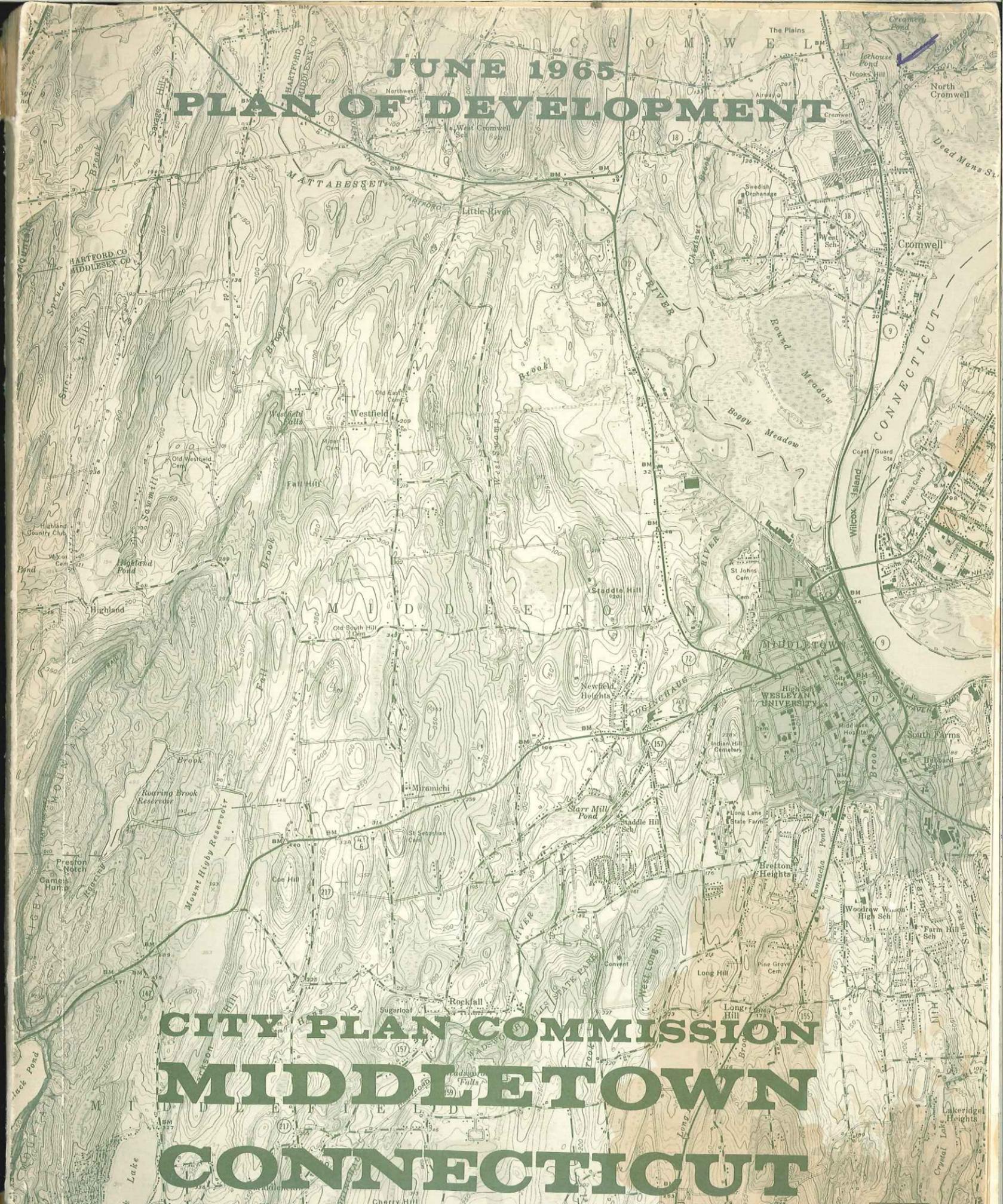


JUNE 1965
PLAN OF DEVELOPMENT



CITY PLAN COMMISSION
MIDDLETOWN
CONNECTICUT

**MIDDLETOWN
CONNECTICUT**

THE PLAN OF DEVELOPMENT

Adopted June 14, 1965
Effective July 1, 1965

MIDDLETOWN CITY PLAN COMMISSION

John J. Higgins, Chairman
Carmelo J. Mazzotta, Jr., Vice Chairman
I. Robert Traverse, Secretary
George J. Achenbach
Edward F. Button

Honorable Kenneth J. Dooley, Mayor
Ex Officio

Alternates:

Frederick W. Atkins
Joseph W. Masselli
Joseph P. Otfinoski

B. Ralph Gustafson, City Planner

Technical Planning Associates
Consultants
New Haven, Connecticut

The preparation of this report was financially aided through a Federal grant from the Urban Renewal Administration of the Housing and Home Finance Agency, under the urban planning assistance program authorized by Section 701 of the Housing Act of 1954, as amended, under the supervision of the Connecticut Development Commission.

CONTENTS

Chapter		Page
	Why a General Plan?	i
	Action Program	ii
1	The General Plan	1
2	Population Projections as a Basis for Planning	9
3	Middletown's Land	15
4	Economic Background for the Plan	20
5	Population Distribution by Neighborhoods	26
6	The Long-Range School Facilities Program	30
7	Recreation	45
8	Water Supply and Sanitary Sewerage	52
9	The Circulation Plan	55
10	Implementation of the Plan:	60
	The Capital Improvement Plan	60
	Zoning	64

LIST OF MAPS

	<u>Following</u> <u>Page</u>
I Midstate Region	ii
II Topography & Drainage	14
III Existing Land Use	18
IV Neighborhoods	26
V Schools & Recreation	44
VI Water Supply	52
VII Sanitary Sewerage	54
VIII General Plan	66
IX General Plan: Central Area	66

In September, 1963, the Middletown City Plan and Zoning Commission arranged through the Connecticut Development Commission for federal assistance in a program for the preparation of a Plan of Development for the City. Technical Planning Associates, of New Haven, were selected as consultants, to work in collaboration with the City Plan staff, under the direction of B. Ralph Gustafsson, City Planner.

The Commission and its staff had previously prepared and adopted an "interim" plan, which in many respects laid the groundwork for today's product. Work on the program of the last two years was divided between the City Plan office and the consultants. In general, the city planner and his staff have carried on much of the field research and have maintained contact with the other city departments. The preparation of the present maps and report was done by the consultants. Today's Plan is the result of more than a year and a half of study and discussion by members of the original City Plan and Zoning Commission and of its successor, the present City Plan Commission, as well as the work of the consultants and the City Plan staff. In September, 1964, a preliminary draft of the General Plan was published and distributed to interested citizens. The final Plan follows very closely the pattern set by the preliminary version. The consultants, the city planner and commission members have appeared at numerous meetings of civic and other organizations and the work has been well publicized by the local press.

Members of the former City Plan and Zoning Commission who are not now on the present Commission include former Mayor John S. Roth, William P. Spear, Helene B. Warner, Selectman J. Passanesi, Nathan Shapiro and alternate members William A. Anderson and Robert Steinle.

The consultants take this opportunity to express their thanks for the cooperation and assistance of all of the commission members, the city planner, Mayor Dooley and former Mayor Roth and to many other officials and residents whom space does not permit us to mention here.

TECHNICAL PLANNING ASSOCIATES

562-2181

WHY A GENERAL PLAN?

Many cities like Middletown today are at a very critical point, when pressures for expansion and growth are so strong. Will the community pursue an orderly program of development and renewal to retain its economic balance? Will it control its growth to insure the most efficient and beneficial development of land? Will it strive to improve its appearance and its desirability as a place in which to live and do business? Or will it allow its approaches to be nothing more than a hodge-podge of hot dog stands and neon lights, while its central area stagnates in decaying buildings?

Today's conditions are very different from those at the time when Middletown's older areas were developed. And the next century will see even greater changes. People have more leisure time than they had and the trend is towards shorter working hours. This means more time for recreation, more time for the home. Modern living and the automobile are resulting in a spread of development over wider areas; urban sprawl threatens to absorb most of the rural countryside. Whether Middletown can guide its growth so as to provide good living for its people and at the same time retain the best of its natural assets, will depend on the success of today's planning.

The objectives of the Plan are to provide:

A community with a sound economic base.

Good environment for living for the 65,000 people who may be expected to live here by the year 2000, or sooner.

The amenities which make for good living: Adequate open space, good schools and recreation facilities, good services.

A flexibility so that development can take place by stages over many years and so that the Plan could take care of a higher or a lower population than projected, if the need later arises.

The aspect of the community under this Plan shows:

A strong downtown, the setting for retail businesses and services, offices, public buildings, facilities for transients, as well as housing for those who wish to live in an urban center, on a splendid site bordering the Connecticut River.

Residential neighborhood communities, each of limited size, providing housing of different kinds: Garden apartments and town houses in some areas, suburban and rural houses in others.

Industrial and commercial areas, including industrial parks close to transportation routes.

Open areas including parks, playgrounds, large institutions, and other reservations.

ACTION PROGRAM

Redevelopment of downtown area as the growing central business district needed by the future Middletown with retail, office, transient and in-town residence facilities. Carry out high priority urban renewal project. Put pressure on State to complete expressway system: Route 6A at least as far as Middletown; Route 9 with interchanges shown on Plan.

See pages 3, 22 and Map IX

Establishment and promotion of industrial areas for new and expanded industries of the future Middletown. Make an outstanding industrial park of area along west side of Interstate 91. Install sanitary sewers and water supply in this and other industrial areas of Plan. Put pressure on State for interchange of I-91 at Country Club Road. Keep up continuing promotional activities.

See pages 5, 53, 58 and Map VIII

Land acquisition program for continuing action to secure land to meet the needs of the future Middletown. Adopt long-range school facilities program, and acquire needed sites before all land is developed. Continue studies of recreation facilities and plan for early acquisition of needed land. Coordinate recreation facilities with school program. Also, coordinate recreation needs with land required for drainage and conservation.

See Chapters 6 and 7 and page 62

Long-range capital improvement program to plan for financing of the projects needed by the future Middletown. Sanitary sewerage: Extensions especially in north and west sections. Water supply: Increased supply, modernization and extension of mains. Highways: A continuing program for improvements, including new thoroughfares. Schools, parks, etc.

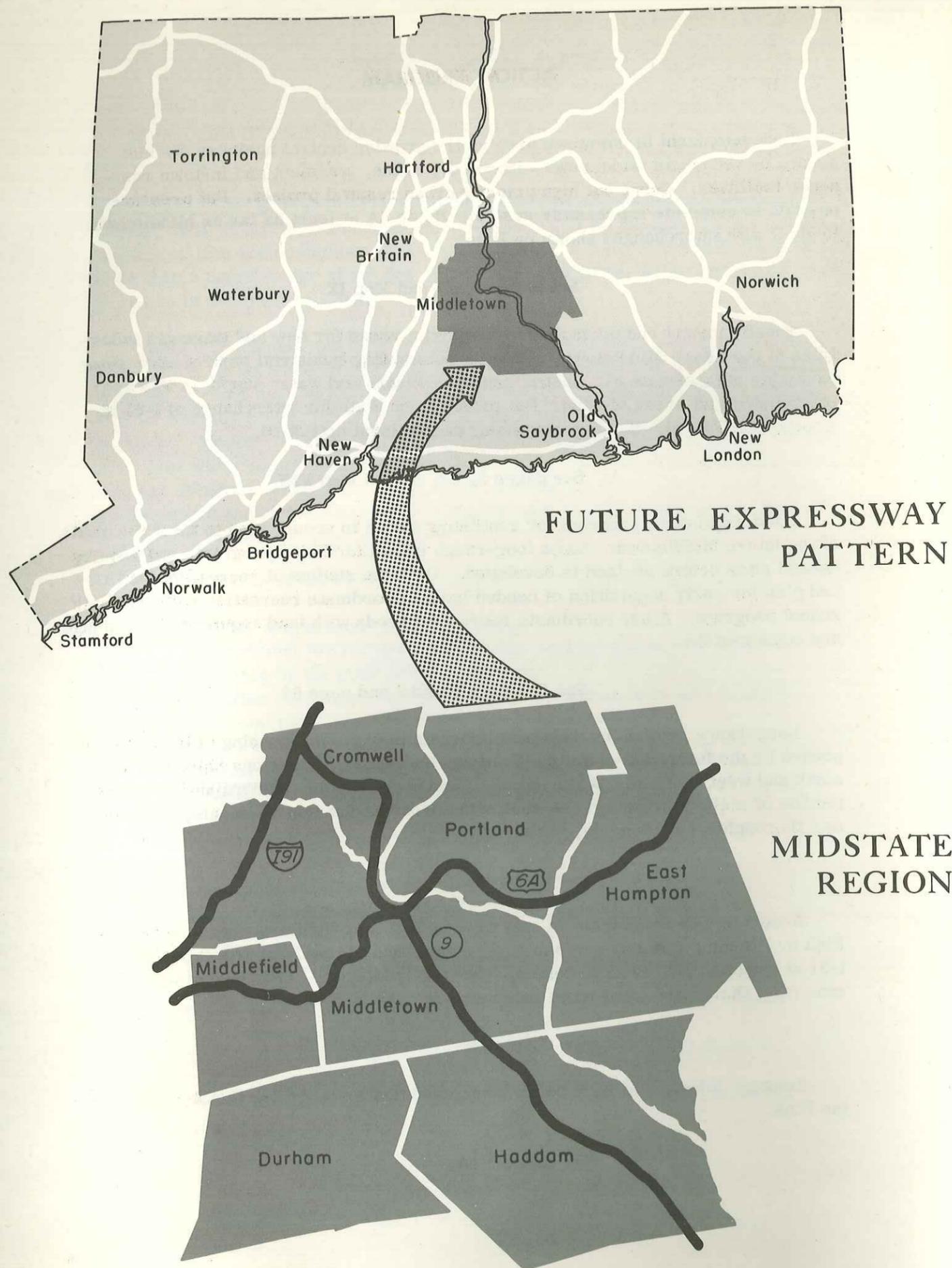
See Chapter 10

Accurate layout of rights-of-way of principal thoroughfares shown on General Plan by Planning Commission and early acquisition of land. Thoroughfare from I-91 at Country Club Road to center. Central "ring road", coordinated with urban renewal. Outer circumferential thoroughfare.

See Chapter 9

Zoning: Adoption of revised ordinance and map to carry out the objectives of the Plan.

See Chapter 10



1. THE GENERAL PLAN

PURPOSE OF THE PLAN OF DEVELOPMENT

Communities grow because of a combination of public and private activities. Private initiative is responsible for building stores and factories and homes and for carrying on the business ventures by which the community earns its living. Public action by the City, and sometimes by the State or Federal Government, provides the streets and highways, establishes parks, builds schools, installs sewers and water mains and in general assures the physical environment and facilities with which the community can function. The purpose of the Plan is to record the best thinking of the community as a whole about its future physical development. Some of the objectives of the Plan may be accomplished promptly and therefore need immediate consideration. Others are long range, to be put into effect at some future date. Therefore, the Plan must constantly be reviewed by city officials and interested citizens and brought up to date at frequent intervals.

The general statutes direct the Planning Commission to "prepare, adopt and amend a Plan of Development." This Plan is to show the Commission's recommendations for future use of land, for types and densities of residential development in various areas, for proposed streets, for parks and playgrounds, and for the general location of public buildings and utilities. The law requires that the Plan be based on studies of "physical, social, economic and governmental conditions and trends... to promote with the greatest efficiency and economy the coordinated development of the municipality." Another provision of the law requires that all proposals involving the location, acceptance or abandonment of streets or the location of a park, playground, school or other municipal building or public utility or public housing or redevelopment must be submitted to the Planning Commission for its advice before any action is taken. If the proposal is disapproved by the Planning Commission, it can only be adopted by a two-thirds vote of the City Council.

MIDDLETOWN AND THE EXPRESSWAY SYSTEM

Middletown is appropriately named since it lies in the geographical center of Connecticut. It is and always has been a crossroads town. Its location on the Connecticut River once made it the largest community in Connecticut. River traffic and later the railroads gave it importance as a trading and manufacturing center. The pattern of its future development has now, to a considerable degree, been set by the State's overall plan for a comprehensive expressway system. When this is completed in this area, within another decade, Middletown will lie on three of the most important arteries. A more complete discussion of the highway pattern is included in Chapter 9.

The Interstate Route 91 crosses the City somewhat west of the center and is presently under construction. Route 9 is the north-south thoroughfare of the lower

Connecticut Valley and will shortly be reconstructed both north and south of Middletown as an expressway. The present Route US 6A is an east-west main highway running across the State, although at present it follows a circuitous route and passes through numerous towns. It is now being relocated and rebuilt in Meriden, where it has an interchange with both Route I-91 and the Wilbur Cross Parkway. Eventually it will be rebuilt through Middletown as an east-west expressway.

These expressways will make Middletown easily accessible to all parts of the State and to principal points of the New England-New York seaboard area. This will place the City in a strategic position to attract new industries and distributive enterprises. Branch offices of large-scale concerns wishing to cover the Connecticut territory will find this a very central location.

Similarly, the highway system will encourage the growth of the neighboring towns of the Valley, to whom Middletown is a metropolitan center. This in turn can mean a substantial growth in the retail segment of the City's economy. Another factor which will be helped by better highway access is the evident growth of Wesleyan University. Expansion of its many activities beyond its undergraduate field will bring more people to Middletown and consequently create a demand for more commercial services.

BASIC PRINCIPLES OF THE PLAN

What kind of a community are we planning for? How big will Middletown be? Population trends of both City and region are discussed in the next chapter, with the conclusion that Middletown should plan today for an ultimate population of around 65,000 people. Connecticut is now one of the fastest growing states in the east. The Midstate Region, comprising Middletown and its six surrounding towns, is growing at a slightly faster rate than the State as a whole. Although Middletown has shown a relatively slow growth in recent times, its strategic location and the land and facilities which it has to offer point to a considerable increase over the next few decades.

Middletown has many desirable characteristics as a place in which to live: ample open spaces, scenic beauty, pleasant residential neighborhoods, little congestion or overcrowding. In addition to its own sources of employment, many other centers of work opportunities are being placed within easy reach by the many highway improvements now existing or in prospect. To preserve Middletown's amenities and the characteristics which make it so desirable, the future development should follow a pattern of relatively low density, with plenty of open space, similar to its present aspect. The plan has been developed with these factors in mind.

A community's existence rests basically on its economic opportunities. Middletown benefits especially from three sources: its industries, its retail trade and the income brought in by its institutions, especially Wesleyan. The economic background for planning is treated more fully in Chapter 4. A fourth economic opportunity is also mentioned, namely the potential attraction of the City's location on the expressway system for distributing businesses and for sales headquarters or branch offices of concerns whose activities cover the whole State.

The general plan for the whole city area is contained on Map VIII. This map shows the areas allocated for industrial use, as more fully described on page 5. Because of the importance of the central part of Middletown in the community's economic development, special study has been given to the central business district and the surrounding areas, including the blocks between the principal business area and the Wesleyan campus west of High Street. This detailed plan is contained in Map IX.

URBAN RENEWAL AND MIDDLETOWN CENTER

Wesleyan University has expressed the intention to carry out an extensive program of expansion of its physical plant. At the same time the City has been conducting a thorough study of urban renewal under the Community Renewal Program.* Current provisions of federal legislation covering urban renewal (Section 112 of the Housing Act) provide that the City may receive as a credit towards its share of the cost of a renewal project the amount of certain expenditures made by a college, university or hospital for acquisition of land for expansion if it is within or near the renewal project. Much of the expenditures which Wesleyan has been making and appears likely to make are eligible for this credit. The Community Renewal Report just cited gives preliminary figures to indicate that Middletown could undertake a very extensive renewal program in the central business district at little or no cost to the taxpayers because of these potential credits. This makes it practical to carry out a much more far reaching plan for the area than would otherwise be possible.

The chief attributes of a good downtown area plan are:

1. Easy access, which in Middletown means primarily vehicular access from all parts of the City and surrounding region.
2. Ample and convenient parking facilities.
3. Convenient pedestrian ways within the area and its several parts, which means that component parts, such as the retail complex or the administrative center, should be compactly planned so as to reduce as much as possible the distances a person must walk.

Regional access to Middletown's "CBD" will be principally by way of one or another of the expressways. These arteries and other thoroughfares are more fully discussed in Chapter 9 under Circulation. Route 9, the principal north-south artery of the Valley, traverses the eastern edge of the central district. As explained in Chapter 9, the completion of Route 9 as an expressway will mean the elimination of all local traffic on Acheson Drive. Therefore, this plan provides for improvements to DeKoven Drive as a local thoroughfare. The location of the proposed Route

*See "Middletown's Community Renewal Program, A Summary" and other reports of Raymond and May Associates, consultants to the Middletown Redevelopment Agency.

6A expressway is placed as close to the central area as possible, since it will also serve as a connector from Interstate Route 91 and much of the traffic which it will bring to Middletown will be destined for the "CBD." The Plan also provides for a principal thoroughfare connecting the industrial and residential areas in the northwestern part of the City, as well as Route I-91, with the center. Other important thoroughfares leading to the center are Washington Street, South Main Street, Main Street Extension and the Portland Bridge.

