard, and would build the necessary bridge over the Schuylkill to carry the Boulevard. Width of the Boulevard was fixed at 90 feet. It is unfortunate that in the execution of such a well-meaning plan certain obstacles were fixed which may all but nullify the advantages derived from the ultimate execution of the original plan. First, the erection of the bridge and suburban tracks along the north side of the "Chinese Wall" results in a very effective

-----  
7/ "Agreement between City of Philadelphia and the Pennsylvania Railroad Company ... dated November 27, 1946 ..."  
(See Bibliography for complete title.)

barrier from 20th Street to the River. Had the City and Railroad been wise, these tracks would have been placed below ground from Suburban Station, under the River, to a point west of the 30th Street Station. Second, the 30th Street Station building was erected so close to the River's west bulkhead line that insufficient space remains to handle traffic adequately at the west end of a Boulevard bridge. Third, the location of the Station leaves insufficient room for the extension of West River Drive, thereby forcing its termination as an ample roadway at the Station.

Nothing is gained from crying over spilled milk, yet one should be aware of such standing commitments and other obstacles in order that some solution may be devised which would satisfy all parties, not necessarily blindly following the exact letter of the agreement, but achieving the general intent with a workable scheme which is not wasteful of the tax-payers' money. So closely interwoven are the interests and welfare of the Pennsylvania Railroad and the City of Philadelphia, it seems logical to proceed with the problem in the belief that wise expenditure of public funds is in the interest of both City and Railroad. Therefore, the extension of Pennsylvania Boulevard for vehicular traffic and the construction of a bridge across the Schuylkill River are not considered foregone conclusions in this report. There is still time to forestall some of the effects of an unwise previous decision.



PART II. Existing Conditions.

A. Physical.

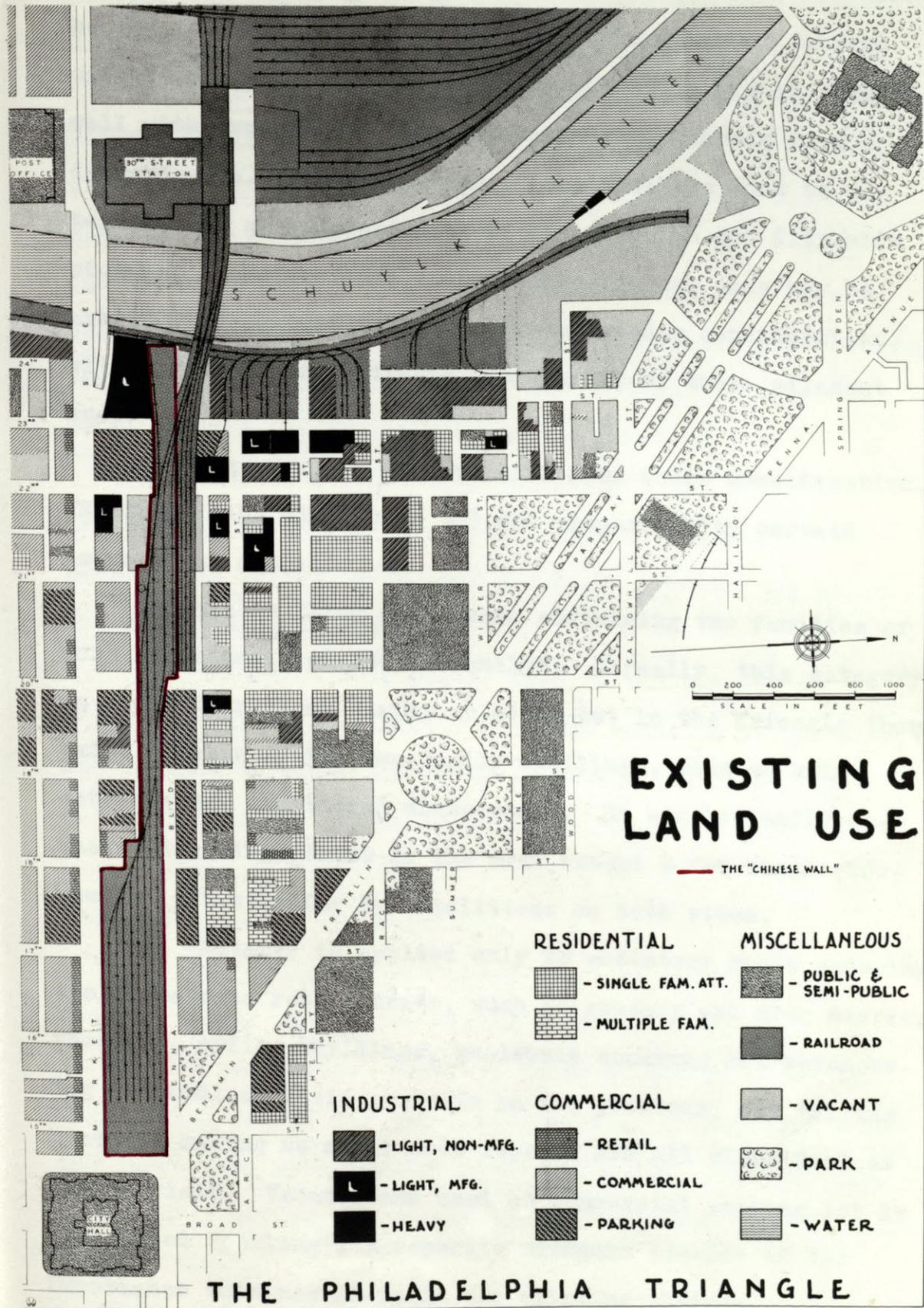
"SURROUNDING LAND USE SUMMARY" (page 18) shows a definite stratification of uses in the Central City, the pattern in strips east and west. The gridiron pattern is, of course, not conducive to radial or circular development but the movement east and west rather than north and south is significant. In the process of summarizing the land uses, predominant use for each block is shown. Where the uses are evenly divided, the area is assigned the less restricted use. All areas in which families live, regardless of type structure, are classified "residential". Retail, wholesale, warehouses, all types of business, and most clean quiet manufacturing are all classified "commercial". "Industry" is assigned primarily to heavy manufacturing and those concerns considered objectionable to surrounding dwellings due to emission of smoke, noise, or odor.

The location of the Reading Railroad can be followed easily by the industrial uses bordering it. All areas surrounding the Triangle have a fairly well-defined use pattern except that immediately across Benjamin Franklin Parkway extending east to Broad Street. This spotty pattern is typical of that existing within the Triangle. To the south, across Market Street, we find commercial uses of a rather mixed type. West of 19th Street this area is beginning to take on the aspects of a commercial slum; still farther south we find the last stronghold of "accepted" downtown living - the Rittenhouse Square area.

From this picture it is clearly evident and likely that the area to the south of Market Street will greatly affect and be affected by the Triangle development; in fact, it would be unwise to draw a distinct line at Market Street. So important is the south side of Market Street to the Triangle that one of two things will undoubtedly happen: Redevelopment of the Triangle will force the same across Market Street, or, the south side of Market Street will prevent the success of the Triangle redevelopment. The Market Street area west of 20th Street is much more susceptible to influence from the Triangle than is this area to the east of 20th Street.

To the west of the Triangle lie the Schuylkill River and the Pennsylvania Railroad yards. The former, when reclaimed, will provide a valuable asset; the latter presents an obstacle which must be accepted and made the most of.

The functional pattern of the Central City follows fairly definite lines. The banking and financial groups are centered around Broad and Chestnut Streets; the stock-brokers at Broad and Walnut Streets; the publishers around Washington Square. The department stores adhere to Market Street between Broad and 8th Streets and Arch Street lays definite claim to wholesale jobbers. Chestnut and Walnut Streets tend toward small, retail shops - the more "exclusive" being west of 15th Street. In effect, the Triangle has its east corner touching the center of Philadelphia's business and financial center; its northwest corner touching the Art Museum and Fairmount Park; its southwest corner near



two of the Central City's three Railroad stations. It could be possible, therefore, to run the whole gamut of Central City land uses within the Triangle and still tie in fairly well with immediately adjacent land uses. Herein lies a danger! The desired function of the Triangle must be determined by an understanding of its place in the City-wide picture, therefore some immediately adjacent uses may be arbitrarily ignored in favor of the broader consideration, with a view toward ultimate improvement of these adjacent uses.

Turning, now, to the specific area under consideration, "EXISTING LAND USE" (page 21) was prepared with certain assumptions made:

1. All dwelling structures containing two families or more are classified "multi-family". Normally, this category is applied to three-family or more, but in the Triangle there exist relatively few two-family dwellings, thus an extra category was considered unnecessary. No single-family detached dwellings exist in the area except a few single row-houses left standing by demolitions on both sides.

2. "Retail" is applied only to one-story shops catering exclusively to retail trade, such as grocery and drug stores. Theaters, office buildings, wholesale concerns not warehousing or handling their products on the premises, and filling stations making no major auto repairs are all classified as "commercial". Vacant land used as commercial parking lot is classified "parking", a separate category because of the importance this use plays in the existing picture.

3. Such uses as garages, automobile and body repair, warehouses, fuel yards, junk yards and wholesale-trucking concerns are classified "light non-manufacturing industry". Establishments actually fabricating a new product,<sup>9/</sup> employing electric power and reasonably quiet, such as clothing manufacturing and engraving, are classified "light manufacturing industry." "Heavy industry" is applied to concerns fabricating new products and which would be considered offensive to adjacent dwellings due to emission of smoke, noise or odor, as represented by the Creswell Iron Works.

4. Churches, schools, museums and other civic uses are classified "public and semi-public". Ownership is not necessarily reflected in this category, present use being the controlling factor.<sup>10/</sup>

5. "Railroad" designates uses on the surface of the ground having to do directly with the handling of passengers and freight by rail. In certain instances combined uses occur as in the Suburban Station Building. In this case, the predominant use prevails - office building - therefore classification is "commercial".

6. Certain other instances exist of combined uses. Where a spotty pattern is significant, existing uses are faithfully portrayed. However, where an entire block is residential except for the first floor of a residence here and there used as a laundry pick-up station, delicatessen, or doctor's office, these blocks are indicated entirely "residential".

-----  
<sup>9/</sup> "Industrial Inventory of Phila., 1943", corrected for 1947.  
<sup>10/</sup> Some "vacant land" owned by Fairmount Park Commission.

Attention is directed to a few outstanding points in the existing use pattern. Logan Circle area, with the Franklin Institute, Public Library, Municipal Courts, Cathedral of St. Paul & St. Peter and the Academy of Natural Sciences surrounding it, sets a definite civic use framework upon which to build. The large number of commercial parking lots east of 20th Street indicates a natural economic demand for adequate consideration of such facilities in the final plan. It is interesting to note that on Market Street, parking lots are usually filled to capacity at top prices; one block north, rates and customers decrease about 20%; one block still farther north the rates and volume of customers about half the Market Street level; beyond this point, three or four blocks north of Market, vacant lots are used for parking free of charge. This vast range, from premium charges to free parking in only four blocks, is concrete economic evidence that the public demands parking facilities immediately adjacent to their destinations.

West of 22nd Street the very spotty pattern of industrial, residential and vacant land uses is evident. Practically no new construction has occurred in this particular area since 1900 and it is the preliminary opinion of the City Planning Commission that this industry might be better located in more suitable areas elsewhere in the City.<sup>11/</sup> Certainly the uses west of 23rd Street give the impression of having outlived their economic life.

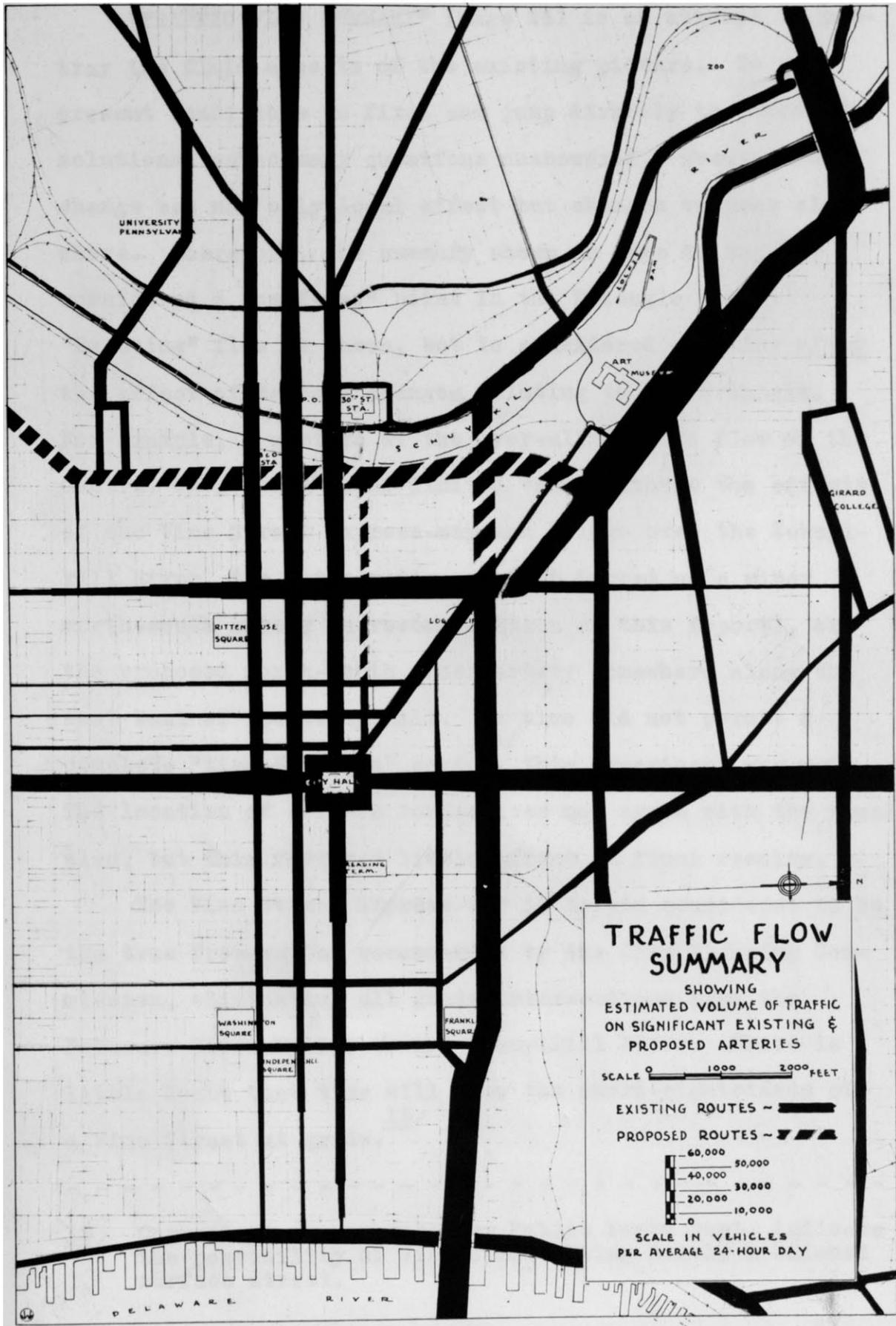
11/ As discussed in conferences referred to in "Foreword".

The removal of the "Chinese Wall" will release for development much very valuable land, particularly east of 18th Street. With this masonry obstruction away, properties on the south side of Market Street east of 17th Street might well be considered an integral part of the Triangle scheme.

A study made by the Traffic Engineering Division, Department of Public Safety, for vehicular traffic between 7:00 A.M. and 7:00 P.M. in the years 1928 and 1938 shows a 51.8% increase in passenger automobiles entering and leaving the Central City during this ten year period.<sup>12/</sup> While no figures are available for present day conditions, the author is of the opinion that this trend has continued in spite of interruptions by the War years. In 1938 the number of passengers in automobiles entering the Central City constituted 75% of the combined total of those arriving by all means of transportation. This is typical of all major cities and all show an inefficient use of transit facilities. In some instances recommendations have been made to exclude all passenger automobiles from central areas. While this may be the only immediate solution, it would be regrettable to deprive people of the privilege of driving their own car to town if they so desire. Although the initial expense may be great, cities must provide for such increases. To blame central area congestion on free-ways leading to it is to assume a position completely out of step with modern technological advances.

-----

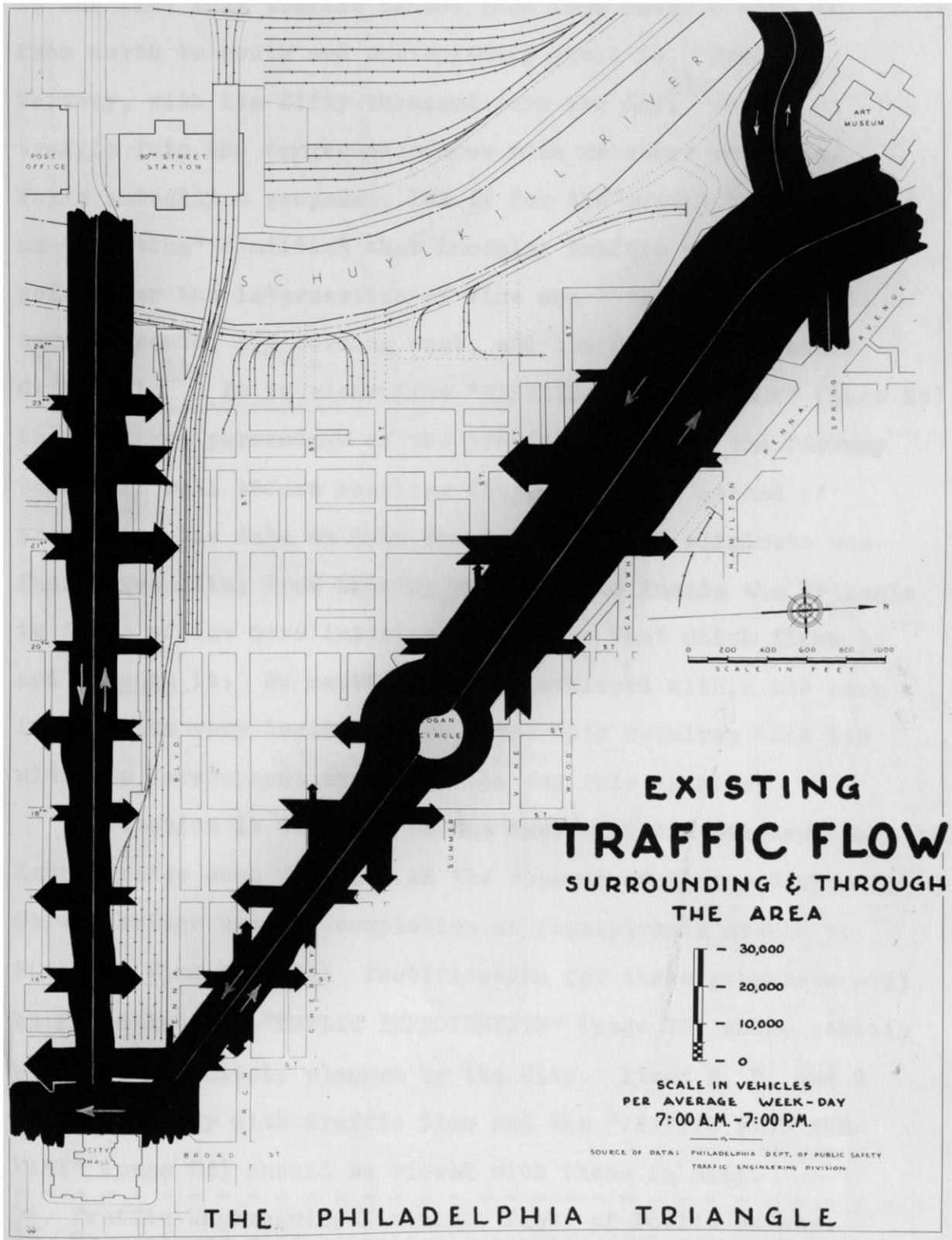
<sup>12/</sup> "Proposals for Downtown Philadelphia", by Richard J. Seltzer for the Urban Land Institute, 1941.



"TRAFFIC FLOW SUMMARY" (page 26) is an attempt to portray the fluid aspects of the existing picture. To view present conditions as fixed and jump directly to proposed solutions leaves many questions unanswered. Every major change has not only local effect but changes volumes elsewhere. Therefore, the summary shown on page 26 may be considered a "half-way" point in the Triangle study. "Existing" flow is shown, but is considered existing after the effect of certain changes relating to the Triangle. For example, a picture of the over-all traffic flow of the Central City would be of limited value without the effects of the Vine Street Express-way and Bridge over the Schuylkill River, the introduction of 20th Street as a minor north-south artery (a recommendation of this report), or the proposed north-south truck artery somewhere along the east bank of the Schuylkill. As time did not permit a complete "time & motion" series, this experiment was made. The location of certain routes does not agree with the final plan, but this fact has little effect on final results.

