



Comprehensive plan central business district Milwaukee, Wisconsin: preliminary staff report.

[s.l.]: Southeastern Wisconsin Regional Planning Commission,
1957-05-01

<https://digital.library.wisc.edu/1711.dl/P56TIRXVGZCXU8S>

<http://rightsstatements.org/vocab/InC/1.0/>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

W-CITIES-Milwaukee-

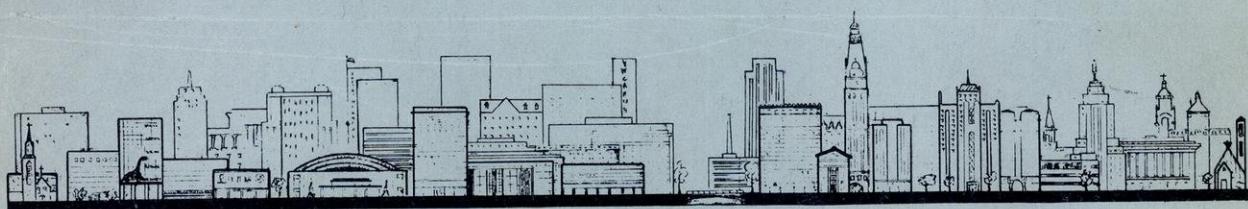
DOWNTOWN

CENTRAL
BUSINESS
DISTRICT

• • • • • MILWAUKEE

• • • • • • • • • 1975

Graduate Research Center
Dept. of Urban & Regional Planning
The University of Wisconsin
Old Music Hall, 925 Lathrop Dr.
Madison, Wisconsin 53706



PRELIMINARY STAFF REPORT

Comprehensive Plan

Central Business District

Milwaukee, Wisconsin

May 1, 1957



City Planning Division

Board of Public Land Commissioners

155 East Kilbourn Avenue

Milwaukee, Wisconsin

BOARD OF PUBLIC LAND COMMISSIONERS

Earl W. May, President
Stanley A. Rypel, Vice-President
Paul J. Bringe
Milton M. Cohn
Mrs. Sarah Ettenheim
Eliot G. Fitch*
Karl Maier, Jr.

Elmer Krieger, Executive Secretary

City Planning Division

Alvin C. Bromm, Planning Director
R. L. Filtzer, Special Planning Engineer
Gilbert Clegg, Land Use Planner
Carl H. Quast, Urban Renewal Planner

Participating Staff

Research Section
Robert G. Ducharme, Chief
J. Karl Aldrich, Jr.
Robert Beck

Advance Plan Section
Ralph O. Quiggle, Chief*
Vincent L. Lung, Chief
James S. La Bril
Anthony S. Bareta
Helmuth F. Schweikart
Robert J. Felber
Robert J. Hanson
Gregory Laabs

*Resigned

May 1, 1957

Board of Public Land Commissioners
City of Milwaukee

Downtown Milwaukee: 1975

Gentlemen:

The health of Milwaukee's tax base is reflected to a large extent in its central business district. Whatever enhances downtown property values is good for all of Milwaukee. Whatever detracts from downtown property values is harmful to the entire community.

As Milwaukee's largest shopping center, downtown should be at least as attractive and function as efficiently as any of the city's outlying shopping centers.

As not only the city's largest and most important shopping district, but its largest and most important office, commercial, and entertainment center as well, downtown should be easily accessible by mass transportation and private automobile, must have ample parking facilities, and be a comfortable and safe place for the movement of pedestrians.

While at present downtown is fairly accessible for both mass transportation and motor vehicles, parking space is at a premium. And as far as the pedestrian is concerned, walking downtown is becoming more and more uncomfortable. The "Walk", "Don't Walk", "Wait" signs confronting the pedestrian at intersections do not encourage shopping in the central business district.

The tangling of motor vehicle, mass transit, and pedestrian traffic on our downtown streets creates the necessity for

Board of Public Land Commissioners
May 1, 1957
Page 2

these pedestrian regulations for reasons of safety and orderly traffic movement. To eliminate the regulations requires untangling of pedestrians from vehicular traffic by a revision of our downtown traffic pattern which will route traffic around and not through the central business district. This is a basic concept used in outlying shopping area design and may be used as an example for downtown.

The planned expressways will make it easier to drive downtown, but they will make it possible to bring still more cars into the central business district, further increasing the need for parking space and further intensifying the conflict between pedestrians and vehicular traffic.

There is little doubt that the completion of expressways will revolutionize Milwaukee in appearance and function. If, then, expressways are a revolutionary approach in bringing traffic downtown, a similar approach to properly coordinate vehicular and pedestrian traffic with the expressways is necessary if downtown is to reap the full benefit of the expressways.

The Board of Public Land Commissioners has prepared several studies and plans in connection with the development of outlying shopping centers such as Mitchell Fair, Southgate, Capitol Court, and other projects. If these studies in the outlying areas were in the city's best interest it follows that similar studies of the downtown are even more necessary since the heart of the city is involved.

It was for the above reasons that Commissioner Eliot G. Fitch, then President of the Board, requested the staff of the City Plan Division to prepare a comprehensive plan of the central business district. Similar studies and plans have been prepared, and are in preparation in a number of other cities in the United States. For instance, a well publicized study has recently been completed for Fort Worth, Texas, by planning consultant Victor Gruen and associates. Both Mr. Fitch and the planning staff were impressed by the Fort Worth study and it was agreed that the staff prepare a study for Milwaukee's downtown as comprehensive as the Fort Worth plan.

Board of Public Land Commissioners
May 1, 1957
Page 3

Work started on the problem in September, 1956. The staff had precedent in their own work when about eight years previously it had prepared a plan for the Mitchell Street shopping area called Mitchell Fair. This plan proposes to separate pedestrian from vehicular traffic by routing vehicular traffic around the Mitchell Street shopping center instead of through it. Parking plans adopted so far by the Common Council are in accord with the plans for Mitchell Fair and the parking sites that have been provided are a first step in carrying out the plan.

In considering the preparation of a plan for the redevelopment of the downtown area it is evident that both private and public development plans in Milwaukee's downtown are now in the making or are being given serious consideration. The Common Council recently adopted an ultimate plan for the completion of the Civic Center. The city's municipal building is presently under construction in accord with the Civic Center plans. The state and the city are cooperating to build a state office building. In the fall of 1956 the people voted to erect a new museum. Both the state office building and the new museum are included in the city's adopted Civic Center plan.

Structures for parking both over and underground are included or have been prepared in addition to the above plans. Also, on the fringe of downtown, Marquette University has prepared a master plan for its expansion needs and there is considerable evidence of preparation of plans for private building and expansion in other sections of the downtown area. These plans involve office buildings, hotels, and other types of buildings, all indicating that downtown Milwaukee may be on the threshold of a vigorous building program.

While Milwaukee need not take a back seat in the rank of large cities, it has been evident for some time that its downtown has not provided all of the functions it could as the metropolitan downtown center for Wisconsin. It is also no secret that downtown Milwaukee suffers by comparison in attractiveness with downtowns of some other American cities, both larger and smaller. If, however, Milwaukee is on the threshold of a vigorous downtown building program, it has

Board of Public Land Commissioners
May 1, 1957
Page 4

a real opportunity to create a new, more functional, attractive central business district. If it is thoughtfully planned it can give Milwaukee a fresh new skyline second to none.

In this spirit the staff of the City Plan Division respectfully presents its plan and studies of the central business district prepared during the past eight months. In presenting the plan it should be noted that it is only one of many that might be suggested. The problem covers so much territory that there is no one perfect solution. Further study will reveal many refinements and perhaps major modifications in design. In a sense, therefore, this report is an ice-breaker showing the need of this or some other over-all downtown plan for both private and public building guidance.

The staff report is attached. It includes a model, plans, perspectives, and supporting data.

In considering the action to be taken on the staff studies and plan it is suggested that the Board of Public Land Commissioners

- (1) Take the studies and plan under advisement.
- (2) Invite members of Downtown Association, Association of Commerce, Greater Milwaukee Committee, City Club, Milwaukee Real Estate Board, Citizens Bureau, and other interested organizations to view the plan and consider the staff proposals. If there is agreement that a course of action is desirable, the Board should prepare a report suggesting necessary action.
- (3) Present such a report to the Mayor and Common Council.

Presentation of the studies and plan to citizen groups is suggested before transmittal of recommendations to the Mayor and Common Council since much privately owned land is involved.

Board of Public Land Commissioners
May 1, 1957
Page 5

Determination of policy recommendations on so broad a scale obviously needs the opinions and assistance of downtown property owners before recommendations to the Mayor and Common Council are made.

Respectfully submitted,

Elmer Krieger

Elmer Krieger
Executive Secretary

EK/acs

CONTENTS

	<u>Page</u>
Letter of Transmittal	
List of Exhibits	2
Introduction	5
The Plan	5
Introduction	5
Land Use Plan	9
Traffic System Plan	26
Appendix - Survey and estimating procedures	36

LIST OF EXHIBITS

(Not included in report but available for examination
in the offices of the
Board of Public Land Commissioners
155 East Kilbourn Avenue
Milwaukee, Wisconsin

MODEL

— 100' Scale Model, Downtown Milwaukee - 1975
PM-2 Orientation Map

MAPS - Existing Land Use and Traffic

- ET-1 Traffic and Transportation
- ET-2 Rush Hour Traffic Flows
- ET-3 Mass Transit
- EL-1a Land Use, Ground Floor
- EL-1b Land Use, Upper Floors
- EL-1c Building Heights
- EL-1d Assessed Values by Block
- EL-1e Intensity of Land Use
- EL-2 Retail Activity
- EL-3 Hotel - General Office - Financial
- EL-4 Public and Semi-Public - Education - Cultural
- Entertainment
- EL-5 Public Open Space
- EL-6 Transportation - Utilities - Manufacturing
- Wholesale
- EL-7 Residential Use
- EL-8 Parking Facilities

MAPS - Proposed Land Use and Traffic

- 100' Scale Model with Orientation Map PM-2
- PM-1 Master Plan - Traffic System and Generalized
Land Use
- PT-1 Traffic and Transportation
- PT-2 Anticipated Traffic Flows
- PT-3 Mass Transit
- PT-4 Service Circulation
- PL-1 General Land Use
- PL-2 Retail Activity
- PL-3 Hotel - Financial - Office
- PL-4 Public and Semi-Public - Education - Cultural
- Entertainment
- PL-5 Public Open Space
- PL-6 Transportation - Utilities - Manufacturing -
Wholesale
- PL-7 Residential Use
- PL-8 Parking Facilities

LIST OF EXHIBITS
(Cont'd)

SKETCHES

- S-1 Plan and Elevations of Wisconsin Pedestrian Way
- between 6th and Jefferson Streets
- S-2 Perspective of Court Area in Wisconsin Pedestrian Way - looking east from 5th Street
- S-3 Interior Perspective View of Wisconsin Pedestrian Way - looking west toward 3rd Street
- S-4 Perspective of Plankinton Avenue - crossing Wisconsin Pedestrian Way
- S-5 Interior Perspective of Wisconsin Pedestrian Way
- looking east from Milwaukee Street

CHARTS

- C-1 Utilization of Land, CBD Milwaukee - Percentage Distribution 1956, and Estimates for 1975
- C-2 Land Use, CBD Milwaukee - Percentage Distribution of Floor Area in Principal Buildings by Types of Use 1956, and Estimates for 1975
- C-3 Population, Gross National Product and Retail Sales, U. S. Totals 1925-1955, and Estimates for 1975
- C-4 Population for Wisconsin, 11-County and 4-County Trade Areas and Milwaukee County, 1910-1950, and Estimates for 1975
- C-5 Net Effective Buying Income - Retail Sales, 11-County and 4-County Trade Areas, 1939-1954, and Estimates for 1975
- C-6 Retail Sales Wisconsin, 11-County and 4-County Trade Areas, Milwaukee County and Milwaukee Central Business District, 1929-1954, and Estimates for 1975
- C-7 Autos and Trucks Registered in Milwaukee County 1926-1955, and Estimates for 1975
- C-8 Autos and Trucks Registered, Milwaukee County, Number Entering and Peak Accumulation, Typical Weekday, 7:00 A.M. to 3:00 P.M., 1926-1954, and Estimates for 1975
- C-9 Autos and Trucks Entering Milwaukee CBD and Peak Accumulation, Typical Weekday, 7:00 A.M. to 9:00 A.M., 1922-1954, and Estimates for 1975

LIST OF EXHIBITS
(Concl'd)

CHARTS (Concl'd)

C-10 Autos and Trucks Entering Milwaukee CBD and
Peak Accumulation, Typical Weekday, 9:00
A.M. to 3:00 P.M., 1926-1954, and Estimates
for 1975

INTRODUCTION

This report sets forth a comprehensive master plan for downtown Milwaukee, referred to here as the central business district.

The study covers a 160 block area bounded on the north, by Juneau Avenue; on the east, by Lake Michigan; on the south, by Fowler and Detroit Streets; and on the west, by the proposed expressway between 10th and 11th Streets.

Milwaukee's central business district is the core of one of the largest urban areas in the country. It is the economic, social and cultural center of that area. It includes the most intense development of buildings and activities and the greatest concentration of vehicular and pedestrian traffic. It is a vital part of the economic base and the tax base of the city, the county and the state.

On a typical weekday an estimated 350,000 people and 200,000 vehicles enter the area. Ninety thousand people are employed in the central district, or about one in every five workers in the county. Shoppers spend in the neighborhood of \$200 million dollars a year in the 790 retail stores in the area. The 160 blocks in the area represent only 1 per cent of the total land area of the city, but more than 10 per cent of total assessed valuation and around 36 per cent of the assessed valuation of commercial property.

It is obvious that the Milwaukee central business district plays a vital part in meeting the needs and desires of the million people who live in the metropolitan area.

In many instances the influence of the central district extends beyond the county line. The market area for many of its activities extends over an 11 county area, and some activities have a state, national and international market. It is obvious that the vitality of the city and the metropolitan area depends, to a great extent, on the vitality of the central business district.