The volume of traffic coming into the "CBD" will increase as the City and the center grow. At present most of it funnels into Main Street, which at the same time contains the principal commercial center. With the heavy investment in retail facilities on Main Street, where four-fifths of the business of the City in the general merchandise, apparel and kindred categories is done, it is evident that Main Street should remain as the business center. A further discussion of the present and potential volume of retail business is contained in Chapter 4. Middletown's retail center must achieve the characteristics of a modern regional shopping center, with adequate parking and good pedestrian facilities. This it can only do if Main Street is relieved of its heavy traffic and becomes primarily a facility for parking and access to stores and other buildings and a way which can be easily crossed by pedestrians.

In order to accomplish this and to provide for future traffic, the Plan provides for a ring road around the entire center, picking up traffic from all of the approaches and feeding it into convenient parking facilities.

The portion of the ring road south of Washington Street can largely be accomplished as part of the first priority urban renewal project. On the east it follows an improved DeKoven Drive, on the south the existing expressway connector to South Main Street and on the west a widened Pearl Street and its extension to Hubbard Street. Here it will mark the division between the "CBD" and Wesleyan University. Expansion of activities by Wesleyan will result in a considerable increase in traffic to some of its proposed installations, which can well be served by the ring road.

Map IX illustrates the Plan for the central area. It shows that retail business would be concentrated along Main Street, largely between Washington Street and Church Street. Near the Union Street end there is room for one or more motor hotels. Along Broad Street and between Broad and Pearl Streets there are good locations for office buildings and also for one or two motor hotels and restaurants. The Plan indicates a number of existing buildings, both commercial and public or institutional, which may be expected to remain.

South of Union Park the hospital occupies a large plot and is likely to need more room. The entire area between South Main Street and Main Street Extension will form a superblock, with hospital, professional offices and probably some apartment buildings. East of Main Street Extension and south of Union Street there is another superblock which is indicated for redevelopment as part of the first priority project. This is suitable for housing of various types and could also include offices along Main Street Extension.

The blocks within the ring road north of Washington Street lie within the second priority area proposed for redevelopment in the Community Renewal Program. Redevelopment of this area will facilitate the completion of the north part of the ring road. Land here will be available for future expansion of retail business and for office buildings, as well as for various types of housing.

Map IX illustrates the kind of urban design which should guide the redevelopment of the central district. It shows how buildings can be placed to give the amount of retail and office space which will meet the anticipated future needs as discussed in Chapter 4, along with required space for parking. The map shows how open vistas can be maintained to the Connecticut River and its waterfront.

COMMERCIAL DEVELOPMENT

Although the most important segment of Middletown's commercial activity will continue to be located in the central business district which has been discussed above, there are other areas which the Plan allocates to business uses. These are shown on Map VIII. From the discussion in Chapter 4 and the summary of anticipated future retail expansion in Table 7, we see that virtually all of the expansion in the automotive business and in lumber, building materials, and similar lines will take place in outlying locations outside the "CBD."

The principal areas which will fill these needs are the outer Washington Street business area and the South Main Street area southward to the Randolph Road vicinity. The Plan also indicates two areas between Saybrook Road and the new Route 9 expressway, one immediately south of their intersection and the other at the interchange with the connecting road to the Canel property. When the proposed local thoroughfare to the Westfield area and its interchange with Route I-91 are completed, there will be a potential area for commercial development at the interchange, as shown on Map VIII.

These outlying business areas should be regulated to require adequate setbacks from the street, a low density type of development, proper driveway access, adequate off-street parking space and a properly landscaped strip along the road. Regulations of this type should be included in the City's zoning.

INDUSTRIAL DEVELOPMENT

One of Middletown's greatest assets is the existence of a large area of gently rolling land along Interstate Route 91, chiefly on its west side which is very attractive for large-scale industrial development. Here concerns which want substantial sites can find locations where they can have plenty of space with excellent traffic connections. They will enjoy the publicity value of a site along a major highway which has attracted so many establishments to comparable locations, such as Route 128 in the Boston area.

There is one other type of industrial development which has already taken place in the southeastern section of Middletown. The U. S. Government's Canel operation occupies several hundred acres of rugged land and a similar parcel is owned by the Hartford Electric Light Company. The latter is occupied in part by a power plant, but the greater part is still underdeveloped. Another plot of similar size has been considered as the site for another large-scale utility operation. Therefore, the Plan designates this entire area for specialized development of this type of industrial use.

The center of Middletown contains a number of old industrial plants, many of which are greatly hampered by lack of space and by obsolete structures. In order to compete in the future, many of these establishments will be forced to seek larger sites and modern structures. Therefore, the Plan provides for the eventual elimination of industrial uses within and adjacent to the central district, except for the area lying along North Main Street and the old Berlin Branch of the railroad. This latter area can be expanded, especially to take care of smaller plants which do not require the large plots to be found in outlying districts.

Areas near the corner of Saybrook Road and East Main Street now contain one large and several small industrial plants. These are old buildings, faced with the problems of obsolescence of structure and of inadequate space. We believe that these industrial enterprises will eventually move to other locations. This area is therefore designated for housing and for limited business use.

RESIDENTIAL DEVELOPMENT

The General Plan, Map VIII shows the proposals for residential development. Portions of the City within which most of the future population will be found appear on Map IV, eliminating land unsuitable for development and land planned for non-residential uses. These portions constitute the future residential neighborhoods and are the basis of all planning for residential development and for facilities which serve the residential areas. Neighborhood delineation was carefully studied and the neighborhoods were established with boundaries based on major traffic arteries, topographical features, institutional reservations or in some cases historical tradition. These are more fully described in Chapter 5.

Types of proposed residential development will vary from urban to rural within the city limits. Outlying land within Residential Neighborhoods B, F, G, M and N includes areas more remote from city services and having desirable characteristics for rural homes. This should be developed at neighborhood gross density of not more than one family for every two acres. After making allowances for new roads, schools, clubs, playgrounds and similar auxiliary facilities, this would mean minimum lot areas of at least one acre and in some areas probably two acres.

The greatest part of the Middletown area is planned for a suburban development along the lines of much of the newer housing. The density will vary in a range from

one to two families per acre on a gross neighborhood basis. The corresponding minimum lot area should be from 15,000 to 30,000 square feet, which agrees closely with much of the present use. It will probably be developed almost entirely in single family housing.

In the older parts of the City an urban density exists, although there is little actual crowding. The proposed gross future density of neighborhoods devoted to residential use is from three to eight families per acre, although in certain parcels with adequate facilities for open space, the net density might rise to 16 families to the acre. New developments in these areas will consist mostly of multifamily projects.

A fourth type of housing is shown on the General Plan, designated as "Low Density Multifamily." This is indicated in outlying areas where clusters of housing are appropriate at a somewhat higher density than the surrounding suburban areas. These clusters may contain row-house or so-called "town-house" developments and garden apartment projects as well as single family dwellings. The average gross density in these areas should not exceed six families to the acre.

One of these areas is located along the Connecticut River below the central district. Although it is near a proposed expressway interchange, the area contains several good sites for high rise apartment buildings with splendid views of the river.

OTHER FEATURES OF THE PLAN

Map VIII shows how facilities proposed for park developments and conservation areas fit into the General Plan. These elements and more detailed plans for school and recreation facilities are discussed in Chapters 6 and 7 and are shown on Map V.

The relationship between the proposed uses of land and the requirements for public water supply and sanitary sewerage is discussed in Chapter 8. Map VI shows the present extent of the City's water distribution system and indicates the areas which are at too high an elevation to be reached without additional pumping equipment. Map VII similarly shows the topographic limits for extension of the present sanitary sewerage system. Areas beyond these limits slope away from the present trunk lines and treatment plants. To serve them will require new installations as described more fully in Chapter 8.

The Land Use Plan is based on coordinating the development of the land with extension and enlargement of the present sanitary sewerage system within its topographic limits and with the installation of a new system to serve the areas draining into the Mattabesset Valley. The Plan is also based on concentrating as much of the development as possible within the topographic limits of the present water supply system.

The General Plan must also provide the necessary facilities for traffic movements in all parts of the City. In addition to the expressways and arteries mentioned previously in this chapter, the Plan shows how some of the present highways and some new streets can gradually be developed to form a system of thoroughfares and "collector streets" to handle the volume of automobile traffic which the growth of the community will generate. This is more fully described in Chapter 9.

Middletown at present has no facilities for public transportation other than bus service on public highways, although rail passenger service is available at Meriden. Bradley Field, north of Hartford, has commercial air service to all important points. Completion of the Route 9 expressway and Route I-91 will reduce the time of travel from the center of Middletown to Bradley Field to about thirty minutes, less than the time required from the centers of many large cities to their airports. The future of air shuttle service by helicopter or some other form of aircraft is not certain at the present time. It may be that Middletown may need facilities for such service in the future. A "heliport" requires relatively little room. In connection with the redevelopment of the North Main Street area, it would be possible to provide space for a helicopter terminal, which would be close to the center. Filled land near the Mattabesset River would serve the purpose.

There has been discussion in the past of an airport in Middletown. The state and federal authorities have given consideration to such a project and have included a "general aviation airport" in Middletown in the long-range state airport plan. It would have a 3,500 ft. runway. If the City should decide to follow up this project, it could probably get federal assistance to the extent of 50 per cent of the cost of land and runways and state assistance for another 25 per cent.

In view of the nearness to Brainerd Field in the south end of Hartford, it is questionable whether a field in Middletown would warrant the necessary expenditure by the City. Further studies of this matter may be made if there should be evidence of enough potential patronage to make it financially attractive.

2. POPULATION PROJECTIONS AS A BASIS FOR PLANNING

It is obvious that plans for all phases of future development must be geared to the future size of the community. How many people will there be for whom provisions must be made for housing, for job opportunities, for shopping, recreation, schools and other facilities? A study of population trends described below concludes that today's planning for Middletown should be based on a "target population" of 65,000 residents and that this will be reached about 1990 or 2000.

REGIONAL TRENDS

When the center of Middletown was incorporated as a city at the close of the Revolution, it had approximately the same population as Hartford, New Haven, New London, Norwalk and Stonington. These were the largest communities in Connecticut and all were located on the only major transportation routes, the navigable waters. Middletown was, and still is, the "middle town" of the State. Industrial development in New Haven and Hartford outstripped that of Middletown; the principal railroad lines bypassed it. But today's development is chiefly one of decentralization. The older centers are largely built up. Growth is spreading outward and new facilities for transportation are again changing the patterns of development.

Middletown has long been the central city of the middle and lower Connecticut Valley. It has provided the business, professional and service center for that area. Until 20 or 30 years ago, the neighboring towns were small rural places, and Middletown itself contained the largest proportion of the Region's population and business activities. As in all comparable regions, the outlying towns have been picking up in the last two or three decades. They have been accounting for a large share of the growth everywhere.

The towns most closely related to Middletown are those which border it on the north, east and south. For several years the Connecticut Development Commission has been making studies of the various economic regions of the state. Middletown and its neighboring communities have been appropriately designated as the "Midstate Region." The City and the six adjacent towns in this Region constitute Middletown's primary trading area and "area of influence." The communities of the Region are, to a considerable extent, interdependent. Growth and development of each will depend on the growth of the whole.

Table 1 shows the trends of population in these communities in the past two decades. Comparison of census figures in Middletown for 1940 and subsequent years is complicated by the fact that, prior to 1950, the residents of institutions were counted as part of the population of their own towns. In the 1950 and 1960 censuses, these persons are included in the population of the city or town in which the institution is located. Thus, for Middletown, the 1940 census gives the actual number of residents of the City, excluding residents of other places who happened

to be at the State Hospital, Long Lane Farm or Wesleyan University. But the 1950 and 1960 census figures for Middletown include approximately 4,000 persons in these institutions, who are not properly part of the residential population of the community.

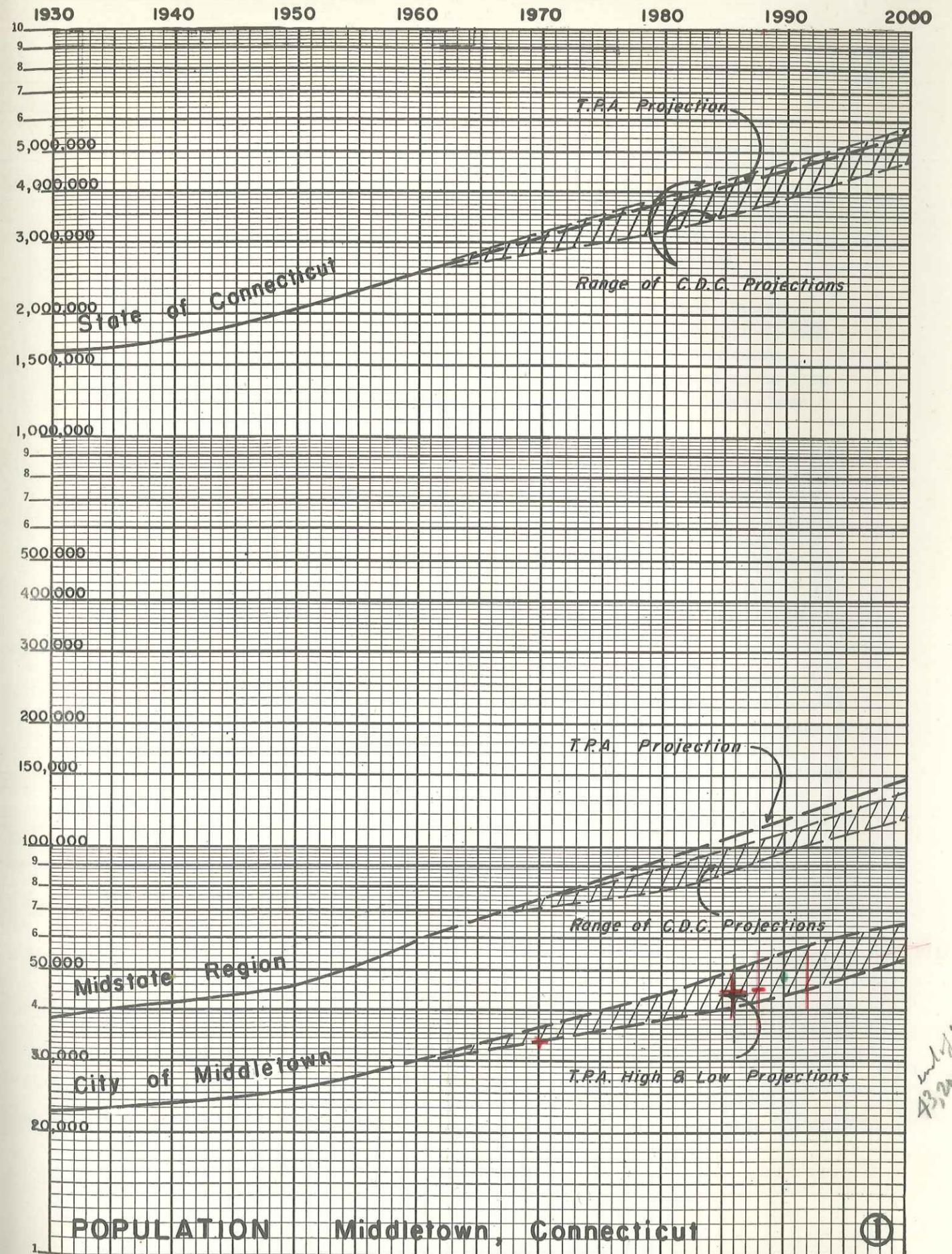
For the purposes of planning, we are primarily concerned with space and facilities for actual residents. Therefore their numbers have been determined by subtracting from the 1950 and 1960 census figures the total numbers in each of these years counted in the three institutions. The actual census figures are given in the footnote to Table 1. This Table gives the population of each of the communities of the Region in 1940, 1950 and 1960 and the percentage of regional population in each. It is seen that Middletown was responsible for 64 percent of the Region's residents in 1940, but for only 50 percent in 1960. The share of the other towns rose in the same period from 36 percent to 50. What is happening around virtually all central cities is happening around Middletown.

TABLE 1

POPULATION TRENDS OF THE MIDSTATE REGION

	1940		1950		1960	
	Number	% of Region	Number	% of Region	Number	% of Region
Middletown	26,495	63.9	25,644*	56.3	29,419*	49.9
Cromwell	3,281	7.9	4,286	9.4	6,780	11.5
Portland	4,321	10.4	5,186	11.4	7,496	12.7
East Hampton	2,955	7.1	4,000	8.8	5,403	9.2
Haddam	2,069	5.0	2,636	5.8	3,466	5.9
Durham	1,098	2.7	1,804	4.0	3,096	5.3
Middlefield	1,230	3.0	1,983	4.3	3,255	5.5
Total	41,449	100.0	45,539*	100.0	58,915*	100.0
The Region Outside Middletown	14,954	36.1	19,895	43.7	29,496	50.1

*Middletown and regional total after deducting institutional population, which amounted to 4,067 in 1950 and 3,831 in 1960. The population of Middletown as given in the U. S. Census was 29,711 in 1950 and 33,250 in 1960; for the Region it was 49,606 in 1950 and 62,746 in 1960. The institutional population was not included in the 1940 census.



COMPARISONS: STATE AND REGION

Connecticut is a rapidly growing state in the regional complex of the north-eastern seaboard. Today's development is one of decentralized urban spread at a relatively low density, compared with that of past generations. Industry, business, homes, the automobile, all require much more space than was needed in the past. We can foresee a total development of areas such as Connecticut within a relatively few decades under the type of growth which is now established in our communities and controlled in large part by their zoning policies.

For these reasons we have used the term "target population" and "target growth" to represent the complete development of the community according to its plan. This "target" for Middletown appears likely to be reached somewhere around 1990 or 2000. Unforeseen happenings may slow down or speed up the pace of development, but this does not alter the quantitative factors on which to base the plan.

The growth of a community or a region is caused partly by the natural increase in population, that is the excess of births over deaths, and partly because of new people moving in. Between 1950 and 1960 the population of Connecticut increased by 527,954 residents. The number of births in the State exceeded the number of deaths in that period by 294,911. This means that 233,043 persons moved into the State over and above the number who may have moved out. Slightly over half of the population increase was caused by natural increase and a little less than half by net in-migration.

Table 2 shows the increase in population of the State, the Midstate Region and the local communities in the past two decades. It shows the proportion of the growth due to natural increase and that due to in-migration. Between 1940 and 1950, the Region grew at only about half the rate of the State as a whole. After 1950 the growth rate increased, exceeding the State's rate from 1950 to 1960. In the 1940-50 decade, the surrounding towns had a reasonable growth, but Middletown's own increase, as given by the census, was more than offset by the inclusion in 1950 of the institutional population. From 1950 to 1960 Middletown experienced a growth in its own residential population greater than in any decade since the consolidation of City and Town.

The trends of population are shown graphically in Chart 1. This is on a semi-logarithmic base so that the same slope of line indicates the same rate of change, whether it is that of a large unit such as the State as a whole or whether it is a single community at the bottom of the chart. If the State were to continue at the same rate of growth which it experienced from 1950 to 1960, it would reach a population of 3,200,000 in 1970 and 4,000,000 in 1980. Similarly, the Midstate Region would have 76,000 residents by 1970 and 98,500 by 1980. Middletown's own resident population increased by slightly less than 15 percent from 1950 to 1960. This same rate of growth would mean 33,750 residents by 1970 and 38,700 by 1980.

TABLE 2

POPULATION CHANGES, 1940 - 1960

	<u>Increase, 1940-50</u>		<u>Increase, 1950-60</u>			
	Number	Percent	Number	Percent	Due to	Due to
					Natural Increase	Net In-Migration
State of Conn.	298,038	17.4	527,954	26.3	14.7	11.6
Midstate Region*	4,090	9.9	13,375	29.3	16.0	13.3
Middletown*	- 851	- 3.2	3,775	14.7	14.9	- 0.2
Cromwell	1,005	30.5	2,494	58.1	19.0	39.1
Portland	865	20.5	2,310	44.5	17.7	26.8
East Hampton	1,045	35.2	1,403	35.1	13.6	21.5
Haddam	567	26.9	830	31.5	10.4	21.1
Durham	706	65.2	1,292	71.5	22.8	48.7
Middlefield	753	61.2	1,272	64.2	25.0	39.2
Increase in Region						
Outside Middletown	4,941	33.0	9,601	48.3	17.4	30.9

*Excluding Institutional Population

*Data on natural increase and migration from Burnight and Ingalls, A Decade of Population Change, Dec. 1961, University of Connecticut, Storrs.

THE TARGET POPULATION

There are many factors which may change the present rate of growth, both in the Region and in the City. The Middletown area is located between the more densely developed regions around Hartford and New Haven. It occupies a location between Hartford and the lower Valley area which is rapidly expanding. Most important of all are the major transportation routes created by the express highway system which is again putting Middletown on the principal arteries of movement. An idea of the future may be gained by a look at the relationship between the local community, its region and the entire State. The Midstate Region's share of the State's population has changed little in recent years, as shown by the figures in Table 4. On the other hand, the towns outside Middletown have assumed a considerably larger proportion of the regional population.