The Vine Street Express-way is herein considered to be the true free-way as recommended by the City Planning Commission, eliminating all grade intersections from the Delaware River Bridge to the Schuylkill River. There is little doubt that time will show the short-sightedness of a Vine Street at grade. <sup>13/</sup>

-----  
<sup>13/</sup> Current plans announced by Public Works Dept. indicate the possibility of Vine Street being merely a widened surface street.



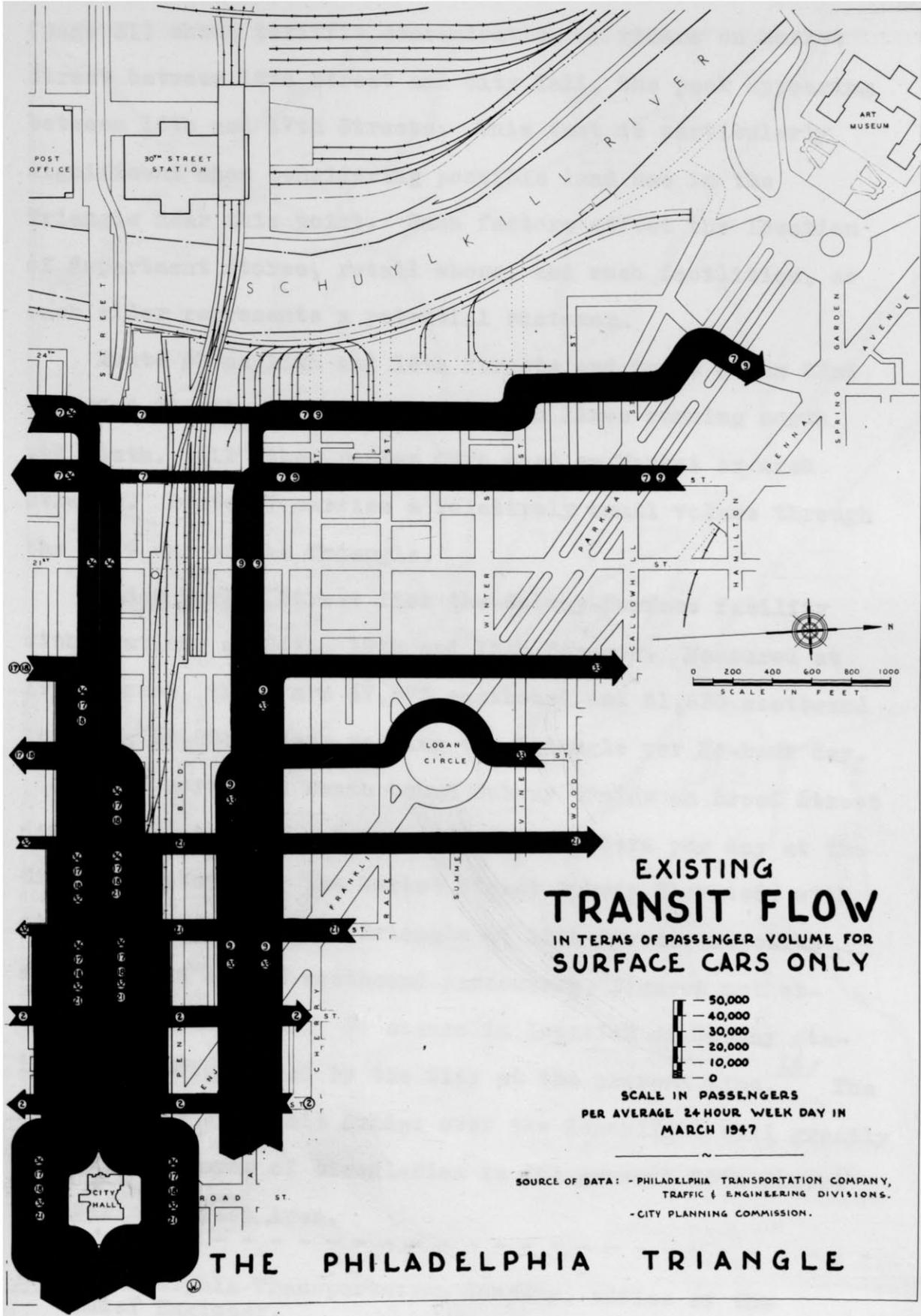
Present congestion around City Hall is due primarily to the fact that traffic cannot pass from east to west or from north to south and conveniently avoid it. Franklin Parkway, with its fifty thousand cars per day,<sup>14/</sup> pours traffic into the congested center with no other recourse. While actually a proposal, let it for the moment be considered an "existing" condition that incoming traffic splits at a point near the intersection of Vine and 20th Streets - 50% turning south, 40% turning east, and 10% continuing toward City Hall.<sup>15/</sup> It is clear from "EXISTING TRAFFIC FLOW" (page 28) that a large percentage of the traffic volume on the Parkway turns off well before reaching City Hall. The method of presenting the data on this chart attempts to eliminate confusion resulting from showing traffic flow inside the Triangle in favor of the more important picture - that which flows by and through it. No matter what is developed within the area itself, its very location within the City requires that its ultimate development amply provide for this traffic.

Attention is directed to the fact that the Summary (page 26) incorporates such features as the removal of Spring Garden Street Bridge and the completion of Pennsylvania Avenue to 20th and Vine Streets. Justification for these proposals will be found later. "PUBLIC IMPROVEMENTS" (page 30) shows certain projects definitely planned by the City. Items E, F, and G deal primarily with traffic flow and the "TRAFFIC FLOW SUMMARY" (page 26) should be viewed with these in mind.

-----  
<sup>14/</sup> Traffic Engineering Division, Dept. of Public Safety.

<sup>15/</sup> Percentages will undoubtedly require revision when results are obtained from Origin & Destination Surveys now contemplated by the City.





"EXISTING TRANSIT FLOW IN TERMS OF PASSENGER VOLUME"

(page 31) shows terrific concentration of riders on Market Street between 18th Street and City Hall, the peak appearing between 16th and 17th Streets. This fact is particularly significant when considering possible land use in the Triangle near this point. Such factors affect the location of department stores, retail shops, and such facilities, as each rider represents a potential customer.

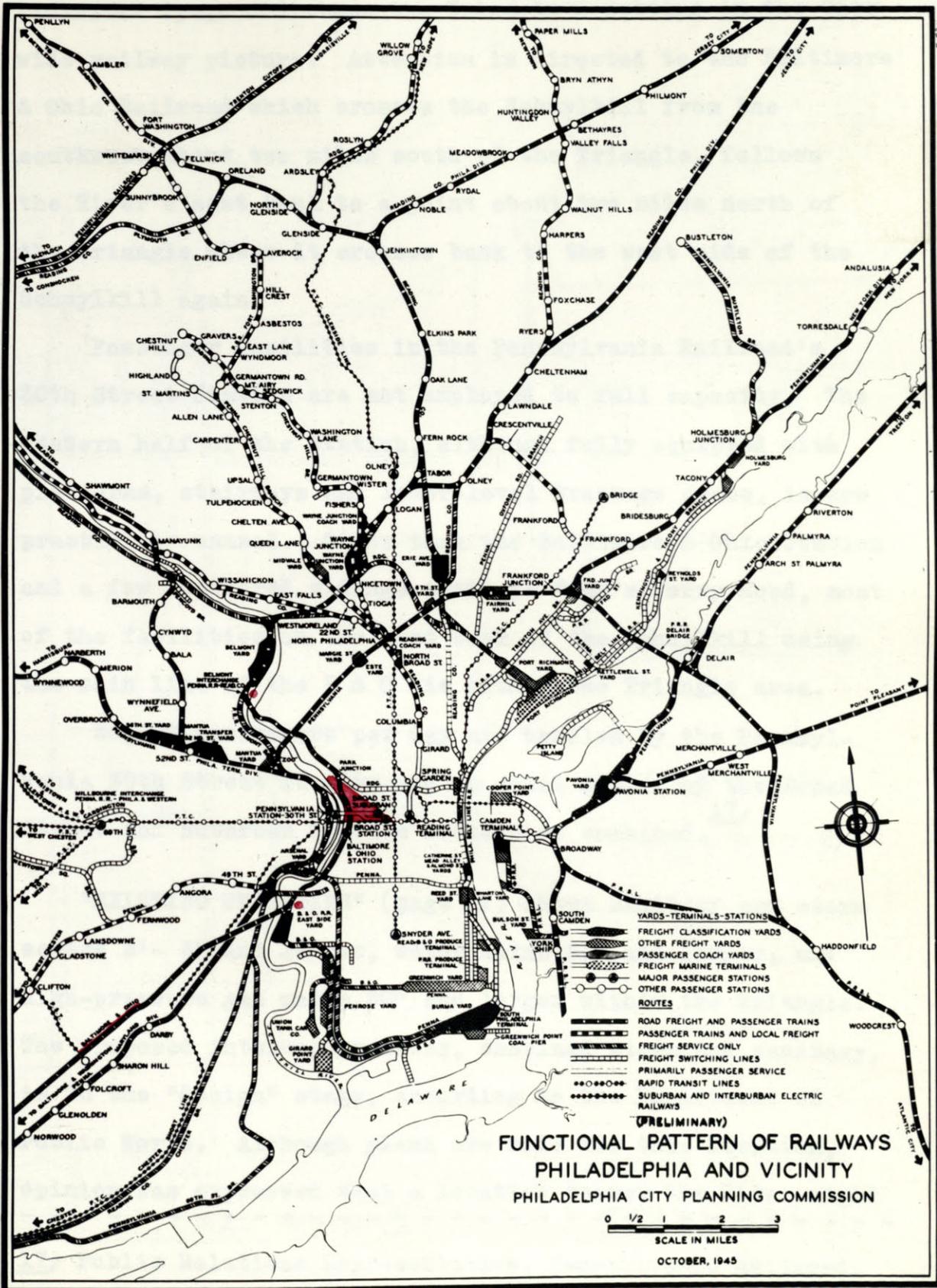
Route #2 on 15th and 16th Streets and Route #7 on 22nd and 23rd Streets are the only through lines running north and south. All other routes turn east on Market or Arch Streets. Route #7 carries a relatively small volume through the west end of the Triangle.

Under Market Street lies the Subway-Surface facility with stations at 24th, 19th and 15th Streets. Measured at 19th Street, there are 47,373 eastbound and 51,630 westbound totaling 99,003 riders passing the Triangle per 24-hour day.

Both north and south bound Subway trains on Broad Street deposit and take on a total of 109,145 riders per day at the City Hall station. The Market Street Subway-Elevated, with its station nearest the Triangle at 13th Street, deposits and takes on 47,663 westbound passengers, figures not obtained for eastbound. No change in location of Subway stations is contemplated by the City at the present time.<sup>16/</sup> The removal of the transit bridge over the Schuylkill will greatly improve all forms of circulation in the general 30th Street and Market Street Area.

-----

<sup>16/</sup> Philadelphia Transportation Company, office of the Chief Engineer.



"FUNCTIONAL PATTERN of RAILWAYS for PHILADELPHIA and VICINITY" (page 33) shows the Triangle's setting in the City-wide railway picture. Attention is directed to the Baltimore & Ohio Railroad which crosses the Schuylkill from the southwest about two miles south of the Triangle, follows the River's east bank to a point about two miles north of the Triangle where it crosses back to the west side of the Schuylkill again.

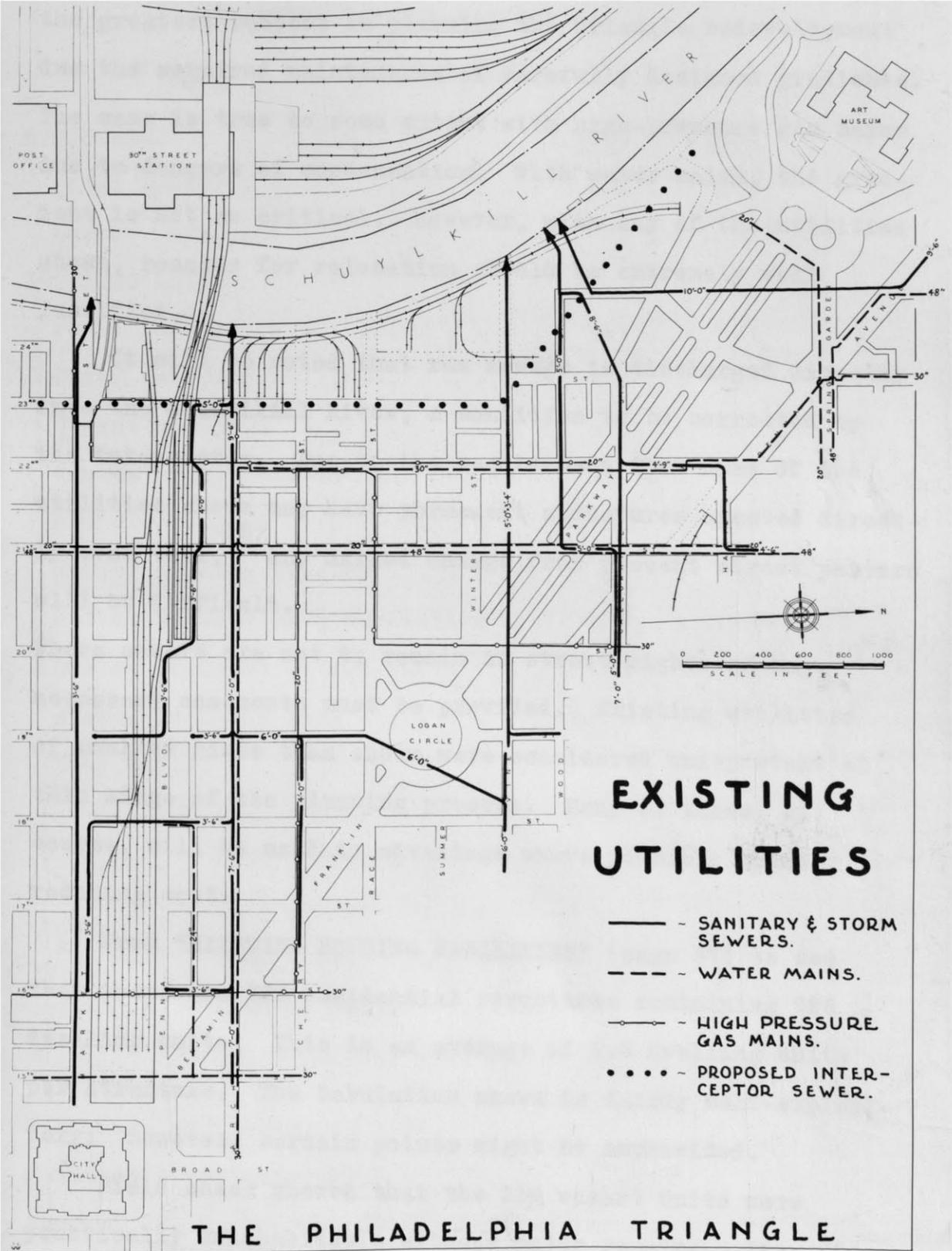
Passenger facilities in the Pennsylvania Railroad's 30th Street Station are not employed to full capacity. The eastern half of the Station, although fully equipped with platforms, stairways and lower-level trackage space, is now practically unused. Other than the Baltimore & Ohio Station and a few scattered sidings south to Gray's Ferry Road, most of the facilities on the east bank of the Schuylkill using the main line of the B & O lie within the Triangle area.

30,000 passengers per day are handled by the Pennsylvania 30th Street Station and an equal number by the Broad Street and Suburban Station facilities combined. <sup>17/</sup>

"EXISTING UTILITIES" (page 35) shows sanitary and storm sewers 3'- 6" and larger, water mains 20" and larger, and high-pressure gas mains 20" and larger within the Triangle. The proposed interceptor sewer, combined storm and sanitary, is in the "design" stage, according to the Department of Public Works. Although plans are made for this location, opinion was expressed that a location nearer the River might

-----

<sup>17/</sup> Public Relations Representative, Pennsylvania Railroad.



be even more satisfactory. Existing sewers must receive the greatest respect in planning the Triangle redevelopment due the required maintenance of carefully designed gradients. The same is true to some extent with high-pressure gas mains due to dangers of condensation. With water mains, the gradient is not so critical. However, with any of the utilities shown, reasons for relocation should be extremely well justified.

It will be noted that raw sewage is discharged directly into the Schuylkill River, a condition to be corrected by the interceptor. Due to the requirement that none of the utilities shown may have permanent structures erected directly over them, <sup>18/</sup> any marked change from present street pattern will be difficult.

Where sewers are not to remain in street rights-of-way, necessary easements must be provided. Existing utilities of smaller sizes than shown were considered unimportant at this stage of the planning process. Many of these, of course, will be used to advantage where possible thereby reducing cost.

From "EXISTING HOUSING FACILITIES" (page 37) we see that there are 395 residential structures containing 926 dwelling units. This is an average of 2.3 dwelling units per structure. The tabulation shown is fairly self-explanatory; however, certain points might be emphasized.

Field check showed that the 11% vacant units were practically uninhabitable without major repairs. Over 90% of all dwelling units were built during the last Century,

18/ Certain agreements have been made to allow structures over

EXISTING HOUSING FACILITIES  
in  
THE TRIANGLE AREA

STRUCTURES	<u>1940</u>	<u>1946</u>
Total number . . . . .	412 . .	395
Number mortgaged . . . . .	21 . .	21*
 DWELLING UNITS		
Total number . . . . .	909 . .	926
Owner occupied . . . . .	143 . .	126
Tenant occupied . . . . .	669 . .	697
Vacant - For Sale or Rent . . . .	118 . .	103
Number occupied . . . . .	791 . .	818
Number needing repairs . . . . .	50 . .	50*
Number without bath facilities . .	386 , .	386*
Number occupied by Non-White . . .	33 . .	33*
Average monthly rent . . . . .	\$27.34 .	\$30.00#
 Year built:		
1941 - 1946 . . . . .	34	
1930 - 1940 . . . . .	2	
1920 - 1929 . . . . .	0	
1900 - 1919 . . . . .	29	
1899 or before . . . . .	610	
Not reported . . . . .	251	

\* No data available for 1946.

# Author's estimate.

Source: U. S. Census, 1940 - Housing; corrected for 1946 according to data from Philadelphia Housing Association.

yet a surprising number are in a fairly good state of repair. This is particularly true in the area bounded by 20th, 21st, Cherry and Race Streets, as well as the west side of 21st Street between Cherry and Race. Opportunity to view the interior of some of these structures revealed them extremely modern and well maintained. This group would be well worth incorporating in a plan of rehabilitation.

In the general area east of 20th Street are scattered examples of similar conditions but are so widely dispersed that retention might hamper over-all planning. The residential structures west of 22nd Street are in a very poor condition. The 42% of all dwelling units reported without bath facilities is due to many conversions of old houses with one bath serving an entire floor or more. All structures have sanitary facilities though possibly not one to each dwelling unit.

Practically all residential structures are of brick, some of the better ones having limestone fronts. The fact that an estimated 20% of the existing structures contain sounder building materials than could be obtained today, in spite of out-moded design, makes rehabilitation seem wise as an initial stage in the redevelopment process.

Comparison of 1940 figures with those of 1946 shows relatively little change in existing housing during the six-year period. 17 demolitions have occurred, all within

-----  
sewers, but property owner waives right of recourse should repairs to sewers cause damage to his property.

the "single family" category, and the number of dwelling units increased as result of 34 conversions rather than the erection of new structures. Tenant occupancy showed an increase and owner occupancy a slight increase, thus conforming to a trend typical of a declining area. It is interesting to note that demolition permits have been issued for more than a dozen additional structures,<sup>19/</sup> yet these still remain.

4% of the total or 33 Negro families are in the area<sup>20/</sup> living generally west of 22nd and north of Race Streets. No 1946 figures were obtainable, but information from residents indicates little change in number of Negro families during the last six years.

Average monthly rent per dwelling unit for 1940 was \$27.34.<sup>21/</sup> Since 1940 the rent index for the City as a whole increased from 103 to 107<sup>22/</sup> as of January 1, 1947 (1935-39 = 100) rent controls, of course, preventing greater increase. While this City-wide increase should not be applied directly in estimating rents within the Triangle, new dwelling units resulting from conversions may possibly have raised this average to around \$30.00 per month.