There are indications that the vitality of the central district is threatened. Most of the shortcomings and problems in the area can be traced to two basic sources, namely, the lack of land use planning, and the failure to cope with the motor vehicle.

Basic land use and street patterns in the central district were established during the horse and buggy era. The land use picture is one of small, intensely developed blocks containing in many instances unrelated and conflicting types of activities. Parking space is inadequate. It is poorly located in small widely scattered lots, and too frequently parking is considered a temporary land use. These factors lead to overcongestion and inefficiency and add to traffic problems in the area.

Our failure to deal effectively with the motor vehicle has also had serious consequences. Under the impact of the motor vehicles the central district threatens to bog down of its own weight.

The existing street pattern is inadequate and will become more inadequate as time goes on. There are too many streets and bottleneck intersections. Street capacities are reduced substantially by parking and loading on the street. The battle of the pedestrian versus the motor vehicle and the conflict between the different types of vehicular traffic create a constant traffic hazard and interferes with the efficient movement of people and goods.

If the central district is to realize its greatest potential, land use patterns and the transportation system must be redesigned to meet the needs and standards of a modern, motorized age.

In the past, the attempt has been made to solve these problems on a piecemeal basis. This approach has not been successful. The effective solution of the land use and traffic problems in the central district requires a comprehensive approach which treats the whole area as an interdependent and integrated unit.

This report incorporates such an approach. It is not suggested that this plan provides the only solution to the problems of the area. More accurately, the plan should be viewed as a general guide rather than a well-defined or specific goal. It can serve as a pattern to guide future development in order to bring about a better integrated and more functional central district.

The approach incorporated in this study involves a two-pronged attack aimed at capitalizing on the main

advantages of the central district by developing and exploiting these advantages to the fullest possible extent and eliminating or minimizing the shortcomings and problems of the area.

In essence, the purpose of this plan is to make downtown Milwaukee a better place in which to shop, to work, and to do business. A number of features are incorporated which we feel will accomplish this goal. These features may be summarized as follows:

1. Creation of larger blocks and some reduction in land use densities.
2. Better consolidation of similar and related types of land use.
3. Provision for adequate off-street parking facilities and consolidation of parking in major parking structures.
4. Integration of the central district street system with the expressway system.
5. Improved traffic circulation system within the central district.
6. Separation of vehicular and pedestrian traffic in areas where the two types of traffic come into greatest conflict.
7. Provision for an integrated system of by-pass routes to reroute through traffic.
8. Limited separation of autos and mass transit vehicles.
9. Special provision for truck delivery and service and adequate off-street loading space.
10. Improved general attractiveness of the central district through architectural treatment, restricted pedestrian areas, more open space, courts, etc.

THE PLAN

The target date for the plan has been set at 1975. This date is used to indicate a period 20-25 years in the future rather than a specific year.

Land use and traffic requirements for 1975 are based on the following growth factors with some adjustments for the impact of the plan itself and other factors.

<u>Factor</u>	<u>1954</u>	<u>1975*</u>	<u>% Change 1954-1975</u>
<u>United States</u>			
Population (million)	150.7 (1950)	224.0	48.6
Gross National Product (GNP) (billions \$)	360.5	700.0	94.2
GNP per capita (\$)	2277	3125	37.2
Retail sales (billion \$)	169.7	325.0	91.5
<u>Wisconsin</u>			
Population (million)	3.43 (1950)	4.60	34.1
Retail sales (billion \$)	3.88	6.80	75.3
<u>11-County Trade Area</u>			
Population (million)	1.49 (1950)	2.15	44.3
Effective Buying Income (billions \$)	2.92	5.30	81.5
Retail Sales (billion \$)	1.93	3.40	76.2
<u>4-County Trade Area</u>			
Population (million)	1.014 (1950)	1.50	47.9
Effective Buying Income (billions \$)	2.09	3.65	75.0
Retail Sales (billions \$)	1.31	2.20	68.0
<u>Milwaukee County</u>			
Population (million)	.871 (1950)	1.25	43.5
Number of Households	249,230	370,000	48.4
Retail Sales (billions \$)	1.14	1.90	66.7
Autos and Trucks	299,000	520,000	73.9
<u>Central Business District</u>			
Retail Sales (billions \$)	0.190	0.285	50.0
Autos & Trucks Entering CBD Daily 7AM - 3PM	84,025	155,000	84.5
Peak Daily Accumulation, Autos & Trucks in CBD	16,207	31,000	91.4

Source: See Appendix A for estimating procedures.
*1975 dollar estimates in 1954 dollars.

Land Use Plan

The picture of existing land use in the central district is presented in Exhibits EL-1 through EL-8. Proposed land use for 1975 is shown in Exhibits PM-1 and PL-1 thru PL-8.

Land use data are summarized in tabular form in Tables 1 and 2. Table 1 gives an over all picture of how land is currently being utilized in the central district, along with estimates for 1975.

The total area of the district is around 27.8 million square feet, or 638 acres (excluding Juneau Park, the harbor area and the Milwaukee River). It is interesting to note that nearly 55 per cent of the land is currently used for purposes of conveying vehicles, persons and goods in the area. Streets and alleys alone take up about 8.3 million square feet of land, or nearly 30 per cent of the total. An additional 12 per cent (3.2 million square feet) is used for pedestrian ways, 11 per cent (3.1 million square feet) for off-street parking lots, and 2.2 per cent for railroad right-of ways.

Principle buildings housing the activities in the central business district occupy a surprisingly small proportion of the area, 8.2 million square feet, or around 30 per cent of the total. About 16 per cent of the area is devoted to parks, playgrounds, and other public and private open space (including minor accessory buildings).

DEVELOPMENT & REDEVELOPMENT STUDIES

CENTRAL BUSINESS DISTRICT MILWAUKEE WISCONSIN

MASTER PLAN PROGRAM



A horizontal scale bar with tick marks at 100-foot intervals from 0 to 1000. Below the scale bar, the text "SCALE IN FEET" is printed in a bold, sans-serif font.

RESIDENTIAL _____

PUBLIC, SEMI-PUBLIC &

**OPEN SPACE
COMMERCIAL**

WHOLESALE 8 MEC

TERMINALS

(BUS, FREIGHT ETC.)

PEDESTRIAN WAY—

EXPRESSWAY

MAJOR TRAFFIC _____

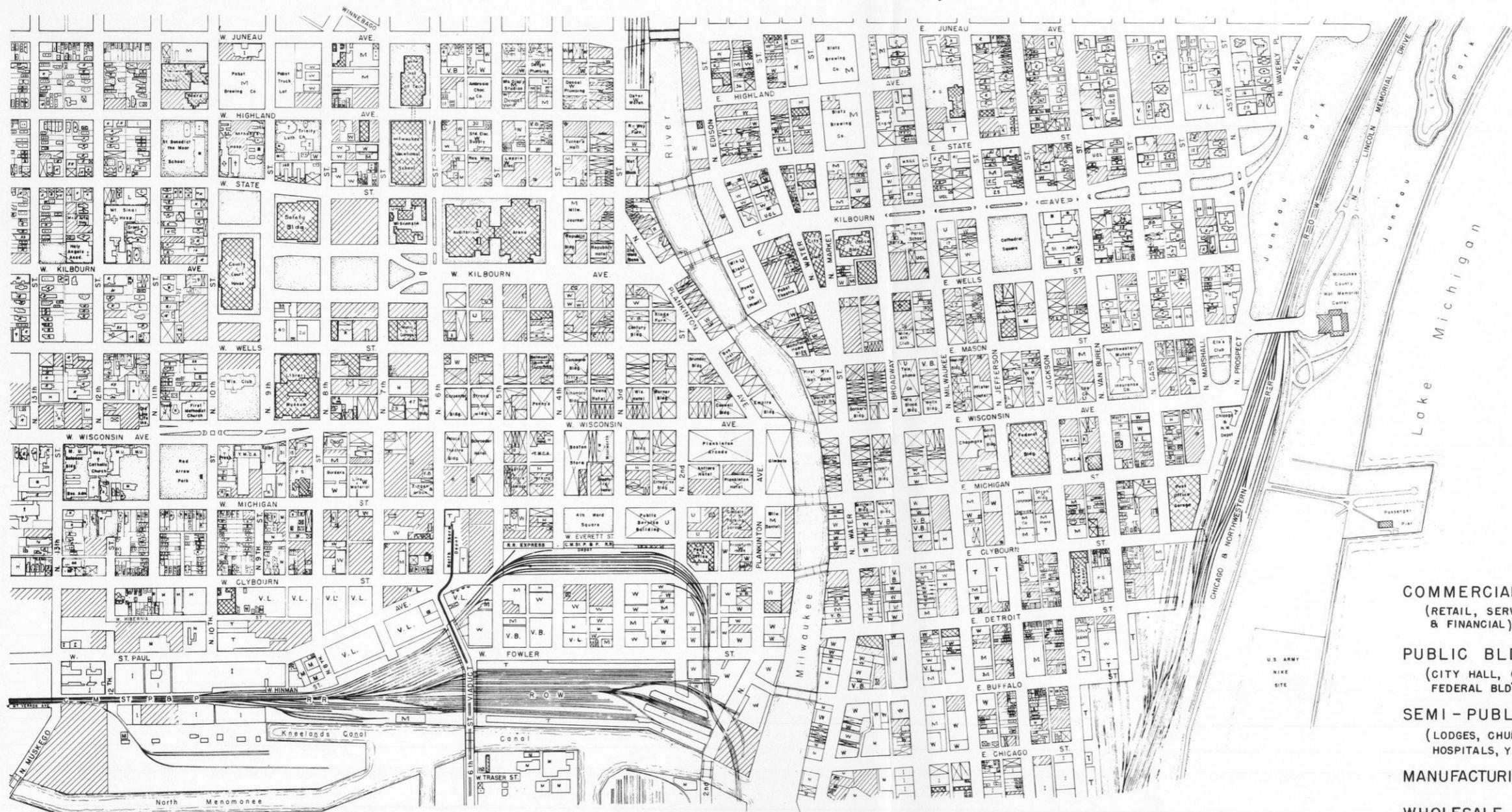
LOCAL TRAFFIC _____

NOTE:
FOR ADDITIONAL DATA, REFER TO

OF PUBLIC LAND COMMISSIONERS

WISCONSIN
CITY PLANNING DIVISION
APRIL - 1957 GP: 4 - 57-2

SHOWING
TRAFFIC SYSTEM & GENERALIZED LAND USE



LEGEND

COMMERCIAL
(RETAIL, SERVICES, HOTELS, OFFICES & FINANCIAL)



PUBLIC BLDGS. & PARKS
(CITY HALL, COURT HOUSE, ARENA, FEDERAL BLDG., LIBRARY, VOC. SCH. ETC.)



SEMI-PUBLIC
(LODGES, CHURCHES, PRIVATE SCHOOLS, HOSPITALS, Y. M. C. A., Y. W. C. A., ETC.)



MANUFACTURING & INDUSTRY



WHOLESALE & WAREHOUSE



PARKING



RESIDENTIAL



TRANSPORT'N. & UTILITIES



T - R.R., BUS, TRUCKING, ETC.
U - GAS, ELECT., TELEPHONE, WATER

VACANT — VACANT BUILDING 951 V. B.
VACANT LOT 937 V. L.

BOARD OF PUBLIC LAND COMMISSIONERS
MILWAUKEE WISCONSIN
CITY PLANNING DIVISION
APRIL 1957 (SURVEYED)
DEC. 1956 GP-4-57-2
PARTICIPATING STAFF
ADVANCE PLAN SECTION: V. LUNG - J. LABRIL - A. BARETA
H. SCHWEIKERT - R. FELBER - G. LAABS
RESEARCH SECTION: R. DUCHARME - K. ALDRICH - R. BECK
L U
EL-1

CENTRAL BUSINESS DISTRICT

MILWAUKEE WISCONSIN

EXISTING LAND USE

TABLE I

UTILIZATION OF LAND, CENTRAL BUSINESS DISTRICT
MILWAUKEE, WISCONSIN, 1956 AND ESTIMATES FOR 1975

<u>Category</u>	<u>LAND AREA (SQ. FT.)</u>					
	<u>1956</u>	<u>1975</u>				
	<u>Area</u>	<u>% of Total</u>	<u>Area</u>	<u>% of Total</u>	<u>% change 1956-1975</u>	
Principal bldgs.	8,200,000	29.5	6,800,000 ⁽¹⁾	24.5	-17%	
Expressways (pavement) (2)	40,000	0.1	600,000	2.2	1400%	
Streets(pavement) ⁽³⁾	7,500,000	27.0	6,900,000	24.8	-9%	
Alleys and lanes	800,000	2.9	850,000	3.1	6%	
Pedestrian ways ⁽⁴⁾	3,200,000	11.5	3,200,000	11.5	-	
Railroad ROW ⁽⁵⁾	600,000	2.2	350,000	1.3	-42%	
Parking lots ⁽⁶⁾	3,100,000	11.2	900,000	3.2	-71%	
Parks, playgrounds, public open space ⁽⁷⁾	900,000	3.2	2,700,000	9.7	200%	
Vacant lots	200,000	0.7	-	-	-100%	
Other open space ⁽⁸⁾	3,300,000	11.9	5,500,000	19.8	67%	
Total Land Area ⁽⁹⁾	27,800,000	100.0	27,800,000	100.0	-	

NOTE: Details may not add to totals because of rounding.

1. Assumes overall reduction in land coverage from 60 per cent in 1956 to 55 per cent in 1975.
2. Expressway pavement estimated at 20% of right-of-way. 1956 based on land acquired to date.
3. Includes pavement on bridges
4. Area between street line and curb line. Includes sidewalks on bridges.
5. Excludes trackage in Juneau Park and harbor area.