In connection with its regional planning studies, the Connecticut Development Commission has prepared projections of population for the State and for its various regions, carried ahead to the year 2000. These are summarized in

TABLE 3

STATE AND REGIONAL POPULATION PROJECTIONS
BY CONNECTICUT DEVELOPMENT COMMISSION

Year	State		Midstate Region		Region as % of State
	High	Low	High	Low	
1970	3,068,000	2,847,000	74,000	70,000	2.4 to 2.5
1980	3,710,000	3,145,000	89,000	78,000	2.4 to 2.5
1990	4,558,000	3,992,000	109,000	98,000	2.4 to 2.5
2000	5,624,000	4,707,000	135,000	116,000	2.4 to 2.5

Projections from C. D. C. Interregional Planning Program, Tech. Report 131

Table 3. Different methods of projection have arrived at differing figures which represent a range of high and low projections within which the actual count will probably fall.

Connecticut is essentially a group of urban or urban oriented communities, all but a few of which have a relatively low density of development. Most industrial development today is taking place in areas where considerable space is available and much of the residential development is also at a low density. With the exception of urban renewal projects, the preponderance of development is taking place in presently vacant land.

Some idea of future growth patterns can be obtained from the trends of migration into and out of Connecticut towns in the past decade. The study of Burnight and Ingalls, cited above, gives a picture of these trends, tabulating the population increase from 1950 to 1960 in each town due to natural increase and that due to migration. These show that the rate of net in-migration into the Midstate Region is slightly higher than for the State as a whole. Although in Middletown itself the increase due to the excess of births over deaths was cancelled by a net out-migration, there was a high degree of in-migration into the surrounding towns. In the Midstate Region, outside of Middletown, the net in-migration caused 64 percent of the total growth in the last decade, compared to 44 percent for the State as a whole. In three of the six towns, the net in-migration amounted to twice the natural increase. Middlesex County had the second highest rate of growth of any of the counties in the last decade, following only Tolland County. Clearly the Midstate Region is a growth area.

The projections made by the Connecticut Development Commission as listed in Table 3 conclude that the Midstate Region will grow at approximately the same rate as the State and that the Region will continue to have from 2.4 to 2.5 percent of the State's residents. We are inclined to believe that the Region will have an increasing share of the total population, because of its geographical location,

especially with respect to expressways, and because of the availability of land and growth potential of its towns. For the purpose of the present study, we have established the projections summarized in Table 4.

Under the assumption that Connecticut's population will, by the end of the century, be around 5½ million, the population of the Midstate Region is likely to reach a figure close to 145,000 or 150,000.

TABLE 4
MIDDLETOWN AND MIDSTATE REGION
IN RELATION TO POPULATION OF STATE

	STATE	MIDSTATE REGION*		MIDDLETOWN*	
		Number	% of State	Number	% of Region
1940	1,709,242	41,449	2.42	26,495	63.9
1950	2,007,280	45,539	2.26	25,644	56.3
1960	2,535,234	58,915	2.33	29,419	49.9
1970	3,100,000	74,500	2.40	35,700	48.0
1980	3,700,000	92,500	2.50	42,500	46.0
1990	4,500,000	117,000	2.60	52,600	45.0
2000	5,500,000	148,500	2.70	65,000	44.0

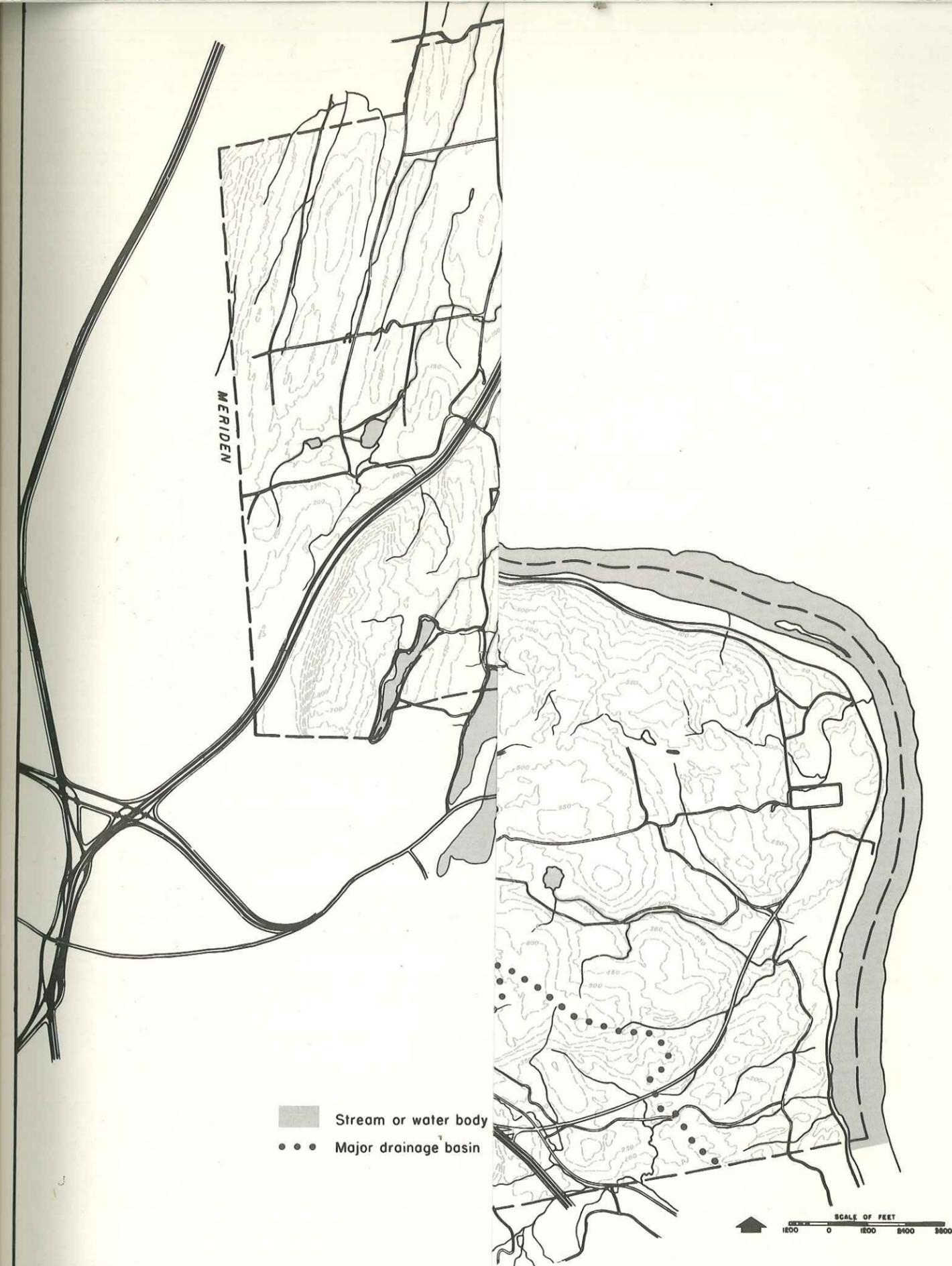
*Exclusive of Institutional Population

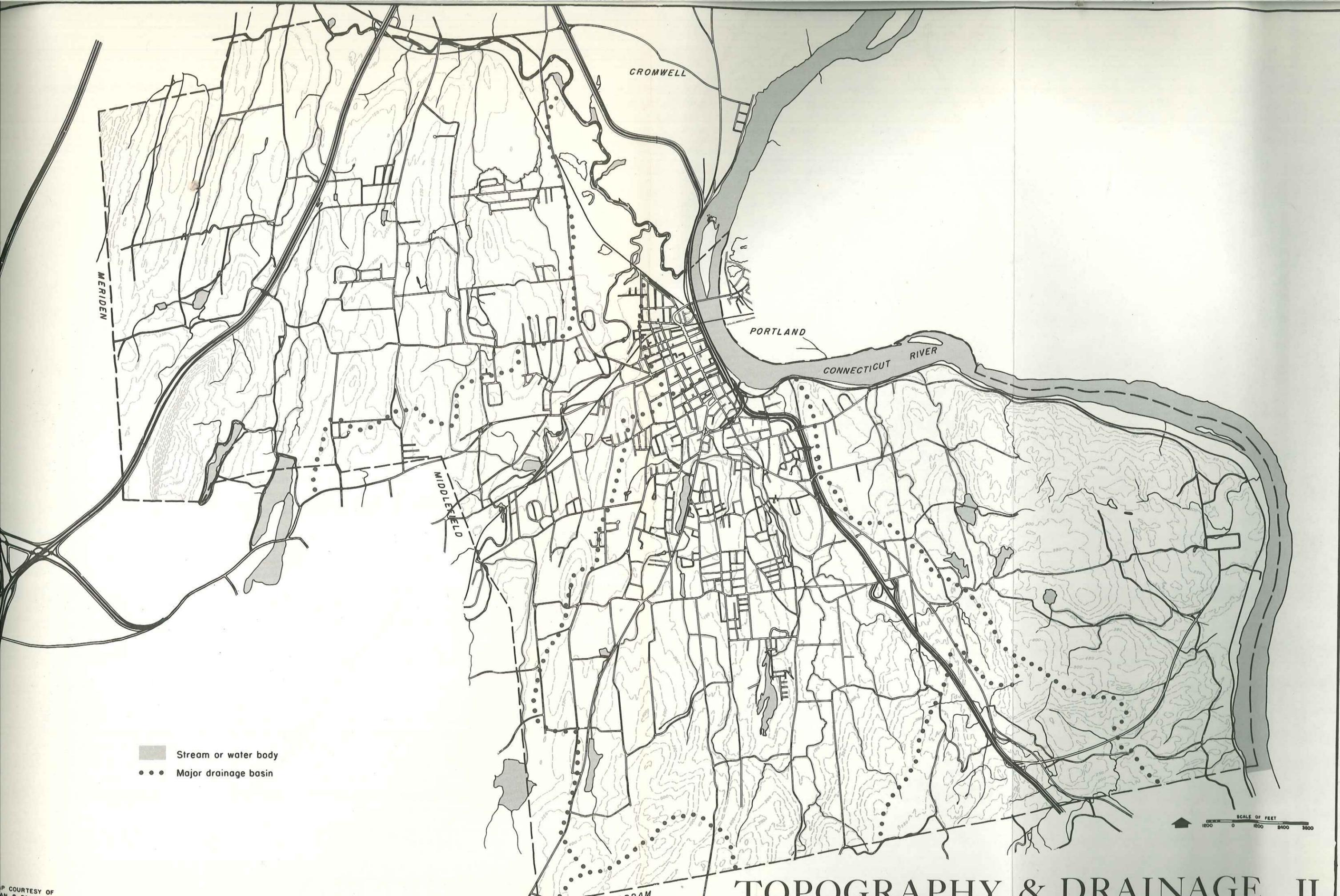
1940-60 figures, U. S. Census

1970-2000 projections by TPA, used as "Target" figures in this Plan

Middletown's part of the Region's population has dropped in the last two decades, in the face of the very rapid growth of the other towns. However, the reduction in its percentage was not as great for the 1950-60 decade as for the previous one. Middletown has better public utilities available than most of the other communities and other factors such as zoning and highway expansion may favor the City as compared with outlying places. It seems likely that Middletown's share of the Region's population will not drop as rapidly as in recent years. The population figures given in Table 4 are exclusive of future institutional residents.

From this study it is seen that Middletown's population is likely to reach a figure in the neighborhood of 65,000 by the closing years of the century. Today's planning has the chief purpose of indicating the land and other facilities needed to take care of the future residents. If their number is greatly underestimated, the City will have the troubles of past communities to find space where it does not exist. If, as the years go by, Middletown shows signs of reaching a higher figure than projected here, the Plan can be revised to provide for a somewhat more intensive use of land, but following the same general pattern.





CROMWELL

MERIDEN

PORTLAND

CONNECTICUT RIVER

MIDDLEFIELD

- Stream or water body
- Major drainage basin

SCALE OF FEET
1800 0 1800 3600

TOPOGRAPHY & DRAINAGE II

3. MIDDLETOWN'S LAND

Middletown occupies a land area of approximately $42\frac{1}{2}$ square miles, or 27,200 acres. Map II shows the topography of the city area, which varies from flat marshland near the river level to rugged mountain land rising to as much as 900 feet above sea level. This map also shows the natural drainage systems of the area, which must be considered in planning for development. Few towns in central Connecticut have such fine natural features or so many sites with such a broad outlook. This is an asset which should not be lost as the community grows. How Middletown's land is now used is shown on Map III at the end of this Chapter.

HILLS, VALLEYS AND STREAMS

Middletown is located on the west side of the Connecticut River, approximately 30 miles from the mouth. The River is navigable for small and medium size craft as far as Hartford, 20 miles farther upstream. There is some tidal influence in the Middletown vicinity, but a much greater variation in the water level takes place with changing conditions in the River's natural flow. Some of the low-lying land is subject to flooding at times. This part of the River follows a winding course and the navigable channel generally follows the outside of the bends. Its curving course gives the City a total shoreline of approximately 9 miles.

The controlling depth to Long Island Sound is approximately 13 feet at mean low water. A dredged channel at least 150 feet wide is maintained at the locations of the numerous shoals, and the entire channel is well marked by aids to navigation. The Connecticut is suitable for commercial barge traffic and is considerably used by petroleum carriers. Along much of Middletown's frontage on the River, there is sufficient depth of water to permit dockage facilities. The River is also much used by pleasure boats.

It is an important natural resource for Middletown, with a considerable potential from the recreational and economic points of view. The River contributes greatly to the scenic aspects of Middletown, but unfortunately much of its length is not visible nor available for enjoyment by the residents. Consideration should be given to the possible recreational use of the riverfront by the community.

The Mattabeset River forms the northerly boundary of Middletown. This River, which is also called the Sebeth or Little River, empties into the Connecticut at the Middletown-Cromwell line. It drains a sizeable watershed, extending into the towns of Cromwell and Berlin. A tributary, variously known as the

Coginchaug or West River, flows into the Mattabesset a half mile above its confluence with the Connecticut. The Coginchaug rises in Middlefield and drains an area in the center of Middletown. Several other tributaries flow into the Massabesset, along or near the City's northerly boundary. These include the Fall Brook, West Swamp Brook and a number of smaller ones which serve to drain the northwest portion of the City.

Along the westerly boundary, adjacent to Meriden, the land is rugged and in places reaches an elevation of nearly 900 feet. Easterly from this boundary the land becomes more gently rolling. The soils in much of the north and west sections of the City are generally of a medium to heavy character, with slow internal drainage. Some areas have poorly drained soils with clay or silt, although there are limited pockets of well-drained gravelly or sandy soils. Near the Mattabesset and Coginchaug Rivers there are extensive areas of alluvial soils, much of them subject to flooding. In general, the soil conditions of this part of the City are unsuitable for development except at a very low density, unless public sanitary sewerage is available.

Sumner Brook and its tributaries drain much of the south central area of the City. These streams rise near the Middlefield and Haddam lines and join south of the city center, where Sumner Brook flows into the Connecticut. Soil conditions in this part of Middletown vary, but much of the area contains medium to heavy soils which require public sanitary sewerage where development exceeds a low density. There are, however, some limited areas with sandy or gravelly soils, but there are also pockets of poorly drained soils as well as of rocky and rugged land. The topography of most of the south central area is gently rolling, becoming more rugged near the City's south boundary.

East of the line of Route 9 the land is generally more rugged. Most of this area is taken up with reservations such as the State Hospital, utility company projects, state forest land and the federal government's Canel Project. There is, however, a portion which is available for development south of the main hospital plant. The land here is generally rolling and suitable for low density residential development.

The original city center lies on relatively level land, rising slowly from the river level to the Wesleyan campus at the west. The land falls off abruptly into the valley of the Mattabesset in the north and into that of Sumner Brook to the south. This natural topography serves to define and limit the area of the central district.

EXISTING USE OF LAND

Map III shows the present use of land in Middletown, from field information secured by the staff of the Commission on the City Plan. Table 5 shows the principal classifications of existing land use and the acreage involved. The

State of Connecticut is the largest single land owner in the City, with a total of more than 1,700 acres, divided as follows:

	<u>Acres</u>
Connecticut Valley Hospital	1,165
Long Lane Farm	165
Wadsworth State Park	135
State Forest	225
Other	<u>35</u>
	1,725

The federal government owns a tract of approximately 1,015 acres which is occupied by the Canel project. Although this is essentially an industrial operation, the greatest part of this tract is rugged and unoccupied. Much of the land of the Connecticut Valley Hospital is unoccupied, although some of it is used to protect the hospital's water supply and some other portions are used for agriculture.

The City owns approximately 730 acres which are used for water supply purposes, including 250 acres being held for a proposed reservoir in the valley of the Fall Brook. City parks occupy a total of approximately 100 acres, and public schools account for another 130 acres. Streets and highways take up a total of slightly over 1,400 acres, including land occupied by the new interstate highway and the Route 9 expressway.

Commercial uses are confined to 245 acres, less than one percent of the total land area. Industrial plants occupy altogether approximately 160 acres. An additional 465 acres are owned by the Hartford Electric Light Company and occupied in part by an electric generating plant. Most of this land is rugged and vacant. An adjacent quarry occupies another 155 acres. A total of 780 acres may be classified as industrial, but with only 160 acres intensively used.

Wesleyan University's principal campus area takes in approximately 110 acres, a rather small area for so large an institution. The University also owns several tracts of vacant outlying land with a total area of approximately 155 acres.

Residential buildings cover approximately 2,290 acres. Many rural dwellings are situated on large parcels. In the present computations, where an existing house is on a lot capable of subdivision into two or more dwelling sites, an area of one acre only has been counted as presently used for residential purposes. The balance of the parcel is included under undeveloped land.

From Table 5 it is apparent that 66 percent of the City's land is vacant and undeveloped land. Roughly half of this is land which is too rugged, too swampy or otherwise topographically unsuitable for development. The other half constitutes the community's supply of good land for future growth under the principles laid down in the Plan as described in the following pages. This good land amounts to 9000 acres, as much as the entire area of the City of New Britain.

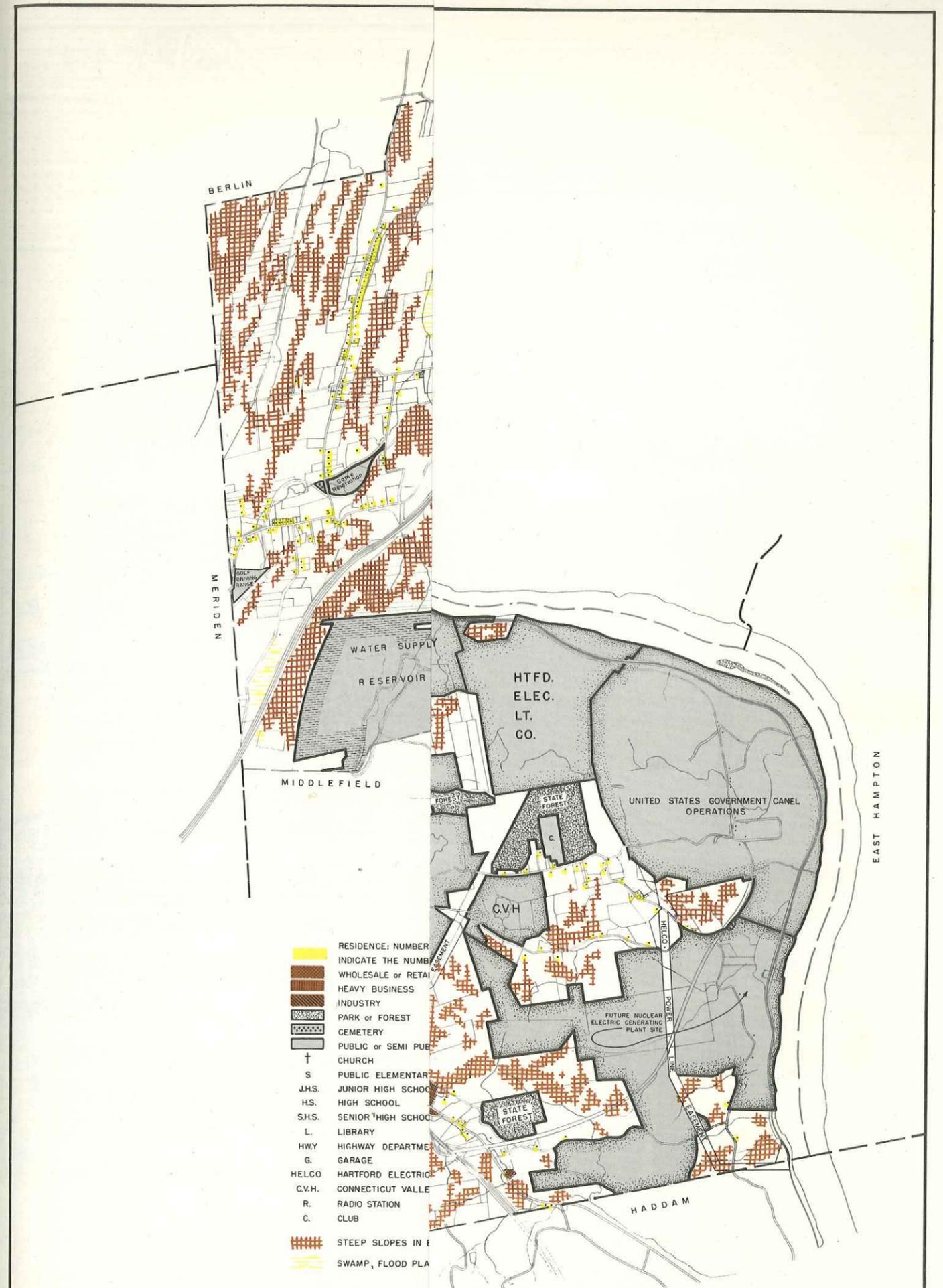
TABLE 5
PRESENT LAND USE
(Approximate Areas in Acres)