Existing residential structures cover a net area of 21.2 Acres, showing a net density of 38.2 dwelling units per Acre. Estimated net coverage is 30%. Total area of lot, including out-buildings but not including vacant lots or open areas, was

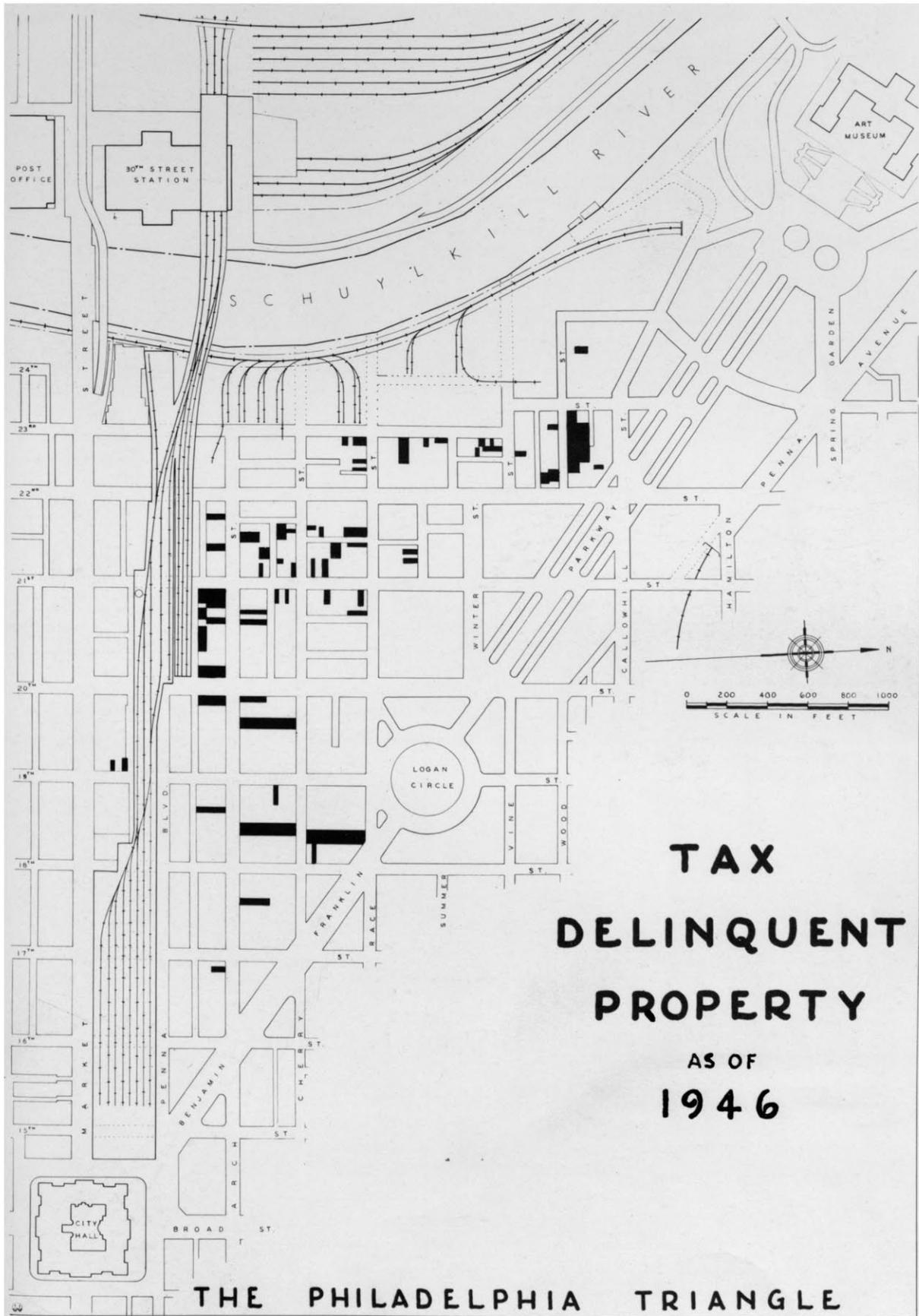
-----

<sup>19/</sup> Philadelphia Housing Association.

<sup>20/</sup> U.S.Census, 1940 - Population - Block Statistics.

<sup>21/</sup> Ibid.

<sup>22/</sup> Philadelphia office, U. S. Department of Labor, Bureau of Labor Statistics.



**TAX  
DELINQUENT  
PROPERTY  
AS OF  
1946**

**THE PHILADELPHIA TRIANGLE**

taken as "net" area. Gross density, which includes adjacent vacant lots, interior streets and open areas to the center line of surrounding streets, is estimated at 18.7 dwelling units per Acre.

B. Economic. (Existing Conditions, continued)

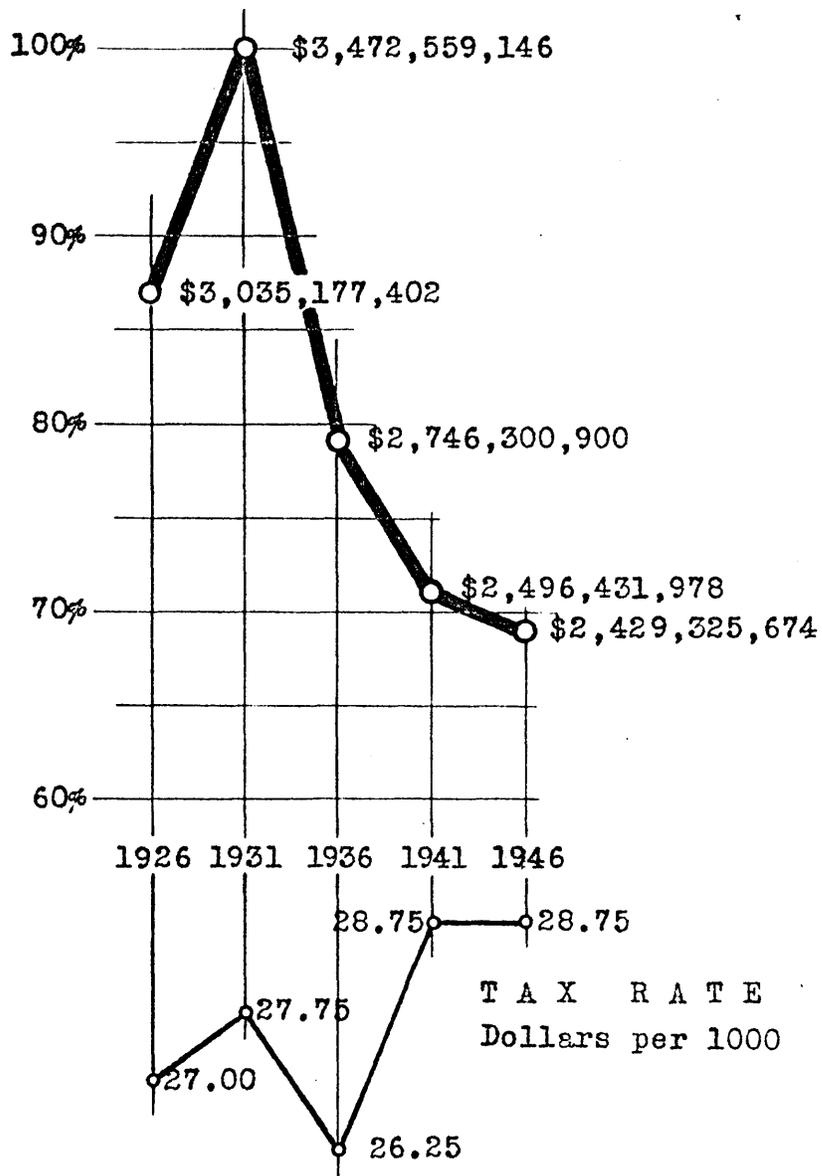
Following is a tabulation of the 1946 assessed valuation and tax levy picture for the Triangle:<sup>23/</sup>

		<u>% of Total</u>
Total Tax Exempt Property. . . .	\$32,452,500 . . . . .	51.9%
Taxable Land . . . .	\$12,017,100 . . . . .	.19.2%
Taxable Bldgs. . . .	10,202,900 . . . . .	16.3
Taxable L & B <sup>24/</sup> . . . .	<u>7,890,900</u> . . . . .	<u>12.6</u>
Total Taxable Assessment . . . .	<u>30,110,900</u> . . . . .	<u>48.1</u>
TOTAL ASSESSED VALUE OF AREA . .	\$62,563,400 . . . . .	.100.0%
School Tax . . . . .	.01175	
City Tax . . . . .	<u>.01700</u>	\$30,110,900
Total Tax Rate . . . .	.02875	<u>X .02875</u>
TOTAL TAX LEVY FOR THE AREA . . . . .	\$865,688.38 . . . . .	100%
Total collected . . . . .	<u>- 822,284.29</u> . . . . .	95%
TOTAL 1946 TAX DELINQUENCY IN THE AREA . .	\$ 43,404.09 . . . . .	5%

The total 1946 Tax Levy for the City was \$69,863,103.13 with a delinquency of \$3,395,565.33 or 4.8%. This indicates

<sup>23/</sup> Philadelphia City Planning Commission. See "Foreword".

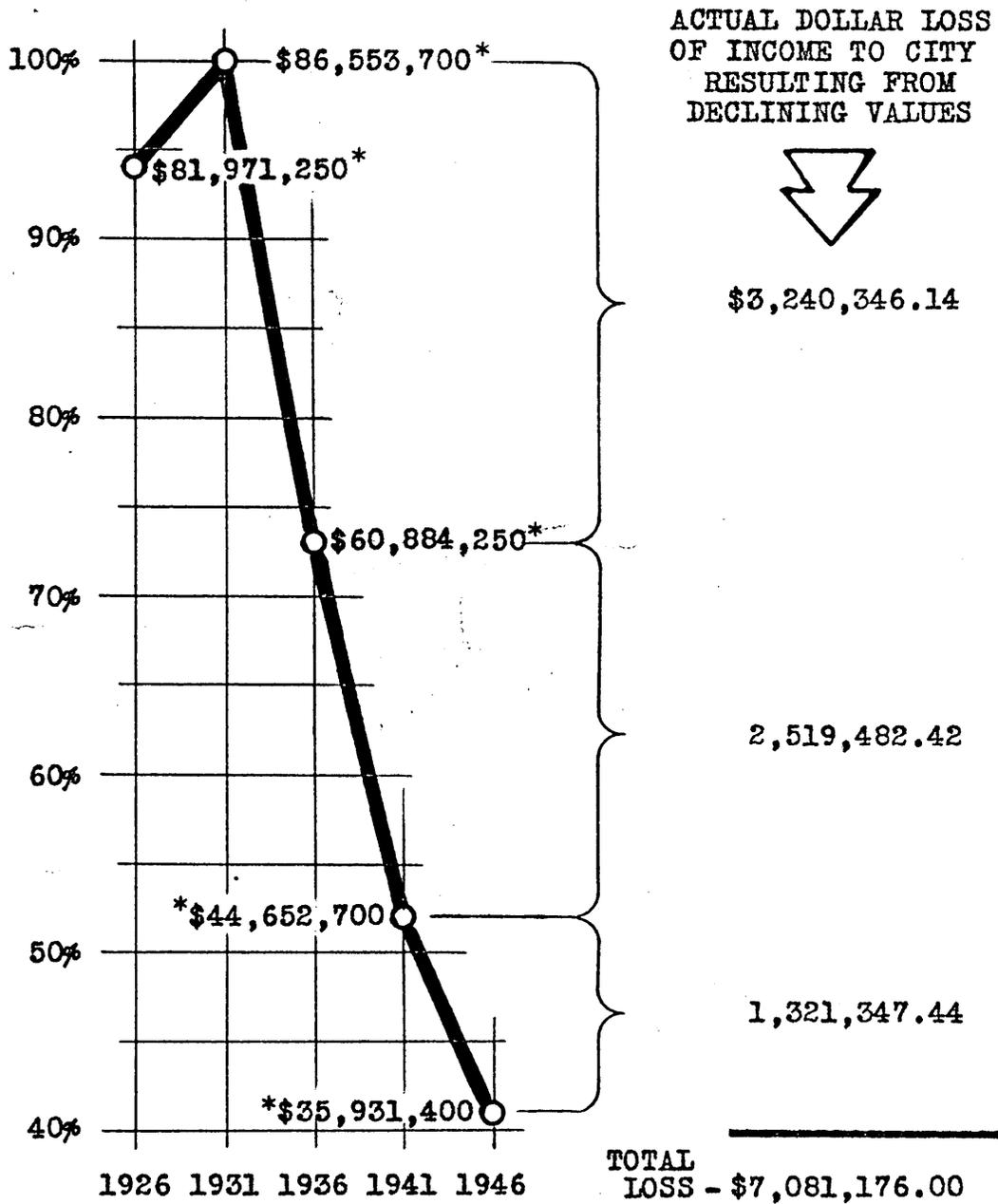
<sup>24/</sup> Listed on Tax Rolls as simply "Land & Buildings" with no breakdown indicated.



T R E N D  
I N  
A S S E S S E D V A L U A T I O N S  
A N D  
T A X R A T E  
F O R T H E C I T Y

Source of data: Philadelphia City Planning Commission

\*Total Taxable Assessment.



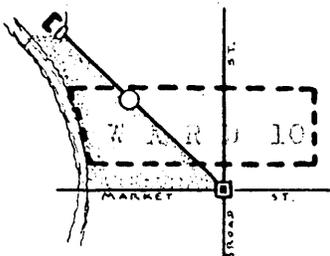
T R E N D

I N

A S S E S S E D V A L U A T I O N S

F O R W A R D # 1 0

\*\*\*



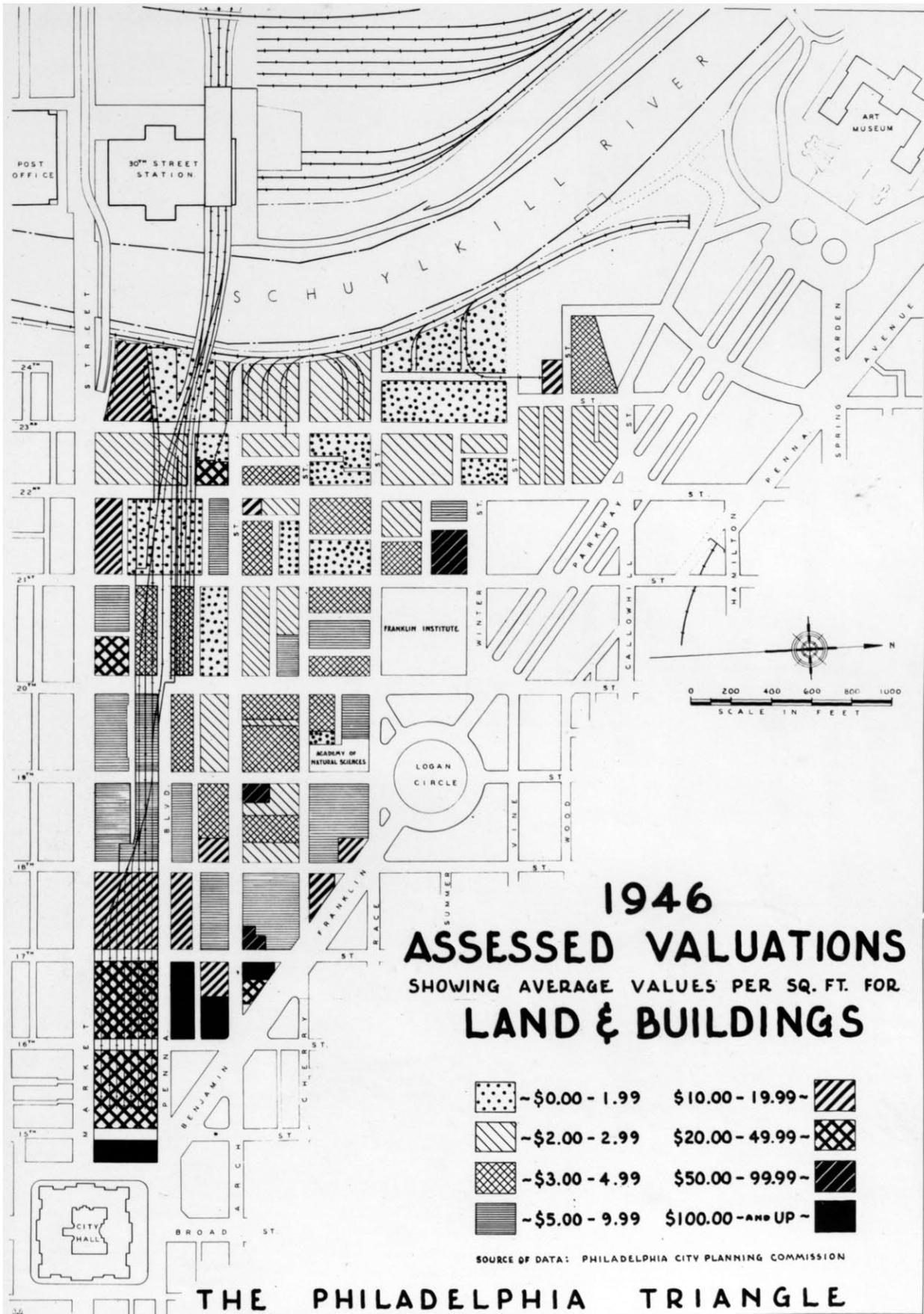
Source of data: Philadelphia City Planning Commission

that the tax delinquency within the Triangle is only slightly higher than City average.

"TAX DELINQUENT PROPERTY as of 1946" page 40) shows distribution of the 99 delinquent properties within the Triangle. Of these, 6 have been put up for sheriff sale, only 1 consumated, and two properties are under Act of Abatement. Practically all fall within the "residential" use category. It is characteristic of the Central City that most delinquency occurs among the small properties.<sup>24/</sup> After conferring with the office of the Tax Collector, the author concludes that the economics of redevelopment in Pennsylvania are little affected by tax delinquency. There may be certain ease of acquisition, but the amount actually paid by the Authority will total practically current sales value.<sup>25/</sup>

"TREND IN ASSESSED VALUATIONS and TAX RATE for the CITY" (page 42) indicates a City-wide decline of 31% in total assessed valuations for the period 1931-1946, assuming 1931 as 100%. A more drastic decline is indicated by "TREND IN ASSESSED VALUATIONS for WARD 10" (page 43), where taxable assessments declined 59% for the same period. While Ward 10 figures cannot be applied directly to the Triangle, characteristics of the Ward area are typical of the general Triangle area and thus may be considered indicative at least. When  
-----  
<sup>24/</sup> Op. cit., Richard J. Seltzer.

<sup>25/</sup> In Pennsylvania, tax foreclosure due to non-payment of taxes is not legally possible. After 5 years delinquent property may be put up for sheriff sale, but if not consumated, property remains in original ownership. Unpaid taxes remain a first lien against the property.



confronted with actual dollar loss due to declining values, to say nothing of its effect in lowering the legal debt limit, the price of blight is staggering. True the City is continuing to function; but losses such as exhibited in Ward 10 are being made up by increases in other forms of taxation.

"1946 ASSESSED VALUATIONS SHOWING AVERAGE VALUES PER SQ. FT. for LAND & BUILDINGS" (page 45) indicates the extreme range in values within the Triangle - from less than \$1.00 near the Schuylkill River to \$128.00 near City Hall. While there may be a tendency for cities in general to over-assess city-owned property in order to maintain maximum debt limit, little evidence is found in the Triangle where such property is out of line with other surrounding it. Almost all Central City values are completely out of scale with actual use value, but the whole system of the ad valorem tax levy applied to both residential and commercial property tends to aggravate this condition.

The local real estate market should be viewed against a background of both nation-wide and area-wide factors in order to determine drastic departures from the normal trend. On the national scale,<sup>26/</sup> we find that unemployment rose nearly 300,000 from December 1946 to January 1947, totaling 2,400,000. Some of this increase is due to seasonal fluctuations, but much is result of strikes and shortages. Industrial produc-

-----  
26/ "Trends in Selected Economic and Real Estate Factors in The U. S.", Federal Housing Administration, Division of Research and Statistics, March 14, 1947.

tion Index rose to a new post war high of 188, over 181 in December. Department store sales declined from 274 to 265, December to January, but dollar sales January 1947 are 16% higher than January 1946. (All above based on 1935-39 = 100). Wage and salary payments in January were twice the level of 1940. Food prices declined somewhat, the consumers price index dropped 1% over December - the first decrease in ten months. Rent index showed no change. 40,998 privately financed non-farm dwellings (units) were started during January, showing slight increase over December.