TABLE I - UTILIZATION OF LAND, CENTRAL BUSINESS DISTRICT
MILWAUKEE, WISCONSIN, 1956 AND ESTIMATES FOR
1975 (cont'd)

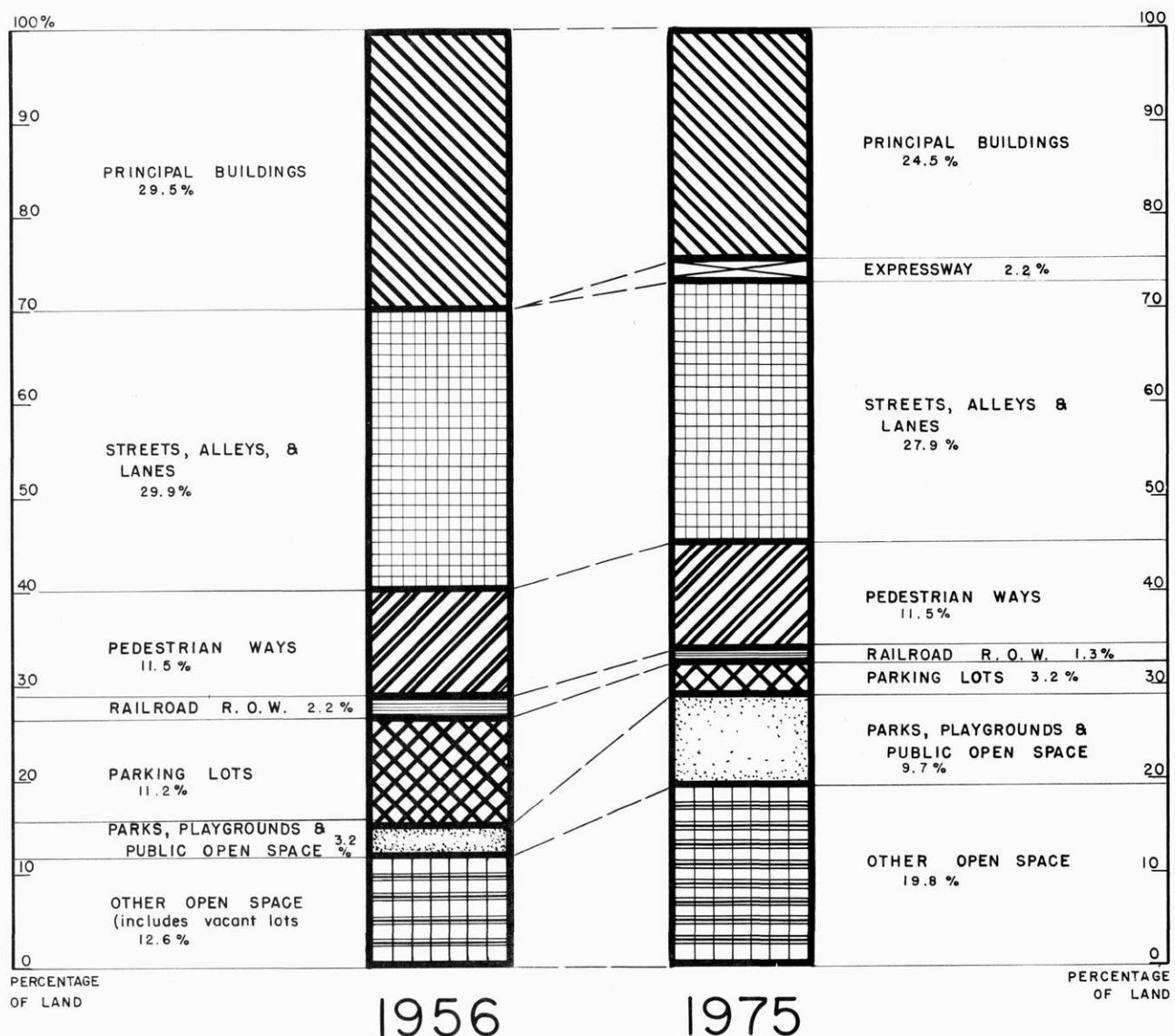
6. Public and private lots.
7. Includes public open space in expressway system; estimated at 80% of expressway right-of-way.
8. Includes setbacks, yards, loading areas, minor accessory buildings.
9. Excludes Juneau Park, the harbor area, and the Milwaukee River.

CHART-1

UTILIZATION OF LAND

CENTRAL BUSINESS DISTRICT - MILWAUKEE, WISCONSIN

PERCENTAGE DISTRIBUTION 1956 AND ESTIMATES FOR 1975



* See Footnotes Table I, Page II, "Downtown Milwaukee 1975", May 1957

It is proposed to reduce the amount of land used for traffic facilities from 55 per cent to 46 per cent of the total area, or to around 12.8 million square feet in 1975 compared with the current total of 15.1 million square feet. The most significant change in the transportation group involves a 71 per cent reduction in the amount of land devoted to off-street parking lots, from 3.1 million square feet to around 900,000 square feet. Proposed changes in street pavements result in a net reduction of around 500,000 square feet, or 9 per cent. Development of a consolidated transportation center south of Fowler Street will reduce the amount of land devoted to railroad use by around 250,000 square feet.

Parks, playgrounds and public open space show the greatest increase in land area. It is proposed to increase the amount of land used for these purposes from 900,000 to around 2.7 million square feet. It should be noted that this category includes 80 per cent of the expressway right-of-way, which is considered as public open space.

The reduction in street pavement area will largely be offset by a substantial increase in expressway pavement. Pavement for the completed expressway system, excluding the proposed east-west high-level bridge, is estimated at around 600,000 square feet.

The proposed plan provides for the creation of around 400,000 square feet of new pedestrian ways, most of which will be in the Wisconsin Avenue area. The increase is not

apparent in Table 2 since it is offset by a corresponding decrease in pedestrian areas in other parts of the central district as a result of displacements by the expressway system, street improvements and other developments.

The increase in the 'Other Open Space' category (3.3 to 5.5 million square feet) and the reduction in the amount of land occupied by principle buildinge (8.2 to 6.8 million square feet) reflects an attempt to reduce overall land coverage in the central district to provide higher standards of open space. These standards are provided by increasing average building height in the district from 3.8 to 6.5 stories.

Table 2 gives a more detailed picture of the activities that take place in the principle buildings in the central district, by classifying land use in terms of the amount of floor area occupied by the various types of activities. Estimates of floor area requirements for 1975 are also provided.

Currently there are 1,500 principle buildings in the central business district with a total of about 31,200,000 square feet of floor area. The General Office group (including Finance, Insurance and Real Estate) occupies the greatest percentage of floor area, around 22 per cent of the total. The 6.7 million square feet in this group is occupied by physicians, dentists, and other medical offices; law firms; accounting and bookkeeping firms; insurance firms; bank and investment firms; insurance offices; real estate estab- lishments;

TABLE 2

LAND USE, CENTRAL BUSINESS DISTRICT,
MILWAUKEE, WISCONSIN - FLOOR AREA IN PRINCIPAL
BUILDINGS BY TYPE OF ACTIVITY, 1956 AND
ESTIMATES FOR 1975.

<u>Type of Activity</u>	<u>FLOOR AREA (SQ. FT.)</u>			
	<u>1956</u>	<u>% of Total</u>	<u>1975</u>	<u>% of Total</u>
<u>Floor Area</u>		<u>Floor Area</u>		
Retailing	3,700,000	11.9	4,400,000	11.0
Hotels	2,000,000	6.4	2,300,000	5.8
Other Services	3,600,000	11.5	4,300,000	10.8
Finance, Insurance and Real Estate	1,300,000	4.2	1,600,000	4.0
General Offices-Private	5,400,000	17.3	6,500,000	16.3
Public Administration	2,200,000	7.1	2,600,000	6.5
Parking Garages	650,000	2.1	7,900,000	19.8
Wholesaling*	2,000,000	6.4	1,500,000	3.8
Trucking and Warehousing	1,300,000	4.2	1,100,000	2.8
Other Transportation	200,000	0.6	300,000	0.8
Communications and Utilities**	200,000	0.6	250,000	0.6
Manufacturing	3,500,000	11.2	3,000,000	7.5
Residential	3,800,000	12.2	2,500,000	6.3
Vacant Building Space	1,400,000	4.5	1,800,000	5.0
Total Building Space	31,200,000	100.0	40,000,000	100.0

Note: Details may not add to totals because of rounding.

Source: Table A-7 Appendix

*With stocks only.

**Operating facilities only.

manufacturer's branch offices; wholesalers without stocks; and other professional and business offices.

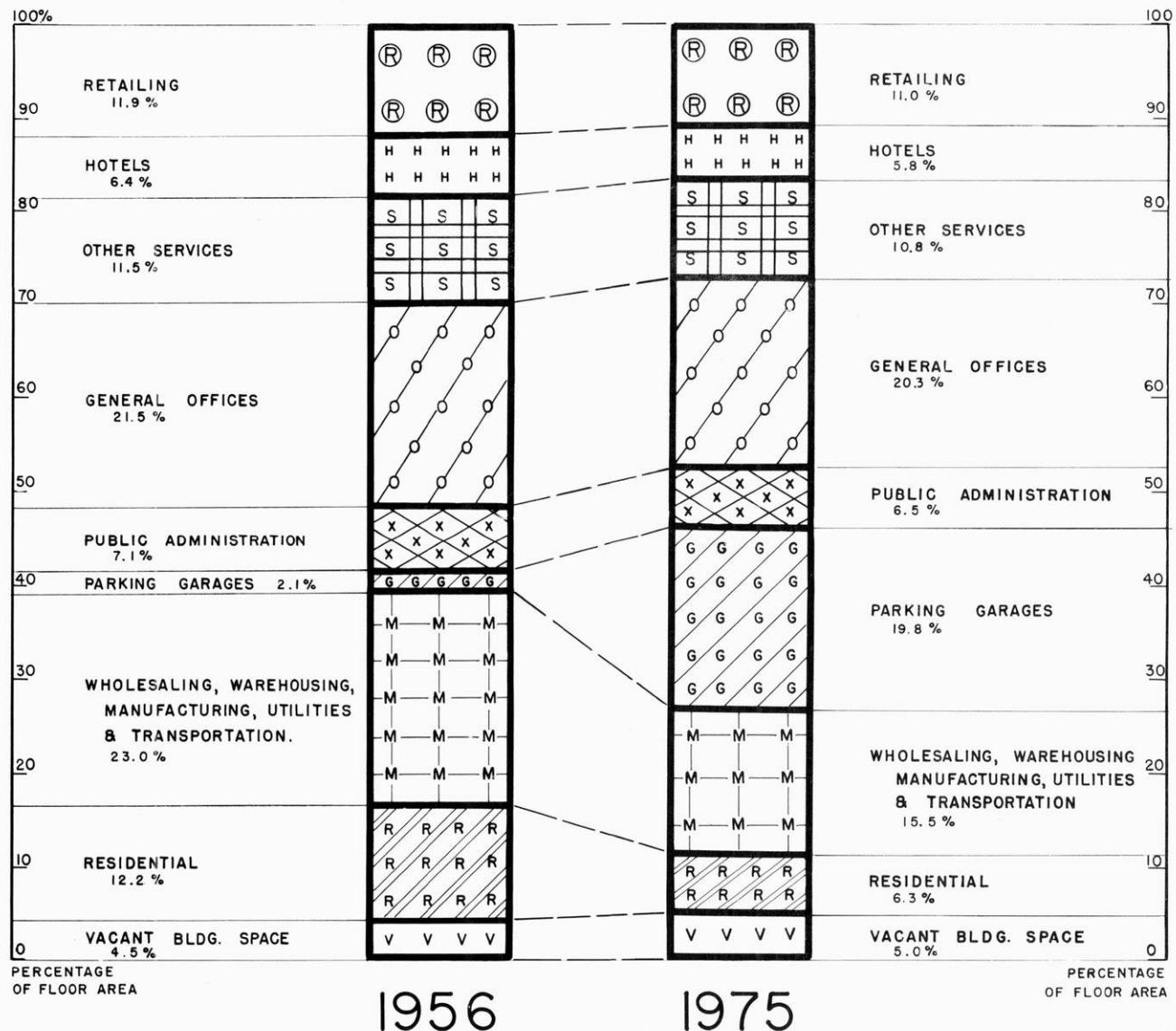
Retailing establishments occupy 12 per cent of all floor area; 3.7 million square feet. Hotels and other services occupy around 5.6 million square feet, or 18 per cent of the total. An additional 12 per cent houses manufacturing firms and communications and utilities (operating facilities). Twelve per cent of total floor area is used for residential purposes.

Federal, state, and local public administration accounts for 2.2 million square feet, or 7 per cent of the total. About 7 per cent of the building space falls in the transportation group, including parking garages, trucking and warehousing, and other transportation facilities (excluding railroad right-of-ways), and an additional 2 million square feet (6 per cent of the total) is used for wholesaling (with stocks).

Vacant floor space surveyed totals about 1.4 million square feet, 4.5 per cent of the total. This figure is probably somewhat conservative since only a small fraction of the floor area above the street floors was surveyed in detail in large office buildings.

Table 2 also shows the distribution of floor space in 1975. Total floor space is projected to around 40 million square feet, an over-all increase of 8.8 million square feet. In general, the plan provides for substantial floor area expansion in the retail, service, general office, public

CHART-2
PERCENTAGE DISTRIBUTION OF FLOOR AREA
IN PRINCIPAL BUILDINGS BY TYPE OF ACTIVITY
CENTRAL BUSINESS DISTRICT - MILWAUKEE, WISCONSIN
PERCENTAGE DISTRIBUTION 1956 AND ESTIMATES FOR 1975



* See Footnotes Table 2, Page 15, "Downtown Milwaukee 1975" May 1957

administration, and transportation groups. Residential, wholesale, manufacturing and warehousing space is reduced. The following is a more detailed discussion of the major elements of the land use plan.

Commercial Area. The major commercial activities in the central business district are concentrated along Wisconsin Avenue and adjacent streets, between N. 6th and N. Jefferson Streets. The 20 blocks in this area house more than 25 per cent of all floor area in the central district (See Exhibits EL-1 thru EL-8).

This area also contains about 55 per cent of all retail floor space, 50 per cent of all private office space, and 75 per cent of all hotel space in the central district.