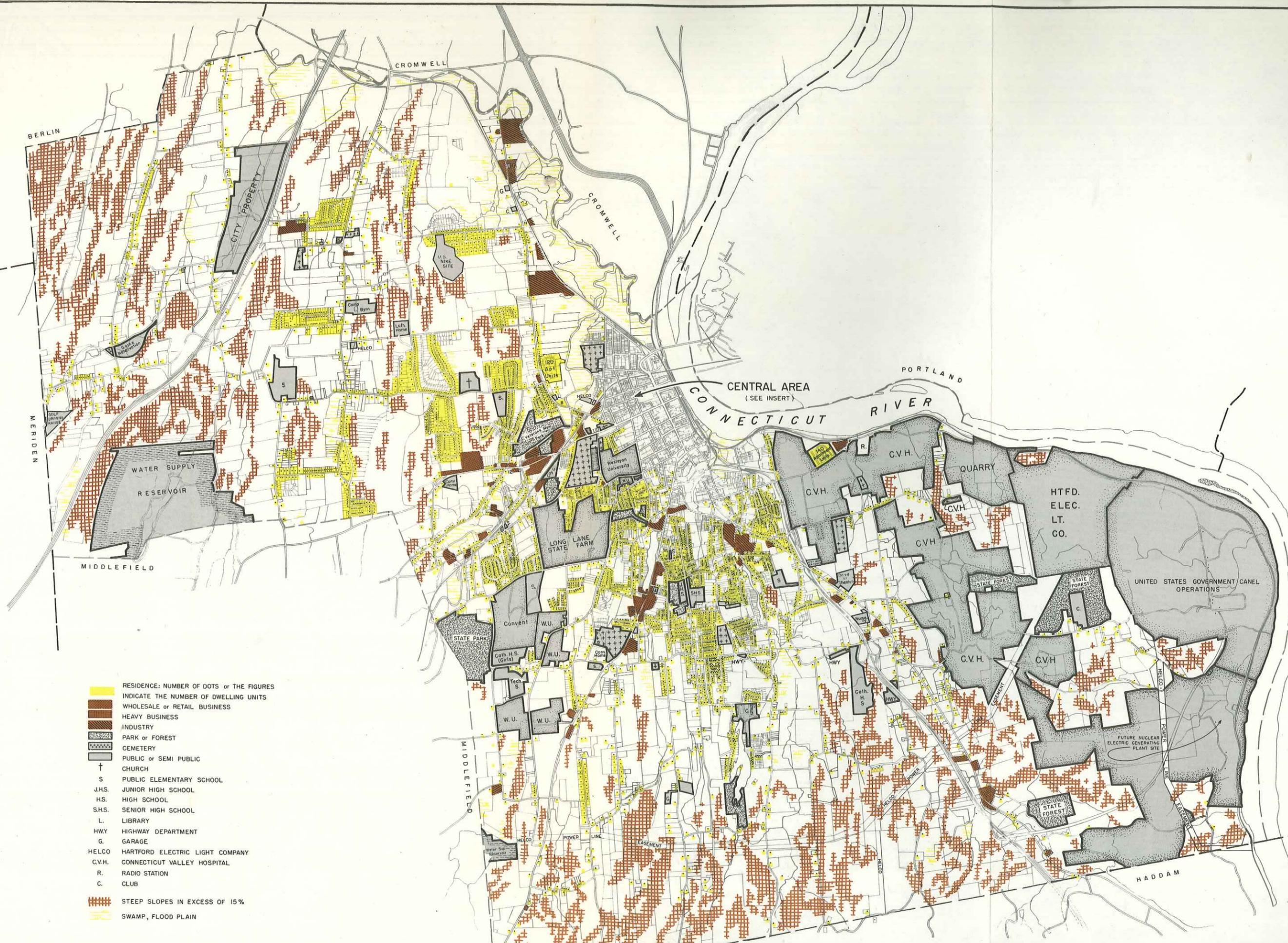
Residence		2,290	
Commercial		245	
Industrial			
Industrial Plants	160		
Quarry	155		
Hartford Electric Light Company	465	780	
Park, Forest, Water Supply			
City Water Supply	705		
State Park and Forest	360		
City Parks and Playgrounds	125	1,190	
Institutions, Public and Semipublic			
Wesleyan University	265		
Connecticut Valley State Hospital	1,165		
Cemeteries	150		
Long Lane Farm	165		
U. S. Government	1,065		
Public Schools, City	130		
Other	385	3,325	
Streets and Highways		1,410	
Undeveloped Land		17,960	
TOTAL LAND AREA		27,200	

CONDITIONS AFFECTING DEVELOPMENT

Map III also shows the natural and man-made conditions which affect the City's future development. In the areas which are still vacant, this map shows land which is generally too rugged for normal development, with slopes exceeding 15 percent. It also shows swampy areas and those subject to flooding. Large-scale institutional and public properties and land which is already built up are readily apparent from the symbols of present land use. The remaining land, shown in white on the map, constitutes the areas which are suitable and available for normal development.

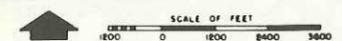
These categories of vacant land have been measured by analysis districts and the results are given in Table 6. A key to the analysis districts is given in Map IV





- RESIDENCE: NUMBER OF DOTS or THE FIGURES INDICATE THE NUMBER OF DWELLING UNITS
- WHOLESALE or RETAIL BUSINESS
- HEAVY BUSINESS
- INDUSTRY
- PARK or FOREST
- CEMETERY
- PUBLIC or SEMI PUBLIC
- CHURCH
- PUBLIC ELEMENTARY SCHOOL
- J.H.S. JUNIOR HIGH SCHOOL
- H.S. HIGH SCHOOL
- S.H.S. SENIOR HIGH SCHOOL
- L. LIBRARY
- HWY HIGHWAY DEPARTMENT
- G. GARAGE
- HELCO HARTFORD ELECTRIC LIGHT COMPANY
- C.V.H. CONNECTICUT VALLEY HOSPITAL
- R. RADIO STATION
- C. CLUB
- STEEP SLOPES IN EXCESS OF 15%
- SWAMP, FLOOD PLAIN

CENTRAL AREA
(SEE INSERT)



EXISTING LAND USE III



- P. Professional building
 BH. Boarding house
 R. Rectory
 R.L. Russell Library
 L. Library
 H. Hospital
 His.S. Historical Society
 SNET. Telephone Company
 ARM. Armory
 B. Bank
 HELCO. Hartford Electric Company
 C. Club
 Pa. Parking
 LBRYD. Lumber yard
 G.H. Greenhouse
 S.A. Salvation Army
 L.&P. Conn. Light & Power Co.
 Th. Theater
 G. Gas station, garage
 St.L.H. St. Luke's Home
 A.C.S. American Cancer Society
 A.R.C. American Red Cross
- Residence:
 or 6 Number of dots or the figures indicate the number of dwelling units
 Retail business
 Heavy business
 Industry
 Park or playground
 Cemetery
 Public or semi-public
 † Church
 ☆ Synagogue
 S. Public elementary school
 Pa.S. Parochial school
 H.S. High school
 P.O. Post office
 Po. Police station
 F. Fire station

EXISTING LAND USE IIIa

SCALE OF FEET
 0 200 400 600

in Chapter 5. Of the entire City's area only about 12 percent is now built up. Another 19 percent is included in institutions and public reservations and approximately 5 percent is contained in streets and highways.

This leaves nearly two thirds of the total acreage in presently vacant land, but approximately half of this is topographically unsuitable for normal development. Middletown now has nearly 8,900 acres, or one third of its land area, which is suitable and available for its normal growth.

TABLE 6
SUITABILITY OF LAND FOR DEVELOPMENT

Analysis District	Areas in Acres					Swamps Flood Plain Water Bodies Steep Slopes	Areas Suitable For Normal Development
	Total* Area	Roads & Streets	Reservations & Institutions	Built-Up Areas			
A	2,441	64	48	301	781	1,247	
B	2,797	54	558	226	838	1,120	
C	1,017	46	68	325	250	328	
D	733	85	-	251	103	294	
E	1,004	80	396	178	65	285	
F	3,349	117	123	289	1,417	1,403	
G	2,563	85	100	111	1,016	1,250	
H	443	61	30	222	23	108	
I	575	58	26	195	80	220	
J	298	54	2	184	38	20	
K	932	108	384	370	46	20	
L	335	51	2	200	67	15	
M	7,114	336	3,193	206	2,230	1,149	
N	3,144	206	252	120	1,264	1,303	
O	455	-	-	42	310	103	
	27,200	1,405	5,182	3,220	8,528	8,865	
	100%	5%	19%	12%	31%	33%	

*Connecticut and Coginchaug Rivers are not included.

4. ECONOMIC BACKGROUND FOR THE PLAN

Middletown's growth is obviously dependent on its economic progress. The City has four potential sides to its economic base.

1. Manufacturing, employing more people than any other activity. The Plan allocates 1,600 acres to industry. Middletown must take steps to make its land and facilities especially attractive to industry.
2. Retail business and services catering to the surrounding region. This requires a strong central business district, well designed to provide eventually a million square feet of floor space, along with adequate parking space and good access.
3. Middletown's institutions, with their substantial payrolls. The increased activities proposed at Wesleyan will be reflected in added employment and commercial growth, including more facilities for transients.
4. Middletown's potential as a center of distributive business and as the location of regional business offices.

ELEMENTS IN THE ECONOMIC BASE

A community must earn its collective living, just like any individual. Approximately 40 percent of Middletown's employed residents derive their livelihood from industrial activities, but some of these work outside the City. Another 26 percent are engaged in commercial activities, retail trade and services. The third major sector of Middletown's community income comes from the activities (or more specifically the payrolls) of the institutions located here. The plan for future development must provide space and a good environment for the continued progress of these parts of the economic base. We are concerned now with determining how much land and what kind should be allocated to manufacturing, and other types of industry, to retail commerce and service trades and to institutions or similar organizations which may contribute to the community's income.

In connection with the Community Renewal Program, under urban renewal, a detailed economic study of land utilization and marketability has been made by Messrs. Raymond and May, consultants to the Middletown Redevelopment Agency. This study was primarily designed to show the acreage of land which is likely to be required to fill the needs of residential, industrial and commercial expansion to 1980. At that date the City may be assumed to reach a population approaching 45,000, something like two thirds of the ultimate figure envisioned by the present

planning study, to be achieved by the end of this century. The Raymond and May report* gives the following estimates of potential acreage demand to 1980:

Housing	1,200 acres
Industry	160 acres
Retail	14 acres
Other Commercial	7 acres

INDUSTRIAL LAND

The purpose of the CRP study has been to gauge the probable market demand for land, whereas it should be the purpose of the City's long-range plan to provide space for the maximum expansion which can be foreseen. In the matter of industrial land, the Plan provides far more space than the estimated 1980 demand given by the CRP study. The amount of land which one town can allocate to industry is not determined by local policy alone. The average plant could equally well be located in any of a number of neighboring communities which are actually in competition with each other in attracting a prospective enterprise. Therefore, there is no formula on which to base the number of acres of land to be planned for industry in Middletown.

It is apparent that the Connecticut towns collectively have planned and zoned for industrial development of a total acreage far in excess of what can be reasonably expected to be required at any time in the foreseeable future. Many will be disappointed in the large amount of proposed industrial land which will remain vacant. Proposed industrial areas will become developed in the order of their relative desirability to the prospective occupant. While criteria for site selection may vary with the type of use, the principal factors are convenient transportation, available labor and necessary utilities. The State's expressway system brings good highway connections to many points in Connecticut. Similarly, it facilitates the travel of employees, which results in making a much larger labor pool available to a single location than may be locally resident.

Our present plan allocates a total of about 1,600 acres for new industrial development, in addition to the very large areas in the southeast corner now under the control of the utility companies, a quarry and the United States government. The proposed acreage has convenient access to the expressway system. How much these acres will appeal to industrial concerns and how rapidly they will be developed will depend greatly on the facilities for water supply and sanitary sewerage to be furnished by the City. Middletown has certain advantages over the rural towns in the matter of public utilities, since it has the municipal organization already in existence and can readily extend its services. This is discussed in Chapter 8.

* Raymond and May Associates, Land Use and Marketability Study, Community Renewal Program, September, 1964.

The CRP report estimate of 160 acres of industrial land to be the demand up to the year 1980 is based on a review of various factors in the recent trends of industrial growth. But in the competitive market today, the City must be able to offer a considerable choice to any prospective purchasers. There must be enough land to meet even a considerably larger demand, up to the planning target date of 2000, than could appear certain today from the trends of the last few years. Another reason to allocate a large amount of land for industry is to spread the ownership and to prevent a small number of owners from jeopardizing the City's promotional activities by refusing to sell except at exorbitant figures.

If all of the proposed industrial acreage shown on the plan is fully developed by the year 2000, and even if the average of workers per acre falls to a low figure of 10, there would be a total of around 16,000 jobs or something like 3-1/2 times the number in Middletown today. As the population is expected to double in the same period, this would place Middletown in the position of an employment center bringing in workers who reside in other towns, whereas today a certain number of Middletown workers must go outside for employment. This situation would tend to increase population in neighboring towns, which would give more strength to Middletown as a retail and service center.

MIDDLETOWN AS A COMMERCIAL CENTER

Unlike the trends of industrial development, the volume of commercial activities and the amount of land they will need will bear a close relationship to the future population of Middletown and of its surrounding region. The Land Use and Marketability Study of Raymond and May gives much data on the present commercial development and includes estimates of future demand to 1980. Their report includes a tabulation of existing retail floor space by retail categories within the City (1963). The central business district contains 37.1 percent of the total retail floor area, while 15.3 percent is located in the Washington Street business district. The remaining 47.6 percent is located in the rest of the City, much of it in the South Main Street area.

In the categories of general merchandise, apparel, furniture and home furnishings, 83 percent of the floor area is located in the central business district. The floor area presently occupied by these categories in the central business district amounts to 326,000 square feet. Raymond and May estimate that there will be a demand between now and 1980 for an additional 172,000 square feet for these three types of retail business. This is in addition to the new Sears Roebuck store.

Food stores occupy a total floor area of 106,000 square feet, of which only about one quarter is located in the central business district. Raymond and May estimate that an additional 30,000 square feet will be required for food stores. Undoubtedly, most of these will not be in the central district. Drug and proprietary stores account for 15,575 square feet of floor area in the City, of which 75 percent is in the central business district. The potential growth to 1980 is estimated at

7,000 square feet, 5,000 square feet of this total in the central area. Eating and drinking places occupy a total of 72,000 square feet, of which 45 percent is in the central business district. Raymond and May estimate a demand to 1980 for 19,000 additional square feet. Something like half of this total might be in the central district.

Automotive businesses, including gas stations, occupy large amount of floor space, about 800,000 square feet in the City. Only about 150,000 square feet of the total is in the central business district. Raymond and May estimate a potential demand to 1980 in these categories of 265,000 square feet of additional floor area. Doubtless most of this will be outside the central area.

The category which includes lumber, building materials and hardware occupies a total floor area of 295,000 square feet, of which 122,000 are in the central district. Raymond and May estimate that 100,000 square feet of additional floor space will be required to 1980. The nature of this business makes it probable that most of the new floor area will be located outside the central area.

There is evidence that Middletown's position as a retail trade center has been slipping. It has not retained its former high rate of sales per capita in relation to State and regional averages. On the other hand, the volume of retail and service business is very important in the economic base as shown by the amount of employment in that sector. The City is faced with the competition of outside shopping centers which are being established at strategic points where traffic conditions are favorable. In particular, the present central business district suffers from many obsolescent structures, traffic congestion and deficiency of parking. However, Middletown has the advantage of being a long-established commercial center for an area which is now growing rapidly.

Middletown has taken certain steps to improve its commercial position, especially through the urban renewal program. The improvements brought about by the Center Street Project and the establishment of the Sears Roebuck retail outlet point the way to continued progress. But the City and its business interests must take very prompt action to capture as large a part as possible of the potential regional market.

A central business district of the type which is possible in Middletown has a pulling power which is not likely to be found in any but a very large outlying shopping center. The central district contains more stores with a greater variety of goods than is possible in the typical outlying center. It has a certain backlog of customers from the residents of the in-town neighborhoods.

Middletown's central district would suffer very adversely from the spreading of retail and other commercial activities to outlying spots, even to locations within the city limits. Improvements to the central business district which are included in the present plan, and which are feasible to accomplish because of the urban renewal program, can give Middletown a thoroughly modern shopping center of regional importance. The importance of the central business district to Middletown is stressed in the Raymond and May report.

TABLE 7

ANTICIPATED AREA REQUIREMENTS FOR RETAIL BUSINESS

Retail Category	Present Total* Floor Area sq. ft.	Assumed Expansion to 2000	Additional Floor Area CBD sq. ft.	Outside CBD sq. ft.
General Merchandise, Apparel, Furniture and Furnishings	394,280	100%	400,000	
Automotive, Lumber, Building Materials	1,114,410	50%		550,000
Food Stores	106,050	100%	25,000	85,000
Eating and Drinking Places	72,120	100%	50,000	25,000
Other	<u>148,310</u>	100%	<u>75,000</u>	<u>75,000</u>
	1,835,170		550,000	735,000
Present stores in CBD, except automotive, lumber and building materials			458,145	
Present automotive, lumber and building materials expected to remain in CBD			<u>75,000</u>	
Total floor area anticipated in CBD, year 2000			<u>1,083,145</u>	
Present commercial establishments outside CBD and present commercial expected to move from CBD				<u>1,387,555</u>
Total floor area anticipated outside CBD, year 2000				<u>2,122,555</u>

*From Raymond and May Report

The estimates given in Table 7 indicate that the central business district should have eventual space for about one million square feet of floor area, some of which may be on more than one story. It must also have ample space for movement, both vehicular and pedestrian, and for the parking of automobiles. This will require a total gross area of something like 100 acres.

For retail establishments outside the central area, there appears likely to be a total floor area by the year 2000 of two million square feet, most of which will probably be on one floor. The net land area required will be in the range of five or six times this amount or around 300 acres.

Of the categories of business listed in Table 7, that of General Merchandise, Apparel, Furniture and Furnishings belongs entirely in the central district. This district should also attract additional eating and drinking places, drug and proprietary stores and other stores of a specialty or variety nature. On the other hand, automotive business and lumber and building materials more properly belong in outlying areas such as the Washington Street complex and South Main Street. The Raymond and May report gives a potential additional floor area to 1980 of 619,000 square feet for all commercial types in the whole City. This is equivalent to approximately 14 acres of floor space. Approximately a third of this may be expected to be in the central business district. The long-range plan must look further ahead than 1980 and must take into consideration the possible expansion to the target size of the City and Region, rather than the market potential of the next 15 years. Since the plan contemplates a doubling of population, both in the City and in the Midstate Region, it would appear necessary to provide at least for a doubling of the present business space in the categories which belong in the central business district. Automotive, lumber and building materials and similar types are more likely to be decentralized, in some cases, in neighboring towns. Therefore, we have anticipated only a 50 per cent increase in needed floor area in these categories. There is, however, more flexibility in their expansion because of the greater availability of outlying land.

OFFICE SPACE AND TRANSIENT ACCOMMODATIONS

When the State's expressway system is completed, Middletown will be in a most favorable location for business travel to all parts of Connecticut. We may expect a potential demand for sites here for many types of distributive businesses and sales representatives who wish to have a good site from which to cover Connecticut. The Raymond and May report places the potential demand for professional and nonprofessional office space to serve the locality at 162,000 square feet, with another 90,000 square feet for selected service activities.

The present Plan anticipates that most of this office space will be located in separate buildings around the fringes of the immediate central business area. With the progressive redevelopment of downtown Middletown under urban renewal, there should be adequate land for office space to accommodate the demand for both local services and regional businesses. Any accurate estimate of the acreage which may be occupied by the various types of office establishments in the year 2000 would be pure conjecture at this time. Since office buildings may be placed in close proximity to apartment buildings or to motel and similar transient establishments, there is a flexibility in the use of the land which the Plan allocates to such a combination of uses.

The Raymond and May report estimates the demand for transient motel-hotel facilities at about 100 rooms. There is a complete lack of such accommodations in downtown Middletown today and proposed activities at Wesleyan University appear likely to augment the need. The present Plan includes good sites for new facilities of this type, with space for expansion when the future demand exceeds today's estimates.

5. POPULATION DISTRIBUTION BY NEIGHBORHOODS

The aim of the Plan is to create desirable residential neighborhood communities of limited size, each with facilities for elementary school and recreation and with adequate open space accessible to each, rather than to permit an uninterrupted sprawl of urban development. This chapter describes the proposed development of these neighborhoods and the population to be expected in each.