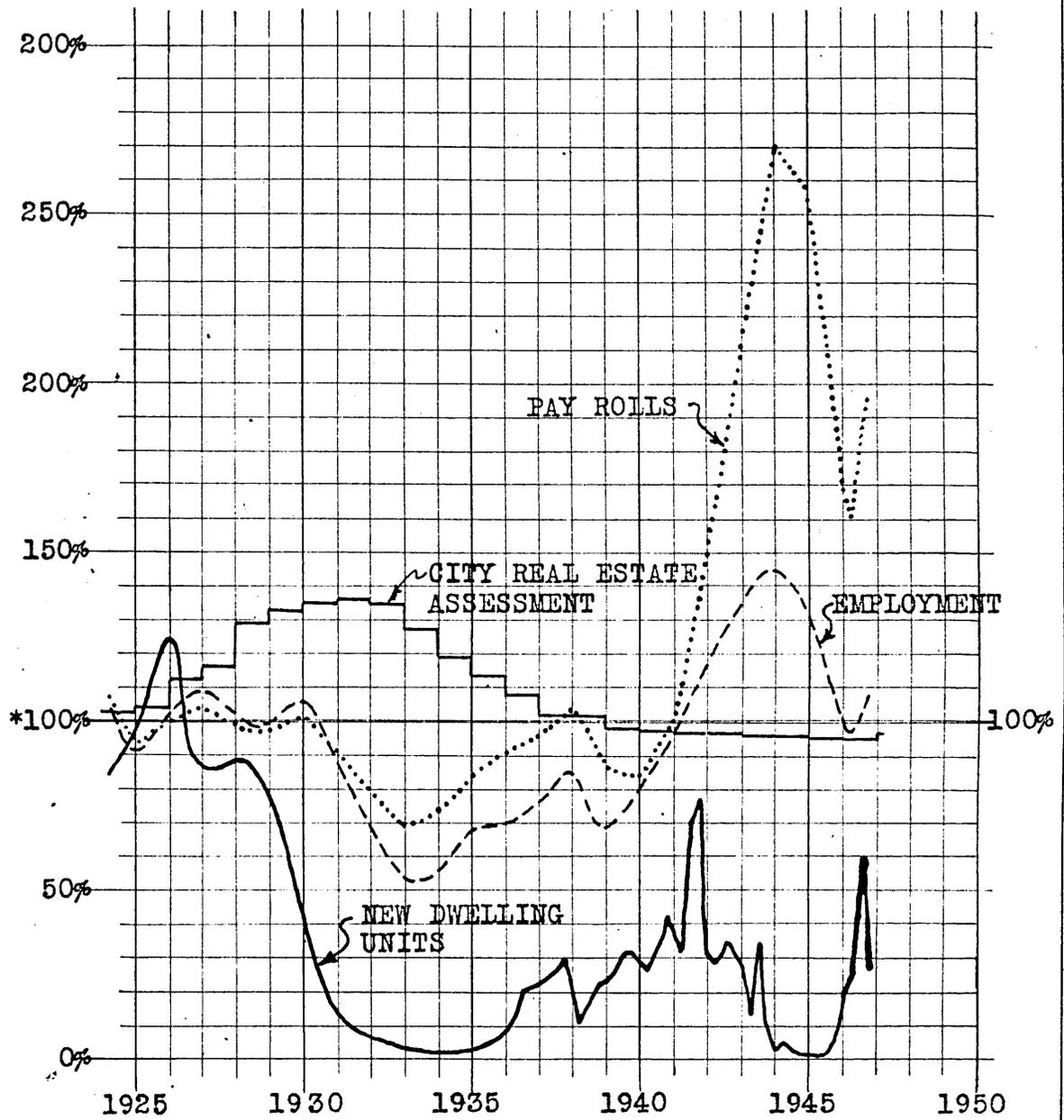
INDEX of WHOLESale PRICE of BUILDING MATERIALS<sup>27/</sup>  
(1935-39 = 100%)

<u>ITEM</u>	<u>JAN. '47</u>	<u>DEC. '46</u>	<u>% INCREASE</u>
Brick & Tile . . . . .	145.5 . . .	143.1 . . .	1.7
Cement . . . . .	118.9 . . .	117.3 . . .	1.4
Lumber . . . . .	278.3 . . .	253.0 . . .	10.0
Paint & Paint Materials . . .	210.5 . . .	191.1 . . .	10.2
Plumbing & Heating . . . . .	153.7 . . .	151.0 . . .	1.8
Structural Steel . . . . .	123.2 . . .	115.9 . . .	6.3
Other Building Materials . . .	150.3 . . .	142.5 . . .	5.5
All Building Materials . .	189.5 . . .	176.2 . . .	7.5

The building cost of construction for the standard six-room house registered greatest advance since base period of 1935-39, increasing 4.5% from 160.8 in December '46 to 168.0 in January '47. The materials component index rose 6% and labor component rose 1.2%.

-----

<sup>27/</sup> Ibid., F.H.A.



T R E N D  
I N  
F A C T O R S   R E L A T I N G   T O   R E A L   E S T A T E  
In the Metropolitan Area - Philadelphia

\*1923-25 Average assumed 100%.

Source of data:  
Property Services, Inc.,  
through the Philadelphia  
City Planning Commission.

When bringing our scale of vision down to the general Philadelphia area, we see on page 48 a "TREND IN FACTORS RELATING TO REAL ESTATE in the METROPOLITAN AREA of PHILADELPHIA".<sup>28/</sup> It is interesting to note the "following effect" of City Real Estate Assessment as related to other factors. Trend in New Dwelling Units undoubtedly would have crossed above the 100% normal by the end of 1942 had material shortages not curtailed construction.

Preliminary results of a housing market analysis now being conducted by the City Planning Commission indicate that the greatest housing need in Philadelphia lies in the small one and two bed-room dwelling unit category.<sup>29/</sup> Apparently very few local builders care to enter the long-run investment field, catering primarily to speculative building, or dwelling units "to sell". This has resulted in a great many more standard six-room attached houses than any other type. Contrary to the situation in New York where the large family has all but been forced to leave, Philadelphia has neglected the market afforded by the one, two and three person family. The Federal Housing Administration reports few rental housing projects insured in this area under Title 608 of the National Housing Act. This may be due in part to the requirement of bond to be posted by the developer, which in effect restricts rental housing to operators interested in long-run investment.

-----  
<sup>28/</sup> Property Services, Incorporated.

<sup>29/</sup> Conclusions drawn from data are author's responsibility.

The following table verifies the complexion of one phase of Philadelphia's housing compared with other larger cities in 1940:

30/

PERCENTAGE of DWELLING UNITS in EACH TYPE of STRUCTURE

<u>CITY</u>	<u>1 Fam. Att.</u>	<u>4 Fam.</u>	<u>10-19 Fam.</u>	<u>20 Fam. †</u>
New York . . . . .	2.4%	3.4%	9.1%	26.1%
Chicago . . . . .	0.7	4.9	7.1	12.6
Los Angeles . . . . .	0.9	5.0	4.3	7.1
Philadelphia . . . . .	44.5	2.0	0.8	2.6

Since 1940, Philadelphia has shown an increase of some 88,000 families, or roughly 16% during the six year period. 31/ 40,598 dwelling units were added, still leaving 47,402 families of this increase unprovided for.

Consideration of the best possible land use for the Triangle cannot hope to include a complete solution for Philadelphia's housing shortage; nor should the present crisis lead one to overlook the long-run social and economic factors involved. Surroundings, described elsewhere, are not particularly conducive to the rearing of school-age children. More than any other two factors, central location and high land values form the key to type and price-range of housing to be included in the Triangle.

30/ "Principles of City Growth and Structure", by Homer Hoyt.

31/ "Issues", published by Philadelphia Housing Association, March - April, 1947.

As of October 1, 1946, the rental area of office space in the Central City totaled 10,819,063 sq. ft., contained in 128 buildings.<sup>32/</sup> This includes rental area of all commercial office buildings in which offices are offered for rent to the public but excepting those privately owned and occupied by one concern, such as Curtis Publishing, Bell Telephone, and Philadelphia Electric Companies. This does not include space in buildings without elevators.

Total area occupied as of this date was 10,667,673 sq. ft., or 98.6% of the total, reflecting a vacancy of 151,390 sq. ft., or 1.4%.

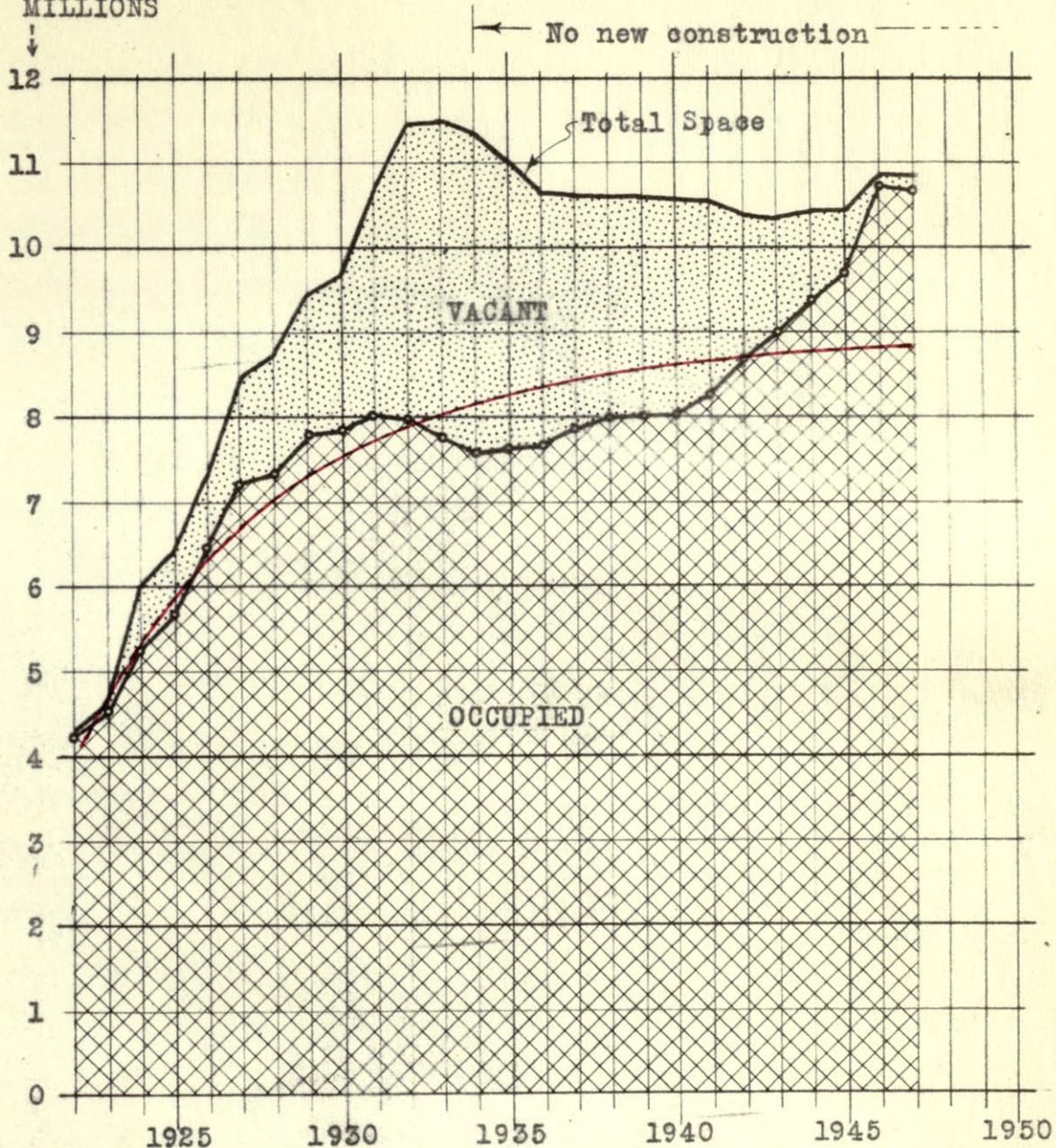
BREAK-DOWN BY TYPE OF BUILDING

<u>TYPE</u>	<u>SPACE Sq Ft</u>	<u>%</u>	<u>OCCUPIED Sq Ft</u>	<u>%</u>	<u>VACANT Sq Ft</u>	<u>%</u>
Class "A"	6,490,910	60.0	6,416,257	98.85	74,653	1.15
Class "B"	3,025,040	28.0	2,970,699	98.20	54,341	1.80
Class "C"	<u>1,303,113</u>	12.0	<u>1,280,717</u>	98.28	<u>22,396</u>	1.72
TOTAL -	10,819,063	100.0	10,667,673	98.6	151,390	1.4

Class "A" comprises modern up-to-date buildings or older buildings which have been modernized or kept up-to-date and includes only buildings the floor space of which can be readily divided into typical offices. "Class B" comprises mostly the older type buildings which have been kept up-to-date in the point of elevator service, lighting, etc., and also includes newer buildings which cannot rate "A" class due to

-----  
<sup>32/</sup> Building Owners' and Managers' Association of Philadelphia.

SQUARE FEET  
OF SPACE  
IN  
MILLIONS



Resultant: —

T R E N D

I N

O F F I C E S P A C E O C C U P A N C Y

P H I L A D E L P H I A

Source of data: Building Owners' & Managers' Association  
of Philadelphia.

x

poor location or because their floor space is not readily divided into typical offices. Class "C" includes older buildings in which no effort has been made to keep them up-to-date and also new buildings of reinforced concrete loft-type construction and design but which are used for offices.

Chart showing "TREND IN OFFICE SPACE OCCUPANCY" (page 52) indicates the rather stubborn persistence in the erection of office space from 1922 to 1932, disregarding the obvious levelling-off of demand. Greatest surges in construction occurred in 1923-24 and 1926-27, the latter conforming in pattern to the generally accepted peak in real estate of all types. No new office building construction has occurred in Philadelphia since 1934, fluctuations appearing in the graph being due to demolitions, conversion of loft buildings, etc.

From an occupancy standpoint, the chart reveals a condition today similar to that which existed in 1922. First impression, therefore, might be that there is great need for office space. Local realtors use a "rule-of-thumb" figure of 400,000 sq. ft. as being a healthy yearly increase of new office space for Philadelphia,<sup>34/</sup> but from the chart it is obvious that such a figure became established in the "prolific twenties" and has never been adjusted to the "subnormal" tendency following 1930. (400,000 sq. ft. per year is represented on the chart by a 45° slope.) If we discount the occupancy curve from 1942 onward as being due to abnormalities of War, we see a resultant over-all trend which is definitely levelling off. It is fairly well agreed that the population of Philadelphia will become more or less stabilized by 1980, even though the Metropolitan area may continue to increase slightly. In any event, with

-----  
<sup>34/</sup> Ibid.

life expectancy of Philadelphia office buildings having been well over 50 years, it would appear that the great surge of building during the twenties will probably fulfill a majority of needs for the next twenty-five or thirty years, assuming all old buildings remain in the picture. Therefore, this leaves the replacement of these decadent buildings as the only opening for new office space structures. Granted, about 40% of the present space has long out-lived its normal life; however, with labor and building materials at a premium, it is impossible to build new space today to compete with the older buildings. In Philadelphia today, new office space would have to rent for at least \$4.00 per sq. ft. to justify construction. As long as such comparatively modern buildings as the Lincoln-Liberty, Packard, and Girard Trust Buildings average around \$3.50, and older buildings for even less, the answer for the next few years is obvious.

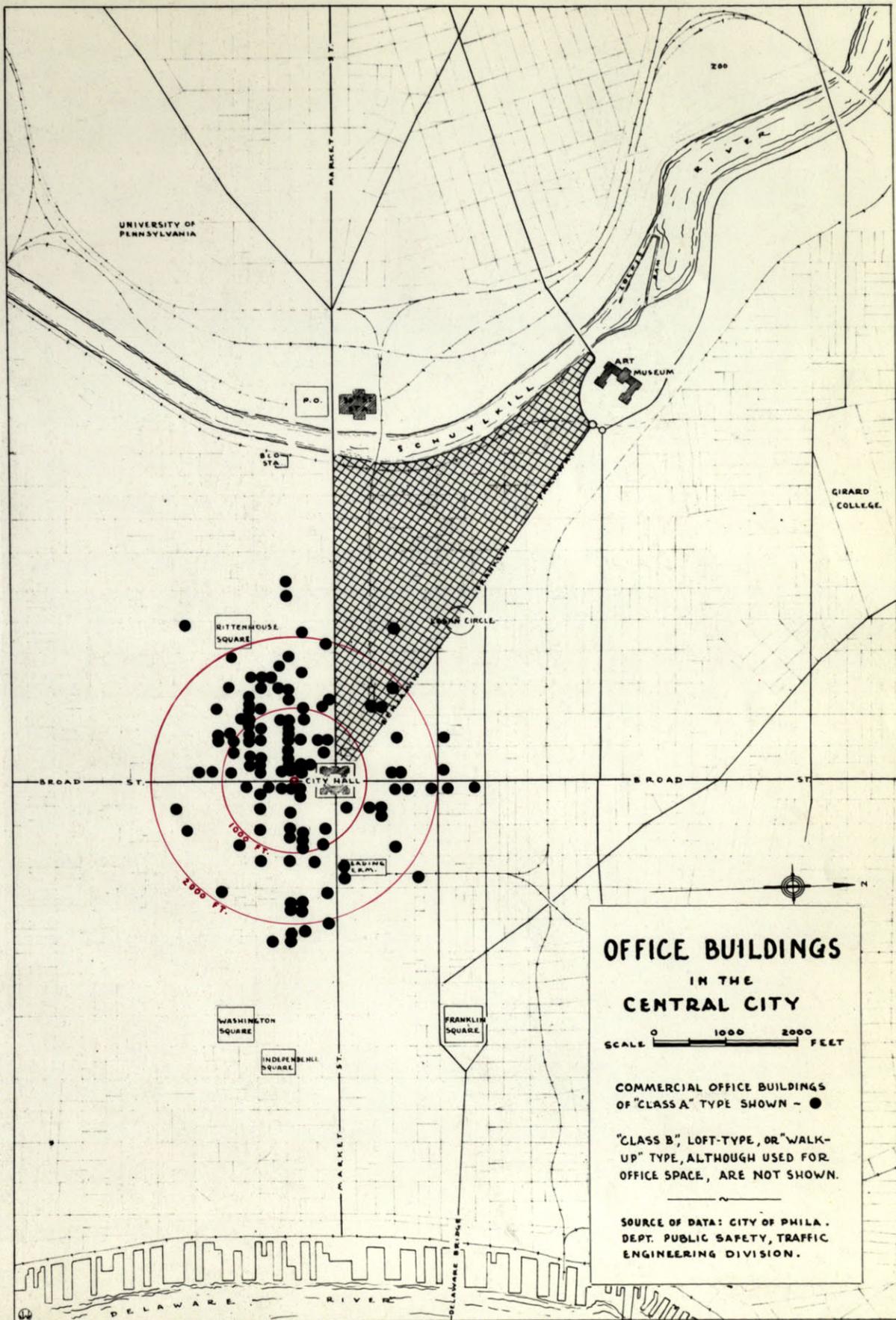
October 1946 reports indicated an increase in vacancy of 38,929 sq. ft. since April 1946. While it may be interpreted as a trend related to a slight general recession due to strikes, shortages and uncertainty as to governmental regulations, the trend is apt to continue, levelling-off at about the 1942 level. This belief is further substantiated by the "economy" movement of the Federal Government. The latter presently occupies 909,605 sq. ft., or 8.4% of the total space. Of this, only 300,000 sq. ft. are occupied by permanent agencies, thus pointing to a possible release of some 600,000 sq. ft. due to such agencies as the Securities Exchange Commission moving back to Washington.

The space occupied by State and Municipal Governments amounts to 121,350 sq. ft., or 1.1% of the October 1946 total. This figure is expected to increase due to definitely expressed need in this category.

Assuming that the older buildings to be replaced, plus additional new space, would show total City-wide need for 4,000,000 sq. ft. by 1980, it might be assumed that 25% of this amount, or 1,000,000 sq. ft., could safely be placed within the Triangle during the next thirty-five years without upsetting the economic balance of the office space market in the City.

Psychological factors affecting such a decision deserve mentioning. There is a strong feeling in Philadelphia, among office building tenants, to seek space near other offices. The pattern of "desirable location" has spread east and west rather than north and south, conforming generally to the stratified pattern shown by "SURROUNDING LAND USE SUMMARY" (page 18). In office buildings, this has generally been confined to the area south of Market Street. It is established that a Market Street address for office space is "taboo". (Witness the Philadelphia Saving Fund Society Building which bears the address "12 South 12th Street" rather than "1200 Market Street".)

"OFFICE BUILDINGS IN THE CENTRAL CITY" (page 56) graphically illustrates the "accepted" office space hub in Philadelphia today - Broad & Chestnut Streets. This is the most highly desired location as reflected in land assessments. History has witnessed the slow movement of this center from



the Delaware River area, as previously illustrated. Certainly the movement up Fifth Avenue in New York demonstrates that business centers do move. However, in Philadelphia where the bulk of population is distributed as shown by population spot map (page 5) together with major traffic flow focusing at Broad and Market Streets, it does not appear likely that this "center" will ever effectively move beyond walking distance of City Hall. Therefore, any commercial office buildings in the Triangle should be located within 1500 to 2000 feet of the "center" at Broad & Chestnut Streets. At such time as a new environment has become well established in the Triangle area, this restriction might be relaxed.

Definite need has been expressed for additional space in "single purpose" office buildings - those usually owned and occupied by one concern. Greater latitude may be allowed the location of this type of building in the Triangle.

Non-manufacturing industry within the Triangle consists chiefly of concerns repairing car and truck bodies, paint and welding shops, garages and heavy trucking. In total area, these greatly out-number the manufacturing industries, but in employees the opposite is true. Near the Schuylkill are freight warehouses, fuel yards, trucking depots and such concerns as require rail facilities. Physically these establishments present a "run-down" appearance - many consisting of corrugated and sheet iron construction. Rail sidings show little evidence of active use. East of 22nd Street the non-manufacturing industries are much more substantial - many of the buildings having had recent alterations.