It is proposed that development in this area continue along the existing pattern, including retailing, major office buildings, hotels, and theaters.

Substantial redevelopment for retailing purposes is proposed along Wells and Michigan Streets on the west side of the Milwaukee River.

The existing pattern of small surface parking lots will be eliminated from the major commercial area, releasing nearly 300,000 square feet of land area for commercial expansion. Additional spot clearance of structures housing residential, wholesaling, and manufacturing uses will release about 75,000 square feet of land area for retailing and service establishments, general office use, and open

space. (See Exhibits PL-1 and PL-2 and the model.)

Several new office buildings and hotels are proposed within this area. These new buildings are designed to meet higher standards of open space for light and air in order to reduce overcrowding of buildings. (See model and Exhibit PL-3.)

The most significant land use change in the commercial area relates to traffic facilities. It is proposed to increase the amount of land used for pedestrian ways from 386,000 square feet to 710,000 square feet by closing Wisconsin Avenue and portions of other streets to vehicular traffic and developing a pedestrian mall. Along the pedestrian mall, there will be sheltered areas, covered walks, open courts with small shops and eating places, exhibit areas, newspaper and magazine kiosks, and shade trees, shrubs, and flowers as illustrated on the model and in Exhibits S-1 thru S-5.

The development of a second story plaza will provide access to additional retailing area on the second floor. Escalators will lift the shoppers to the plaza.

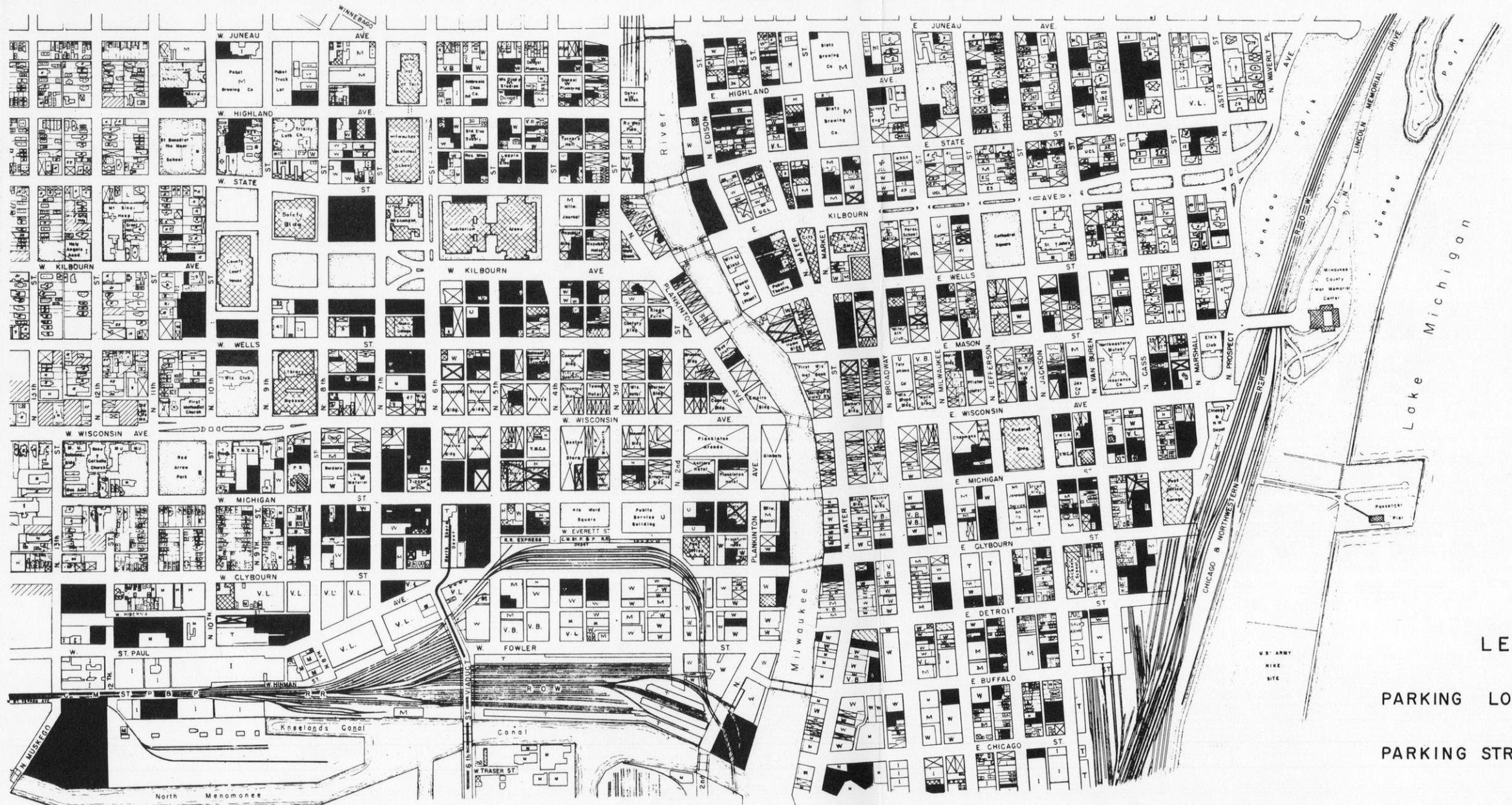
This device is used also to separate pedestrian and vehicular traffic at selected points along Wisconsin Avenue. Thus, the pedestrian will be able to conduct his business with greater speed, in complete safety, and in an atmosphere that is both interesting and esthetically satisfying.

Parking

Estimates of the number of vehicles entering the central district suggest a need for 27,500-32,500 parking spaces in 1975. (See Appendix for details.) The plan provides for about 30,000 spaces consolidated in major parking structures dispersed throughout the central district, as shown in Exhibit PL-8 attached.

The parking plan aims, first of all, at providing an adequate number of permanent parking spaces in the central district. Secondly, the attempt is made to locate these spaces on the basis of needs in the various subareas within the district so as to minimize walking distance and, at the same time, integrate the parking facilities with major street facilities in order to minimize traffic bottlenecks. Third, the consolidation of all parking in major structures will provide for a more efficient parking operation. Finally, street capacities will be substantially increased through the elimination of on-street parking and the elimination of small, inefficient parking lots will release valuable land needed for the expansion of other activities in the central district.

Wholesale and Manufacturing Area. Wholesaling, trucking and warehousing, manufacturing, and communications and utilities (operating facilities) currently occupy about 7.0 million square feet of floor space in the district. The plan provides for reducing total floor area for these



CENTRAL BUSINESS DISTRICT

MILWAUKEE WISCONSIN

EXISTING LAND USE

SHOWING

PARKING FACILITIES

BOARD OF PUBLIC LAND COMMISSIONERS
MILWAUKEE WISCONSIN

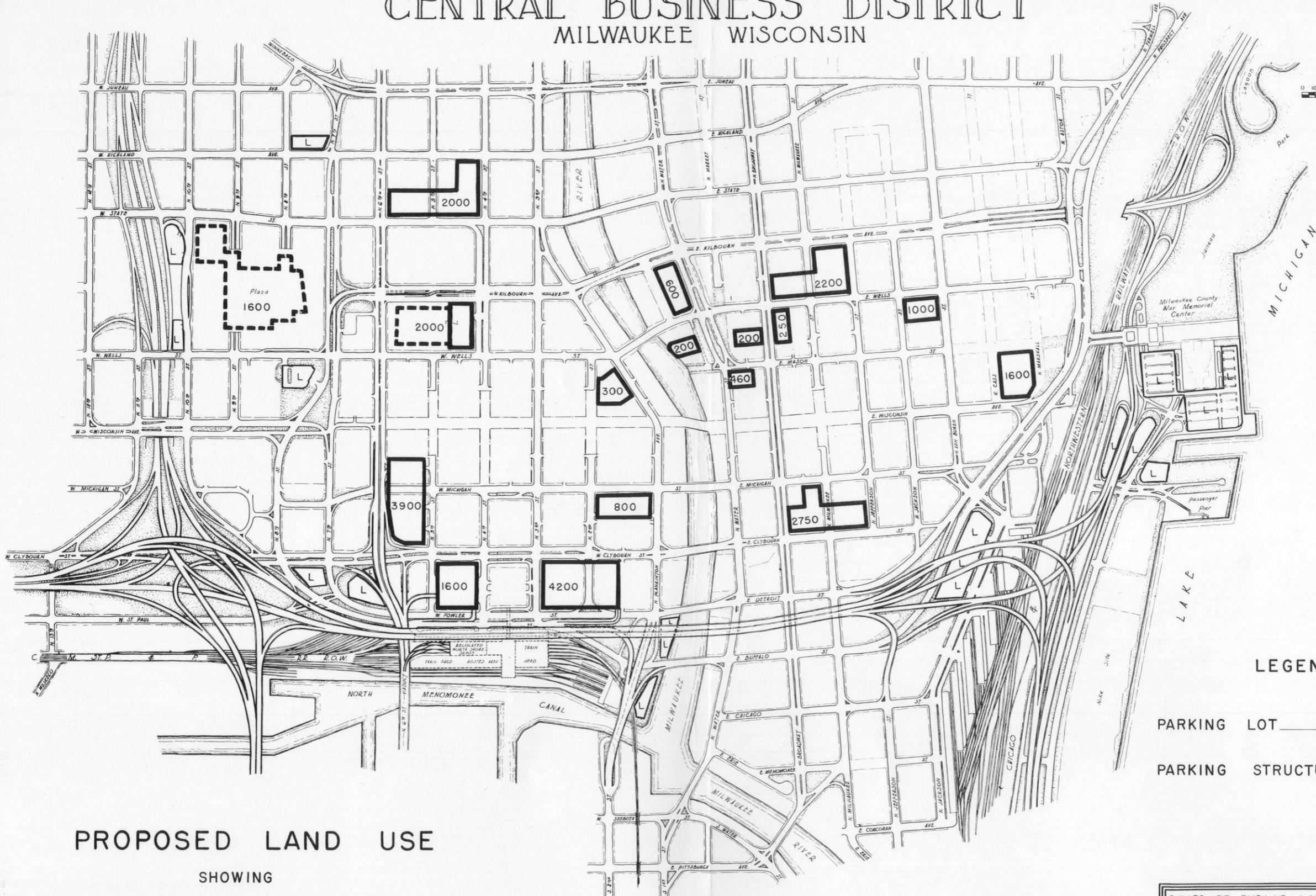
CITY PLANNING DIVISION
APRIL 1957 (SURVEYED DEC 1956) GP-4-57-2

PARTICIPATING STAFF
ADVANCE PLAN SECTION: V LUNG - J LABRI - A BARETA
H SCHWEIKERT - R FELBER - G LAABS
RESEARCH SECTION: R DUCHARME - K ALDRICH - R BECK

LU
EL-8

CENTRAL BUSINESS DISTRICT
MILWAUKEE WISCONSIN

SCALE IN FEET



PROPOSED LAND USE

SHOWING

PARKING FACILITIES

BOARD OF PUBLIC LAND COMMISSIONERS
MILWAUKEE WISCONSIN
CITY PLANNING DIVISION
APRIL - 1957 GP: 4 - 57-2

Participating Staff: V. LUNG, J. LADRIL, A. BARETA, H. SCHWEIKERT
R. FELBER, G. LAARS
Research Section: R. DUCHARME, K. ALDRICH, R. BECK

LU
PL-8

activities to around 5.9 million square feet by 1975. An increase of 200,000 square feet is planned in the district for printing, publishing, and related industries. Other activities will decline to make way for expressways, street improvements and the expansion of other activities.

In general, the plan attempts to get a better grouping of all of the remaining activities adjacent to major streets, expressways, and other transportation facilities. Many of the displaced activities may be relocated in the Lower Third Ward redevelopment area adjoining the central district on the southeast.

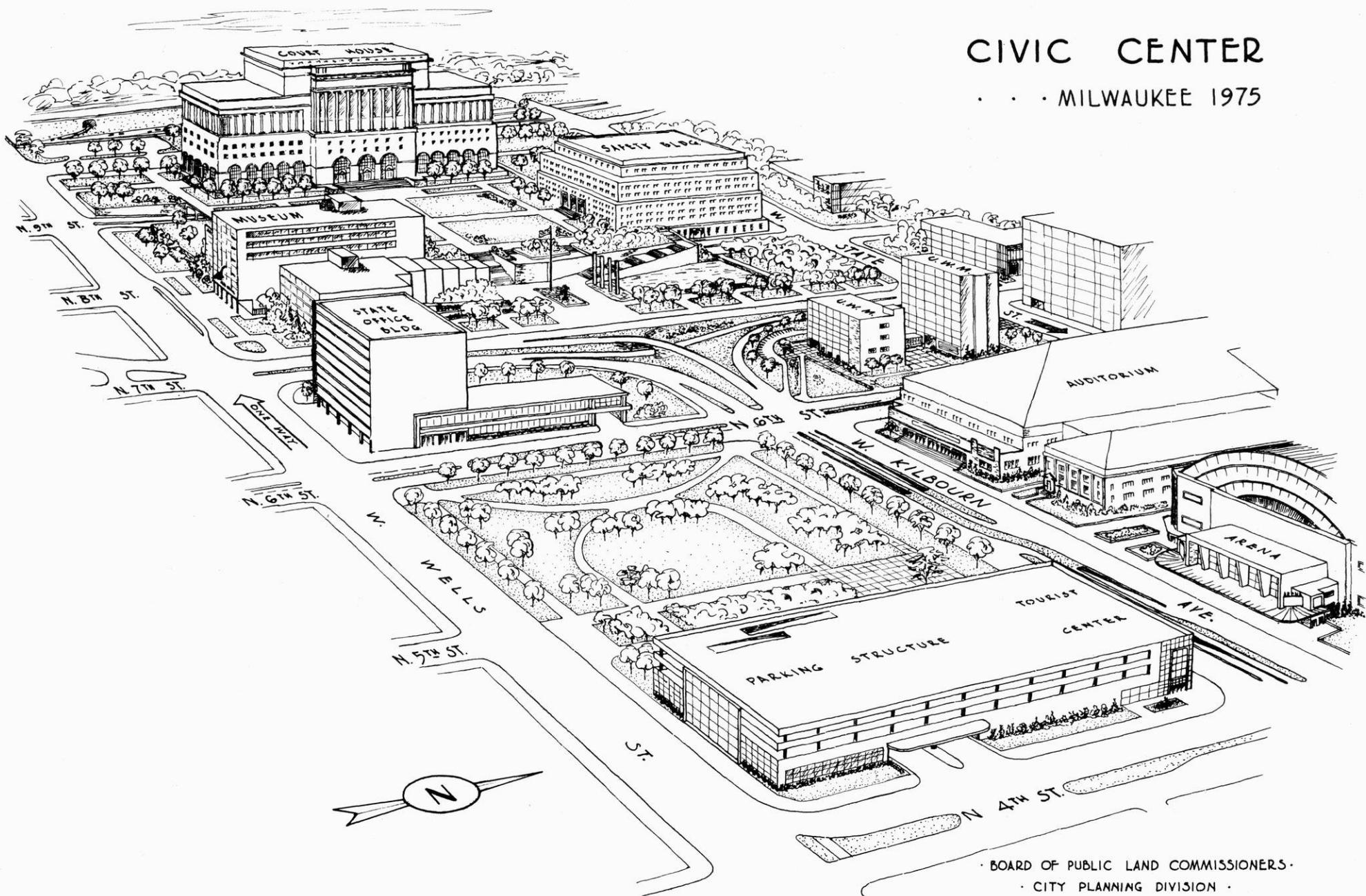
Public Administration. Federal, state, and local government agencies currently occupy around 2,200,000 square feet of floor space in the central district. Over-all needs have been projected to 2,600,000 square feet by 1975. (See Exhibits EL-4 and PL-4.)