EXISTING RESIDENTIAL NEIGHBORHOODS

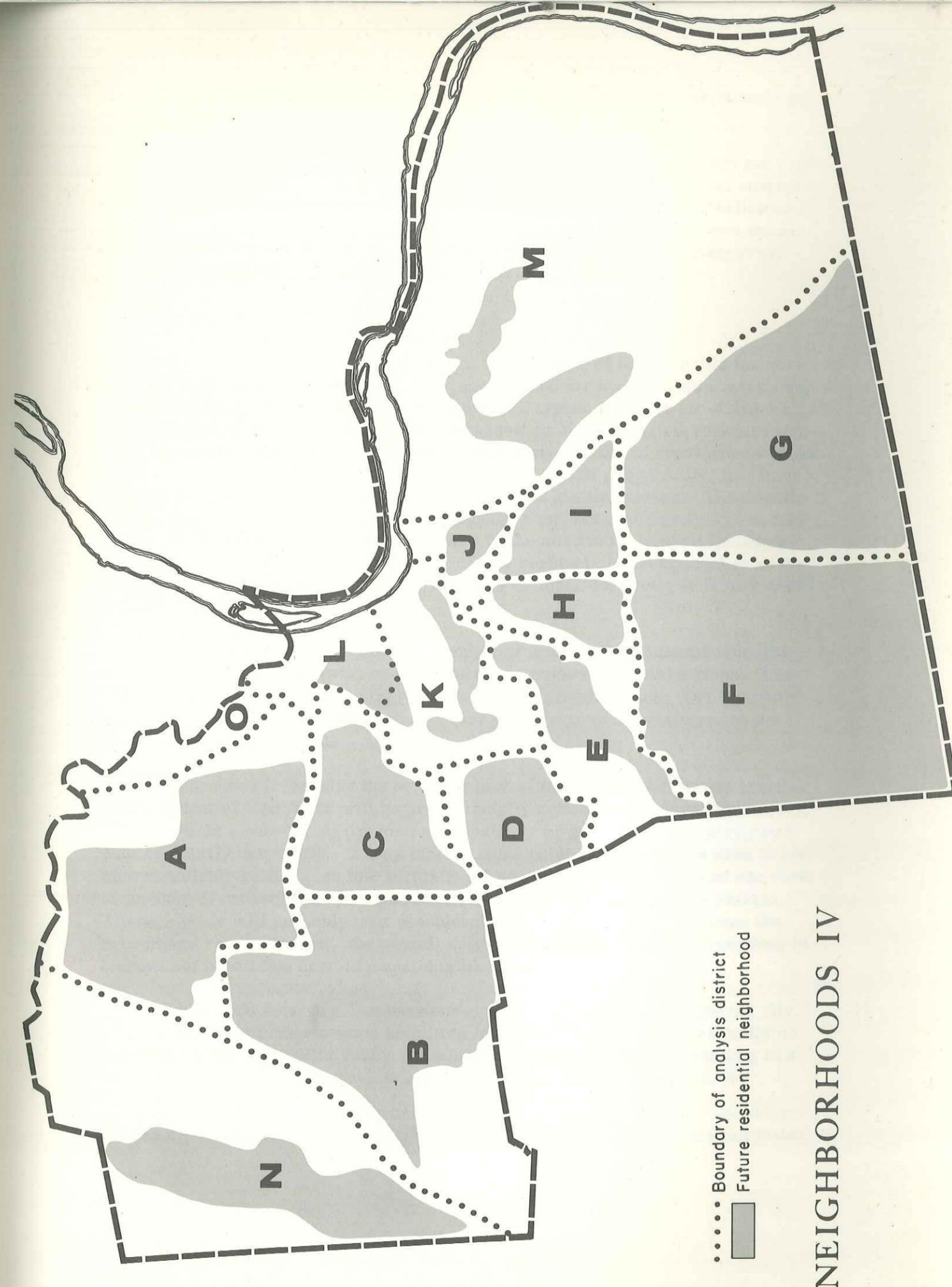
Middletown is a large town in area and is traditionally divided into a number of neighborhoods. Topographic features have helped to create natural divisions. The old city grew up as a compact urban community close to the Connecticut and between the Mattabessett River and Sumner Brook. When Middlefield was set off from Middletown, the City was left with a narrow neck, scarcely more than two miles wide, separating the north and south portions. Westfield and Newfield are names which have long designated neighborhoods in the north and west portions. Long Hill and Farm Hill have represented neighborhoods to the south.

The two halves of the City are almost entirely separated by the downtown business section, Wesleyan University, Long Lane Farm, the Convent of the Cenacle and the Wadsworth Falls State Park, which together form an almost continuous belt. Map IV shows the areas of the City which the Plan designates as the residential neighborhoods. In the northwesterly portion, the new Interstate Route 91 will create a distinct demarcation between a rugged and rural area west of that highway and a suburban area between it and outer Washington Street and the Coginchaug River. In the southerly part, Randolph Road forms a division between rural and suburban. Route 9 separates the large area of reservations and rugged land from the rest of the community.

ANALYSIS AREAS AND RESIDENTIAL NEIGHBORHOODS

For purposes of planning, the whole City area has been divided into fifteen analysis areas as shown on Map IV. The present population (1960) in each of these analysis areas has been determined with reasonable accuracy from the census records of enumeration districts. Where enumeration district boundaries do not coincide with those of the present study, adjustments have been made from field data. The resulting estimates of the 1960 households in each analysis area are given in Table 9.

Acreage in each analysis area has been measured from the map. Table 6 in Chapter 3 gives the total acreage of each such area and the amount of land devoted to roads, to reservations and institutions and to present building development, as well as land in swamps, flood plain, water bodies and slopes over fifteen percent.



The final column gives the area of vacant land which is available and suitable for normal development.

The General Plan shows the neighborhood areas which are proposed for residential development of all types. Actually these areas establish logical residential neighborhood communities of a size to be in the human scale of Middletown. The pattern of neighborhoods is readily created in large part by the open spaces of institutional lands or by natural features. In some cases a major highway, present or proposed, determines the pattern.

FUTURE POPULATION, 2, 000

Table 8 gives, for each analysis area, the acreage of land suitable for normal development. By subtracting the areas planned for nonresidential uses, we arrive at the acreage available for housing of all types, virtually all of which falls in the portions of each analysis area shown on Map IV as "residential neighborhoods." The Table indicates the proposed gross density of development of the available land, making allowance for new streets, small playgrounds, auxiliary facilities such as churches, clubs or facilities of a similar nature. The density is given in terms of families per acre, varying from 1/4 (one family to 4 acres) in outlying areas to as many as 10 families to the acre in the central multifamily locations. This is the gross density of new residential development in an entire neighborhood and the net density in terms of actual lot area per family would obviously vary in different location.

Table 8 then gives the equivalent number of new families derived from the density figures, together with an estimate of the number of additional new families accounted for by multifamily projects in each neighborhood. The final column gives the resulting total number of new families to be expected under the Plan in each neighborhood.

Neighborhood K includes the southern part of the downtown district, together with residential land which will be predominantly related to Wesleyan University. It will contain a substantial proportion of multiple or group housing, partly private and partly university. It may include some public housing. The area is now almost entirely built up, so that virtually all new housing will represent one form or another of redevelopment. This area has about 5, 000 residents at present. Although there will probably be a considerable relocation of families from the area due to redevelopment, the overall density is likely to increase, resulting in a growth of population here to something like 7, 300.

Neighborhood L is an urban residential area in the north end of the old city. It is susceptible of conservation activities in urban renewal. It has virtually no vacant land, but may in the future contain more multiple housing, resulting in a population growth from approximately 5, 000 to somewhat more than 6, 000.

Neighborhood J is another urban residential area, although it has considerable spots of mixed uses. It will need redevelopment and conservation activities

TABLE 8

STUDY OF FUTURE RESIDENTIAL DEVELOPMENT BY NEIGHBORHOODS

Analysis Area	Land Suitable For Normal Development Acres	Areas Planned For Non-Residential Use Acres	Areas Planned For Residential Use Acres	Proposed Gross Density For Development Families Per Acre	Equivalent New Families
A	1,250	360	890	1-1/2	1,335
B	1,120	180	940		1,120
			(a) 290	1/2	(a) 145
			(b) 650	1-1/2	(b) 975
C	330	10	320		1,160
			(a) 150	1-1/2	(a) 220
			(b) 70	2	(b) 140
			(c) 100	8 Multifamily	(c) 800
D	295	20	275		925
			(a) 215	2	(a) 445
			(b) 60	8 Multifamily	(b) 480
E	285	35	250		560
			(a) 40	1/2	(a) 20
			(b) 190	2	(b) 380
			(c) 20	8 Multifamily	(c) 160
F	1,400	125	1,275		1,020
			(a) 770	1/4	(a) 190
			(b) 440	1	(b) 440
			(c) 65	6 Multifamily	(c) 390
G	1,250	100	1,150		1,020
			(a) 510	1/4	(a) 130
			(b) 590	1	(b) 590
			(c) 50	6 Multifamily	(c) 300
H	110	25	80		340
			(a) 50	2	(a) 100
			(b) 30	8 Multifamily	(b) 240
I	220	15	205		800
			(a) 140	2	(a) 280
			(b) 65	8 Multifamily	(b) 520
J	20		40*	8 Multifamily	300
K	20	20	73	10 Multifamily	740
L	15	15	52*	8 Multifamily	420
M	1,150	600	550		680
			(a) 260	1/4	(a) 65
			(b) 160	1-1/2	(b) 235
			(c) 100	2	(c) 200
			(d) 30	6 Multifamily	(d) 180
N	1,300	850	450	1/2	200
O	100	100	0	No Residence	- 5
Totals	8,865	2,275	6,550		10,635

*Indicates additional land available through urban renewal.

Multifamily includes row houses, town houses, housing projects and other multifamily use.

to insure its future. Redevelopment and highway construction will result in some relocation from the area. There is only a small amount of vacant land available for residential use. This area may be the location of one or more public housing projects. Its present population is slightly more than 2,000. This may increase to about 3,000 due to multiple housing development.

Neighborhood H has some vacant land available for housing. Part of this may be developed for multiple housing projects. The population may be expected to rise from somewhat less than 2,500 to around 3,500. In Neighborhood I there are about 200 acres of land available for residential development. Some of this may be used for apartment projects of the garden type. The population is likely to increase from approximately 1,800 to more than twice this figure.

The other neighborhoods are less urban in character and contain much larger acreages available for residential growth, but the average density of development will be lower than in those just described. The population to be expected in each is shown in Table 9.

Table 9 gives for each neighborhood the present number of families, the new families to be expected and the total number of families when the 2,000, or "target" population is reached. The future family size is estimated, based on the eventual character of the neighborhood. The final column gives the estimated 2000 population for each neighborhood. These figures are the basis for the plans for facilities and utilities to serve the various areas.

TABLE 9

2000 POPULATION BY NEIGHBORHOODS

Neighborhood Area	1960 Occupied Units	Total New Families	Total Future Families	Estimated Family Size	Equivalent 2000 Population
A	380	1,335	1,715	3.5	6,000
B	450	1,120	1,570	3.5	5,500
C	460	1,160	1,620	3.5	5,670
D	670	925	1,595	3.5	5,580
E	500	560	1,060	3.5	3,710
F	175	1,020	1,195	3.5	4,180
G	350	1,020	1,370	3.5	4,800
H	750	340	1,090	3.2	3,490
I	560	800	1,360	3.2	4,350
J	690	300	990	3.2	3,170
K	1,880	740	2,620	2.7	7,070
L	1,580	420	2,000	3.2	6,400
M	420	680	1,100	3.5	3,850
N	130	220	350	3.5	1,230
O	5	5	-	-	-
Totals	9,000	10,635	19,635	3.3	65,000

6. THE LONG-RANGE FACILITIES PROGRAM

By the year 2000 there will probably be at least 7,000 pupils in the kindergarten and first six grades. Map V shows the schools which are sufficiently modern to warrant retaining them in the long-range school program as well as new schools which will be needed.

Schools to be retained: Bielefield Farm Hill
Wilbert Snow Bertrand Spencer
Van Buren Moody

Schools to be retained,
structures and sites to
be enlarged: MacDonough Stillman

Five New Elementary Schools: See Map V.

New Middletown High and Junior High Campus

FUTURE SCHOOL AGE POPULATION

In order to develop a sound plan for school facilities which the City will have to provide, we must first estimate the future population of school age. We have assumed from the studies reported in Chapter 2 that the total resident population of Middletown in the "target" year of the Plan will be in the neighborhood of 65,000. The 1960 U. S. Census gives the population by age groups, corresponding to preschool, elementary, junior and senior high school grades. Table 10 gives these figures, based on the actual resident population, eliminating the patients and inmates of institutions and nonresident college students. This shows that the school age group in 1960 represented 21.8 percent of the resident population. Table 10 also gives the enrollment in all grades in the public schools in 1960, excluding tuition pupils from other towns, and the relation of enrollment to resident population. In 1940 the corresponding public school enrollment amounted to 16.2 percent of the resident population, and in 1950 it dipped to 14.5 percent compared with 17.5 percent in 1960.

For the purposes of the present study, the term "elementary" has been used to include the grades from kindergarten to the 6th, both inclusive. Similarly, the term "junior high" has been used to designate the 7th, 8th, and 9th grades and "senior high" the upper three. This is the present practice in effect for a majority of the pupils today. The Woodrow Wilson Junior and Senior High Schools each house three grades. The Middletown High School accommodates approximately 100 resident pupils in each of the upper four grades and about 300 tuition pupils from neighboring towns.

Educational policy may later change this division of grades. We understand that the present Board of Education favors limiting the elementary schools to

Grades K through 5, placing Grades 6 through 8 in a "middle school" and the upper four grades in senior high. From the point of view of today's planning, the most important factor is the provision of adequate sites in the right locations. These sites should be large enough to allow flexibility in the placing and capacity of future buildings, as well as to provide plenty of room for recreation and other community activities. They should also be large enough to insure a flexibility in the policy of dividing the grades between elementary and secondary schools. The recommended size of senior high school site is adequate for either a four- or a three-year school.

TABLE 10

Age Groups	1960 Resident Population	Percent of Resident Population	Public School Enrollment, 1959-60		
			Numbers	Percent of Age Group	Percent of Resident Population
Total	29,419	100.0			
5-11 (Grades K-6)	3,618	12.3	2,883	79.7	9.8
12-14 (Grades 7-9)	1,486	5.1	1,217	81.9	4.1
15-17 (Grades 10-12)	1,308	4.4	1,053	80.5	3.6
5-17 (Grades K-12)	6,412	21.8	5,153	80.4	17.5
0-4 (Preschool)	3,238	11.0			
Total: 17 or less	9,650	32.8			

Source: Population from 1960 Census, excluding institutional population; enrollment from School Department

Each year a census is taken by the School Department of all the residents under the age of 18. Table 11 taken from the September, 1964, Enumeration Report of that Department shows that there was a growth of slightly more than 10 percent in the school age residents between April, 1960, and September, 1964, but little change in the preschool group. There has been a reduction in the percentage of each age group who are enrolled in the public schools, especially in the junior and senior high categories. In these two groups the reduction in percentage is in part accounted for by the establishment of the Catholic High Schools.

FUTURE ENROLLMENT

Estimates of enrollment in the various grades for the next few years have been prepared by the School Department on the basis of recent trends and birth records. This gives a reliable projection for a limited time, but it cannot take into account the unknown factor of in-migration of new families into the City,

except by allowing for a continuation of the present trend. Since the purpose of the present Plan is to provide facilities for the "target" population on a long-range basis, certain assumptions must be made as to the percentage of the population which will be represented by school-age residents and the proportion of these age groups who will attend public schools. The Connecticut Development Commission in its Interregional program has prepared projections of the State's population by age groups to the year 2000.* They have used both a cyclical and a straight line method of projection and the results give a range of upper and lower estimates, within which the actual future figure may be expected to fall. The upper range of estimates made in the Development Commission study indicated that the 5-17 year age group might include as much as 24.5 percent of the total population in the years 1970, 1980 and 1990 and possibly 26 percent in the year 2000. Another method of projection gave lower figures: 22.9 percent in 1970, 17.8 percent in 1980 and 21.9 percent in 1990.

From the projections of future school-age residents made in the Development Commission study, we see that the school-age group is likely, by 1990 or 2000, to represent a figure somewhere between 22 and 26 percent of the total population, compared with 21.8 percent in 1960. Considering the fact that by that date Middletown will be rather fully developed, with a smaller proportion of new houses and consequently of young families, we doubt that the proportion of children will be so much higher than now. For the purposes of the present study, we have assumed that the 5-17 year age group will, in the "target year, 2000", account for 22.5 percent of the total resident population, divided as follows:

5-11 years (Grades K-6)	13.0%
12-14 years (Junior High School)	5.0
15-17 years (Senior High School)	<u>4.5</u>
	22.5%

From Table 11 we see that approximately 78 percent of the 5-11 year age group attend a public elementary school. At present there are approximately 900 pupils in K-6 grades in parochial schools, or about 22 percent of the same age group. Assuming that the parochial elementary enrollment does not increase as fast as that of the public schools, the public elementary enrollment will probably represent around 85 percent of the age group. In the junior high grades the percentage is likely to be also in the neighborhood of 85 percent. Enrollment in the senior three grades has recently been between 75 and 80 percent of their age group. A normal increase in this percentage may be somewhat lessened by the establishment of the two Catholic High Schools and the growth of the Vinal Technical School. However, there is a continuing increase in the demand for secondary education. Therefore, the projections below for the upper three grades are based on 85 percent of the anticipated residents of that age group.

* Connecticut Development Commission, Interregional Program, Technical Report 131: Population.

TABLE 11

PERCENTAGE OF CHILDREN ATTENDING PUBLIC SCHOOLS, 1964

<u>Age Group</u>	<u>Total Residents In Age Group</u>	<u>Number In Public Schools</u>	<u>Percentage of Age Group</u>
5-11 years (Grades K-6)	4,144	3,240	78.2
12-14 years (Grades 7-9)	1,528	1,123	73.5
15-17 years (Grades 10-12)	<u>1,594</u>	<u>1,202</u>	<u>75.4</u>
5-17 years (Grades 0-4 years (Preschool)	7,266	5,565	76.6
	<u>3,215</u>	<u>111*</u>	
	10,481	5,676	

*4 year olds

Source: Enumeration Report, September, 1964

Note: Between 15 and 20 percent of the 4-year olds attend public kindergarten. They add about 3 percent to the anticipated total elementary enrollment based on the trends of population in the 5 to 11 year group.

Table 12 summarizes the projections of public school enrollment to the "target" year for today's planning. Based on a future resident population of 65,000, the numbers of persons in the three school age groups and the probable public school enrollment are derived by applying the percentages described above. While the figures listed in Table 12 are estimates only and represent enrollments which may be reached at a time earlier or later than the "target" year, 2000, they give the best picture now available of the requirements for which we must plan, especially in securing sites today.

ELEMENTARY SCHOOLS

Elementary schools are the ones which are most closely related to the home and to home neighborhoods. Since they take in the youngest children, they are usually limited in the size of each unit. It is generally the policy of educational authorities to consider the optimum size of a K-6 elementary school as one with from 20 to 24 rooms and with an enrollment of around 600 in those grades. Under this policy, when the elementary enrollment reaches the "target" figure of 7,200, there should be 12 such schools. These schools should be located where each can serve a neighborhood which will have approximately 600 to 700 elementary pupils when it is fully developed.

TABLE 12

PROJECTION OF PUBLIC SCHOOL ENROLLMENT

2000 or "Target" year of Development					
Age Groups	Number	Percent of Total	Percent of Age Group in Public School	Equivalent Public School Enrollment	Percent of Population
5-11 years (Grades K-6)	8,450	13.0	85	7,200	11.0
12-14 years (Grades 7-9)	3,250	5.0	85	2,750	4.2
15-17 years (Grades 10-12)	<u>2,925</u>	<u>4.5</u>	85	<u>2,500</u>	<u>3.8</u>
	14,625	22.5		12,450	19.0
Estimated Resident Population	65,000	100.0			

A study of the projected growth of the various residential neighborhoods was described in Chapter 6. Table 9 in that chapter gives estimates of the number of residents in each neighborhood when the "target" population of 65,000 is reached. From data furnished by the School Department, the present (1963-64) number of elementary pupils in each neighborhood was determined. These figures are given in Table 13, along with the present ratio of public school elementary enrollment to resident population. The boundaries of these neighborhoods are shown on Map IV.

We see immediately that the areas where there has been the highest volume of recent home building have the highest percentage of elementary pupils, notably Areas A and C. The older urban Areas, K and L, have the lowest percentage since they have a greater proportion of older families whose children are past school age.

As the City becomes more completely developed, the neighborhoods will tend to become more uniform in this respect, although the central urban areas may always be expected to have a much smaller proportion of children than the other sections. Based on the anticipated character of each neighborhood, when the 2000 or "target" population is reached, we have made an estimate of the percentage of the future residents to be found in public elementary schools in each such area. These estimated percentages are given in the fifth column of Table 13. This table also lists the 2000 population to be expected in each neighborhood, taken from Table 9. The last column gives the resulting K-6 enrollment in public schools for the "target" year.