The manufacturing industries are housed chiefly in fairly modern loft-type buildings located generally near Arch Street between 21st and 22nd Streets. Following breakdown by product shows 1940-43 employee trend:<sup>35/</sup>

PRODUCT	NUMBER CONCERNS	HORSEPOWER RATINGS	EMPLOYEES	
			1943	1940
Food . . . . .	2 . . . . .	225 . . . . .	140 . .	194
Clothing . . . . .	10 . . . . .	420 . . . . .	1717 . .	1467
Printing . . . . .	5 . . . . .	822 . . . . .	367 . .	401
Paper products . . . . .	1 . . . . .	35 . . . . .	19 . .	16
Textiles . . . . .	1 . . . . .	15 . . . . .	37 . .	48
Wood . . . . .	1 . . . . .	4 . . . . .	2 . .	3
Metals . . . . .	3 . . . . .	500 . . . . .	278 . .	136
Instruments . . . . .	<u>1 . . . . .</u>	<u>350 . . . . .</u>	<u>181 . .</u>	<u>124</u>
TOTALS . . . . .	24	2371	2741	2389

C. Social. (Existing Conditions, continued.)

Ward 10 will again be used as indicative of the Triangle area in population characteristics. "POPULATION DISTRIBUTION BY AGE AND SEX for WARD 10" (page 59) not only shows a preponderance of males but also abnormal tendency toward the older age groups. Comparison with the average for the City as a whole is striking. 86.5% of the Ward's population is twenty-one years of age or over. This fact is evident in

-----

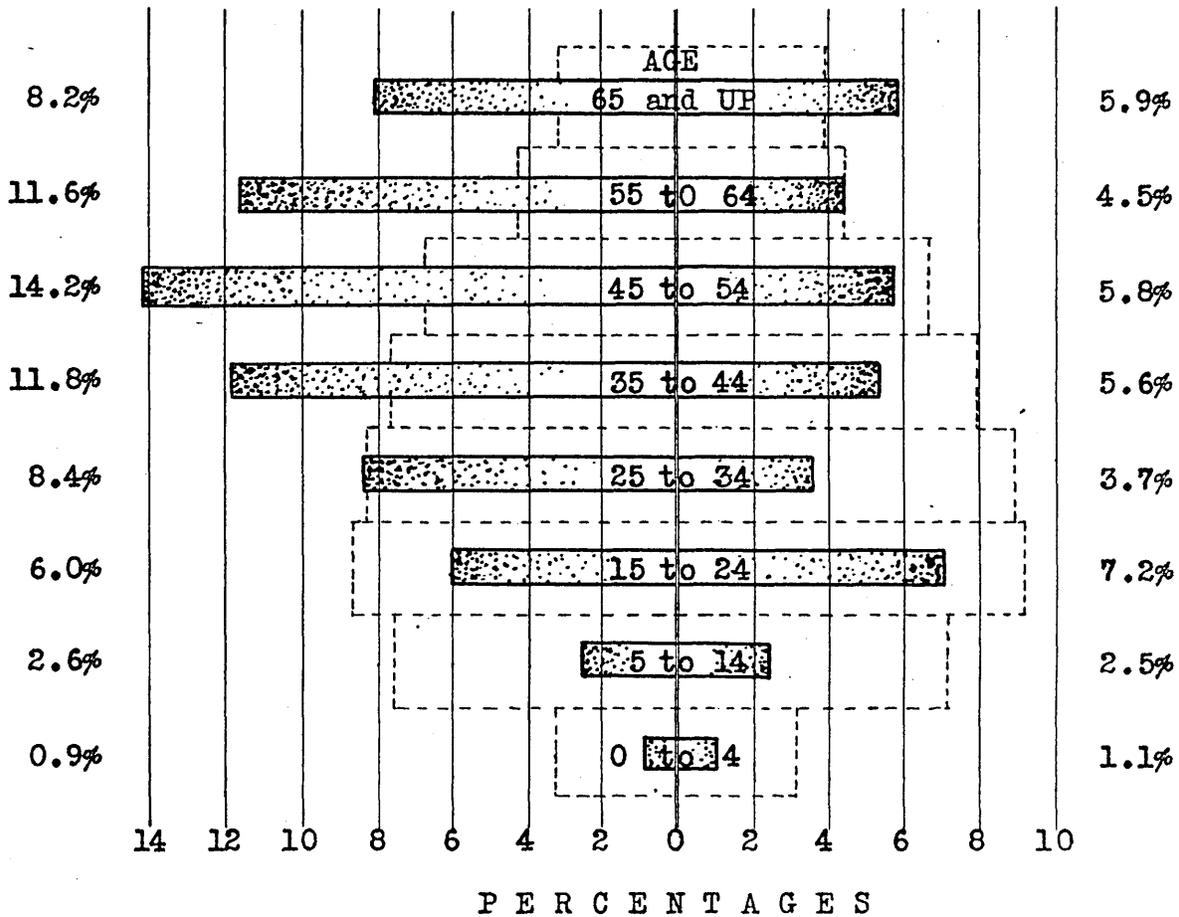
<sup>35/</sup> "Industrial Directory of Greater Philadelphia", 1943, classified and published by the Chamber of Commerce and Board of Trade of Philadelphia.

TOTAL POPULATION - 8,655

MALE - 5,509  
63.7%

100%

3,146 - FEMALE  
36.3%



POPULATION DISTRIBUTION

BY AGE & SEX

FOR

WARD 10

Showing comparison for each age-group

with

PHILADELPHIA

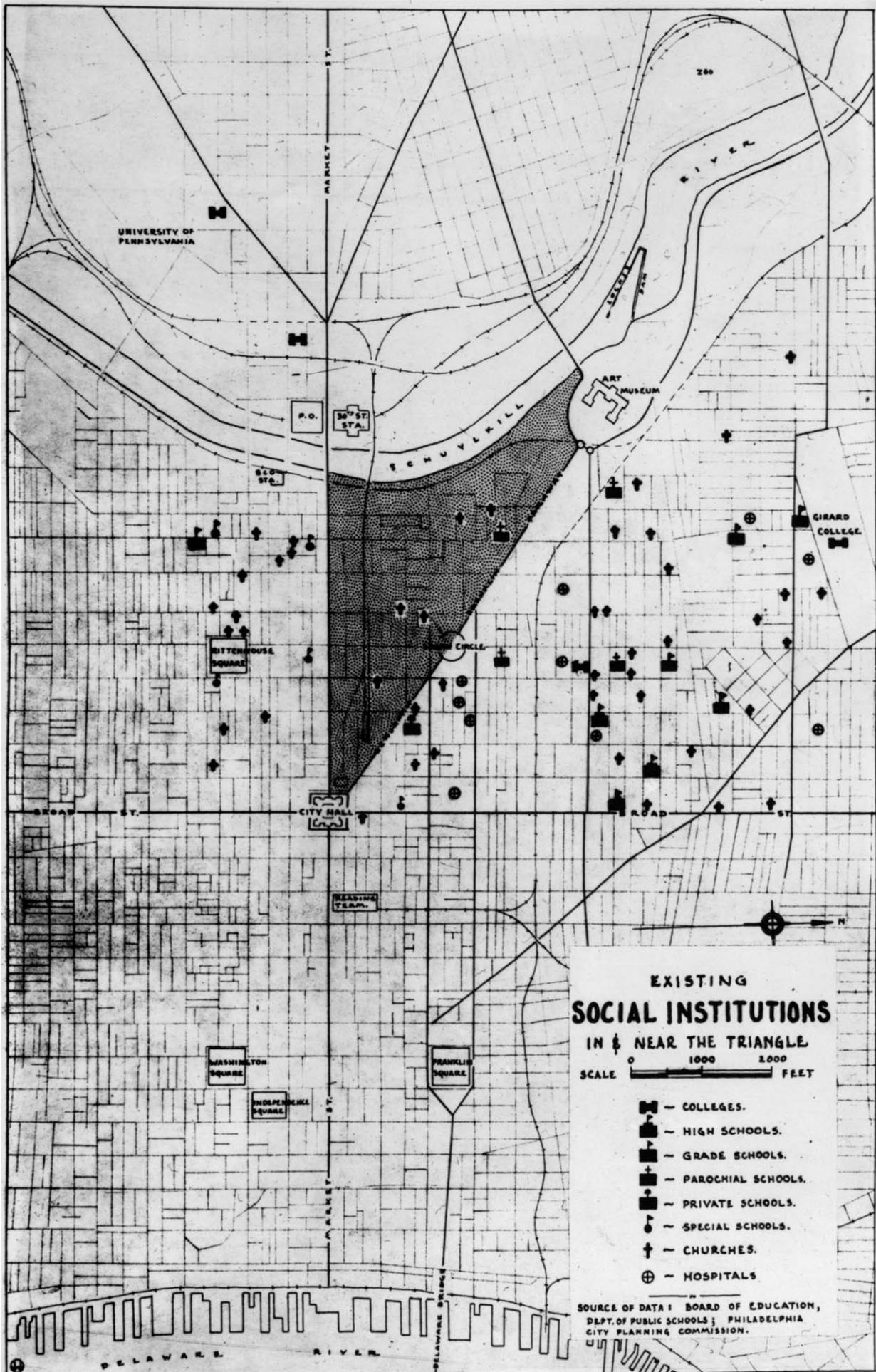
Source of Data: U. S. Census, 1940  
Population Characteristics



complete lack of school facilities and comparatively large number of rooming houses within the Triangle. A maximum of 100 school-age children are estimated living in the Triangle area and, according to records of the Board of Education, only 12 of these attend public schools. The remaining number attend parochial schools, one of which is in the Triangle; three others are within one-quarter mile, as shown by "EXISTING SOCIAL INSTITUTIONS IN and NEAR THE TRIANGLE"(page 61). Immediately across the Parkway on 17th Street is the Friends Select School, a private institution with enrollment of 409 boys and girls ranging from kindergarden through preparatory school ages. Practically none of these pupils live in subject area, but are drawn from the entire Metropolitan region.

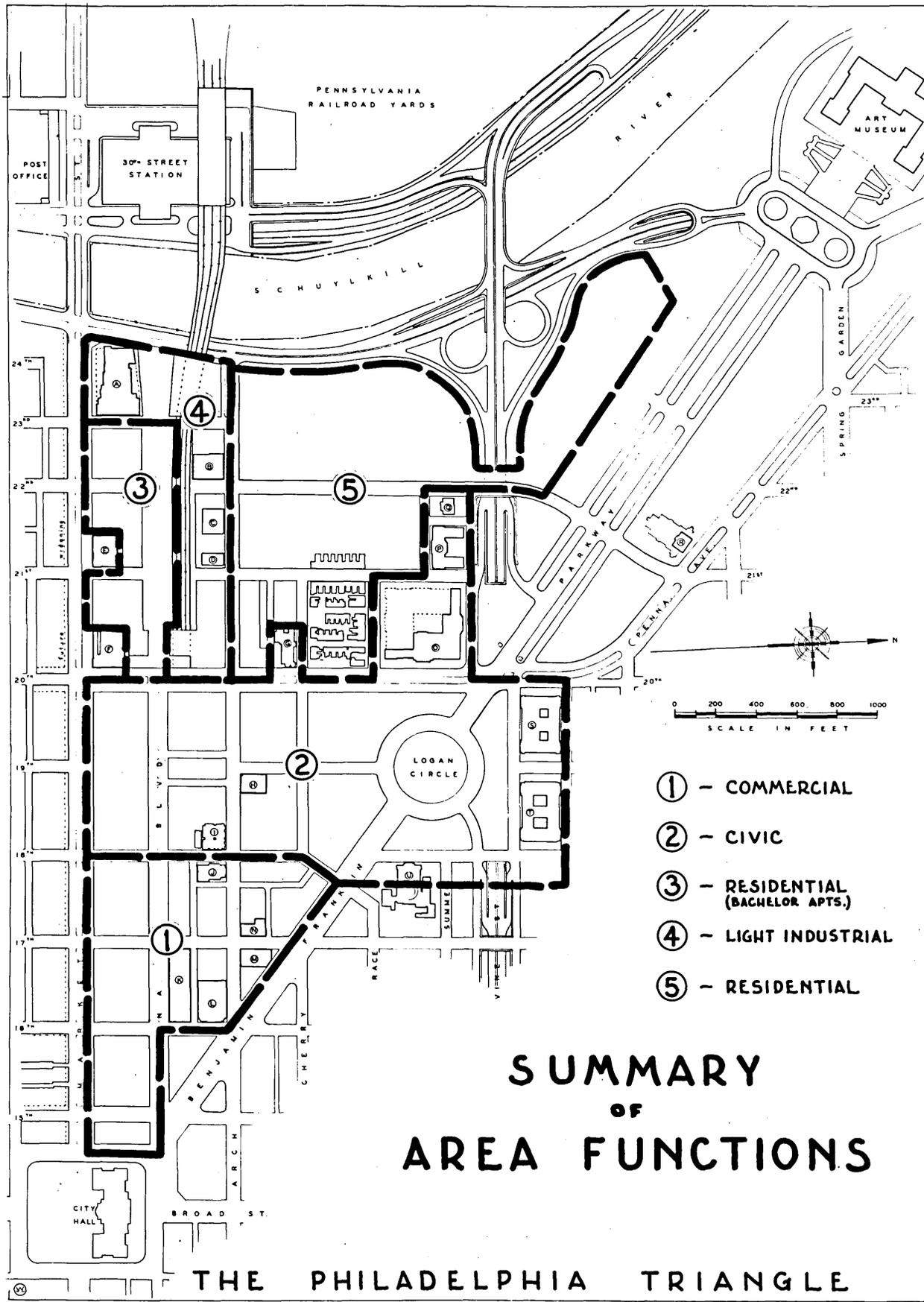
Departments of Public Health and Public Safety report conditions in the Triangle comparable to city-wide averages with respect to health and delinquency. The complete lack of playgrounds within or near the Triangle might be pardonable under present circumstances. Practically no shopping facilities exist other than an occasional corner residence which has been converted with grocery on first floor and one actually wonders where the residents procure their food. The general area east of the Triangle is well-supplied with hospital facilities - seven of which are situated within one-quarter mile.

Scattered throughout the area are many benevolent societies, housed in converted residences for the most part. Two Young Womens Christian Association dormitories exist, one of which is a very substantial building with swimming-pool, cafe-



teria and reading rooms. Three Protestant and two Catholic Churches are in the area.

Most of the benevolent and social service groups having facilities in the area appear to aim at the salvaging of derelicts rather than at the betterment of typical residents nearby. One has the feeling that the establishment of any spirit of "neighborliness" and unity has long ago been given up as a hopeless task. In short, the "neighborhood" has been over-awed by the presence of civic improvements of a city-wide nature to the extent that only remnants of small-scale community life remain.



### PART III. PROPOSALS.

At the risk of being redundant, this report is based on a concept of comprehensive planning: establishment of proper land use of the Triangle area is fundamental and details of carrying out prescribed uses are the subject of an entirely separate type of study - one which might follow logically in the hands of the site planner. However, the mere listing of proposals alone is not sufficient; they must be accompanied by certain regulations to insure a continuation of the basic thoughts underlying the scheme. Redevelopment cannot be forced arbitrarily; the execution must be recognized at all times as a logical employment of the police power; its control must be by normal and accepted regulatory process.

Mr. Flavel Shurtleff, Counsel for the American Planning and Civic Association, once described the Master Plan as "just a bunch of ideas". He was illustrating the need for flexibility and the fact that details for carrying out various phases are not part of master plan preparation. The same is true to some extent in redevelopment, except that the redevelopment process is a step toward the detailed execution of the master plan. However, it should not begin in the realm of site planning.

#### A. Proposed Land Use.

"SUMMARY OF AREA FUNCTIONS" (page 63) presents the first step in the establishment of uses. With the exception of light industry (area 4) this scheme might conform basically with an over-all plan as tentatively envisioned by the City Planning



Commission. Complete conformance, which would eliminate all light industry, could be justified herein only with the placing of the Suburban tracks below ground between Suburban Station and the 30th Street Station. Such is considered desirable but economically impractical at this time.

1. Commercial.

Assuming efficient use of space, there is need for a certain amount of commercial area in the Central City and no more. To extend commercial development west on Market Street ad infinitum would result in over-supply and either economic harm to existing areas elsewhere or in failure of the Triangle development. Success of one commercial area at the expense of another simply perpetuates slum; therefore, proposed commercial area is confined by public & semi-public structures with western boundary at 18th Street.

"PROPOSED LAND USE" (page 65) carries the scheme farther showing uses by which the desired area functions might be molded. In the commercial area, that section bounded by Market Street, Pennsylvania Boulevard, 18th and Broad Streets should be the most intensely used; this is the section of highest land values and such intensity is justified. It is in this section that commercial office buildings should be located. These should have Pennsylvania Boulevard addresses, though secondary entrances on Market Street. Reference is made to "EXISTING TRANSIT FLOW" (page 31) in which peak volume of street-car passengers appear, thus indicating the block between 15th and 16th Streets an excellent location for a large department store. Retail stores such as jewelry,

variety and dress shops should be included on ground floor levels in this section. Parking facilities with connecting underground concourses will serve all buildings fronting on Pennsylvania Boulevard. The remaining commercial land use area will incorporate miscellaneous retail and wholesale stores and offices together with two or three large single-purpose office buildings. The latter should front on the Parkway. Revised street pattern is designed to provide rear trucking access for all stores.

Existing buildings to be retained within the commercial land use area are shown according to the following key:

E - Erlanger Theatre.

F - Mastbaum Theatre.

H - Bell Telephone Company, Executive Offices.

K - Suburban Station Building.

L - North American Insurance Company Building.

M - Robert Morris Hotel.

## 2. Public & Semi-public.

Need for additional space for City Government offices has been expressed. At present, these are divided between the City Hall and City Hall Annex, neither of which lend themselves to expansion. Rather than to occupy a third building, it is recommended that the City construct a single facility, of adequate size, within the Triangle area. On this assumption, it is further recommended that the southern half to three-quarters of the present City Hall building be demolished, leaving only the Tower and supporting structure containing elevators. The

land thus freed would become a badly-needed park area. This will allow the Market Street trolley lines to flow directly across the Plaza, thereby relieving the traffic-congested City Hall area of one of its major sources of trouble. While this proposal should be one of the last executed, for both political and economic reasons, such a step is undoubtedly in the future picture for Philadelphia. The City will tire of continued maintenance of such inefficient structures in favor of more modern facilities, in keeping with up-to-date administrations.

There is definite need for a center for civic activities in the City. Functions of the State and Municipal Governments should be coordinated physically with office buildings, parking space and allied activities of a social service nature. As shown by "SUMMARY OF AREA FUNCTIONS", such development might fall logically between Logan Circle, where such functions already have a good beginning, and Market Street, thus forming a transition between commercial and residential areas. (Area 2.)

The block bounded by Market Street, Pennsylvania Boulevard, 18th Street and 20th Street is proposed as a site for State and Municipal office buildings including a new City Hall. No particularly monumental or grandiose setting is called for, although design of the unit should recognize the axis of 19th Street. At Logan Circle, the two blocks on the south side would be excellent sites for a new Academy of Natural Sciences and the Academy of Music. The remainder of the area should contain such facilities as Social Services Building, Academy of Fine Arts and headquarters for various labor unions. The Central City Vocational School, a 3 million dollar plant now

contemplated for Broad and Green Streets should be located in this area instead. Its chief aim is adult education in evening classes and such location would provide those attending classes direct transportation east and west as well as north and south by subway, besides being within easy walking-distance of central employment.

The elementary school site, just west of 22nd Street and south of Vine Street Express-way, though public area, seems more logical as an integral part of residential area and thus will be discussed under that category.

Buildings to be retained in the public & semi-public area are shown according to the following key:

- G - St. Clements Episcopal Church.
- I - Young Women's Christian Association.
- J - Arch Street Presbyterian Church.
- O - Franklin Institute.
- P - Board of Education.
- Q - Boy Scouts of America.

Also shown are the following which have definite bearing on the Triangle though located outside the actual boundaries:

- R - Rodin Museum.
- S - Public Library.
- T - Municipal Courts.
- U - Cathedral of St. Peter and St. Paul.

### 3. Light Industrial.

Area 4, light industry as shown on "SUMMARY OF AREA FUNCTIONS", is allowed to divide the two residential areas 3 and 5 for the following two reasons: 1st. Area 3 is designed strictly

for "bachelor living" and has little in common with area 5;  
2nd. The suburban tracks are a natural obstacle precluding any real unity of areas 3 and 5 even if desired. Noise and dirt from the tracks would tend to make undesirable the construction of residences immediately adjacent. Area 4 is too far west to put to strictly commercial use; therefore, light industry of a comparatively clean and quiet type was considered logical as a buffer between the suburban tracks and residences to the north. In addition, several loft-type buildings exist in this light industrial area which are salvagable. Existing buildings to be retained are shown according to the following key:

- A - Philadelphia Electric Company.
- B - The Daily News Building.
- C - W. Wiener & Company, Sportswear Manufacturing.
- D - Belber Building.