Federal policy aims at consolidating all federal agencies in the Federal Building over the next few years. These agencies now lease approximately 130,000 square feet of office space in privately owned buildings in the central district. The post office itself will be housed in a new building, which will probably be located in the Lower Third Ward redevelopment area. The present Federal Building will be remodeled and expanded to accommodate other federal activities in the district.

State agencies currently occupy around 70,000 square feet of space at three principal locations in the central

CIVIC CENTER

MILWAUKEE 1975



BOARD OF PUBLIC LAND COMMISSIONERS
CITY PLANNING DIVISION
DRAWN: J. LABRIL - 1958

district. About 43,000 square feet is leased. The plan assumes all state agencies will be housed in a new state office building to be located in the Civic Center. Space currently occupied by the state in the Court House will be released for use by the county.

The new municipal office building now under construction will increase the total city-owned floor space available for municipal administration to around 725,000 square feet. This should be adequate to meet anticipated municipal space needs through 1975.

Civic Center. The plan incorporates the Civic Center plan previously adopted by the Board of Public Land Commissioners and approved by the Common Council.

Educational Facilities. Milwaukee's central business district contains three major educational institutions: the downtown campus of the University of Wisconsin-Milwaukee, the Milwaukee Vocational School, and the Milwaukee School of Engineering. The total floor area occupied by educational services is around 1.6 million including the library and museum. Total future requirements are expected to reach 2.0 million square feet.

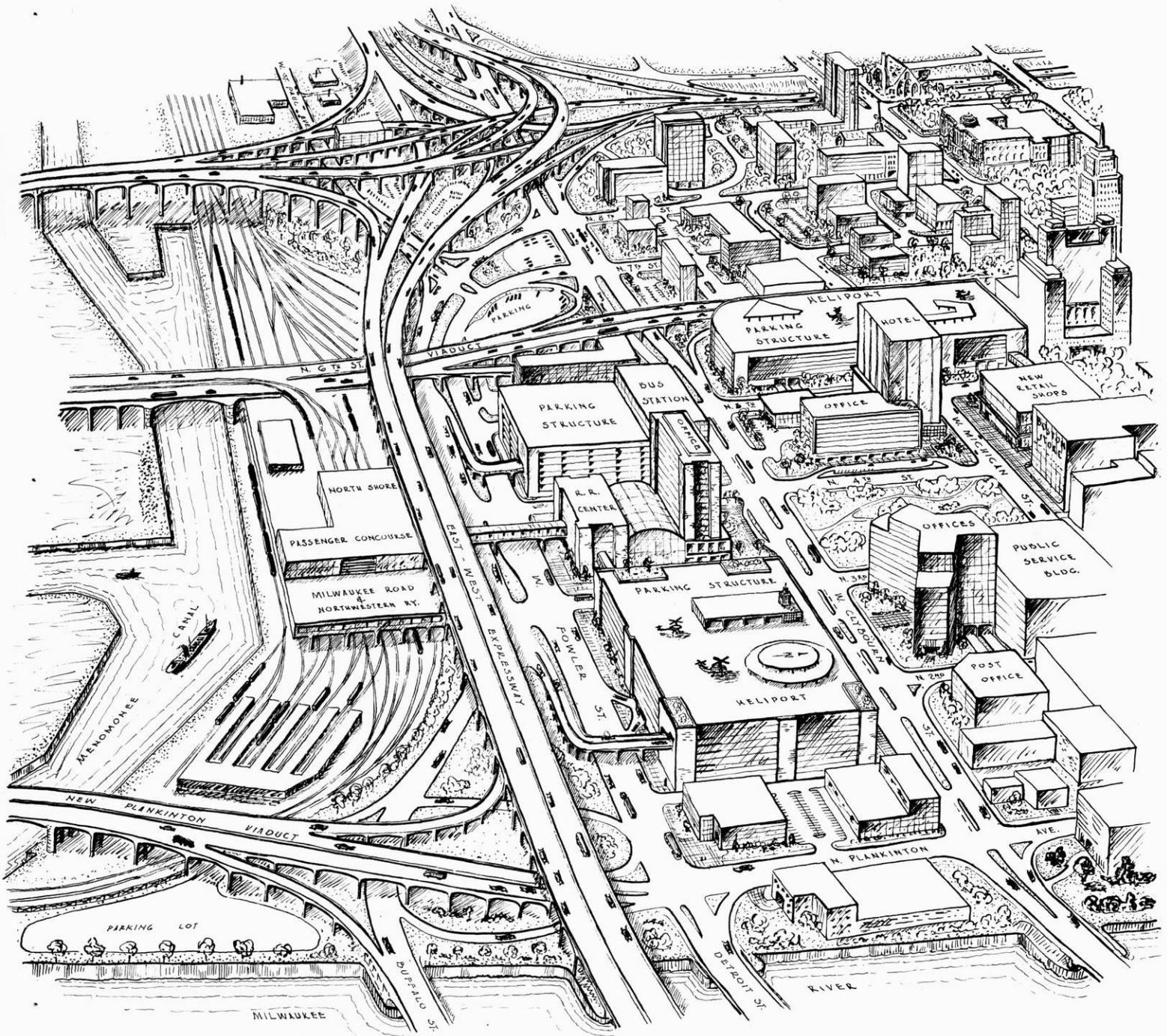
This figure includes a new museum with 260,000 square feet of floor area. The plan provides for expansion of the Vocational School to the west of the present site in the Civic Center area. No additional space is provided for the University.

Preliminary plans developed by the Milwaukee School of Engineering provide for development of a campus arrangement in the area of the present school site. The school currently occupies 63,210 square feet of land area and a total floor area of around 100,000 square feet. Current enrollment is around 3500 students. School officials anticipate that, by 1975, enrollment will increase around 100 per cent to around 7000 students. The proposal is to provide a campus for the school to accommodate needed classrooms, administrative offices, library, and other facilities. 1975 floor space needs are projected to around 325,000 square feet.

Transportation Center. One of the most important features of the plan is the provision for a consolidated transportation center in the central district. The plan incorporates a union railroad passenger station, an idea that has been under discussion since the 1920's. As shown in Exhibit PM-1 and on the model the proposed union depot will be located one block south of the existing Milwaukee Road station and will house all of the passenger facilities of the three railroads operating in the central business district.

A complete railroading center is contemplated including passenger and freight terminals and office space for railroad administrative offices. An overhead pedestrian bridge will connect the station with the loading concourse south of Fowler Street.

• TRANSPORTATION CENTER •
• DOWNTOWN MILWAUKEE • • • 1975 •



· BOARD OF PUBLIC LAND COMMISSIONERS ·

• CITY PLANNING DIVISION •

* DRAWN: J. LABRIL 1957

Provision is also made in the center for a bus terminal for long-haul carriers. Several major parking structures are also located adjacent to the center. Rooftops of some of these parking structures will be used as heliports providing access by air transportation to all parts of the region and to Mitchell Field.

The major benefits of a consolidated transportation center are obvious. In addition to providing a more efficient and economic arrangement for the railroads, the removal of the existing trackage on Clybourn Street would eliminate one of the major obstacles to an efficient traffic system in the central district. The plan is consistent with the overall development plan of the district; it provides much needed land for the expansion of other activities and it provides a more logical southern terminus for the district. An efficient and attractive transportation center will enhance land values and greatly improve access to and from the central business district.

Residential Area. The picture of existing and proposed residential land use is shown in Exhibits EL-7 and Pl-7 and on the model. Significant changes are proposed in the residential category. It is proposed to reduce the amount of land used for residential purposes in the central district to permit expansion of other facilities and activities.

The total land area of parcels now occupied for residential purposes (including residential and mixed uses) is 1.4 million square feet. Total floor area used for residential

purposes is about 3.8 million square feet, with about 1.3 million square feet in structures with 1-9 dwelling units, 1.8 million square feet in structures with 10 or more dwelling units, and 700,000 square feet in rooming and boarding houses and similar establishments.

It is contemplated that all of the land area currently used for 1-9 family structures and rooming and boarding facilities will be redeveloped for expressways, street improvements, the Civic Center, retailing, and other activities. The expressway system will displace approximately 500,000 square feet of residential floor area including 400 dwelling units. Street improvements, parking garages and the Civic Center will eliminate an additional 600,000 square feet and 550 dwelling units.

It is proposed that residential floor space be limited to about 2.5 million square feet, to be concentrated in large apartment buildings in the existing high-quality residential area in the northeast corner of the central district.

Open Space. Another important feature of the plan is the provision for more open space through building setbacks, courts, and additional park space. The Civic Center plan provides for considerable open space, including a new park in the vicinity of 6th Street and Kilbourn Avenue. The development of Wisconsin Avenue as a pedestrian mall with open courts, trees and shrubbery, and the like will add additional open space with a more parklike atmosphere.

Relocation of the Milwaukee Road will allow expansion of Pere Marquette Square (Fourth Ward Park). Additional open space is contemplated along the Milwaukee River, and new buildings are designed to provide setbacks and open court areas.

Traffic System Plan

AS is the case in most cities, Milwaukee's central business district is struggling with the problem of the motor vehicle. The street system is not adequate to handle existing traffic volumes. There are too many streets and bottleneck intersections.

Street capacities are substantially reduced by on-street parking, which is not only an inefficient use of street space but also creates many traffic hazards.

But the problem is not limited to deficient street capacities. There are many other contributing factors. Some of these factors relate to land use patterns in the central district. Small blocks with extremely high land use densities and conflicting land uses aggravate the traffic problem.

Many of the traffic problems in the central district can be traced to the conflict between various types of traffic. The conflict between pedestrians and vehicles at heavily travelled intersections creates constant traffic turmoil and a serious traffic hazard.

The conflict between mass transit busses and other vehicles works against the efficient movement of people and goods in the central district. The widespread practice of truck loading and unloading on the street adds further to traffic difficulties in the area.

One of the major obstacles to an efficient over-all traffic system in the central district is the railroad trackage on Clybourn Street. The conflict between street and rail traffic interferes constantly with the efficient movement of people and goods in the district.

Finally, the whole traffic problem in the central district is aggravated by the serious conflict between local traffic and through traffic. It is estimated that around 70 per cent of the vehicles entering the central district have destinations there and that the remaining 30 per cent are merely passing through the area. Over a twelve-hour period (7:00 A.M. to 7:00 P.M.) on a typical weekday approximately 140,000 autos and trucks enter the central business district. On the basis of the percentages shown above, 42,000 vehicles are through-traffic. If this traffic could be diverted around the central district, auto and truck traffic into the district would be reduced by 30 per cent to around 98,000 vehicles. This figure is 5,000 below the total daily number of autos and trucks entering the central business district in 1941.

All of these factors suggest the basic elements that must be incorporated in any plan for improving the traffic system in the central business district. In summary, the suggested plan outlined in this report is aimed at increasing street capacities through the establishment of a system of local streets, distributor streets, and major through streets,

the use of one-way street systems, improved intersections, street widening, and other devices. Street capacities will be further increased by the elimination of all on-street parking in the central business district.

Traffic conflicts will be minimized through a series of devices aimed at separating as much as possible the various types of traffic. The traffic plan and anticipated traffic volumes are shown in Exhibits PT-1 and PT-2. The major features of the traffic plan are discussed below.

Pedestrian Way The plan works toward the separation of vehicular and pedestrian traffic in those areas in which the two types of traffic come into greatest conflict. Wisconsin Avenue will be closed to all vehicular traffic (except emergency vehicles) from N. 6th Street to N. Jefferson Street and reserved for pedestrians.

N. 3rd Street, Plankinton Avenue, N. Water Street, N. Milwaukee Street, and N. Broadway will cross Wisconsin Avenue at grade. Second-floor plazas and pedestrian bridges are provided at these intersections to allow unhampered movement of pedestrians and vehicles.

Local Street System Flanking Wisconsin Pedestrian Way is the Wells (westbound) and Michigan (eastbound) one-way street system. Traffic on this system will be limited to slow moving vehicles and buses. One lane will be reserved for exclusive use by buses, and special bus loading areas will be provided. As the central district continues to

expand and develop, the area reserved for pedestrian traffic can be extended by removing vehicular traffic from Wells and Michigan Streets except for a few penetration points for mass transit and service trucks.