TABLE 13

ESTIMATED 2000 ELEMENTARY SCHOOL ENROLLMENT BY NEIGHBORHOODS

Neighbor- hood Area	1960 Pop. in Households	1963-64 K-6 Enroll.	Percent of Population	Estimated 2000 Population	2000 Enroll. % of Pop.	Est. 2000 Enroll.
A	1,292	210	16%	6,000	13%	780
B	1,440	195	13%	5,500	13%	715
C	1,656	357	21%	5,670	12%	680
D	2,479	281	11%	5,580	11%	615
E	1,775	174	10%	3,710	13%	480
F	595	90	15%	4,180	13%	545
G	1,137	146	13%	4,800	12%	575
H	2,325	320	14%	3,490	12%	420
I	1,764	234	13%	4,350	12%	520
J	2,139	260	12%	3,170	12%	380
K	5,263	484	9%	7,070	6%	440
L	5,056	300	6%	6,400	8%	510
M	1,470	116	8%	3,850	10%	385
N	494	60	12%	1,230	10%	125
O	<u>19</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Totals	28,904	3,227	11%	65,000	11%	7,170

PRESENT ELEMENTARY SCHOOLS

Middletown has four thoroughly modern elementary schools, constructed since 1950, and each on an adequate site. All of these are of fire resistive construction. Their locations are shown on Map V. They include:

Bertrand Spencer School, 1951, enlarged, 1958
 F. J. Bielefield School, 1954
 Wilbert Snow School, 1955
 Van Buren Moody School, 1964

In the central part of the City there are two elementary schools. The Central School is a rebuilding in 1952 of an older structure largely destroyed by fire. Although in good structural condition, it is on a very inadequate site. The Stillman School was built in 1936 and is also on a very small site although it is adjacent to the City School's Field used as an athletic field for the Middletown High School. In the north end of the urban area, the MacDonough School, built in 1925, occupies a site of approximately two acres. The building is of reasonably good construction and in good condition, although the site is not large enough to meet present standards. In the southern part of the urban area is the Farm Hill School, which occupies a site recently enlarged to five acres. An addition containing five classrooms was completed at this school in 1964.

There are two other schools in the south end. The Eckersley-Hall School, built in 1928, occupies a small site, hemmed in by streets on all sides. The Hubbard School is the oldest of the elementary schools now in use, having been built in 1908. It is an obsolete school building, lacking fire resistive construction and without gymnasium, auditorium or cafeteria facilities. There is a small four-room school in the south portion of the City, known as the Long Hill School. It was built in 1926, but is not of fire resistive construction. Although it has a site of approximately six acres, which could be enlarged, the location at the busy traffic intersection of South Main Street and Randolph Road makes it unsuitable for long-term use.

TABLE 14

EXISTING ELEMENTARY SCHOOLS

School	Year Built	Site Area Acres	No. of Class-rooms	Optimum Enrollment	Maximum Capacity	Playground Area Acres
Van Buren Moody	1964	34	20	550	640	3
Wilbert Snow	1955	25	20	550	640	5
Bertrand Spencer	1951-58	12	20	550	640	2
F. J. Bielefield	1954	10	9	250	290	1
Stillman	1936	1	8	215	250	1/4
Eckersley-Hall	1928	2	7	190	230	1/2
Farm Hill	1927	5	14	250	350	1
Long Hill	1926	6	4	100	120	2
MacDonough	1925	2	12	300	380	1/2
Hubbard	1908	5	11	300	350	3
Central	1952	1	17	450	530	1/4
Totals		103	142	3,705	4,360	18-1/2

Notes: Eight classrooms at Central School are currently being used for seventh and eighth grade pupils. The number of K-6 classrooms available is therefore 134.

Data from School Department.

TOMORROW'S SITES

From the point of view of planning today the most important factor is the securing of adequate sites before the land is all developed and before it becomes prohibitively expensive. Today's plan for school sites must be flexible enough to allow for possible changes in policies and requirements. Ideas about the size of school sites have changed drastically in the last two or three decades. Formerly it was adequate to include a small yard around a school, and the buildings had two or three stories. Today it is necessary to provide plenty of room for recreation, adequate space to park automobiles and to load and unload school buses. The most efficient and most economical buildings now are generally one or at the most two stories high. All of Middletown's elementary schools built since World War II are on one level, with the exception of the rebuilding of Central School.

The three most recent schools have set a pattern for a K-6 unit. Each contains twenty classrooms and has a maximum capacity of 640 pupils, although the optimum enrollment is 550. The two newest have sites of 25 and 34 acres, respectively. The standard established by the State Department of Education requires a site of 5 acres plus one acre for each 100 pupils. On this basis the site of the Spencer School just meets the minimum.

In acquiring new sites, it is most important to secure enough land for several purposes. There must be room for a single story building, located well back from travelled highways, with plenty of recreation and parking space. There is an increasing tendency for school buildings and grounds to be used outside of school hours and all year for community activities and especially recreation. Planning for school sites should be combined with planning for recreation. The school site may be part of a larger park area.

The minimum area for each new elementary school, for school purposes only, should be 15 or 20 acres. If the land can also include community facilities for recreation and other activities, it should be correspondingly larger. This may mean that the land will be acquired and developed under two separate programs: School purposes and community recreation, open space or conservation.

THE PROGRAM FOR ELEMENTARY SCHOOLS

From Table 14 we see that the present elementary schools, including the new Van Buren Moody School, have an optimum capacity of 3,705 and a maximum capacity of 4,360. The School Department's projections of enrollment to the school year of 1968-69 are as follows:

K-6 enrollment, 1963-64	3,220 (actual, October 1)
1964-65	3,391 (actual, October 1)
1965-66	3,537
1966-67	3,622
1967-68	3,673
1968-69	3,639

These figures are based on births allocated to Middletown in prior years and may not reflect a possible increase due to a heavier in-migration of families into the City in the next few years. However, referring to Table 14, it appears that Middletown has sufficient capacity in elementary facilities for a number of years. This allows a period in which the community can give its attention to replacement of obsolete buildings, to consolidating some inefficient schools and to planning for schools in the locations where they will be needed by the future pattern of residential development.

In developing the long-range program we have first given consideration to what will exist when Middletown reaches what we have called the "target" growth. This contemplates a complete development in accordance with the present plan. It represents the stage at which the community will have attained a maturity and a leveling off of its growth, unless the nature of all present day development undergoes a complete and unforeseeable change.

The program for converting the city's elementary school plant from the 1964 enrollment of 3,200 to the projected 2000 enrollment of 7,200 must go on progressively. While all estimates about the future are, at best educated guesses, especially as the time element recedes into the future, nevertheless, these projections give a direction to our thinking. The transition in elementary school enrollment over the future years may be expected to follow the pattern below, remembering that the progression may be slowed down or considerably speeded up by external circumstances. The K-6 enrollments suggested below may be achieved several years earlier or later than the corresponding years. The 1980 figures may be reached only in 1985 and the 1990 ones in 2000, or vice versa, but this table gives a guide to our program.

K-6 enrollment, 1967	3,500
1970	4,000
1980	4,900
1990	6,000
2000	7,200

NEIGHBORHOODS AND ELEMENTARY SCHOOLS

The Central Neighborhood

The future of the two elementary schools in the center of the City, Stillman and Central, is closely related to the urban renewal program in that area. At the present time the area served by these two schools has a total of 404 pupils in the K-6 grades. In addition, the Central School accommodates nearly 200 junior high school pupils in the seventh and eighth grades, who reside in a much larger area. The need for additional junior high school facilities is discussed below. If the seventh and eighth graders are removed from the Central School, there would remain approximately 400 elementary pupils in this neighborhood. It would be much more efficient to house these in one school rather than two.

We therefore propose that the City negotiate with Wesleyan University for the sale of the Central School, which is located in an area which already has considerable university property and is suitable for university expansion. The same suggestion is made below concerning the Middletown High School property. Relocation of the latter to another site outside the urban area would permit use of part of the City School's Field for expansion of the Stillman School to take care of the present and future needs of this neighborhood.

The present enrollment in the neighborhood designated as "K" is approximately 480. Urban renewal projects and expansion of Wesleyan University are likely to reduce the area of land used for residence considerably, but the development of multiple housing projects will probably offset a drop in population. The elementary enrollment is likely to remain constant. If the K-5 program is put into effect, the elementary enrollment in this neighborhood would probably be around 400.

North of the Center

The present K-6 enrollment for the neighborhood designated as "L" is 300. It is served by the MacDonough School, which has a maximum capacity of 380.

This area may have several housing projects, with an increase of density. The present school building is suitable for modernization and enlargement as necessary, if the site is enlarged. The school is adjacent to the North End Playground, but additional land is needed for expansion of both school and playground facilities. It appears likely that this area may be included in a future urban renewal project, which would facilitate the acquisition of more land. The "L" neighborhood will probably have a 2000 K-6 enrollment of about 500. If the K-5 program is adopted, this neighborhood is likely to have an elementary enrollment of around 430. It may prove wisest to consider an entirely new school for this neighborhood if the present site appears to be adversely affected by future changes in the highway pattern and if urban renewal makes it financially attractive.

South of the Central District

The present enrollment from the area designated as neighborhood "J" is approximately 260. It is served by the Hubbard School. This neighborhood may be partly included in future urban renewal and may have one or more housing projects. The present school is old and located in an area of mixed industrial and residential uses. It should be replaced with a modern building on a better site. This should be accomplished as part of an urban renewal project, in order to take advantage of any possible credit to the City under the renewal procedure. The site should contain about 12 acres, in order to provide for a possible school load of at least 400 pupils. If the K-5 program is adopted, the figure will be nearer 350.

The Northwest Sector

<u>Neighborhood Area</u>	<u>Estimated 2000 Enrollment</u>
A	780
B	715
C	680
N	<u>125</u>
	2,300

The present enrollment in these four areas is approximately 820. The maximum capacity of the Spencer and Van Buren Moody schools is 1,280. Enrollment will reach this figure about 1970 to 1972. At that time New School "A" will be needed in the A area. If it has twenty rooms, it would bring maximum capacity of the three schools to 1920, which should equal the enrollment to about 1985.

After that date it may be necessary to enlarge these facilities. The Van Buren Moody School has a large site of 34 acres. The site for New School "A" should contain 20 to 25 acres. The Spencer site is only adequate for the present building, so that any long-range expansion of facilities would have to take place at Van Buren Moody and New School "A". Assuming that Neighborhood N remains a rural area, it is not expected to have enough pupils for its own school and would, therefore, be served by the Van Buren Moody School. The site for New School "A" should be acquired without delay. Even though the adoption of K-5 might reduce the anticipated elementary enrollment in these areas, there should be no diminution in the area of the New School "A" site.

The West-Central Area

<u>Neighborhood Area</u>	<u>Estimated 2000 Enrollment</u>
D	615
E	<u>480</u>
	1,095

The present K-6 enrollment in these two areas is approximately 450. They are served by the Snow School with a maximum capacity of 640. The design of this school, with separate classroom buildings, facilitates enlargement. Enrollment will reach this figure (640) about 1972, on the K-6 basis. On the K-5 basis, a figure of about 550 is likely to be reached around 1972. This is the optimum capacity of the Snow School. At that time it will be necessary to increase the capacity of the Snow School, either as a single elementary unit or divided into primary and intermediate units. The site is large enough to permit a flexible plan. It seems reasonable to take care of these two neighborhoods at the Snow site, located midway between them, rather than to plan an additional school in the D area.

The Southern Area

<u>Neighborhood Area</u>	<u>Estimated 2000 Enrollment</u>
F	545
G	<u>575</u>
	1,120

The present K-6 enrollment in these two areas is approximately 240. The Long Hill School can accommodate only 120 at the maximum. Eventually each of these neighborhoods will need a separate elementary school of twenty classrooms; therefore, a site of 20 to 25 acres should be acquired in each area before development proceeds much further than at present. Pupils from these two neighborhoods are now accommodated at Farm Hill and Bielefield. Building activity is likely to

spur the growth to the point where a new school in either of the two areas will be needed by 1968 or 1970. The first school should probably be located in Neighborhood F, followed by a school in Neighborhood G, about 1980 to 1985.

The South-Central Area

<u>Neighborhood Area</u>	<u>Estimated 2000 Enrollment</u>
H	420
I	<u>520</u>
	940

The present K-6 enrollment in these two areas is approximately 550, served by Bielefield, Farm Hill and Eckersley Schools. Eckersley has a current enrollment of about 160. It will be more efficient and economical to discontinue this School. The future enrollment of these two neighborhoods should be served by Bielefield and Farm Hill. Farm Hill, with current additions, has a maximum capacity of 350, but its site should be enlarged by acquisition of land to the south of the present building, to a total of 15 to 20 acres, to provide flexibility for possible future enlargement.

Bielefield may be enlarged to a capacity of 640. A study should be made at this time to see how much additional land is needed to insure a proper siting of any building additions and auxiliary facilities at Bielefield. For a number of years the Bielefield School will have to serve the M neighborhood. This will advance the date at which the Bielefield addition will be needed. By sometime around 1972 to 1975 a separate school will be needed in the M area. The date will depend on building activity in that neighborhood.

<u>Neighborhood Area</u>	<u>Estimated 2000 Enrollment</u>
M	385

The present K-6 enrollment is approximately 120. This area has no school and is presently served by the Bielefield School. It may have considerable building activity, although portions will remain rural. At sometime around 1972 to 1975 this area will need its own school. A site should be acquired without delay, large enough for a school of 600 capacity, in case growth exceeds the estimate. It should contain 15 to 20 acres. In view of the fact that many of the State Hospital personnel live in the area, it is suggested that the City seek to obtain some of the hospital land as a site.

JUNIOR HIGH SCHOOL GRADES

At present the 7th and 8th grade pupils are divided between the Woodrow Wilson Junior High School and the Central School. The 9th grade is divided between the Middletown High School and Woodrow Wilson Junior High. There are approximately 1,100 pupils in these three grades. By 2000 there are likely to be about 2,750 junior high school pupils in Grades 7 through 9. If the Board of Education changes its classification of junior high grades to include 6 through 8, the enrollment in these grades will be at approximately the same figure.

The Woodrow Wilson Junior High School occupies a building originally built as a senior high school in 1931, but added to in 1939 and 1960. It is in excellent condition and is capable of accommodating from 900 to 1,000 pupils. At present, it has about 840 pupils, while about 270 in Grades 7 through 9 attend the Central-Middletown High combination.

The School Department projections indicated that the junior high enrollment will grow to about 1,200 next year and to over 1,350 in 1968. If the junior high at that time includes Grades 6, 7 and 8, the 1968 enrollment will be nearly 1,500. This figure could well increase to about 1,600 in 1970 and to 1,800 by 1975.

If the City maintains a 3-grade junior high organization whether for Grades 7 through 9 or 6 through 8, and if 900 to 1,000 pupils is considered to be the best size of junior high school, it will eventually need three such plants. If the Central and Middletown High School buildings are disposed of, one new junior high school will be needed immediately and by 1975 it would have to accommodate at least as many as now attend the Woodrow Wilson Junior High.

We therefore recommend an early acquisition of a site for a second junior high school, to be located in the northern part of the City. This should be considered in connection with a senior high school site which is discussed in the next paragraph.

SENIOR HIGH SCHOOL GRADES

Until recent years Middletown had two separate school districts, the City and the Town, going back to the days before consolidation. As a result, there are two high schools. The Middletown High School, at the corner of Court and Pearl Streets, is a typical city type of school, occupying almost all of its site. It was built in 1894 and enlarged in 1914. It has no room for outdoor recreation or for automobile parking. It has an athletic field of approximately 2 acres several blocks away. It would be impracticable to enlarge or modernize this structure or to add to its site. As it lies in the area into which Wesleyan University may expand, it is suggested that the City enter into negotiations with the University with a view to dispose of this property.

The Woodrow Wilson Senior High School occupies a structure built in 1956 and enlarged in 1962. It can readily accommodate about 1,000 pupils. Its site is somewhat restricted. Additional land, including some houses, should be acquired in order to protect the investment at this school and to insure space for future enlargement as may become necessary.

The present enrollment in the upper three grades is slightly over 1,200, of whom about 860 attend the Woodrow Wilson School. In addition to approximately 400 local pupils in these grades, the Middletown High School has nearly 300 tuition pupils from other towns. The enrollment in Grades 10 through 12, exclusive of tuition pupils, is likely to reach 2,500 sometime between 1990 and 2000. However, this figure may be somewhat reduced by increases at the Vinal Regional Technical School and by the growth of the two Catholic High Schools. On the other hand, there may be an increase in high school attendance generally, as well as the introduction of one or more grades at the postgraduate level.

If the Board of Education adopts the four-year senior high program, the enrollment in those grades by 1975 would be approximately 1,700, exclusive of out-of-town pupils. Including tuition pupils, the enrollment would reach approximately the same figure next year. Middletown, therefore, needs a new high school immediately and should acquire an adequate site at once. Since the Woodrow Wilson School is in the southern part of the City, and since the population will be roughly divided into equal parts between the halves, it follows that the new plant should be located in the northern portion.

It will be most efficient to combine this plant with the required junior high school, since some of the facilities may be jointly used and since there would be economies in transportation. But the site must be large enough to separate junior and senior buildings adequately. It is quite possible that post-secondary education under local auspices will be much more prevalent in the future. This may take the form of community junior colleges or of similar courses provided by local high schools. In view of the flexibility needed to meet the long-range requirements and developments which cannot be foreseen today, the site should be adaptable for a campus type of project. To accommodate the educational facilities which may be provided, along with related athletic and recreational space and other community uses, the site should contain on the order of 100 acres.

Summary of the School Program

I. A. Prompt Acquisition of New Sites for

1. 1. Senior and Junior High School Campus
2. Elementary School, Neighborhood F
3. Elementary School, Neighborhood A
4. Elementary School, Neighborhood M
5. Elementary School, Neighborhood G

B. Site Expansion

1. Farm Hill School
2. Bielefield School
3. MacDonough School (possibly a new site in connection with urban renewal)

C. In Connection with Urban Renewal

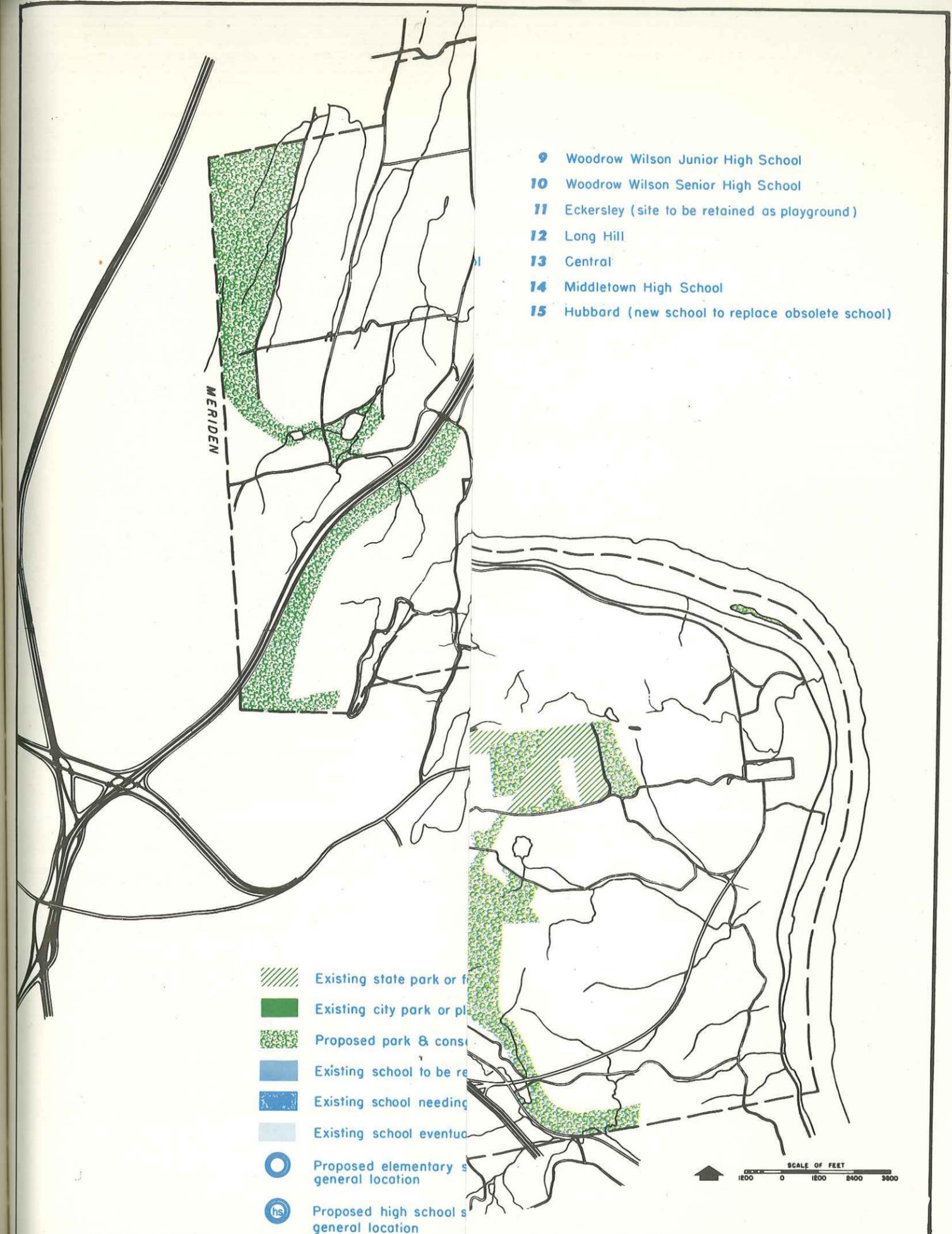
1. Stillman School site expansion (City-owned land)
2. New site for replacement of Hubbard School