#### 4. Residential.

Due to the fact that the Triangle area lends itself to the housing of small family units, standards for densities and requirements for light and air will appear somewhat lower than would be required for areas housing families with more normal numbers of children. It is expected that a majority of adults will be employed in business during the day, thereby allowing such lower standards. Too often, where housing by private enterprise is planned, densities are controlled by land costs. True, land costs are an important factor, but the approach used herein looks at land costs as a result of density rather than a cause. Densities are specified based on the following criteria:

(a) Demand.

Attempt was made to determine the maximum number of people who would wish to live in the Central City and just how many of these might be housed in the Triangle, assuming that other areas offering comparable facilities might be developed in or near the Central City. Opinions were obtained from representatives of large life insurance companies and local real estate people of long experience; similar areas in other cities were compared. After careful weighing of results, the author concluded that the long-run market would support 3000 - 4000 dwelling units in the general Triangle area. This is not considered over-taxing of the land from standpoints of utilities and circulation.

(b) Health.

With a tentative 3000 - 4000 dwelling units estimated, can this number be placed in the area and still allow for provision of adequate sunlight, air, and general neighborhood facilities necessary for physical and mental health of the residents?

As a super-block pattern is used in the design approach, gross densities or persons per gross acre is considered the better measure. Thus, minor service streets, small play areas, and garages may be added within the super-blocks without changing the density standards.

"PROPOSED LAND USE" (page 65) shows a gross area of 48 Acres in residential use. Assuming 3.0 persons per family, 3500 dwelling units will indicate a total population of some 10,500 people, or average of 220 persons per gross acre. Thus,

one controlling factor is established for the Triangle as a whole.

Density control alone is not sufficient; we must specify some factor which takes into account the height and area covered by buildings or bulk, usually referred to as "floor area ratio". Assuming that apartments will average 850 sq. ft.(gross) per unit, we have  $850 \times 4000 = 3,400,000$  sq. ft. of floor area. 48 Acres (gross) = 2,090,880 sq. ft. of land area devoted to residential use.  $\frac{3,400,000}{2,090,880} = 1.6$  which is the relation of floor area to ground area, or gross floor area ratio.<sup>36/</sup>

The residential areas may be divided into five types:

(a) Rehabilitation. This area, indicated on "PROPOSED LAND USE" as single-family residential, will remain at present density of 53 dwelling units per acre. Both Woodstock and Lambert Streets are closed between Cherry and Race Streets and replaced with paved pedestrian way flanked with grass and trees. These properties will be purchased outright by the Authority, completely remodelled or modernized, then marketed in the same manner as the remaining property. No figures could be obtained for estimating rehabilitation costs. However, assuming 3 persons per dwelling unit, as modernized, and 200 dwelling units with

-----  
<sup>36/</sup> "Gross" is a relative term. As used here, the area referred to is the entire portion of the Triangle devoted to residences; included are interior streets, school-ground, local shopping, and adjacent open areas directly related to residential area. The area of a single super-block would be referred to as "net". Later, when taken individually, the "gross" area of the super-block is measured to the center-line of surrounding streets while "net" area is measured to property line only, excluding garages and other facilities incidental to residences. Scale must be kept in mind when these two easily-confused terms are used.

vacant lots filled, total population for this area will be 600 persons.

(b) Bachelor Apartments. The three blocks between Market Street, Pennsylvania Esplanade, 20th and 23rd Streets, while actually residential, might be thought of as "residential hotels" as far as such considerations as densities and coverage are concerned. 100% land coverage would not be excessive at these locations, with Pennsylvania Esplanade providing a very formal park-like setting. In fact, the Esplanade is considered an integral part of the function to be performed by the bachelor apartments. Assuming 420 dwelling units per block and 1.8 persons per dwelling unit, estimated population for this area is 2250 persons.

(c) Six-Story Elevator Apartments. The 7 Acre super-block between 21st and 22nd Streets, indicated on "PROPOSED LAND USE" plan is recommended as a six-story elevator apartment project typical of that which might be developed by private developer and insured by Federal Housing Administration under Title 608 of the National Housing Act. This six-story area will form a good transition between the lower residential structures to the east and the higher structures to the west, from standpoint of light and air as well as general physical appearance. Lowest rentals should be in this area.

Density and coverage is computed:	43560 sq. ft. per A.
Gross area of super-block . . . . .	<u>x 7 Acres.</u>
	304,920 sq. ft.
Floor area ratio (gross) . . . . .	<u>x 1.4</u>
Total floor area allowed . . . . .	426,888 sq. ft.

Assuming a "T" shape building unit containing two apartments per wing per floor, each apartment averaging 800 sq. ft., plus service area, ground floor per bldg. = 5000 sq. ft.

Number of stories . . . . .     x 6      
 Total floor area per building . . . . 30,000 sq. ft.  
 NUMBER OF BUILDINGS . .  $\frac{426,888}{30,000} = 14$   
 COVERAGE . . . . .  $\frac{14 \times 5000}{304,920} = 22.9\%$   
 TOTAL DWELLING UNITS . . . 14 x 36 = 504  
 DENSITY . . . . .  $\frac{504 \times 3}{7} = 216$  persons per gross A.

(d) 12 Story Apartments (south). The ten acre site west of 23rd Street, south of Vine Street Express-way, may be more intensely used due to advantages of greater open space adjacent and access to sunlight and air from the west. The area is comparatively low and should have structures of greater height. In this area, the maximum net densities will occur and floor area ratio may reach a maximum of 2.1, but coverage should be much lower than in the six-story area. Rentals in this area should be medium.

Density and coverage is computed: 43560 sq. ft. per A.  
 Gross area of super-block . . . .     10     Acres.  
 435,600 sq. ft.  
 Floor Area ratio . . . . .     x 2.1      
 Total floor area allowed . . . . 914,760 sq. ft.

Assuming a "Y" type floor plan for building, two apartments per wing, each apartment averaging 800 sq. ft. gross, ground floor area of building is . . . . . 5000 sq. ft.

Total floor area per building . .  $\frac{12 \text{ stories.}}{60,000 \text{ sq. ft.}}$

$$\text{NUMBER OF BUILDINGS} \dots \frac{914,760}{60,000} = 15$$

$$\text{COVERAGE} \dots \frac{15 \times 5000}{435,600} = 17.2\%$$

$$\text{TOTAL DWELLING UNITS} \dots 15 \times 72 = 1080$$

$$\text{DENSITY} \dots \frac{1080 \times 3}{10} = 324 \text{ persons per gross A.}$$

(e) 12 Story Apartments (north). The 8 acre site north of Vine Street Express-way will be the highest rental area. Fronting on Benjamin Franklin Parkway, these structures will help frame the view on the west toward the Art Museum. At present something of this sort is badly needed. Adjacent to Fairmount Park, the character of the apartments should be somewhat similar to what is locally referred to as the "Alden Park Manor" type. Rentals in this group will be highest.

Density and coverage is computed: 43560 sq. ft. per A.

Gross area of super-block . . . . .      x 8 Acres.  
348,480 sq. ft.

Floor Area ratio . . . . .      2.0

Total floor area allowed . . . . . 696,960 sq. ft.

Assuming a "Y" shaped floor plan, two apartments per wing, each apartment averaging 800 sq. ft. each, plus service area, total ground floor area per building is . . . . . 5000 sq. ft.

     x 12 stories.

Total floor area per bldg. . . . . 60,000 sq. ft.

$$\text{NUMBER OF BUILDINGS} \dots \frac{696,960}{60,000} = 12$$

$$\text{COVERAGE} \dots \frac{12 \times 5000}{348,480} = 17.2\%$$

TOTAL DWELLING UNITS . . . 12 x 72 = 864

DENSITY . . . . .  $\frac{864 \times 3}{8} = 324$  persons per gross A.

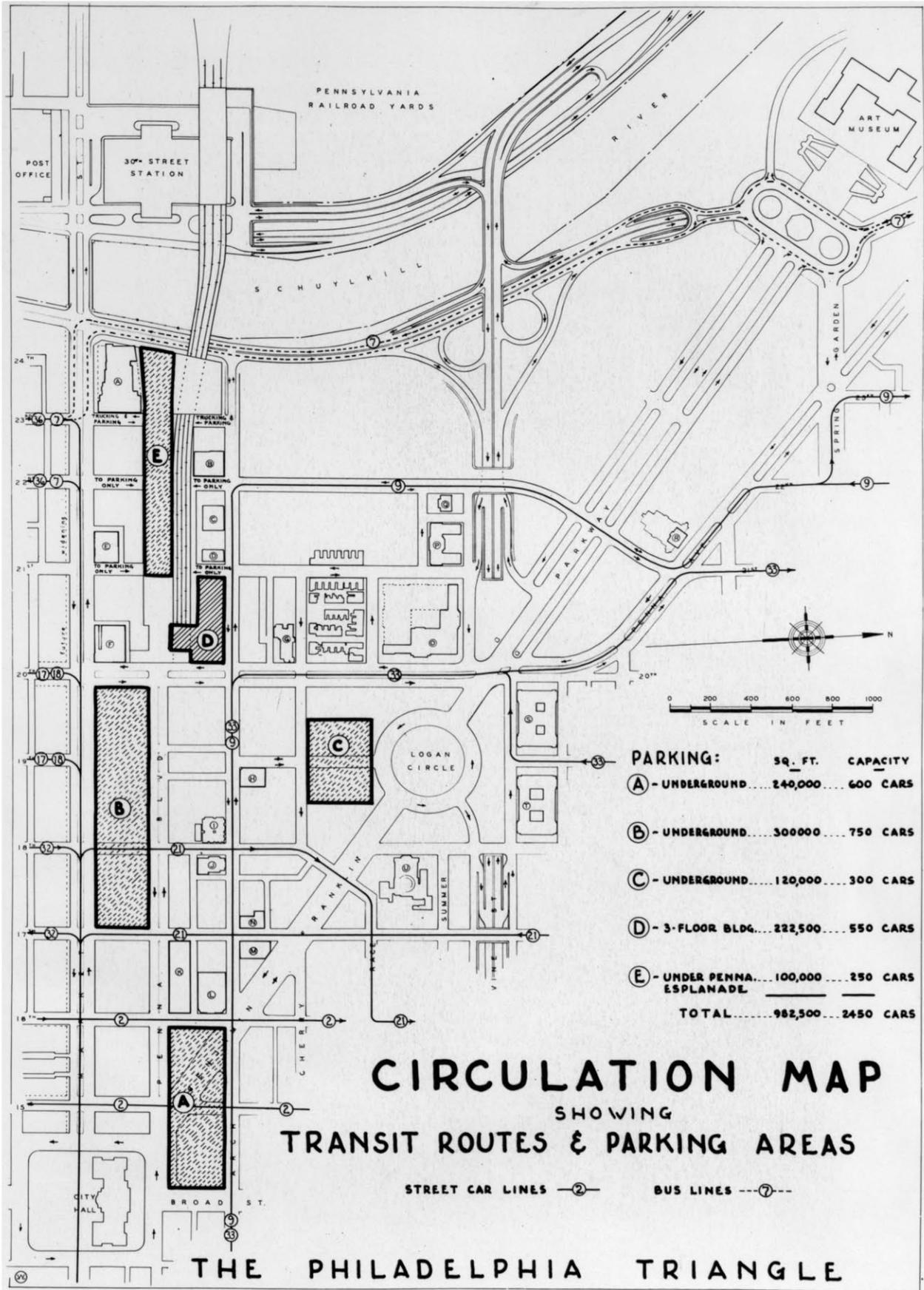
(f) Elementary School Site. The 6 acre site in the center of residential areas, was planned to care for an estimated 400 - 600 elementary school children. In a neighborhood of more normal family composition, one might expect about 10% of the total population to be in the elementary school-age group; but, as pointed out before, the proportion of children in the Triangle area will be relatively small and 5% was used as basis for estimating.

School building site (100 sq. ft./ child - 50,000 sq. ft.  
Playground (425 sq. ft. / child - - - - 212,500 sq. ft.  
TOTAL School site area . . (6.1 A.) . . 262,500 sq. ft.

B. Proposed Circulation Pattern.

1. Removal of Baltimore & Ohio Railroad tracks.

As previously shown, the B & O tracks cross to the east bank of the Schuylkill River approximately two miles south of subject area and back west at a point the same distance north of the area. Maintenance of two major railway stations, neither used to capacity, is a great waste; this is particularly so when they could be combined with no physical difficulty. With removal of the B & O and Reading Freight Yards from the Triangle, the east bank of the Schuylkill would have little need for the B & O main line tracks. Therefore, it is recommended that the main line tracks of the B & O be removed from East Side Yards



to Belmont Interchange and B & O passenger facilities combined with those of the Pennsylvania Railroad in the 30th Street Station.

2. East River Drive.

With the removal of the B & O, it is proposed that East River Drive be extended and constructed within the old B & O right-of-way. Connection could be effected just south of Girard Avenue, passing through the existing B & O tunnel under the Parkway, along the east bank of the Schuylkill to Gray's Ferry Road. With minor widening, the tunnel could carry two twelve-foot moving lanes of traffic in each direction. This Drive, long hoped for to complete the system of drives on the east Schuylkill bank in Fairmount Park, would also serve as the proposed north-south trucking artery south of Girard Avenue.

3. Vine Street Express-way.

In the "half-clover leaf" mechanism shown on "CIRCULATION MAP" (page 77) for the interchange between Vine Street and East River Drive, provision is made for all turns without necessity of traffic light except for traffic coming from the north wishing to turn east. The small number wishing to do this will not enter the tunnel, but will follow Pennsylvania Avenue to Logan Circle, thence to Vine Street Express-way entrance at 18th Street. A free-flowing connection between Spring Garden Street and 30th Street Station was accomplished, though width of available property on the west bank of the Schuylkill made necessary a rather short-radius turn (60' r.). All other turns in the mechanism are 100' minimum radii, allow-speeds of 25 miles per hour with safety. The Express-way is

carried under the Parkway through tunnel from 18th Street to 21st Street.

4. Removal of Spring Garden Street Bridge.

This antiquated two-level structure has insufficient space at either end to provide adequate approaches. It will no longer be needed as a traffic facility with the construction of the Vine Street Bridge. Trolleys and traffic headed west will use Girard Avenue Bridge. This removal will allow the extension of Fairmount Park down into the Triangle area uninterrupted by traffic and greatly enhance the west facade of the Art Museum.

5. Widening of Market Street.

Rather than to introduce features with which to compete against and further blight Market Street frontages, it is recommended that Market Street be "reclaimed" as a smooth-flowing traffic artery. An island strip 30 feet wide in the center will carry trolley tracks and allow for passenger loading at corners. Two moving lanes of traffic (12 ft. each) and one parking lane (8 ft.) are planned for each direction with 25 ft. sidewalks. On the south side, however, until redevelopment takes place, no parking lane can be provided - thus allowing two moving lanes with no parking going east for the time being. With the separation of trolley and automobile traffic, cross streets every other block west of 20th Street, the efficiency of Market Street as a traffic artery should improve 100%.

6. Pennsylvania Boulevard.

The author considers Pennsylvania Boulevard more a monumental way than an artery for traffic. Even if extended

over the Schuylkill its beginning at Broad Street is so casual and its termination at the 30th Street Station would be so abrupt, it would have little to attract traffic - particularly with an improved Market Street. Granted, the vista of Pennsylvania 30th Street Station is a desirable feature and formal agreement has been made between the City and Railroad to construct the Boulevard and bridge across the River. However, it is strongly recommended that Pennsylvania Boulevard be terminated at 20th Street as a vehicular traffic way, but continued to the Schuylkill in the form of a pedestrian way, or Pennsylvania Esplanade, thus providing a monumental setting and vista of the 30th Street Station far more attractive than a fleeting glimpse from behind a line of moving automobiles. In the interest of the tax-payer, it would be better to omit the Bridge and use the money for construction of the Vine Street Bridge; in the interest of Central City traffic flow, Market Street should be improved to carry west-bound traffic from City Hall to the 30th Street Station and beyond.

7. Widening of 20th Street.

Again, the theory of separating trolley tracks and automobile traffic by means of a center island strip is applied. In order to relieve the City Hall area of congestion, 20th Street is developed as a north-south artery, connecting with the Parkway at Vine Street and with Pennsylvania Avenue at Callowhill Street. The proposed width between building lines is made up of two 12 ft. moving lanes, 8 ft. parking lane, and 10 ft. sidewalk in each direction, with 30 ft. island

strip in the center, totaling 104 ft.

8. Pennsylvania Avenue extended to 20th Street.

The Parkway presently carries over 50,000 cars per day which, if evenly distributed, would not be too great a load for lanes provided. However, 75% of this load is concentrated during one rush hour in the morning and one in the afternoon. It is typical to observe five lanes of cars jammed bumper to bumper the length of the Parkway during these peaks. Not only does this prevent the enjoyment of the vista intended from City Hall to the Art Museum, but it is almost impossible for pedestrians to cross at this time. Pennsylvania Avenue, now an unfinished broad expanse of pavement, should be employed to relieve this situation. The existing smoke vents, for the Reading Railroad under Pennsylvania Avenue, could fall within a center island strip thereby causing no traffic hazard. The north end of Pennsylvania Avenue would tie in with East River Drive just before reaching Girard Avenue.

9. Intersections on Parkway reduced in number.

When the Parkway was superimposed as a diagonal over an existing gridiron pattern, many awkward intersections were created. Plan shows diagonals at 21st, 22nd, 23rd, and Callowhill eliminated, replaced by one right-angle intersection to allow 21st Street trolley line to cross the Parkway. Race Street is eliminated from 17th to 20th Streets, reducing the vast area of paving bordering Logan Circle on the south. One right-angle intersection replaces the Race Street crossing on both sides of the Parkway and Cherry Street on the west side. With the proposed land use pattern, it is not desired that more

traffic cross the Parkway than can be handled adequately by a few properly planned routes.

10. 21st, 22nd, and 23rd Streets closed to through traffic.

Under Pennsylvania Esplanade, these streets remain only as access to parking areas and for trucking.

11. 22nd Street over-pass at Vine Street Express-way.

Attention is directed to the extra width of this bridge structure, to provide a park-like pedestrian passage-way between the two residential areas. Elementary school children may walk to school and park area without having to cross traffic.

Major recommendations for changes in transit routes may be seen best on "CIRCULATION MAP" (page 77). With proper architectural treatment of City Hall, trolley lines would not be objectionable going directly across the Plaza. Present routing of trolleys around City Hall Plaza, combined with automobile traffic, offers greater hazard to pedestrians than would this proposed direct route.

Parking facilities provided, as shown on "CIRCULATION MAP", total twice present capacities for parking in the Triangle area, not counting street parking in either case. Not only will proposed land uses attract greater loads but much of the street parking on narrow streets must be eliminated. It will be noted that these facilities are located directly below or adjacent to areas attracting the greatest number of people.

C. Economic Recapitulation.

In 1940, a study made of 24 representative properties in the Central City<sup>37/</sup> showed that assessed valuations averaged 144% of actual sales value. Today, it is estimated that assessed valuations will average approximately 67% of actual selling price. Such fluctuations, though partly due to the abnormalities of inflation, show how impossible it is to arrive at even a rough estimate of land acquisition costs without detailed appraisals by experts. However, in effort to present as realistic picture as possible, land acquisition costs are assumed to be total land and building assessed value plus 50%. This 50% factor is applied to both City-owned and privately-owned property alike.

Total Triangle area is 195.6 Acres. 74.3 Acres are considered purchased by the Authority and will be referred to as the "redevelopment area". 121.3 Acres will either remain in present use or be developed for traffic ways by the City independent of redevelopment. Total area purchased is as follows:

	<u>TOTAL AREA</u>	<u>ASSESSED VALUATION</u>	<u>PURCHASE PRICE (A.V. + 50%)</u>
Private property . . .	2,731,379	\$21,898,407	\$32,847,610
City Property:			
Streets . . . . .	429,800	893,860*	1,340,890
Real Estate . . .	<u>75,600</u>	<u>234,420</u>	<u>351,630</u>
Redevelopment Area .	3,236,779	\$23,026,687	\$34,540,130

37/ Op. cit., Richard J. Seltzer.

\* Value fixed by square foot average of abutting property.

Regarding City-owned property, one of three approaches may be employed:

- (a) If the entire redevelopment area were purchased by the Authority, land costs would average \$10.67 per square foot.
- (b) If streets were donated free by the City, land costs would average \$10.25 per square foot.
- (c) If all City-owned property were donated, land costs would average \$10.15 per square foot.