Other local streets limited to slow milling traffic include: Ninth and Tenth Streets around the County Court House area; Third Street (southbound) and Plankinton Avenue (northbound) one-way system; and Mason, Milwaukee, Jefferson and Jackson Streets on the east side. Local streets are shown on Exhibit PT-1.

Distributor Street System Kilbourn Avenue and Clybourn Street constitute the main links in the proposed distributor street system (See Exhibit PT-1). With the removal of the railroad trackage (see discussion under Land Use Plan) Clybourn Street can be widened to handle greater traffic volumes. The plan also calls for regrading between 5th and 8th Streets to allow a grade separation at the 6th Street intersection.

On Kilbourn Avenue, grade separation is proposed at 7th Street to allow for continuous north and south turning movements around the Civic Center Plaza. The Kilbourn Avenue interchange will have a tunnel connection with Lincoln Memorial Drive.

Van Buren Street and portion of North Third Street, Water Street and Juneau Avenue also form part of the distributor system. Van Buren Street is an important distributor street

since it provides direct access to points north of the central district via the Holton Street bridge. Widening would be desirable in the central district although the cost would probably be prohibitive at Wisconsin Avenue. It is proposed to increase the overall capacity by widening the pavement and by eliminating on-street parking.

North Water Street will be a limited through street on the east side. North of Kilbourn Avenue, it is designed as a distributor street and will carry traffic south to Kilbourn Avenue. Widening in this section, elimination of on-street parking, and proper intersection treatment at Kilbourn are necessary to increase its capacity. Only slow-moving traffic will be allowed to penetrate south of Kilbourn Avenue and from Mason to Michigan Streets, only mass transit vehicles will be permitted. South of Clybourn Street, it will again be a distributor street diverting south bound traffic.

Third Street is another distributor street penetrating to Kilbourn Avenue. South of Kilbourn Avenue it forms a part of the Third Street - Plankinton Avenue one-way loop system for slow moving vehicles. One lane will be reserved for mass transit vehicles. South of Clybourn, Plankinton Avenue will be a major southbound through street connecting with an interchange at Fowler Street and a new Plankinton Avenue viaduct over the railroad trackage serving the new Union Station.

Through Street System. This system is designed to carry high-speed traffic to and from the central district and to bypass through traffic around the district. As shown in Exhibits PT-1 and PT-2, the major components of the system are the expressway between 10th and 11th Streets on the west, the State Street and Highland Avenue one-way paired system on the north, Lincoln Memorial Drive on the east, and the Fowler and Detroit-Buffalo Streets one-way paired system and the east-west expressway viaduct on the south.

The plan incorporates the 11th Street expressway as proposed by the Expressway Commission. This facility will connect with the east-west expressway at a free-flowing interchange in the Clybourn Street area. The interchange is altered to allow eastbound traffic to channel into Fowler Street at grade. Fowler Street has been redesigned to carry larger volumes and provisions made for grade separations and channelization from 8th Street to the Milwaukee River. Ramps are provided leading directly into major parking structures located on the north side of the street.

Traffic on Fowler Street will cross the Milwaukee River on new bridges and channel into the Detroit-Buffalo one-way system. An interchange is provided to allow traffic to flow into a new diagonal street connecting with the Prospect-Farwell one-way system and the Outer Drive.

It will be noted that this plan proposes a major east-west expressway facility at grade in addition to a high-level viaduct to handle through traffic. It is proposed also that

the major east-west expressway facilities be moved one block south of the location proposed by the Expressway Commission in its preliminary plans. There are several reasons for the changes proposed.

The basic purpose of the expressway system in the central district is to improve access to and from the district. An at-grade system will allow a greater number of access points, thereby facilitating the flow of traffic into and out of the district. The at-grade facility also provides for maximum integration of the central district street system and the expressway system. In addition locating the expressway facilities south will free considerable land south of Clybourn Street for development as a transportation center and for parking and other facilities necessary for growth and development of the central district.

The development of the State Street-Highland Avenue one-way system is another important part of the central district traffic plan. Eastbound traffic will move on State Street. Westbound traffic will travel on E. Juneau Avenue to Highland Avenue via a new diagonal connection near Jefferson and Milwaukee Streets. A new Highland Avenue bridge is provided over the Milwaukee River. On- and off-ramps will connect the Highland-State system with the 11th Street expressway. A free-flowing interchange at this location would be more desirable and should be given serious consideration at a later date.

6th Street is one of the major through streets in the central district west of the Milwaukee River. It is proposed to widen the street to at least 110 feet so that it can carry a major portion of the traffic through in the central district. Grade separations are provided at Kilbourn Avenue and Wells, Michigan, Clybourn, and Fowler Streets.

Broadway is viewed as one of the major north-south through streets on the east side of the Milwaukee River. The present width of 100 feet is considered adequate. It should be noted however, that Broadway cannot become a major traffic facility until the serious bottlenecks are eliminated in the Commission Row area adjoining the central district on the south.

Mass Transit

The plan recognizes the vital importance of mass transit as one of the key elements in the transportation system of the central business district. Despite the long-term decrease in the relative importance of mass transit travel, around 250,000 persons still enter and leave the Milwaukee central business district in mass transit vehicles on an average weekday.

The plan aims at improving and encouraging mass transit travel in the central district through a number of devices. The increased street capacities resulting from general street improvements, the use of one-way streets, and the

elimination of on-street parking and loading will improve mass transit service in the central district.

In addition, separate bus lanes are provided on the Wells and Michigan Streets system and on the 3rd Street-Plankinton Avenue system. N. Milwaukee and N. Water Streets also have separate bus lanes and, from Mason to Michigan Streets, traffic on N. Water will be limited exclusively to mass transit vehicles. In order to minimize the conflict between mass transit and other vehicles and to speed up loading and unloading, provision is made for turn-out areas for transit vehicles at a number of locations. The proposed mass transit system is shown in Exhibit PT-3.

Service System

The separation of various types of traffic in the central district gives rise to the problem of developing an efficient means for servicing buildings in the area. Three possibilities were considered: an underground system involving an extensive system of tunnels; an overhead system; and a surface system. In the long run, due to the increase in activity and traffic in the central district, the underground and overhead systems will provide the only lasting solution to the problem since they remove all truck traffic from surface streets. Of the two, the underground system would appear more efficient and more desirable from an esthetic standpoint. Preliminary study indicates that a tunnel

system is engineeringly feasible, although the cost would be high due to subsoil conditions in the central district.

The proposed plan shows a surface service system. It is suggested that the possibility of an underground system be given serious consideration and examined more fully at a later date.

The service system as proposed is shown on Exhibit PT-4. In general, the plan makes use of alleys in providing access to buildings in the area. In some blocks, provision is made for servicing areas and, in some cases, joint loading facilities are contemplated. Central warehousing facilities are also suggested.

A P P E N D I X

APPENDIX

The material below outlines the methods and procedures used in making estimates of population, retail sales, motor vehicle registrations and floor area requirements for 1975.

The total time allowed for this project was approximately 6 months, with an additional 6 to 8 weeks for planning and organization. In view of the tremendous scope of the whole project it was impossible to employ the more widely accepted (and more time consuming) research and forecasting techniques. The techniques used here were selected mainly on the basis of expediency, with the ruling criterion being whether a technique could produce a reasonably acceptable estimate of what we might expect by 1975, within a relatively short time.

No claim is made to a high degree of accuracy. These estimates can only show the picture for 1975 in broad outline. It should be noted also that since most of the local estimates are related to estimates for the United States they implicitly involve the same assumptions underlying these estimates, i.e. high birth rates, high levels of employment, and the like. Implied also is the assumption that Milwaukee will share in the national gains to approximately the same extent that it has in the past.

Land Use Survey

The basic land use data for this study was compiled through a field check of all buildings in the central business district. The initial phase of the field survey, covering the area bounded by Juneau Avenue, Lake Michigan, Clybourn Street, and 11th Street, was conducted in December, 1956. In March, 1957, the survey was extended one block south to include the area bounded by Clybourn Street, the North Western Railway trackage, Detroit, Fowler, and Hinman Streets, and St. Paul Avenue and 13th Street.

Data was compiled on each establishment in as much detail as possible in the field and subsequently this information was grouped into land use categories, following, with some modifications, the U. S. Bureau of Census "Classified Index of Occupations and Industries."

Activities above the first floor were grouped under a special category called General Offices - Private, except

where the activity was readily identifiable from the street or from previous knowledge. The major activities in this group include physicians' and dentists' offices, law firms, advertising firms, manufacturers' branch offices, insurance offices, and the like.

Field data indicating the number of floors or fraction of a floor occupied by individual establishments was converted into floor area by scaling buildings as shown in the Sanborn Atlas.

1975 Population Estimates

1975 population estimates for the United States, the East North Central Region, Wisconsin, the 11-County and 4-County Trade Areas, and Milwaukee County are shown in Table A-1. United States estimates were developed by the U. S. Bureau of Census, in Current Population Reports, Series P-25, No. 123, "Revised Projections of the Population of the United States, By Age and Sex: 1960 to 1975" (October 1955). Estimates for other areas were derived on the basis of the "ratio method" from United States estimates.

The U. S. estimate used here is a weighted average of the AA and A estimates developed by the Bureau of Census. The AA estimate for 1975 of 228.5 million assumes 1954-55 fertility rates will remain constant through 1975, while the A estimate of 221.5 assumes 1950-53 fertility rates through 1975. The weighted average of the two estimates is around 224 million. In effect, we assume that the fertility rate through 1975 will continue at around the 1950-55 average.

1975 Retail Sales Estimates

Retail sales estimates for 1975 are shown in Tables A-2 and A-3. For Wisconsin and subareas, a ratio method was employed using U. S. estimates as a base. U. S. estimates for 1975 were related to Gross National Product (GNP), which was projected to 1975 on the basis of an average yearly increase of 3 per cent (the actual average annual increase over the past several decades, after adjustments for price changes).

TABLE A-1

Population for the United States
 East North Central Region, Wisconsin
 11-County Trade Area, 4-County Trade Area, Milwaukee County
 1900-1955 and Estimates 1955-1975
 (All data except percentages in millions)

<u>Year</u>	<u>United States</u>	<u>E.N.C. Region</u>		<u>Wisconsin</u>	
		<u>No.</u>	<u>% of U.S.</u>	<u>No.</u>	<u>% of E.N.C.</u>
1900	76.0	16.0	21.04	2.07	12.94
1910	92.0	18.3	19.84	2.33	12.79
1920	105.7	21.5	20.49	2.63	12.26
1930	122.8	25.3	20.58	2.94	11.62
1940	131.7	26.6	20.23	3.14	11.78
1950	150.7	30.4	20.16	3.43	11.30
1955	164.3	32.9	20.05	3.70	11.15
1960	178.3	35.7	20.00	3.90	11.00
1965	191.3	38.1	19.90	4.10	10.85
1970	206.2	40.8	19.80	4.40	10.70
1975	223.8	44.1	19.70	4.60	10.50
% Change					
1920-50	42.6	41.4		30.40	
% Change					
1950-75	48.5	45.1		34.10	

<u>Year</u>	<u>11-County Area *</u>		<u>4-County Area **</u>		<u>Milwaukee County</u>	
	<u>No.</u>	<u>% Wis.</u>	<u>No.</u>	<u>% 11-Co.</u>	<u>No.</u>	<u>% 4-Co.</u>
1900	.681	32.9	.405	59.5	.330	81.5
1910	.819	35.1	.511	62.4	.433	84.7
1920	.984	37.4	.624	63.4	.539	86.4
1930	1.226	41.7	.822	67.0	.725	88.2
1940	1.299	41.4	.877	67.5	.767	87.5
1950	1.490	43.4	1.014	68.1	.871	85.9
1955	1.600	44.0	1.100	68.5	.950	85.5
1960	1.750	44.5	1.200	69.0	1.020	85.0
1965	1.850	45.0	1.300	69.5	1.100	84.5
1970	2.000	45.5	1.400	70.0	1.180	84.0
1975	2.150	46.0	1.500	70.5	1.250	83.5
% Change						
1920-50	51.400		62.500		61.600	
% Change						
1950-75	44.300		47.900		43.500	

Source: 1900-50 from U. S. Census of Population. 1955 for U. S. E.N.C. Region, and Wis. from Bureau of Census Population Reports No. 145 (October 1956). U. S. 1960-75 from Population Reports No. 123 (October 1955). Estimates are weighted average of AA and A estimates. All other data estimated.

*11-County trade area includes counties of Fond du Lac, Sheboygan, Dodge, Washington, Ozaukee, Jefferson, Waukesha, Milwaukee, Walworth, Racine, and Kenosha.

**4-County trade area includes Washington, Ozaukee, Waukesha, and Milwaukee counties.

TABLE A-2

Gross National Product and Retail Sales
 For the United States, East North Central
 Region, Wisconsin, 11-County Trade Area, 4-County
 Trade Area, Milwaukee County, Milwaukee Central
 Business District
 1929-1954 and Estimates for 1975
 (1975 estimate in 1954 prices)

Year	G.N.P. (billions \$)	Retail Sales (in billions of \$)					
		United States Amt.	% G.N.P.	E.N.C. Amt.	Region % U.S.	Wisconsin Amt.	% E.N.C.
1929	104.4	48.3	46.3	11.1	23.0	1.2	11.0
1939	91.1	42.0	46.1	9.3	22.0	1.1	11.5
1948	257.3	130.5	50.7	28.9	22.1	3.2	11.2
1954	360.5	169.7	47.1	37.1	21.9	3.9	10.4
1975	700.0	325.0	47.0	68.0	21.0	6.8	10.0

Year	Retail Sales (in billions of \$)							
	11 Counties		4 Counties		Milwaukee Co.		Milw. C.B.D.	
	Amt.	% Wis.	Amt.	% 11-C.	Amt.	% 4-C.	Amt.	% M.C.
1929	.612	50.1	.430	70.2	.391	91.0	n.c.	----
1939	.506	47.6	.358	70.7	.325	90.7	.81	24.9
1948	1.512	46.6	1.046	69.2	.926	88.5	.193	20.9
1954	1.934	49.9	1.312	67.9	1.145	87.2	.190	16.7
1975	3.400	50.0	2.200	66.0	1.900	85.0	.285	15.0

Source: 1929-54 from U. S. Census of Retail Trade, and
 Statistical Abstract of the United States. Gross national
 product estimate for 1975 based on annual increase of 3
 per cent of actual real increase during the past 50 years.