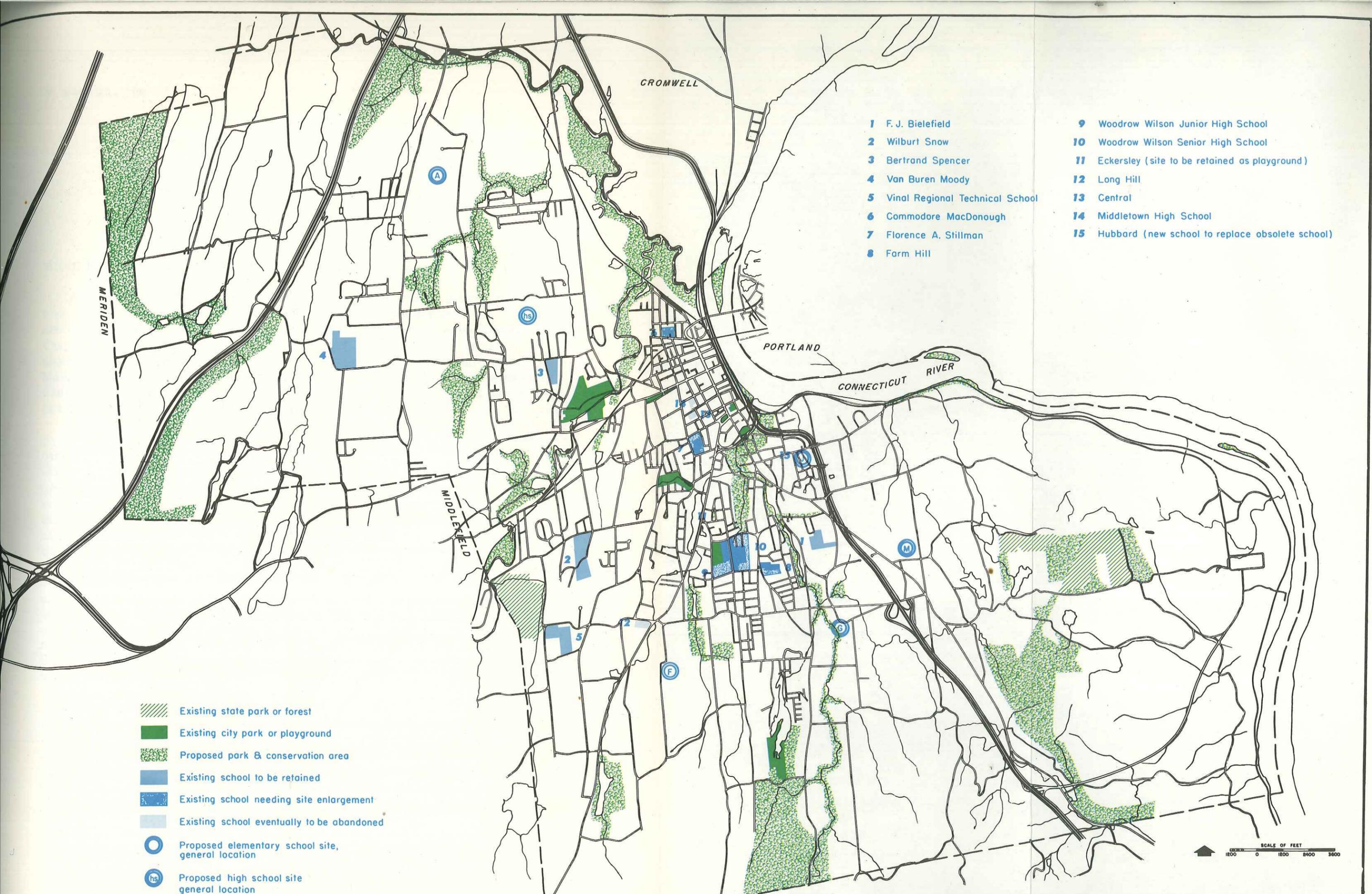
II New Buildings

	<u>Approximates Dates</u>
A. New Senior and Junior High Schools	1966
B. New School F	1968
C. Replacement of Hubbard School (Urban Renewal)	1970
D. New School A	1970
E. New School M	1972
F. New School G	1980

III Building Enlargements

A. Stillman School	1966
B. Bielefield School	1968
C. MacDonough School (or new building)	1970
D. Wilbert Snow School	1972





- 1 F. J. Bielefield
- 2 Wilburt Snow
- 3 Bertrand Spencer
- 4 Van Buren Moody
- 5 Vinal Regional Technical School
- 6 Commodore MacDonough
- 7 Florence A. Stillman
- 8 Farm Hill
- 9 Woodrow Wilson Junior High School
- 10 Woodrow Wilson Senior High School
- 11 Eckersley (site to be retained as playground)
- 12 Long Hill
- 13 Central
- 14 Middletown High School
- 15 Hubbard (new school to replace obsolete school)

- Existing state park or forest
- Existing city park or playground
- Proposed park & conservation area
- Existing school to be retained
- Existing school needing site enlargement
- Existing school eventually to be abandoned
- Proposed elementary school site, general location
- Proposed high school site, general location

SCALE OF FEET
 1200 0 1200 2400 3600

7. RECREATION

This chapter describes the proposed program for recreation facilities. Provision is made for neighborhood playgrounds and small parks, for play facilities at school sites and for larger school athletic fields. Other facilities to consider include golf, indoor swimming pool, artificial ice skating rink, boating facilities. Attention is given to the need for open land for conservation purposes (See Map V).

MIDDLETOWN'S REQUIREMENTS

Although Middletown is incorporated as a city, it is actually a large rural town within which there are limited areas of compact urban development. There are very extensive areas of open land, some of them rugged and mountainous. In Chapter 3 we saw that nearly one fifth of the total land area belongs to one or another of the institutions located here, including some state park and forest land. Most of this land is likely to remain open, or sparsely used, in the foreseeable future. In addition, we have observed that almost one third of the total land area is topographically unsuitable to normal development.

From the discussion of neighborhood areas in Chapter 5, it has become apparent that there will probably be limited areas with urban characteristics and that by far the largest proportion of the future residential land is likely to be developed in a suburban and rural pattern. These variations in types of development give to Middletown a special character, part city and part country. For this reason the usual standards for recreation facilities cannot apply uniformly and Middletown's needs will be quite different from those of a typical city with a continuous urban sprawl.

Certain types of facilities serve the entire community, such as a large forest or park, or a municipal golf course. Others serve special segments of the population, such as ball grounds, tennis courts or skating rinks. Still others serve small neighborhood areas, offering places where small children can play and adults can sit or stroll. Obviously the low density suburbs, where each family has its own back yard, require less of the neighborhood facilities than the crowded multifamily areas.

A thorough survey of Middletown's recreational facilities and a park and recreation improvement plan were prepared in 1964 by the Allen Organization of Bennington, Vermont. That study was based on the projections of population and anticipated neighborhood growth developed in the present General Plan, of which the preliminary report was made available to the recreation planners. The report of the Allen Organization contains valuable proposals for the physical development of the numerous recreation areas. The suggested facilities fall into four major classifications: 1. Local open space. 2. The neighborhood center. 3. The interneighborhood park, and 4. The city-wide park. The Allen report lists

thirty specific proposals for the use and improvement of existing areas and the acquisition of several new ones. Almost all of these proposals agree closely with the recommendations of the present General Plan.

CENTRAL MIDDLETOWN

Map IX shows the plan for the central area of Middletown. This comprises the downtown section, lying within the "ring road" between the Connecticut River on the east and Wesleyan University on the west. There is a substantial number of residents in the downtown area, mostly living in compact multifamily structures. While the character of this area is likely to undergo a considerable change through urban renewal, a good many families will probably remain. They will include residents of some public housing projects and of other apartment groups. There will be a substantial number of older people and of young couples, and the proportion of children will be less than average.

The Plan shows a number of "superblocks" and indicates those in which residential use is planned. These will gradually be redeveloped as the urban renewal program is carried on. Each "superblock", or in any case, the residential portion of each, should include play space for small children and sitting space for adults. The area allocated to this play and sitting space should be equivalent to at least 300 square feet per apartment, in addition to other open space required for drives, parking, lawns or service areas.

The Plan of central Middletown also includes an area west of the "ring road" south of Church and Cross Streets and north of Ravine Park. Wesleyan University owns a considerable amount of land here and its development will include some university housing and some private houses, both single and multifamily. Housing projects should include open space as mentioned in the previous paragraph. Ravine Park forms an excellent function in providing open space, nearly 20 acres in extent. It should be retained largely in its natural state, with paths and benches. Further west there is a parcel of city-owned land with a pond, known as Butternut Hollow. This should be developed as a neighborhood park and playground.

When the Middletown High School is removed to an outlying site, as recommended in Chapter 6, its present athletic field, known as the "City School's Field", should be retained as a neighborhood park and playground, and for expansion of the Stillman School. It is large enough to include a small playfield for younger-age informal games. Specific recommendations for improvements at this field are contained in the Allen report. A second playfield located in Hubbard Park at the south end of the central district is now used for Little League games. In the future it may be needed as a neighborhood playfield for the central area.

The existing Otis Playground on Sumner Street, between William and Union Streets, is in an area indicated for commercial development. However, the use of the present Middletown High School Field and of Hubbard Park will give this neighborhood adequate space for the younger-age organized sports. The

Washington Green creates open space at the Washington Street entrance to downtown. It adds greatly to the esthetic appeal and will be increasingly useful for passive recreation for adults as housing in the vicinity becomes more dense.

RIVERSIDE PARK

Heretofore the riverfront at the center has been very much neglected. Originally taken up with docks and commercial use, the waterfront was opened up through the construction of Acheson Drive after World War II. The City owns a strip between Acheson Drive and the River, extending south to Sumner Creek. Although very narrow at its north end, this strip widens to approximately 200 feet at the south. Some land has been lost by erosion into the river.

This park represents for central Middletown its connection with the river. It can add immeasurably to the attractiveness of the center and become an important amenity to the downtown district. It has now been improved by degrees through the cooperation of a civic organization and at present contains a small boat launching ramp.

The City should undertake a program of stabilizing the river bank through sheet piling or a river wall, which could recover a certain amount of land. The park itself should be landscaped and provided with walks and benches for the enjoyment of nearby residents and occupants of the business buildings. Consideration should be given to the dredging of the mouth of Sumner Creek to form a marina. The river itself is a rather exposed place at times for docking small boats. Fees for the use of these docking and mooring facilities could put such a project on a self-liquidating basis.

Immediately south of Sumner Creek there is a small area now used as a fuel oil storage terminal. The Plan proposes that this be kept, at least for the present, as an area for this type of business related to the river, including possibly a boat yard or similar activity. South of this area the riverfront remains mostly in its natural state, but the Plan proposes the gradual acquisition by the City of the actual shore and the gradual improvement of River Road to take advantage of the scenic values of the valley.

NORTH END

Between the "ring road" and the Coginchaug River there is a large and compact residential neighborhood indicated as Neighborhood L on Map IV. It has a present population of about 5,000, which is expected eventually to grow to over 6,000. The area is now served by the playground adjacent to the MacDonough School. This contains only about 2 acres and is insufficient for the present need. As this is a compactly developed neighborhood, there should be an ample allowance of play space for young children and park space for adults.

As there are expected eventually to be nearly 2,000 families in this neighborhood, the figure of 300 square feet per family of play space for young children

and small park space for adults, mentioned above, would require a total of about 15 acres. The MacDonough School playground areas may be expanded to provide approximately 5 acres. A second playground further west would help in that part of the neighborhood. If there are any housing projects here, whether public or private, they should have appropriate play space for their occupants. At present there is an undeveloped area of about 30 acres known as "Roosevelt Field" located between Route 9 and the former Berlin railroad line, just north of the Portland Bridge. It has poor accessibility except from a few dwellings in a badly located group under the shadow of the bridge. It is not in the right place to serve Neighborhood L. If these houses were removed under an urban renewal project and the families relocated in better surroundings, this entire area would probably be devoted to some form of industrial use.

HUBBARD SCHOOL NEIGHBORHOOD

Immediately south of the City center, there is an area of low land in the valley of Sumner Brook and a tributary. This contains a mixture of blighted housing and commercial uses, together with some open land. The Plan allocates much of this low land to highway purposes, although a part of it can be devoted to recreational use.

South of the proposed Route 6A and east of Main Street Extension, there is a residential neighborhood shown on Map IV as Neighborhood J. The southerly part is on higher ground and is largely developed in single family houses. The northerly part contains numerous mixed uses and should be studied for urban renewal. In this latter portion there may be housing projects of varying types.

The neighborhood has at present about 2,000 residents, which may eventually be increased to at least 3,000. It is served by the present Hubbard School and its playground. Chapter 6 contains a recommendation concerning the eventual rebuilding of this school and its relocation farther south from the proposed highway. It should have ample playground space, with a site of not less than 15 acres. This can best be carried out in connection with an urban renewal project.

SUBURBAN AND RURAL NEIGHBORHOODS

Map IV shows the other neighborhood areas in which the future population may be expected to reside. Their numbers are discussed in Chapter 5, and the proposals for elementary school facilities are described in Chapter 6. In these neighborhoods, the school will provide the nucleus for playground activities.

Outside of the neighborhood areas described previously in this Chapter, there are five existing elementary schools which are proposed to be retained in the long-range plan. These are listed as follows, with the areas of their sites.

Van Buren Moody	34 Acres
Wilbert Snow	25 Acres
Bertrand Spencer	12 Acres, enlargement advisable
F. J. Bielefield	10 Acres, should be enlarged
Farm Hill	9 Acres, should be enlarged

Several of the existing schools are proposed for eventual abandonment. One of these, the Eckersley-Hall School, is located in one of the neighborhoods included in the suburban category. We recommend that its site be retained as a park and playground area. The Long Hill School is located at a busy highway intersection and one which will have still heavier traffic under the proposed circulation plan. It is in an area which is more suitable for business development than for residential. Therefore we recommend that the site eventually be sold for business and the money used to purchase other land for recreational purposes.

In addition to these, the Plan proposes four new schools which eventually will serve the neighborhoods designated on Map IV as A, F, G, H and M. The recommended site area in every case is at least 20 acres, so that there should be ample space for playground activities.

The Allen report suggests a neighborhood recreational center of 7 to 10 acres in presently open land south of Randolph Road, near the southerly end of Ridge Road. This area will eventually be quite fully developed and this proposed facility, along with facilities at proposed Schools F and G, will be needed to provide for the future population of this area.

The suburban and rural neighborhoods are now generally developed at relatively low densities, and it is proposed to continue this pattern. Lots in most of the areas contain upwards of 15,000 square feet. There is little demand for the playground for small children or for sitting space for adults, when each family has its own back yard. Therefore, recreation facilities here will be mostly those related to school sites.

However, the General Plan does indicate several areas which are proposed as outlying clusters of housing at a higher density than the surrounding single family suburban sections. These will contain a mixture of apartment projects, row housing or what is now popularly referred to as "town houses" and single family dwellings. Because of the higher density, each of these areas should have playground space commensurate with the type of development.

Another source of playground space is found in the administration of subdivisions by the City Plan Commission. The law permits the Commission to require that developers set aside a certain amount of land for park and playground purposes in any subdivision. Judicious use of this provision can insure the preservation of at least some open space in new areas.

PLAYFIELD AND ATHLETIC FACILITIES

Organized sports require larger facilities than those available in neighborhood playgrounds, especially where large numbers of spectators may be expected. The City has at present three playfields where athletic sports may be carried on.

The Pat Kidney Field is located beside the Woodrow Wilson Junior and Senior High Schools and is in part used by these schools. It is also much used by other groups, especially for softball. It has a grandstand seating approximately 600 spectators and lighting to permit night softball. In Chapter 6 we have recommended acquisition of additional land to give a more adequate site for these schools and for the related athletic and other recreational facilities.

Palmer Field lies next to the Veterans Memorial Park but is separated by the Coghinchaug River. It contains a baseball and a soccer field. Its total area is approximately 9 acres. Recommendations for the improvement of both the park and the athletic field are contained in the Allen report.

Hubbard Park, as previously mentioned, is set aside for Little League baseball. It contains approximately 5 acres.

A fourth playfield of limited use also exists at the Wilbert Snow School. It has facilities for softball and touch-football and a Little League Baseball field.

Other school sites can contain playfield facilities, especially the new Van Buren Moody School and the four proposed sites. The addition of tennis courts at several of these locations will be especially popular with adults and, by charging small fees, could be made self-supporting.

In Chapter 6, we have recommended the removal of the Middletown High School to an outlying site of approximately 100 acres. This would provide the major athletic facility of the City with an adequate stadium and several fields for all sports. The proposed site may combine junior and senior high school facilities.

In connection with the proposed high school, consideration should also be given to an indoor swimming pool for community as well as school use. Another facility to be considered there is an artificial skating and hockey rink.

LARGE CITY-WIDE PARKS

The only existing major park which serves a large part of the City is Veterans Memorial Park, a 39 acre tract. This park also contains a well-equipped playground and serves a growing residential area. The Allen report includes specific recommendations for improvements here.

The City also owns approximately 40 acres of land at the south end of Crystal Lake. Unfortunately, this body of water is now empty, and the dam must be repaired. The Plan proposes that the land area be considerably expanded. This park should have facilities for picnics, fires, boating and swimming, as well as informal games. It is hoped that this project can be advanced without delay.

One city-wide facility which is now lacking in Middletown is a golf course. The Allen report has suggested that this deficiency be remedied by the construction of "Par-3" courses, which are modified and shortened courses which take much less land area than a full course. They present many advantages, both to the community and to the player. However, it is not certain whether they can take the place of the standard course for great numbers of golfers.

Whether Middletown should have one full sized 18-hole municipal golf course or two or three Par-3 courses is a matter to be decided after consultation with the interested golfers. In either case, facilities for golf should be largely supported by user fees. We recommend that a special study should be made to discover how many golfers there are in Middletown who would use any public facility, and to ascertain the preference type of course and the fees which people would be willing to pay.

CITY FOREST

In the extreme northwest corner of the City the Plan proposes that a large area of rugged land should become a city forest and wilderness park. As the community becomes more completely saturated with development, an area such as this will become more and more important to the residents. It can provide for activities such as camping, picknicking, hiking, horseback riding, boy scout or girl scout activities and many others. Also in this part of the City there is a body of water known as Highland Pond. The Allen report recommends that the area around this pond should be a large city-wide park, with swimming and boating facilities. This area could be connected by greenbelt strips with the city forest just mentioned, as shown on the General Plan.

CONSERVATION AND PARK DEVELOPMENTS

The Plan shows many areas of wetland and stream valley which should gradually be acquired for conservation purposes. By degrees these could form greenbelts, protective stream flows and important easements for extension of sewer and drainage systems. At various places these greenbelts may be widened to form park areas of useful size. Much of the land shown on the Plan for these purposes is naturally unsuited to normal development. At the present time the federal open space program may provide from 20 to 30 per cent of the cost of acquiring open land and the state program may cover 50 per cent of the balance. An active local program under a Conservation Commission could take advantage of this assistance to accomplish these ends.

8. WATER SUPPLY AND SANITARY SEWERAGE

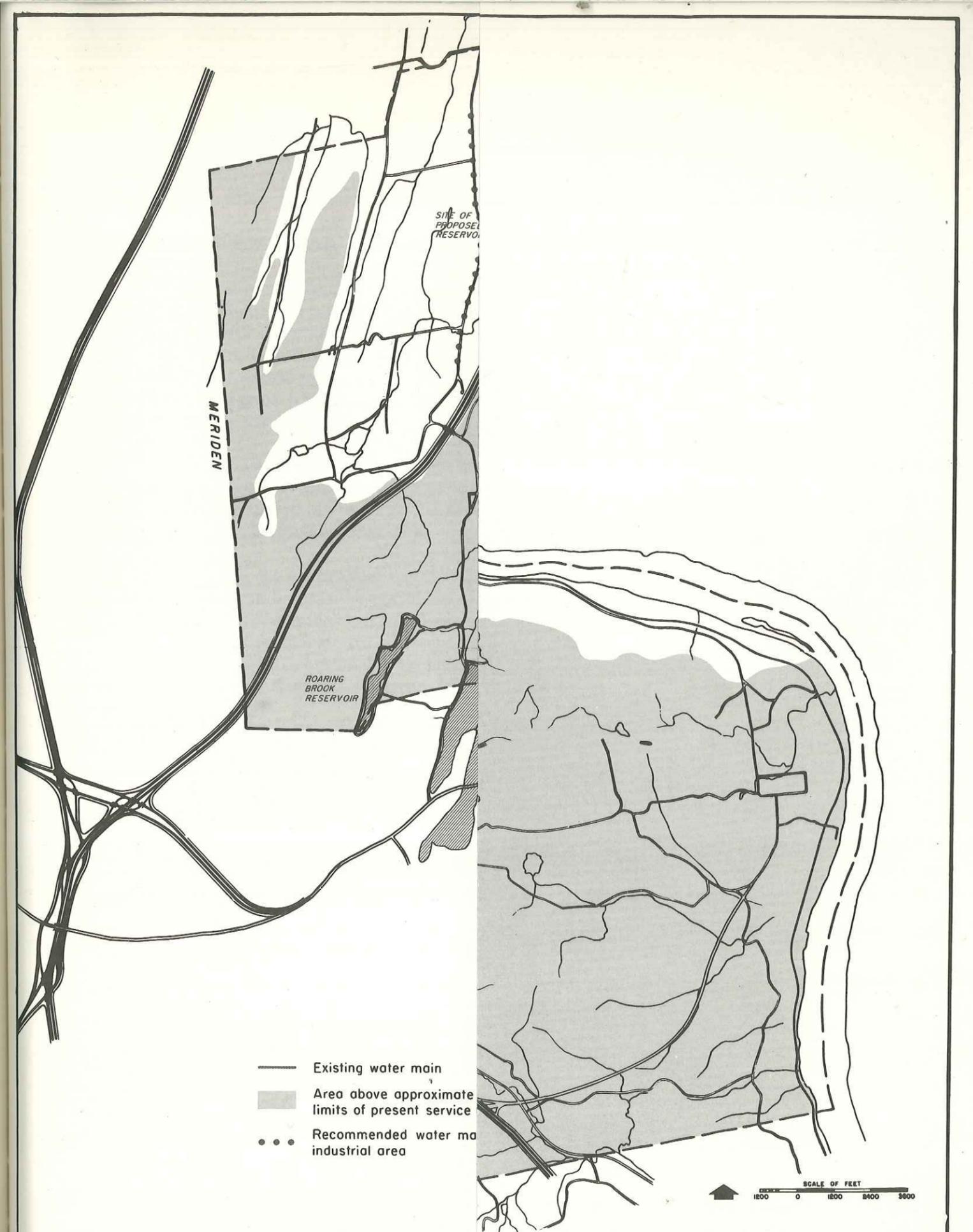
There is a close relation between the proposed development of land under the Plan and the need for city water supply and sanitary sewers. Rural areas which lie beyond the limits of efficient and economical extension of these services should be developed at a low density so as to permit the use of private wells and septic tanks. Extension of the sewer system to serve the northern part of the City requires a trunk sewer in the Mattabesset Valley, presumably under regional auspices. Sewer and water services are needed to permit development of industrial areas, especially the area near Interstate Route I-91. See Map VI and VII.