Following shows how each method affects total acquisition costs and possible "City subsidy":

	<u>TOTAL COST</u>	<u>SQ.FT. COST</u>	<u>% SUBSIDY</u>
(a) No subsidy . . . . .	\$34,540,130 . .	\$10.67 . . .	0
(b) Streets free . . . . .	33,199,240 . .	\$10.25 . . .	4.3
(c) All City property free .	32,847,610 . .	\$10.15 . . .	4.7

Method "(c)" gains only 10¢ per sq. ft. over "(b)". This would not justify the chance of stirring up possible opposition to a "socialistic" scheme. However, it does seem logical to consider street area at no cost to the Authority thereby establishing the fact that 4.3% of land acquisition costs are subsidized by the City. Undoubtedly some form of the Wagner-Ellender-Taft Bill will be passed in the near future. Federal and State subsidies will have some relation to amount of City subsidy - at least it is well to point out this subsidy and give proper credit for donation of streets.

\$10.25 per square foot is average for the entire area as a single package, but is too rough to be of value when dealing

with individual areas. Following is break-down by individual area for land acquisition showing land costs and amount of City subsidy hidden therein:

<u>AREA</u>	<u>AREA IN SQ. FT.</u>	<u>PRIVATE LAND COST</u>	<u>SQ. FT. COST</u>	<u>STREET SQ. FT.</u>	<u>SALES PRICE OF STREETS</u>
<u>Residential:</u>					
Rehabil. . .	143,000	\$ 685,080	\$4.79	24,000	\$ 72,000
Bachelor . .	211,000	1,351,980	6.41	12,300	49,500
6 Story . . .	302,300	988,650	3.26	74,400	145,080
12 " (South)	425,600	1,003,065	2.32	118,000	221,225
12 " (North)	350,000	1,050,000	2.93	98,900	296,700
School . . .	200,000	630,000	3.15	36,000	70,200
Total . . .	1,631,900	\$5,708,775	Av3.49	363,600	\$854,705
<u>Commercial:</u>					
High* . . .	341,600	\$18,101,490	\$52.98	-	-
Low* . . .	472,492	3,969,055	8.42	16,800	\$ 58,950
Total . . .	814,092	\$22,070,545	\$22.00 Av.	16,800	\$ 58,950
<u>Public:</u> . . .	973,387	\$ 5,947,320	\$ 6.12	145,400	\$497,310

"\*High" refers to that area bounded by Market Street, Pennsylvania Boulevard, 18th Street and Broad Street.

"\*Low" refers to all remaining commercial area.

It is considered economically and politically wise that public and semi-public land be marketed by the Authority at "cost". In other words, the State, City, and such civic institutions as the Academy of Natural Sciences and Academy of Music will acquire their sites for the amount they actually cost the Authority. Therefore, they may be forgotten for the moment. The residential developments will show need for a

"write-down" of land cost to make them economically feasible; but commercial property should allow a "write-up" when considered at the new use value. Let us investigate further.

RESIDENTIAL AREA SUMMARIZED

<u>AREA</u>	<u>LAND COST PER D. U.</u>	<u>DWELLING UNITS</u>	<u>PERSONS PER D.U.</u>	<u>NUMBER PERSONS</u>
Rehabilitation . . .	\$1195 . . . .	200 . . . .	3 . . . .	600
Bachelor Apts. . . .	1072 . . . .	1260 . . . .	1.8 . . . .	.2250
6 Story Apts . . . .	1960 . . . .	504 . . . .	3 . . . .	.1512
12 Story (South) . . .	920 . . . .	1080 . . . .	3 . . . .	.3240
12 Story (North) . . .	1215 . . . .	<u>864 . . . .</u>	3 . . . .	<u>.2592</u>
Total Dwelling Units. . . .				3908
Total Estimated Population. . . . .				10,194

Due to difficulties in estimating building costs, most all construction today is being done on a "cost plus" basis. F.H.A. reports apartment construction running slightly under \$1750 per dwelling room in the Philadelphia area. This figure, which includes utilities, grading, planting, and other on-the-site improvements, is the maximum allowed per dwelling room for a rental housing project to be eligible for 90% insured mortgage under Title 608 in this area. Therefore, for computing construction costs herein, \$1750 per room is used.

Land costs shown in above table, ranging from \$920 to \$1960 per dwelling unit, would throw the project greatly out of balance on the land cost side. If this were arbitrarily written-down to \$500 per dwelling unit, a more normal ratio is possible. Following tabulation shows results of such method

of "write-down" as applied to the entire project:

<u>AREA</u>	<u>LAND COST PER D. U.</u>	<u>"WRITE-DOWN" PER D. U.</u>	<u>TOTAL "WRITE-DOWN"</u>
Bachelor . .	\$1072 - 500 =	\$1572 x 1260 =	\$720,720
6 Story . .	1960 - 500 =	1460 x 504 =	735,840
12 " (South)	920 - 500 =	420 x 1080 =	453,600
12 " (North)	1215 - 500 =	715 x 864 =	617,760
Total cost of "write-down" for dwellings . . .			\$2,527,920

As pointed out before, no "debit" or "credit" will be indicated for the public and semi-public area.

Purchase price for the "high" commercial area, between Market Street and Pennsylvania Boulevard, has been shown at an estimated figure of \$52.98 per square foot. Today, values of land only for locations such as that occupied by the Packard Building, 15th & Chestnut Streets, have been appraised at approximately \$100 per square foot; department store locations on Market Street run from \$75 to \$100 per square foot. Therefore, based on today's market, it would seem reasonable - and even conservative - to assume that the "high" commercial area could be readily disposed of by the Authority to private enterprise desiring top locations at an average figure of \$60 per square foot. Thus, a "profit" of \$7.02 per square foot is indicated.

Purchase price for the "low" or remaining commercial area is estimated at \$8.42 per square foot, as shown. With commercial properties as far away from the "center" as 15th and Spruce Streets appraised today at over \$15 per square foot for land, it would seem reasonable to assume that the

Authority could market the "low" commercial area at \$12 per square foot, thus realizing a "profit" of \$3.58 per sq ft.

	<u>SQ. FT.</u>		<u>"PROFIT"</u>
"High" commercial . .	341,600	@ \$7.02 =	\$2,398,032
"Low" commercial. . .	472,492	@ 3.58 =	<u>1,691,521</u>
	Gross . . .		\$4,089,553
Cost of residential land "write-down". .			<u>2,527,920</u>
	"Net" . .		\$1,561,633

The "net" shown does not, of course, tell the whole story. Such costs as utilities, engineering, grading, and paving should be included in actual analysis. However, no reliable figures for present-day conditions could be obtained from the City due to lack of recent work of this type and scope. Today, while material shortages exist, demolitions would be paid for by salvage value in existing structures, according to "off the record" opinion of a representative of a local wrecking firm. At least the "net" shown above would go far toward paying for many of the unaccounted-for items above, and does indicate that it is possible to write-down land costs per dwelling unit to \$500, therefore this figure will be used.

From data available on the present housing market, it is considered advisable to have the following break-down in composition of residential units:

- 75% . . 3 room units . . (1 BR, K, LR & DR, and B)
- 22% . . 4 room units . . (2 BR, K, LR & DR, and B)
- 3% . . 5 room units . . (3 BR, K, LR & DR, and B)

Of the total 3908 dwelling units, the following indicates the resulting number of rooms as result of the above break-down:

3 rm units - 75% of 3908 = 2931 units X 3 = 8793 dwelling rooms.

4 rm units - 22% of 3908 = 860 units X 4 = 3440 dwelling rooms.

5 rm units - 3% of 3908 = 117 units X 5 = 585 dwelling rooms.

Total Dwelling Rooms . . . . . 12,818

Rentals are computed as follows:

Total rooms . . . . . 12,818

FHA cost per room . . . . . X \$1750

Total building construction cost . . . . . \$22,431,500

Total dwelling units. . . . . 3908

Land cost per d. u. . . . . X \$500

Total residential land cost. . . . . 1,954,000

Capital cost of Residential area . . . . . \$24,385,500

Assuming a 30 year period of amortization, the following break-down shows yearly charges to arrive at rent:

Payment on principle . . . . . \$ 812,850

Interest, assumed 5% . . . . . 1,219,275

Taxes, 2.5% . . . . . 609,638

Maintenance, 2% . . . . . 487,710

Depreciation, 0.7% . . . . . 170,538

Administration and/or vacancies, 0.7% . . . . . 170,538

Insurance, 0.2% . . . . . 48,771

Total Project rental per year . . . . . \$3,519,320

Total yearly rental per dwelling room =  $\frac{3,519,320}{12,818}$  = \$273.77

Monthly rental per dwelling room =  $\frac{273.77}{12}$  = \$ 22.81

Rents, according to unit composition, will be as follows:

3 room units . . . \$68.43 per month.

4 room units . . . \$91.24 per month.

5 room units . . . \$114.05 per month.

Assuming that 20% of family income may be allotted to rent, the 3, 4, and 5 room units might be suitable for families with annual incomes of \$4000, \$5475 and \$6850 respectively. While this is not encouraging, it should be remembered that a very large percentage of the population housed would be adults, with more than one employed member per household.

It is interesting to note that even if land costs were reduced to zero, monthly rental per dwelling room would only be reduced from \$22.81 to \$21.05, resulting in 3 room units renting for \$63.15, 4 room units for \$84.20, and 5 room units for \$105.25. It is therefore obvious that land costs are not too significant in the final monthly rental. A highly competitive market is required to place them in the category of a deciding factor.

Interest, however, is much more significant as may be seen on page 88a. If the interest rate could be reduced by some means from 5% to 2½%, monthly rental per dwelling room could be reduced from \$22.81 to \$18.12. This would result in 3 room units renting for \$54.36, 4 room units for \$72.48, and 5 room units for \$90.60, appealing to family incomes of \$3260, \$4350 and \$5440 respectively.

PART IV. SUMMARY.

The only sound method of stemming the tide of declining values in the Central City is through logical replanning of its various sections that they may perform the function for which they are best suited in the interest of the City as a whole. The first step is the choice of proper land use.

The Triangle area, taken as a logical point of beginning, has been carried through the various steps in the justification of recommended land uses. This is only the beginning; actual details of site planning, of revised zoning, of regulations and covenants to insure proper achievement of these land uses, all must follow in proper order before even a tentative plan for the Triangle redevelopment can be considered made.

It is the planner's duty to recognize significant trends, distinguish between the good and the bad, and set up sound machinery which will aid or check these trends by normal process. Such planning cannot be arbitrarily forced; the physical, economic, and social advantages must be clearly evident. Existing residents must be provided for; existing business must be given help in relocation.

It is so clear that redevelopment of the Triangle must be a part of the thinking on a City-wide scale and the advantages must be City-wide:

Physically, the improvement in circulation, both traffic and transit, with provision of adequate parking facilities would more than justify the effort. In addition, the appearance of the very entrance of the Central City would be

greatly improved;

Economically, the redevelopment would not only check the downward trend of real estate values within the Triangle, but would also have a corresponding effect on surrounding areas as well;

Socially, the people of Philadelphia would have a Civic Center; they would look to one location as the nucleus of their social and governmental welfare.

\* \* \*  
\* \*  
\*

## BIBLIOGRAPHY

DENSITIES IN NEW YORK CITY, a Report to the Citizen's Housing Council by the Committee on City Planning and Zoning. Henry S. Churchill and William H. Ludlow. May 1944.

PROPOSALS FOR DOWNTOWN PHILADELPHIA, a report by Richard J. Seltzer for The Urban Land Institute. Published in 1941.

PRINCIPLES OF CITY GROWTH AND STRUCTURE, by Homer Hoyt. Mimeographed 1946.

COST MEASUREMENT IN URBAN REDEVELOPMENT, by Miles L. Colean and Arthur P. Davis, for the National Committee on Housing, Inc., New York. May 1945

PUBLIC IMPROVEMENTS 1947-1952, published by the Philadelphia City Planning Commission, 1947.

ISSUES, published by the Philadelphia Housing Association, March-May 1947.

LAND FINANCE IN URBAN REDEVELOPMENT IN THE INTEREST OF THE MUNICIPALITY, summary by F. Dodd McHugh of a Memorandum submitted to the Mayor and City Council of Pittsburgh by the City Planning Commission of that City. Published in AIP Journal, Vol XII, Number 3, July-September 1946, pp. 15-18.

INDUSTRIAL DIRECTORY OF GREATER PHILADELPHIA, classified and published by the Chamber of Commerce and Board of Trade of Philadelphia, 1943.

FRANKLIN'S STREET AND BUSINESS OCCUPANCY ATLAS OF PHILADELPHIA AND SUBURBS, published by Franklin Survey Company, Philadelphia. 1946.

PLANNING FOR UNITY IN COMMUNITY REDEVELOPMENT - Exerpts from one of the "Talk It Over" pamphlets of the National Institute of Social Relations, published in The American City, Vol LXI, Number 12, December 1946, p. 95.

URBAN REDEVELOPMENT - THE DEFLECTION OF AN IDEAL, a talk by Charles Abrams before a meeting of the American Institute of Planners, Providence, Rhode Island, Saturday, January 18, 1947. Type-written copy obtained from Department of City Planning, Massachusetts Institute of Technology.

AGREEMENT BETWEEN CITY OF PHILADELPHIA AND THE PENNSYLVANIA RAILROAD COMPANY, Providing for the Improvement of Certain Sections of the City East and West of the Schuylkill River, and for the Removal of the Filbert Street Elevated Railroad, the Construction of an Underground Railway and Station East of the Schuylkill River and a New Passenger Station West of the Schuylkill River. Dated November 27, 1946, as Authorized by Ordinance Approved November 16, 1946.

APPENDIX

No. 385

AN ACT

To promote elimination of blighted areas and supply sanitary housing in areas throughout the Commonwealth; by declaring acquisition, sound replanning and redevelopment of such areas to be for the promotion of health, safety, convenience and welfare; creating public bodies corporate and politic to be known as Redevelopment Authorities; authorizing them to engage in the elimination of blighted areas and to plan and contract with private, corporate or governmental redevelopers for their redevelopment; providing for the organization of such authorities; defining and providing for the exercise of their powers and duties, including the acquisition of property by purchase, gift or eminent domain; the leasing and selling of property, including borrowing money, issuing bonds and other obligations, and giving security therefor; restricting the interest of members and employes of authorities; providing for notice and hearing; supplying certain mandatory provisions to be inserted in contracts with redevelopers; prescribing the remedies of obligees of redevelopment authorities; conferring certain duties upon local planning commissions, the governing bodies of cities and counties, and on certain State officers, boards and departments.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Short Title.—This act shall be known and may be cited as the “Urban Redevelopment Law.”

“Urban Redevelopment Law.”

Section 2. Findings and Declaration of Policy. — It is hereby determined and declared as a matter of legislative finding—

(a) That there exist in urban communities in this Commonwealth areas which have become blighted because of the unsafe, unsanitary, inadequate or overcrowded condition of the dwellings therein, or because of inadequate planning of the area, or excessive land coverage by the buildings thereon, or the lack of proper light and air and open space, or because of the defective design and arrangement of the buildings thereon, or faulty street or lot layout, or economically or socially undesirable land uses.

(b) That such conditions or a combination of some or all of them have and will continue to result in making such areas economic or social liabilities, harmful to the social and economic well-being of the entire communities in which they exist, depreciating values therein, reducing tax revenues, and thereby depreciating further the general community-wide values.

(c) That the foregoing conditions are beyond remedy or control by regulatory processes and cannot be effectively dealt with by private enterprise under existing

law without the additional aids herein granted, and that such conditions exist chiefly in areas which are so subdivided into small parcels and in divided ownerships that their assembly for purposes of clearance, replanning and redevelopment is difficult and impossible without the effective public power of eminent domain.

(d) That the acquisition and sound replanning and redevelopment of such areas in accordance with sound and approved plans for their redevelopment will promote the public health, safety, convenience and welfare.

Therefore, it is hereby declared to be the policy of the Commonwealth of Pennsylvania to promote the health, safety and welfare of the inhabitants thereof by the creation of bodies corporate and politic to be known as Redevelopment Authorities, which shall exist and operate for the public purposes of acquiring and replanning such areas and of holding or disposing of them in such manner that they shall become available for economically and socially sound redevelopment. Such purposes are hereby declared to be public uses for which public money may be spent, and private property may be acquired by the exercise of the power of eminent domain.

Section 3. Definitions.—The following terms where used in this act, shall have the following meanings, except where the context clearly indicates a different meaning.

(a) "Authority" or "Redevelopment Authority."—A public body and a body corporate and politic created and organized in accordance with the provisions of this act.

(b) "Bonds."—Any bonds, interim certificates, notes, debentures or other obligations of an Authority issued pursuant to this act.

(c) "City."—Any city of the first, second, second class A or third class. "The city" shall mean the particular city for which a particular Authority is created.

(d) "County."—Any county of this Commonwealth, other than a county of the first class. "The county" shall mean the particular county for which a particular Authority is created.

(e) "Field of Operation."—The area within the territorial boundaries of the city or county for which a particular Authority is created: Provided, however, That the field of operation of any county authority shall not include a city having a redevelopment authority.

(f) "Governing Body."—In the case of a city, the city council or other legislative body thereof, and in the case of a county, the board of county commissioners or other legislative body thereof.

(g) "Government."—Includes the State and Federal Governments or any subdivision, agency or instrumentality corporate or otherwise of either of them.

(h) "Municipality."—Any county, city, borough or township.

(i) "Obligee of the Authority" or "Obligee." — Any bondholder, trustee or trustees for any bondholders, any lessor demising property to an Authority used in connection with a redevelopment project, or any assignee or assignees of such lessor's interest, or any part thereof, and the Federal Government, when it is a party to any contract with an Authority.

(j) "Planning Commission."—Any planning commission established by law for a municipality of this Commonwealth. "The Planning Commission" shall mean the particular planning commission of the city or county in which a particular Authority operates. Redevelopment authorities shall be substituted for planning commission in any city or county in which a planning commission does not exist.

(k) "Real Property."—Lands, lands under water, structures and any and all easements, franchises and incorporeal hereditaments and every estate and right therein, legal and equitable, including terms for years and liens by way of judgment, mortgage or otherwise.

(l) "Redeveloper."—Any individual, partnership or public or private corporation that shall enter or propose to enter into a contract with an Authority for the redevelopment of an area under the provisions of this act.

(m) "Redevelopment." — The acquisition, replanning, clearance, rehabilitation or rebuilding of an area for residential, recreational, commercial, industrial or other purposes, including the provision of streets, parks, recreational areas and other open spaces.

(n) "Redevelopment Area." — Any area, whether improved or unimproved, which a planning commission may find to be blighted because of the existence of the conditions enumerated in section two of this act so as to require redevelopment under the provisions of this act.

(o) "Redevelopment Area Plan."—A plan for the redevelopment of a redevelopment area made by a planning commission in accordance with the provisions of section ten of this act.

(p) "Redevelopment Contract." — A contract between an Authority and a redeveloper for the redevelopment of an area under the provisions of this act.

(q) "Redevelopment Project" or "Project." — A project undertaken by a redeveloper under a contract with an Authority in accordance with the provisions of this act.

(r) "Redevelopment Proposal." — A proposal, including supporting data and the form of a redevelopment contract submitted for approval to the governing body by an Authority, for the redevelopment of all or any part of a redevelopment area.

Section 4. Formation of Authorities.—

(a) There are hereby created separate and distinct bodies corporate and politic, one for each city and one for each county of the Commonwealth, as herein defined. Each such body shall be known as the Redevelopment Authority of the city or the county, as the case may be, but shall in no way be deemed to be an instrumentality of such city or county, or engaged in the performance of a municipal function. Each such Authority shall transact no business or otherwise become operative until and unless a finding is made as hereinafter provided in this section.

(b) At any time after passage of this act the governing body of any city or county may find and declare by proper ordinance or resolution that there is need for an Authority to function within the territorial limits of said city or county, as the case may be.

(c) The governing body shall cause a certified copy of such ordinance or resolution to be filed with the Department of State, and duplicates thereof with the State Board of Housing and the State Planning Board; upon receipt of the said certificate the Secretary of the Commonwealth shall issue a certificate of incorporation.

(d) In any suit, action or proceeding involving or relating to the validity or enforcement of any contract or act of an Authority, a copy of the certificate of incorporation duly certified by the Department of State shall be admissible in evidence and shall be conclusive proof of the legal establishment of the Authority.

Section 5. Appointment and Qualifications of Members of Authority.—Upon certification of a resolution declaring the need for an Authority to operate in a city or county, the mayor or board of county commissioners thereof, respectively, shall appoint, as members of the Authority, five citizens who shall be residents of the city or county in which the Authority is to operate.

Section 6. Tenure and Compensation of Members of Authority.—The members who are first appointed shall serve for terms of one, two, three, four and five years, respectively, from the date of their appointment as shall be specified at the time of their appointment. Thereafter, the term of office shall be five years. A member shall hold office until his successor has been appointed. Vacancies for unexpired terms shall be promptly filled by the appointing power. A member shall receive no compensation for his services, but shall

be entitled to the necessary expenses, including traveling expenses, incurred in the discharge of his duties.