The indicated GNP for 1975 is around \$700 billion or 94 per cent over the 1954 figure of \$361 billion.* U. S. retail sales are indicated at around \$325 billion for 1975 compared with \$170 billion in 1954, a 91 per cent increase. Retail sales in Milwaukee County are expected to increase around 67 per cent over the 1954 figure, from \$1.14 billion in 1954 to \$1.9 billion in 1975, while sales in the central business district have been projected at around 15 per cent of the county total to \$275-300 million (say, \$285 million) by 1975. This represents a 50 per cent increase over 1954 sales of \$190 million. Dollarwise, the increase in downtown sales is estimated at around \$95 million or around 12 per cent of the anticipated \$800 million increase in county sales. Per capita data on GNP and retail sales for the United States and Milwaukee County are shown below.

	<u>Amount</u>	<u>Index</u>	
	<u>1954</u>	<u>1975</u>	<u>1954</u>
			<u>1975</u>
<u>United States</u>			
Gross National Product per capita	\$2277	\$3125	100
Retail Sales per capita	\$1074	\$1451	100
<u>Milwaukee County</u>			
Retail Sales per capita	\$1224	\$1520	100
			125

An alternate estimate of retail sales was made for the 11-county trade area by developing an estimate of Effective Buying Income (EBI) and relating retail sales to this estimate. The relevant data are shown in Table A-3.

*GNP estimates for 1975 were developed for the Joint Committee on the (President's) Economic Report, in "Potential Economic Growth of the United States During the Next Decade" by the Committee staff (U. S. Government Printing Office, Washington 25, D. C., 1954). 1975 GNP is estimated at \$634 billion (in 1953 dollars). U. S. population is projected to 193 million indicating a GNP per capita of \$3,285 (in 1953 dollars). Assuming the same GNP per capita and a population of 224 million in 1975, the indicated GNP is around \$725 billion.

TABLE A-3

Gross National Product and Net Effective Buying Income
 And Retail Sales for 11-County Trade Area
 1948-1955 and Estimates for 1975
 (Data except percentages in billions \$)

<u>Year</u>	<u>G.N.P.</u>	<u>Net E.B.I.</u>		<u>Retail Sales</u>	
		<u>Amt.</u>	<u>% G.N.P.</u>	<u>Amt.</u>	<u>% G.N.P.</u>
1948	257.3	2.186	.0085	1.512	69.0
1954	360.5	2.923	.0081	1.934	66.0
1955	387.2	3.028	.0078	2.020	67.0
1975	700.0	5.300	.0075	3.400	65.0

Source: Gross national product data for 1948-55 from
 Statistical Abstract of United States. 1948-54 data on
 net effective buying income from Consumer Analysis published
 by the Milwaukee Journal. 1975 data estimated.

EBI is estimated at \$5.3 billion for the 11-county trade area. Indicated retail sales are around \$3.4-3.5 billion, which compares favorably with estimate shown in Table A-2.

1975 Motor Vehicle Estimates

1975 estimates of the number of automobiles in Milwaukee County are based on anticipated population and the expected number of households in the county. Relevant data are shown in Table A-4 and Table A-5.

Population per household has declined from 3.8 persons in 1930 to 3.34 persons in 1950. It is assumed that this figure will decrease to 3.2 persons in 1975 resulting in a total of around 370,000 households in the county in 1975.

An alternate estimate was developed by relating the increase in the number of households with the number of marriages performed in the county. (See check estimate Table A-4).

Analysis of marriages and births in Milwaukee County indicates that there is a fairly stable relationship between the number of marriages performed and the number of births 18 years previous. In recent years, the number of marriages has remained at around 60 per cent of the number of births 18 years previous.

On the basis of resident births in Milwaukee County over the period 1937-1957, the expected number of marriages performed from 1955 to 1975 is estimated at around 195,000.

Assuming that each 1000 marriages generate a net increase of 550 households (as was the case during the past 15 years), we can anticipate around 107,000 new households between 1955 and 1975. Adding the 29,000 households added (net) in the county from 1950 to 1955 gives a total net gain of 136,000 households between 1950 and 1975. This compares with a net gain of 121,000 households indicated above.

1975 estimates of the number of autos and trucks registered in Milwaukee County are shown in Table A-5. Recent trends in auto ownership by households in the Milwaukee area are shown in Table A-6. The number of autos is expected to reach 475,000 in 1975 compared with around 295,000 in 1955, an increase of around 61 per cent.

This estimate is based on an assumed increase in the number of autos per household from 0.96 in 1955 to 1.28 in

TABLE A-4

Population, Number of Households, and Population
 Per Household, Milwaukee County
 1930-1950 and Estimates 1955-1975

<u>Year</u>	<u>Total Population</u>	<u>Population In Households*</u>	<u>Population Per Household</u>	<u>Population Per Household</u>
1930	.725	.689 (95%)	3.80	177,300
1940	.767	.729 (95%)	3.50	209,680
1950	.871	.831 (95%)	3.34	249,230
1955	.950	.903 (95%)	3.31	273,000
1960	1.050	.975 (95%)	3.28	297,000
1965	1.100	1.037 (95%)	3.25	319,000
1970	1.200	1.111 (95%)	3.22	345,000
1975	1.250	1.188 (95%)	3.20	370,000

Source: 1930-50 data from U. S. Census of Population. 1955-75 estimated.

Check Estimate:

	<u>No. Marriages</u>	<u>Increase No. Households</u>
1940-50	83,113	39,550
1950-55	43,166	29,800
1940-55	126,279	69,350

Net increase in households, 55% of number of marriages over 1940-55 period.

Estimated number of marriages 1955-75 (based on 60% of resident births 1937-57)	195,000
Estimated net increase in households 1955-75 (based on 55% of number of marriages)	107,250
Increase in number of households 1950-54	29,000
Estimated increase in households 1950-75	136,250

TABLE A-5

Number of Households, Autos and Trucks Registered,
 And Autos Per Household, Milwaukee County
 1930-1955 and Estimates for 1975

<u>Year</u>	<u>Households*</u>	<u>Autos per Household</u>	<u>Autos Registered**</u>	<u>Trucks Registered***</u>
1930	177,300	.807	143,000	15,506 (1926)
1940	209,680	.768	161,100	19,979 (1942)
1950	249,230	.853	212,580	25,413 (1948)
1955	278,000	.959	266,700	28,673
1975	370,000	1.280	475,000	45,000

Source: Household data from Table A-4. Auto registrations for 1930-55 from Wisconsin Motor Vehicle Department. 1975 estimated.

*1930-50 as of April 1; 1955 as of January 1.

**1930 as of December 31, 1930; 1940-55 as of December 31 of preceding year.

***Fiscal year data reported by Wisconsin Motor Vehicle Department except 1926, which is calendar year figure.

TABLE A-6

Per Cent of Milwaukee County Households
 Reporting Auto Ownership
 1945-1957

<u>Year</u>	<u>Per Cent Reporting Auto Ownership</u>	<u>Per Cent Reporting Ownership Of 2-or-More Autos</u>
1937	63.3	2.01
1947	63.9	2.10 (1948)
1949	66.3	3.20
1951	76.5	4.30
1953	80.5	8.40
1955	85.5	11.20
1957	88.2	14.70

Source: Milwaukee Journal Consumer Analysis.

1975. Trucks will increase by around 55 per cent from 29,000 to 45,000 in 1975.

A check estimate is provided by comparing auto registrations in Milwaukee County with the United States total. In 1955, county registrations were around 0.6 per cent of the U. S. total. Auto ownership in the U. S. has been projected to around 80 million cars in 1975. On the assumption that Milwaukee County maintains the same ratio to the U. S. total, auto ownership in the county would project to around 480,000 cars in 1975.

1975 Floor Area Estimates

Floor area estimates for 1956 and 1975 are shown in Table A-7 along with the basis for 1975 estimates.

For most of the activities in the central district, it is assumed that 1975 floor space requirements will depend largely upon population in Milwaukee County and retail sales in the county and central business district and these factors have formed the basis for preliminary estimates. Preliminary estimates were then adjusted to allow for other factors, such as higher standards of open space; improved spatial organization of activities; historical trends in the expansion and contraction of specific types of activities in the central district; and the displacement of activities by expressways, street improvements, and other public facilities.

Floor space requirements for Eating and Drinking places, Retailing - All Other retail and Personal Services (excluding hotels) are related to the amount of space used by Retailing - Primary and office activities.

Estimates for Entertainment and Recreation services, Educational services, and Public Administration reflect present plans for expansion of these facilities.

Floor space requirements for Gas Retailing and Auto Repairing are related to the number of vehicles entering the central district. It is assumed that new gas service facilities will be housed in proposed new parking structures. Parking garage space is based on anticipated peak accumulation of autos in the central district (see discussion below).

Residential, wholesaling, trucking and warehousing, and manufacturing uses are considered as residual uses in the sense that 1975 floor area estimates are related more to what can be

TABLE A-7

Land Use, Central Business District
 Milwaukee, Wisconsin - Floor Area
 In Principal Buildings by Type of Activity
 1956 and Estimates for 1975

<u>Type of Activity</u>	<u>Floor Area (Sq. Ft.)</u>		<u>Basis for 1975 Estimates</u>
	<u>1956</u>	<u>1975</u>	
1. Retailing - Primary ¹	1,150,000	1,400,000	50% increase sales
2. Department Stores	1,050,000	1,300,000	50% increase sales
3. Eating & Drinking Places ²	500,000	600,000	42 sq. ft. per 1000 sq. ft. in groups 1, 2, 5, 12, 13, 14
4. Gas Service & Auto Repair	200,000	250,000	2000 sq. ft. auto repair space per 1000 vehicles entering CBD 7 AM-3 PM less 100,000 sq. ft. to be displaced (new gas service in parking garage)
5. Retailing - All Other	800,000	850,000	60 sq. ft. per 1000 sq. ft. in groups 1, 2, 5, 12, 13, 14
6. All Retailing	3,700,000	4,400,000	Sum of individual estimates
7. Hotels ²	2,000,000	2,300,000	44% increase 11-county
8. Other Personal Services	200,000	250,000	17 sq. ft. per 1000 sq. ft. in groups 1, 2, 5, 12, 13, 14
9. Entertainment & Recreation Services ³	500,000	700,000	Add new War Memorial building and music hall
10. Educational Services ⁴	1,600,000	2,000,000	Add new Museum and expansion planned for Milwaukee School of Engineering and Vocational School less 150,000 sq. ft. to be displaced

TABLE A-7

(Cont'd)

<u>Type of Activity</u>	<u>Floor Area (Sq. Ft.)</u>		<u>Basis for 1975 Estimates</u>
	<u>1956</u>	<u>1975</u>	
11. Welfare, Religious & Non-Profit Membership Organization	1,300,000	1,400,000	44% increase Milwaukee County population, 1950-75
12. Finance, Insurance & Real Estate	1,300,000	1,600,000	44% increase 11- county population, 1950-75
13. General Offices - Private ⁵	5,400,000	6,500,000	44% increase 11- county population, 1950-75
14. Public Administration	2,250,000	2,600,000	Remodel Federal Bldg: 100,000 sq. ft. New State Office Bldg: 150,000 sq. ft. New City Hall Annex: 190,000 sq. ft. less space displaced
15. Wholesaling (with stocks)	2,000,000	1,500,000	500,000 sq. ft. dis- placed by other facilities
16. Parking Garages	650,000	7,900,000	1975 parking needs: 30,000 spaces
17. Trucking & Warehousing	1,300,000	1,100,000	200,000 sq. ft. dis- placed by other facilities
18. All Other Transportation	200,000	300,000	New Union Station
19. Communications & Utilities (operating facilities)	200,000	250,000	44% increase 11- county population, 1950-75
20. Manufacturing - Printing - Publishing ⁶	700,000	900,000	Publishing: 160 sq. ft. per 1000 population in 11-county area Printing: 40 sq. ft. per 1000 retail and office space

TABLE A-7

(Concl'd)

<u>Type of Activity</u>	<u>Floor Area (Sq. Ft.)</u>		<u>Basis for 1975 Estimates</u>
	<u>1956</u>	<u>1975</u>	
21. Manufacturing - Breweries	1,100,000	1,100,000	No change in C.B.D.
22. Manufacturing - All Other	1,650,000	1,000,000	650,000 sq. ft. displaced by other facilities
23. All Manufacturing	3,450,000	3,000,000	Sum of individual estimates
24. Residential - 1-9 Family	1,250,000	---	To be eliminated from C.B.D.
25. Residential - 10-or-More Family	1,800,000	2,500,000	As planned
26. Residential - All Other	700,000	---	To be eliminated from C.B.D.
27. All Residential	3,750,000	2,500,000	Sum of individual estimates
28. Vacant Floor Space	1,400,000	1,800,000	5% of total
29. Total	31,200,000	40,000,000	Sum of individual estimates

Note: Details may not add to total due to rounding.

¹Includes furniture and home furnishings stores, appliance stores, auto and auto parts retailing.

²Hotel bars, cocktail lounges, restaurants, coffee shops, etc. included in Eating & Drinking Places.

³Includes municipal Auditorium and Arena.

⁴Includes Public Library and Museum; excludes Board of School Directors.

⁵Includes all activities above the first floor not readily identifiable from the street or from previous knowledge. Also includes construction firm offices, business services and medical services.

⁶Includes U. S. Census industrial category Printing, Publishing and Allied Industries; Blue Printing and similar services are also included.

accommodated than to what will be needed. In general, it is anticipated that these activities will decline in the central district to make way for expansion of other activities and the improvement of traffic and other facilities. Certain types of activities within these groups, such as printing and publishing are expected to expand.

1975 Parking Estimates

It is not the purpose here to provide precise estimates of future parking space requirements in the central district but rather to give a general picture of future needs. Further research employing more refined techniques will be needed in order to refine these estimates.

Parking needs in the central district are related to the peak number of autos accumulated in the district on a typical weekday.

Separate estimates are provided for long-term and short-term parking needs. The combined figures provide an estimate of anticipated total parking needs in the central district in 1975.

It is assumed that long-term parking needs are related to the number of persons employed in the central district and reflected in the number of autos accumulated at 9:00 A.M.

The number of vehicles accumulated at 9:00 A.M. is related to the number of autos and trucks entering the central district from 7:00 A.M. to 9:00 A.M. Traffic entering the central district is related to the number of autos and trucks registered in Milwaukee County.

The number of autos and trucks in Milwaukee County has been projected to 520,000 for 1975. It is estimated (Table A-8) that 155,000 vehicles or about 30 per cent of the total will enter the central district between 7:00 A.M. and 3:00 P.M. on a typical weekday. Thirty-seven per cent of the 8 hour total or 57,000 vehicles will enter between 7:00 A.M. and 9:00 A.M.

It is expected that around 41 per cent of the 57,000 vehicles will accumulate in the central district for an indicated total of 22,000 vehicles. (See Table 10).

Short-term parking needs are related to the maximum number of vehicles accumulated in the central district after 9:00 A.M. Periodic traffic counts made by the Bureau of Traffic

TABLE A-8

Autos and Trucks Registered in Milwaukee
 County and Autos and Trucks Entering
 Central Business District, Typical
 Weekday, 7 AM-3 PM - 1926-1954
 and Estimates for 1975

<u>Autos & Trucks Registered.</u>	<u>Autos-Trucks Entering Central District</u>	<u>Ratio Entering To Registrations</u>
1926 124,652	47,814	.384
1936 183,741	62,890	.342
1941 197,998	69,989	.353
1945 179,748	56,039	.312
1948 222,674	66,419	.298
1952 279,512	79,672	.285
1954 299,056	84,025	.281
1975 520,000	155,000	.300

Source: Registrations from Table A-5. Autos & trucks entering CBD 1926-1954 from Bureau Traffic Engineering & Electrical Services; 1975 estimated.

TABLE A-9

Autos-Trucks Entering
 Central Business District
 7 AM-9 AM and 9 AM-3 PM
 1926-54 and Estimates for 1975

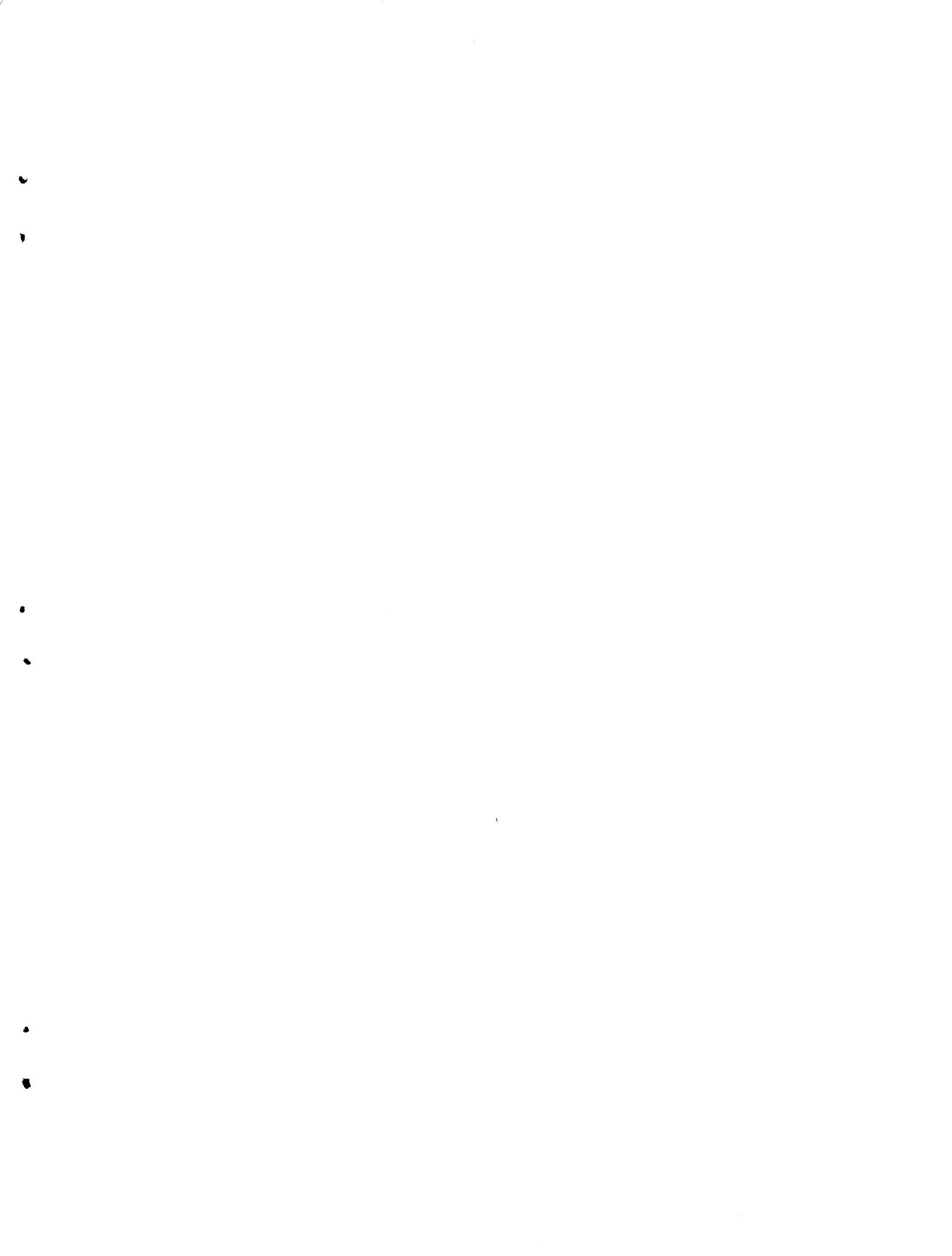
<u>Autos-Trucks Entering 7AM - 3PM</u>	<u>Autos-Trucks Entering</u>		<u>Autos-Trucks Enterin</u>	
	<u>7 AM - 9 AM</u>	<u>9 AM - 3 PM</u>	<u>7 AM - 9 AM</u>	<u>9 AM - 3 PM</u>
	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>
1926 47,814	13,593	28.4	34,221	71.6
1936 62,890	19,073	30.3	43,817	69.7
1941 69,989	22,974	32.8	47,015	67.2
1945 56,039	15,454	27.6	40,585	72.4
1948 66,419	19,430	29.3	46,989	70.7
1952 79,672	25,817	32.4	53,855	67.6
1954 84,025	28,906	34.4	55,119	65.6
1975 155,000	57,000	36.5	98,000	63.5

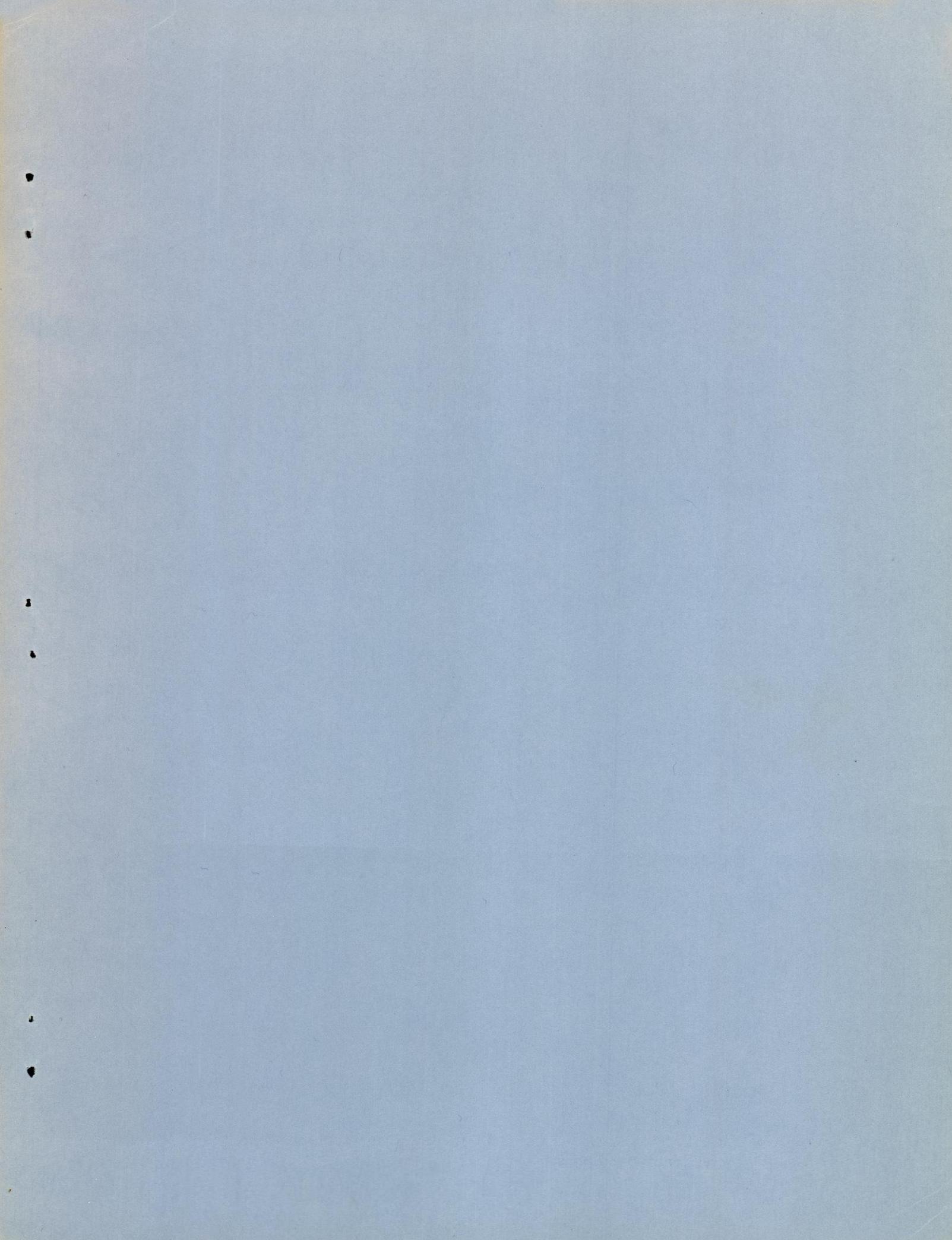
Source: 1926-54 from Traffic counts by Bureau of Traffic Engineering and Electrical Services; 1975 estimated.

Engineering and Electrical Services show that during an average weekday the number of autos and trucks accumulated in the central district typically reaches a peak between 2:00 P.M. and 3:00 P.M. Peak accumulation is here related to the number of autos and trucks entering the central district from 9:00 A.M. to 3:00 P.M.

On the basis of 520,000 autos and trucks registered, 9:00 A.M. to 3:00 P.M. traffic volumes to the central district are estimated at 98,000 vehicles for 1975. (See Table A-9). The indicated peak accumulation is 8.75 per cent of this figure or 8,600 vehicles. (See Table A-11).

The combined estimates for both periods indicate a peak total daily accumulation of around 31,000 vehicles. This figure is based on data for a typical weekday and some allowance should be made for non-typical days when traffic volumes are larger. On the other hand, the gross accumulation figure includes trucks and "milling" traffic and downward adjustment should be made to account for these factors. For present purposes, it can be assumed that the net change does not affect the total significantly. Total net accumulation, then can be estimated at around 31,000 autos, indicating an over-all parking need of 27,500-32,500 parking spaces by 1975. The plan provides for around 30,000 spaces, most of which are located in large, permanent parking structures dispersed throughout the central district.





DOWNTOWN IS THE ECONOMIC, SOCIAL, CULTURAL, AND GOVERNMENTAL CENTER OF ONE OF THE NATION'S LARGEST CONCENTRATIONS OF POPULATIONS AND INDUSTRY.

- downtown supplies 10 per cent of the city's property taxes.
- 1500 buildings with 31,200,000 square feet of floor area.
- shoppers spend 200,000,000 dollars a year in the 790 retail shops.
- 350,000 people and 200,000 vehicles enter the area every day.
- 90,000 people are employed in the downtown area.

BASIC LAND USE AND STREET PATTERNS WERE ESTABLISHED DURING THE DAYS OF THE HORSE AND BUGGY. THE OVERALL PICTURE IS ONE OF OVERCONGESTION, INEFFICIENCY, AND DRABNESS.

- small, intensely developed blocks with a mixture of retailing, wholesaling, services, manufacturing, and residences.
- inadequate parking on small, poorly located lots.
- inadequate street widths, made more inadequate by on-street parking and loading.
- conflicts between pedestrians, autos, buses, trucks, and trains, which create a constant traffic hazard and turmoil.

DOWNTOWN MUST PLAN AND GROW WITH MILWAUKEE COUNTY. BY 1975, THERE WILL BE 250,000 MORE PEOPLE AND 220,000 MORE MOTOR VEHICLES IN THE COUNTY. IF DOWNTOWN IS TO REACH ITS GREATEST POTENTIAL, IT MUST BE REDESIGNED TO MEET THE STANDARDS OF A MODERN, MOTORIZED AGE. THE FOLLOWING PLANS PROVIDE FOR: —

- adequate off-street parking. 30,000 parking spaces in large multi-level structures.
- a wisconsin pedestrian way from 6th street to jefferson street without interference from motor vehicles.
- an attractive downtown area with more open spaces and courts etc.
- connections with the expressway system. rerouting through traffic.
- improved traffic circulation.
- improved mass transit service.
- a consolidated transportation center.
- better organization of commercial, industrial, and residential activities.
- an attractive civic center for government, cultural, and recreational buildings.