Section 7. Organization of Authority. — The members of an Authority shall select from among themselves a chairman, a vice-chairman, and such other officers as the Authority may determine. An Authority may employ a secretary, an executive director, its own counsel and legal staff, and such technical experts, and such other agents and employes, permanent or temporary, as it may require, and may determine the qualifications and fix the compensation of such persons. Three members of an Authority shall constitute a quorum for its meetings. Members of an Authority shall not be liable personally on the bonds or other obligations of the Authority, and the rights of creditors shall be solely against such Authority. An Authority may delegate to one or more of its agents or employes such of its powers as it shall deem necessary to carry out the purposes of this act, subject always to the supervision and control of the Authority.

Section 8. Interest of Members or Employes. — No member or employe of an Authority shall acquire any interest, direct or indirect, in any redevelopment project or in any property included or planned to be included in any redevelopment area, or in any area which he may have reason to believe may be certified to be a redevelopment area, nor shall he have any interest, direct or indirect, in any contract or proposed contract for materials or services to be furnished or used by an Authority, or in any contract with a redeveloper or prospective redeveloper relating, directly or indirectly, to any redevelopment project. The acquisition of any such interest in a redevelopment project or in any such property or contract shall constitute misconduct in office. If any member or employe of an Authority shall already own or control any interest, direct or indirect, in any property later included or planned to be included in any redevelopment project under the jurisdiction of the Authority, or has any such interest in any contract for material or services to be furnished or used in connection with any redevelopment project, he shall disclose the same in writing to the Authority and to the State Board of Housing and the local governing body, and such disclosure shall be entered in writing upon the minute books of the Authority. Failure to make such disclosure shall constitute misconduct in office.

Section 9. Powers of an Authority.—An Authority shall constitute a public body, corporate and politic, exercising public powers of the Commonwealth as an agency thereof, which powers shall include all powers necessary or appropriate to carry out and effectuate the

purposes and provisions of this act, including the following powers in addition to those herein otherwise granted:

(a) To procure from the planning commission the designation of areas in need of redevelopment and its recommendations for such redevelopment;

(b) To study the recommendations of the planning commission for redevelopment of any area and to make its own additional investigations and recommendations thereon;

(c) To cooperate with any government or municipality as herein defined;

(d) To act as agent of the State or Federal Government or any of its instrumentalities or agencies for the public purposes set out in this act;

(e) To arrange or contract with any municipality located, in whole or in part, within the Authority's field of operation, or with the State or Federal Government for the furnishing, planning, replanning, constructing, installing, opening or closing of streets, roads, roadways, alleys, sidewalks or other places or facilities, or for the acquisition by such municipality, or State or Federal Government of property options or property rights or for the furnishing of property or services in connection with a redevelopment area;

(f) To arrange or contract with the Commonwealth, its agencies, and any municipality to the extent that it is within the scope of their respective functions—(1) to cause the services customarily provided by each of them to be rendered for the benefits of such Authority or the occupants of any redevelopment area; and (2) to provide and maintain parks, recreational centers, schools, sewerage, transportation, water and other municipal facilities adjacent to or in connection with redevelopment areas; and (3) to plan, replan, zone or rezone any part of the municipality in connection with any redevelopment proposal of the Authority;

(g) To enter upon any building or property in order to make surveys or soundings;

(h) To assemble, purchase, obtain options upon, acquire by gift, grant, bequest, devise or otherwise any real or personal property or any interest therein from any person, firm, corporation, municipality or government;

(i) To acquire by eminent domain any real property, including improvements and fixtures for the public purposes set forth in this act in the manner hereinafter provided;

(j) To own, hold, clear, improve and manage real property;

(k) To sell, lease or otherwise transfer, subject to approval by the local governing body, any redevelopment area, either as an entirety to a single redeveloper or in parts to several redevelopers: Provided, That the Authority finds that the sale, lease or other transfer of any such part will not be prejudicial to the sale or lease of other parts of the redevelopment area, nor be in any other way prejudicial to the realization of the redevelopment proposal approved by the governing body;

(l) To reimburse for their reasonable expenses of removal, the occupants of a redevelopment area who have been displaced as a result of the redevelopment;

(m) To insure or provide for the insurance of any property or operations of the Authority against any risks or hazards;

(n) To procure or agree to the procural of insurance or guarantees from the State or Federal Government of the payment of any debts or parts thereof incurred by the Authority, and to pay premiums in connection therewith;

(o) To borrow from private lenders or from the State or Federal Government funds, as may be necessary, for the operation and work of the Authority;

(p) To invest any funds held in reserves or sinking funds or any funds not required for immediate disbursement, in such investments as may be lawful for executors, administrators, guardians, trustees and other fiduciaries under the laws of this Commonwealth;

(q) To sue and be sued;

(r) To adopt a seal and to alter the same at pleasure;

(s) To have perpetual succession;

(t) To make and execute contracts and other instruments necessary or convenient to the exercise of the powers of the Authority; and any contract or instrument when signed by the chairman or vice-chairman and secretary or assistant secretary, or, treasurer or assistant treasurer of the Authority shall be held to have been properly executed for and on its behalf;

(u) To make and from time to time to amend and repeal by-laws, rules, regulations and resolutions;

(v) To conduct examinations and investigations and to hear testimony and take proof, under oath or affirmation, at public or private hearings, on any matter material for its information;

(w) To authorize any member or members of the Authority to conduct hearings and to administer oaths, take affidavits and issue subpoenas;

(x) To issue subpoenas requiring the attendance of witnesses and the production of books and papers pertinent to any hearing before the Authority, or before one or more members of the Authority appointed by it to conduct such hearing;

(y) To apply to any court having territorial jurisdiction of the offense to have punished for contempt any witness, who refuses to obey a subpoena, or who refuses to be sworn or affirmed, or to testify, or, who is guilty of any contempt after summons to appear;

(z) To make available to the government or municipality or any appropriate agency, board or commission, the recommendations of the Authority affecting any area in its field of operation or property therein, which it may deem likely to promote the public health, morals, safety or welfare.

Section 10. Preparation and Adoption of Redevelopment Proposal.—

(a) An Authority shall prepare a redevelopment proposal for any area certified by the planning commission to be a redevelopment area and for which the planning commission has made a redevelopment area plan.

(b) The planning commission's certification of a redevelopment area shall be made in conformance with its comprehensive general plan (which may include, inter alia, a plan of major traffic arteries and terminals and a land use plan and projected population densities) for the territory under its jurisdiction.

(c) The planning commission's redevelopment area plan shall include, without being limited to, the following:

(1) The boundaries of the area, with a map showing the existing uses of the real property therein;

(2) A land use plan of the area showing proposed uses following redevelopment;

(3) Standards of population densities, land coverage and building intensities in the proposed redevelopment;

(4) A preliminary site plan of the area;

(5) A statement of the proposed changes, if any, in zoning ordinances or maps;

(6) A statement of any proposed changes in street layouts or street levels;

(7) A statement of the extent and effect of the rehousing of families which may be made necessary from the redevelopment area plan, and the manner in which such rehousing may be accomplished;

(8) A statement of the estimated cost of acquisition of the redevelopment area, and of all other costs necessary to prepare the area for redevelopment;

(9) A statement of such continuing controls as may be deemed necessary to effectuate the purposes of this act.

(d) In conformity with such redevelopment area plan, the Authority shall prepare a proposal for the redevelopment of all or part of such area, including the proposed redevelopment contract, with the redeveloper selected. The Authority may, if it deems it desirable, hold public hearings prior to its final determination of the redevelopment proposal and the selection of the redeveloper.

(e) The Authority shall submit the redevelopment proposal to the planning commission for review. The planning commission shall, within forty-five days, certify to the governing body its recommendation on the redevelopment proposal, either of approval, rejection or modification, and in the latter event, specify the changes recommended.

(f) Upon receipt of the planning commission's recommendation, or at the expiration of forty-five days, if no recommendation is made by the planning commission, the Authority shall submit to the governing body the redevelopment proposal with the recommendation, if any, of the planning commission thereon.

(g) The governing body upon receipt of the redevelopment proposal and the recommendation, if any, of the planning commission shall hold a public hearing upon said proposal. Notice of the time, place and purpose of such hearing shall be published at least once each week for three consecutive weeks in a newspaper of general circulation in the field of operation of the Authority, the time of the hearing to be at least ten days from the last publication of notice. The notice shall describe the redevelopment area by boundaries and by city block, street and house number. The redevelopment proposal with such maps, plans, contracts or other documents as form part of said proposal, together with the recommendation, if any, of the planning commission and supporting data shall be available for public inspection for at least ten days prior to the hearing.

At the hearing the governing body shall afford an opportunity to all persons or agencies interested to be heard and shall receive, make known and consider recommendations in writing with reference to the redevelopment proposal.

(h) The governing body shall approve or reject the redevelopment proposal and the redevelopment contract as submitted. The governing body shall not approve a redevelopment proposal unless it is satisfied that adequate provisions will be made to rehouse displaced

families, if any, without undue hardship, or, if the municipality in which the project is to be located has filed its objections thereto.

(i) Upon approval by the governing body of the redevelopment proposal and redevelopment contract, as submitted by the Authority, the Authority is authorized to execute the redevelopment contract and to take such action as may be necessary to carry it out.

Section 11. Provisions of the Redevelopment Contract.—

(a) The contract between the Authority and a redeveloper shall contain, without being limited to, the following provisions:

(1) A legal description of the redevelopment area covered by the contract, and a covenant running with land to the effect that no person shall be deprived of the right to live in the redevelopment project, or to use any of the facilities therein by reason of race, creed, color or national origin, and such other easements, or other rights as are to be reserved therein by the Authority;

(2) Plans and such other documents as may be required to show the type, material, structure and general character of the redevelopment project;

(3) A statement of the use intended for each part of the project;

(4) A guaranty of completion of the redevelopment project within specified time limits;

(4-1) A requirement that every contract for construction, installation, alteration, repair of, or addition to, the redevelopment project, where the estimated cost shall exceed \$500.00, shall contain a provision obligating the contractor to the prompt payment of all material furnished, labor supplied or performed, rental for equipment employed, and services rendered by public utilities in or in connection with the prosecution of the work, whether or not, the said material, labor, equipment and services\* enter into and become component parts of the work or improvement contemplated. Such provision shall be deemed to be included for the benefit of every person, co-partnership, association or corporation, who as subcontractor, or otherwise, has furnished material, supplied or performed labor, rented equipment, or supplied services in or in connection with the prosecution of the work as aforesaid, and the inclusion thereof in any contract shall preclude the filing by any such person, co-partnership, association or corporation of any mechanics' lien claim for such material, labor or rental of equipment, and further requiring that the

\* "of service" in original.

contractor shall give to the redeveloper an appropriate bond for the prompt payment by the contractor for materials, supplies, labor, services and equipment in such form as the Authority may prescribe;

(5) A provision that the redeveloper shall be without power to sell, lease or otherwise transfer the redevelopment area, or project, or any part thereof, without the prior written consent of the Authority, until the Authority shall have certified in writing that the redevelopment project has been completed;

(6) The amount of the consideration to be paid by the redeveloper to the Authority;

(7) Adequate safeguards for proper maintenance of all parts of the project;

(8) Prohibition against discrimination in the use, sale or lease of any part of the project against any person because of race, color, religion or national origin;

(9) Such other continuing controls as may be deemed necessary to effectuate the purposes of this act;

(b) Any deed or lease to a redeveloper in furtherance of a redevelopment contract shall be executed in the name of the Authority, by its proper officers, and shall contain in addition to all other provisions, such provisions as the Authority may deem desirable to run with the land in order to effectuate the purposes of this act;

(c) Any lease to a redeveloper may provide that all improvements shall become the property of the Authority. The execution of such a lease shall not in itself impose upon the Authority any liability for or by reason of the financing, construction, management or operation of any redevelopment project.

Section 12. Eminent Domain.—Title to any property acquired by an Authority through eminent domain shall be an absolute or fee simple title, unless a lesser title shall be designated in the eminent domain proceedings. The Authority may exercise the right of eminent domain in the manner provided by law for the exercise of such right by cities or counties, as the case may be, of the same class as the city or county in which such Authority is organized to operate. If any of the real property in the redevelopment area which is to be acquired has, prior to such acquisition, been devoted to another public use, it may, nevertheless, be acquired by condemnation: Provided, That no real property belonging to a city, county or to the Commonwealth may be acquired without its consent. No real property belonging to a public utility corporation may be acquired without the approval of the Public Utility Commission.

Section 13. Bonds of an Authority.—An Authority shall have power to issue bonds for any of its corporate purposes, the principal and interest of which are pay-

able from its revenues generally. Any of such bonds may be secured by a pledge of any revenues, including grants or contributions from the Federal or State Government, or any agency, and instrumentality thereof, or by a mortgage of any property of the Authority.

The bonds issued by an Authority are hereby declared to have all the qualities of negotiable instruments under the law merchant and the negotiable instruments law of the Commonwealth of Pennsylvania.

The bonds of an Authority created under the provisions of this act and the income therefrom shall at all times be free from taxation for State or local purposes under any law of this Commonwealth.

Neither the members of an Authority nor any person executing the bonds shall be liable personally on any such bonds by reason of the issuance thereof. Such bonds or other obligations of an Authority shall not be a debt of any municipality or of the Commonwealth, and shall so state on their face, nor shall any municipality or the Commonwealth nor any revenues or any property of any municipality or of the Commonwealth be liable therefor.

Section 14. Form and Sale of Bonds.—The bonds of an Authority shall be authorized by its resolution; shall be issued in one or more series; and shall bear such date, mature at such time, and bear interest at such rate, not exceeding six per centum (6%) per annum, payable semi-annually, be in such denominations, be in such form, either coupon or registered, be executed in such manner, be payable in such medium of payment, at such place, and be subject to such terms of redemption and carry such registration privileges as may be provided in such resolution, or in any trust, indenture or mortgage properly made in pursuance thereof.

Before any bonds may be sold in pursuance of any resolution of any Authority the chairman or secretary of such Authority shall certify to the Department of Internal Affairs a complete and accurate copy of the proceedings had for the issuance of the bonds, which are to be sold, in the manner now or hereafter provided for the certification to said department of the proceedings relating to the issuance of bonds of the municipalities of this Commonwealth. Upon receiving such a certificate of approval of the proceedings from the Department of Internal Affairs, the Authority may proceed with the sale of the bonds.

The bonds of an Authority may be sold at not less than par and accrued interest. In case any of the officers of an Authority whose signatures appear on any bonds or coupons shall cease to be officers before the delivery of such bonds their signatures shall, neverthe-

less, be valid and sufficient for all purposes, the same as if such officers had remained in office until such delivery.

The Authority shall have the power out of any funds available therefor to purchase any bonds issued by it at a price not more than the par value thereof plus accrued interest. All bonds so purchased shall be cancelled. This paragraph shall not apply to the redemption of bonds.

Any bond reciting in substance that it has been issued by an Authority to accomplish the public purposes of this act shall be conclusively deemed in any suit, action or proceeding involving the validity or enforceability of such bond or security therefor to have been issued for such purpose.

Section 15. Provisions of Bonds, Trust, Indentures and Mortgages.—In connection with the issuance of bonds or the incurring of obligations under leases, and in order to secure the payment of such bonds or obligations, an Authority in addition to its other powers shall have power:

(a) To pledge all or any part of its gross or net revenues to which its right then exists or may thereafter come into existence;

(b) To mortgage all or any part of its real or personal property then owned or thereafter acquired;

(c) To covenant against pledging all or any part of its revenues, or, against mortgaging all or any part of its real or personal property to which its right or title exists or may thereafter come into existence, or against permitting or suffering any lien on such revenues or property to covenant with respect to limitations on its right to sell, lease or otherwise dispose of any of its real property, and to covenant as to what other or additional debts or obligations may be incurred by it;

(d) To covenant as to the bonds to be issued and as to the issuance of such bonds, in escrow, or otherwise, and as to the use and disposition of the proceeds thereof, to provide for the replacement of lost, destroyed or mutilated bonds, to covenant against extending the time for the payment of its bonds or interest thereon, and to redeem the bonds, and to covenant for their redemption, and to provide the terms and conditions thereof;

(e) To covenant, subject to the limitations contained in this act, as to the amount of revenues to be raised each year, or other period of time, as well as to the use and disposition to be made thereof, to create or to authorize the creation of special funds for debt, service or other purposes, and to covenant as to the use and disposition of the moneys held in such funds;

(f) To prescribe the procedure, if any, by which the terms of any contract with bondholders may be amended or abrogated, the holders, the holders

of which must consent thereto, and the manner in which such consent may be given;

(g) To covenant as to the use of any or all of its real or personal property, to warrant its title, and to covenant as to the maintenance of its real and personal property, the replacement thereof, the insurance to be carried thereon, and the use and disposition of insurance moneys;

(h) To covenant as to the rights, liabilities, powers and duties arising upon the breach by it of any covenant, condition or obligation, and to covenant and prescribe, in the event\* of default, as to\*\* terms and conditions upon which any or all of its bonds or obligations shall become or may be declared due before maturity, and as to the terms and conditions upon which such declaration and its consequences may be waived;

(i) To vest in a trustee, or the holders of bonds, or any proportion of them, the right to enforce the payment of the bonds or any covenants securing or relating to the bonds, to vest in a trustee the right, in the event of a default by the Authority, to take possession and use, operate and manage any real property and to collect the rents and revenues arising therefrom and to dispose of such moneys in accordance with the agreement of the Authority with said trustee, to provide for the powers and duties of a trustee and to limit liabilities thereof, and, to provide the terms and conditions upon which the trustee or the holders of bonds or any proportion of them may enforce any covenant or rights securing or relating to the bonds;

(j) To exercise all or any part or combination of the powers herein granted, to make covenants other than and in addition to the covenants herein expressly authorized, to make such covenants and to do any and all such acts and things as may be necessary or convenient or desirable in order to secure its bonds, or in the absolute discretion of the Authority, as will tend to accomplish the purposes of this act, by making the bonds more marketable notwithstanding that such covenants, acts or things may not be enumerated herein.

Section 16. Remedies of an Obligee of Authority.—An obligee of an Authority shall have the right, in addition to all other rights which may be conferred on such obligee, subject only to any contractual\*\*\* restrictions binding upon such obligee:

(a) By mandamus, suit, action or proceeding at law or in equity to compel the Authority and the members, officers, agents or employes thereof to perform each and every term, provision and covenant contained in any contract of the Authority with or for the benefit of such obligee, and to require the carrying out of any

\* "as to events" in original.

\*\* "and" in original.

\*\*\* "contractual" in original.

or all such covenants and agreements of the Authority, and the fulfillment of all duties imposed upon the Authority by this act;

(b) By proceeding in equity to obtain an injunction against any acts or things which may be unlawful, or the violation of any of the rights of such obligee of the Authority.

Section 17. Additional Remedies Conferrable by Authority.—An Authority shall have power by its resolution, trust, indenture, mortgage, lease or other contract to confer upon any obligees holding or representing a specified percentage in bonds, or holding a lease, the right, in addition to all rights that may otherwise be conferred, upon the happening of an event of default as defined in such resolution or instrument, by suit, action or proceeding in any court of competent jurisdiction.—

(a) To obtain the appointment of a receiver of any real property of the Authority and of the rents and profits therefrom. If such receiver be appointed, he may enter and take possession of such real property, operate the same and collect and receive all revenues or other income thereafter arising therefrom, and shall keep such moneys in a separate account and apply the same in accordance with the obligations of the Authority as the court shall direct;

(b) To require the Authority, and the members thereof, to account as if it and they were the trustees of an express trust.

Section 18. Aid from Federal Government.—In addition to the powers conferred upon an Authority by other provisions of this act, an Authority is empowered to borrow money or accept grants or other financial assistance from the Federal Government, for or in aid of any of its operations. It is the purpose and intent of this act to authorize every Authority to do any and all things necessary or desirable to secure the financial aid or cooperation of the Federal Government in any of its operations.

Section 19. Records and Reports.—

(a) The books and records of an Authority shall at all times be open and subject to inspection by the State Board of Housing;

(b) An Authority may file with the State Planning Board and the State Board of Housing such information and reports as it may from time to time deem desirable, and shall file with them:

(1) A copy of all by-laws and rules and regulations and amendments thereto, adopted by it, from time to time.

(2) Copies of all redevelopment proposals and redevelopment contracts, as well as of any changes, which may be made therein.

(3) At least once each year a report of its activities for the preceding year, and such other reports as said boards may require. Copies of such reports shall be filed with the mayor and governing body of the city or with the county board of commissioners, as the case may be.

Act effective immediately.

Section 20. Effective Date.—This act shall become effective immediately upon final enactment.

APPROVED—The 24th day of May, A. D. 1945.

EDWARD MARTIN

The foregoing is a true and correct copy of Act of the General Assembly No. 385.

*Secretary of the Commonwealth.*