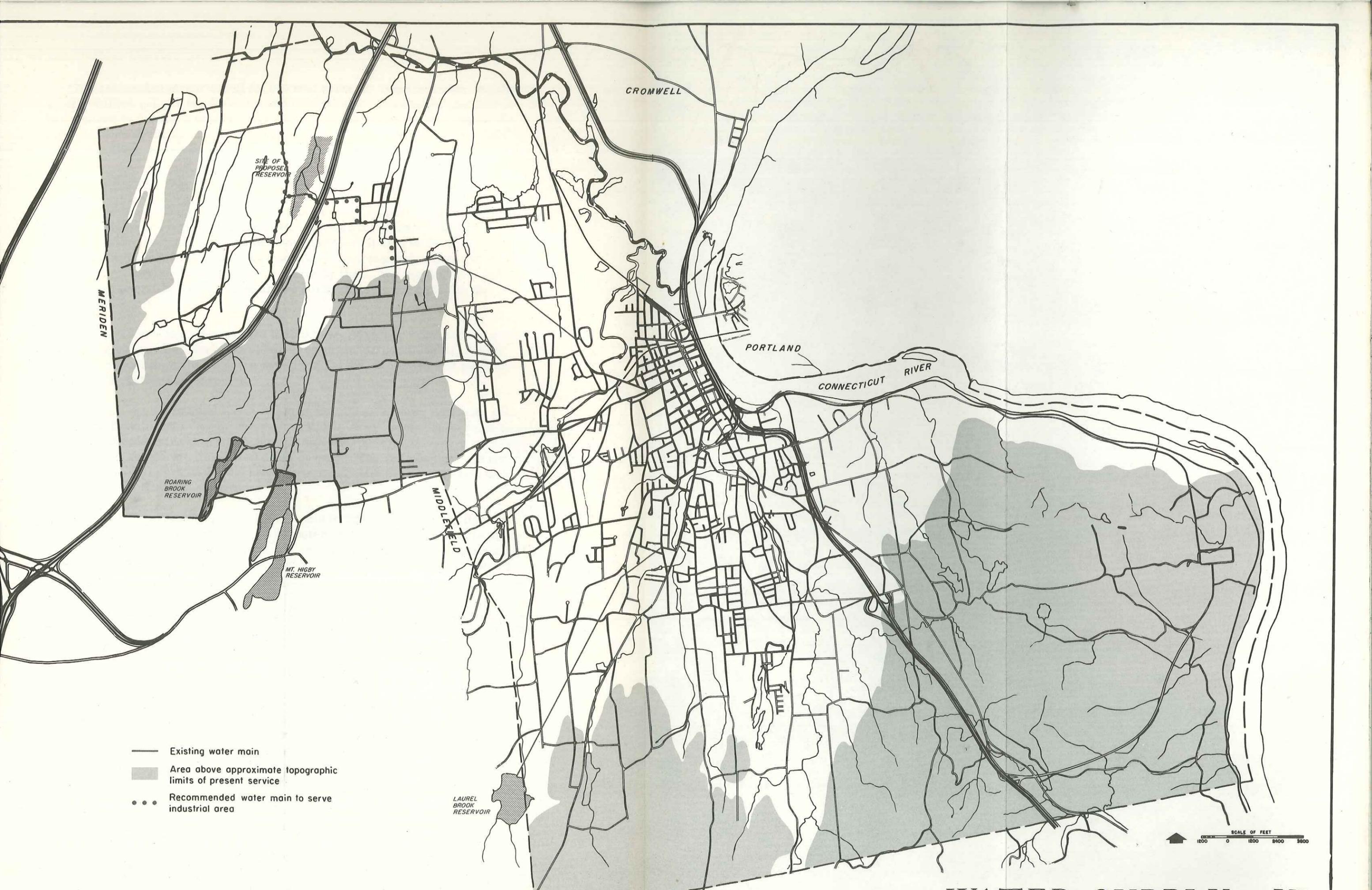
WATER SUPPLY

Map VI shows the present extent of the public water supply system operated by the City of Middletown. The two chief sources of water at present are the Mount Higby Reservoir in the western part of the City and extending into the Town of Middlefield and the Laurel Brook Reservoir in the southwestern corner, also partly located in Middlefield. In dry seasons the City at times has been forced to secure water from the state hospital supply.

From the planning point of view, Middletown's problem is basically one of total supply. Its distribution system extends to most of the area presently occupied by intensive development. Map VI shows the present topographic limits of the supply by gravity from the Mount Higby Reservoir. Above these elevations it will be necessary to increase pressure by pumping. The City is currently having studies made to secure an increased supply. Several areas are being surveyed for underground sources by test drilling. The City has also acquired land for an additional reservoir in the valley of the Sawmill or Fall Brook in the north-west section. This reservoir will be at a low elevation and presumably would be used principally for storage, water being pumped to the Mount Higby Reservoir for adequate pressure. It may also be possible to use this reservoir to serve areas at lower elevations. In any case, it appears likely that reliance must also be placed on underground sources.

We recommend that the City continue its studies of water supply on a long-range basis, first to secure an adequate supply for the City's ultimate development, both domestic and industrial, and second, to plan for the gradual improvement of the distribution system, including new principal mains where needed, extensions to new areas and service to higher elevations where development is likely to take place. Where it is impractical and uneconomical to extend service to some of the higher and more rugged areas where there is to be only a sparse development, the land should be zoned for large enough lots to permit private well systems.





CROMWELL

SITE OF PROPOSED RESERVOIR

MERIDEN

ROARING BROOK RESERVOIR

MT. HIGBY RESERVOIR

MIDDLEFIELD

PORTLAND

CONNECTICUT RIVER

LAUREL BROOK RESERVOIR

- Existing water main
- Area above approximate topographic limits of present service
- Recommended water main to serve industrial area

SCALE OF FEET
1200 0 1200 2400 3600

The anticipated population of 65,000 will normally require a daily supply of about 7 million gallons for domestic and general use. In addition, the City should be prepared to furnish a considerable amount of water for industrial use. Therefore, sources of supply should be sought and acquired to assure a daily yield of 10 to 12 million gallons or more.

SANITARY SEWERAGE

Map VII shows the areas now served by the City's public sanitary sewerage system. There are two treatment plants, one near the Connecticut River at the south end of the central area, and the other at the west side of the central area on the Coginchaug River. This map also shows the topographic limits of extension of the present system to preserve a gravity flow. We see that the northern and western part of the City's area drains northward into the valley of the Mattabesset River.

In order to provide for sewerage of this area, it will be necessary to install a trunk sewer near that river and either to construct an additional treatment plant near the mouth or to pump the sewage to the existing treatment plant and to enlarge the latter as necessary.

However, we understand that a regional Mattabesset Sewer Authority will serve New Britain and other towns of this valley. It will probably be much more efficient and economical for Middletown to apply for service from this regional authority than to operate its own separate system. The Mattabesset regional sewer system will presumably include a treatment plant near the river's confluence with the Connecticut River.

The Land Use Plan designates large areas in this drainage basin for industrial development. The portion along the outer part of Newfield Street is presently the most accessible. It is needed at once as a location for the community's promotional efforts in securing new or relocated industries. Sewer service for this area must therefore have a high priority.

We, therefore, recommend that the City officials take immediate steps to investigate the feasibility of joining the regional sewer authority and the terms under which its service can be obtained.

RELATION OF SEWER AND WATER SERVICES TO DEVELOPMENT

The Land Use Plan for residential land, shown on Map VIII, indicates the proposed types of development and consequently the density which may be expected. Areas which are designated as "suburban residence" will require public water supply and public sanitary sewerage services. Although these areas may not be entirely developed immediately, the Plan gives a good picture of the extensions of these services which will eventually be needed to serve residential neighborhoods.

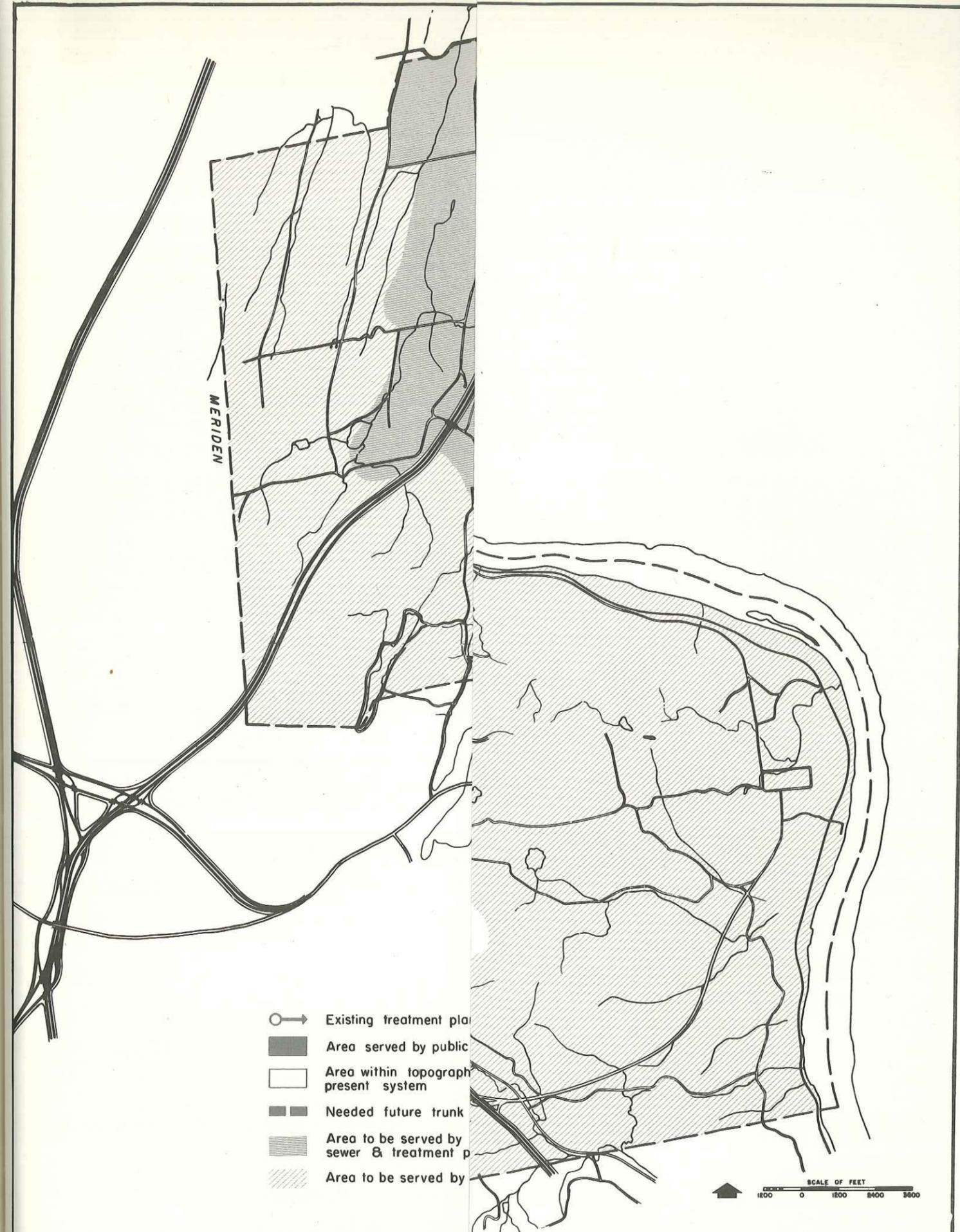
The Plan designates other areas for rural residential use, where development

should be at a density which will not require a public sewerage system. These areas are farther from trunk lines and would be less economical to service. Therefore, the minimum lot area required should be adequate to insure the feasibility of private disposal systems. In general, this means that lots should be not less than one acre in area.

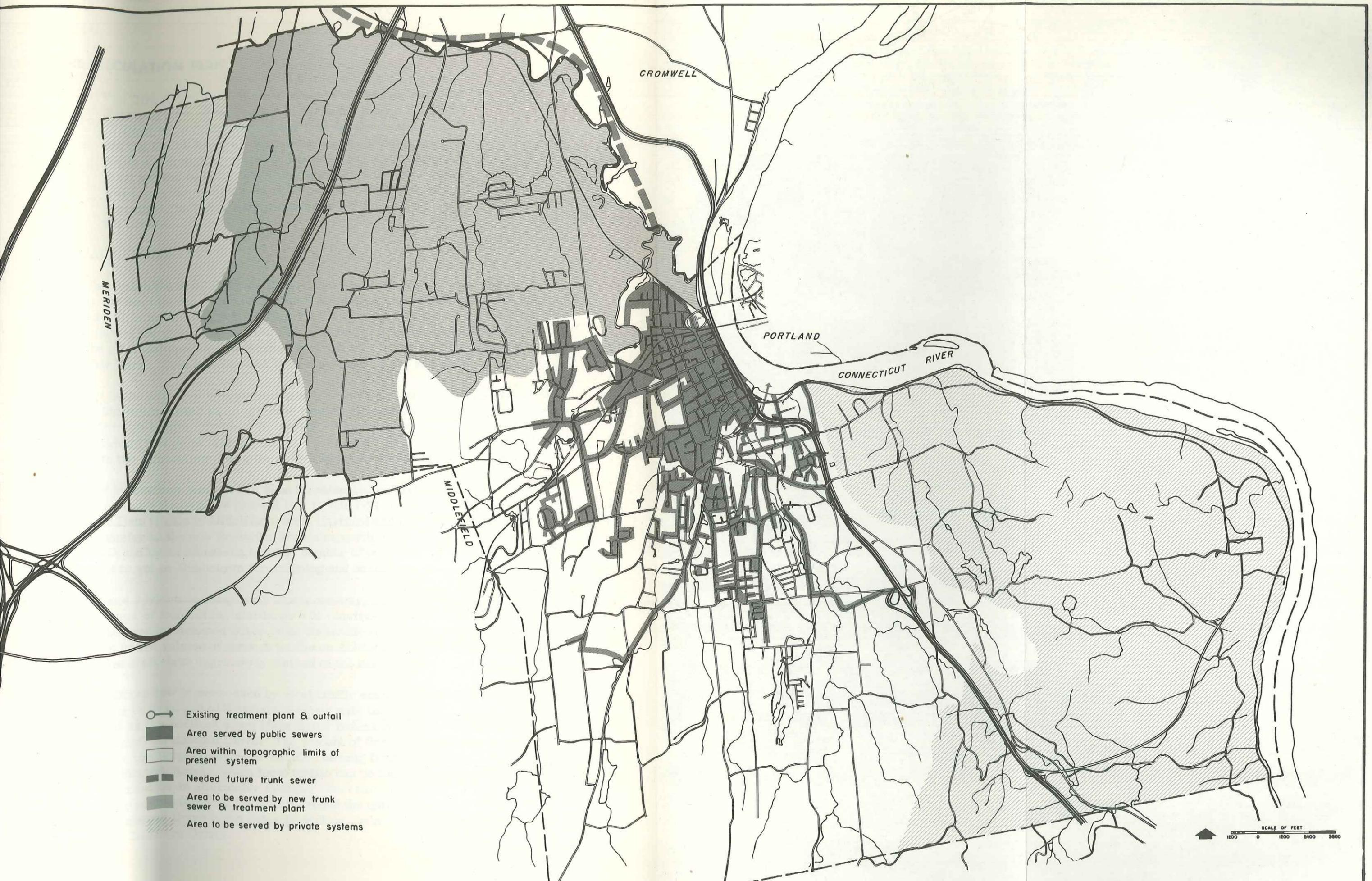
The Plan also shows the proposed areas for business and industrial development. In the southeastern part of the City, the area designated for special types of industry, like the existing Canel plant and large scale utility installations, is to be developed in large tracts so that each plant can have its own sewage disposal system. Elsewhere the areas designated for commercial and industrial development will require sanitary sewer service. Those which are located in the northern part of the City can be served by the Mattabeset Valley system described above.

Most of the areas designated for rural residential use lie at an elevation which is too high to be reached by the present city water supply system. It will require the installation of equipment needed to provide the requisite pressure, as soon as the area becomes more compactly developed.

The large-scale industrial sites in the southeastern corner may be expected to have their own water supply systems, as is the case of the Connecticut Valley State Hospital. The other areas which are planned for commercial or industrial uses are all located where they can be served by extensions of the present water system without exceeding the present topographic limits.



SEWERAGE VII



CROMWELL

PORTLAND

CONNECTICUT RIVER

MERIDEN

MIDDLEFIELD

-  Existing treatment plant & outfall
-  Area served by public sewers
-  Area within topographic limits of present system
-  Needed future trunk sewer
-  Area to be served by new trunk sewer & treatment plant
-  Area to be served by private systems

SCALE OF FEET
1200 0 1200 2400 3600

9. THE CIRCULATION PLAN

The Circulation Plan in Middletown is coordinated with the State's system of expressways, including Interstate Route 91 about to be completed, Route 9 in the Connecticut Valley and the future Route 6A across the State. Middletown needs a thoroughfare between Route I-91 near Country Club Road and the center. The Circulation Plan is also coordinated with the development of downtown Middletown, already described, including the circumferential "ring road" around the center.

REGIONAL EXPRESSWAYS

The plan which the State Highway Department has made for a state-wide expressway system includes three such routes which traverse Middletown. Interstate Route 91 is under construction from New Haven northward and crosses the western part of the City. Meeting the Connecticut Turnpike at New Haven, this will be the principal approach to Middletown from the southwest, including metropolitan New York. This is scheduled to be completed by the end of 1965.

Route 9 is the principal north-south artery of the Connecticut Valley. It passes through Middletown center as an at-grade boulevard along the riverfront mixing local and through traffic. South of the center, it has been improved as a four-lane expressway to a point near the Haddam town line. Its rebuilding as an expressway to the Connecticut Turnpike at Old Saybrook will be undertaken shortly.

North of Middletown Route 9 will soon be relocated and rebuilt as an expressway, turning westerly from its present line to join I-91 in the western part of Cromwell. Thus traffic to Middletown from Hartford and the north will start on I-91 and transfer to the new Route 9 a few miles north of the City. This route will also be used by an increasingly large number of people in the shore and lower valley towns to get to Middletown for shopping and business.

When Route 9 becomes completely an expressway, the volume of traffic and the achievement of expressway standards will require the elimination of local traffic on the present Acheson Drive, with its traffic lights and left turn movements. The future volume of through traffic on Acheson Drive itself will eventually require a six-lane expressway instead of the existing four lanes.

Acheson Drive now is much used by local traffic since it is part of a route connecting the eastern end of Washington Street with the South Main Street area, as well as the sections along Main Street Extension and the vicinity of the State Hospital on Eastern Drive. The amount of this local traffic is readily observed from the large numbers of vehicles turning from or entering Acheson Drive at Washington Street. When local traffic can no longer use Acheson Drive, there must be an alternative facility. Therefore the Plan provides the "ring road" or circumferential boulevard around the entire down-town area, paralleling Acheson Drive in its easterly section, where it occupies the line of the present DeKoven Drive.

It is most important to Middletown to have good interchanges between the new Route 9 expressway and the downtown area. For motorists coming from the north, the Plan shows an off-ramp following approximately the line of the present Hartford Avenue, connecting with the "ring road." It will be necessary to construct an overpass or "fly-over" just south of Hartford Avenue, in order to reach the north-bound lanes of the expressway. A second "fly-over" can be provided to permit vehicles coming from the south to leave Route 9 at this point and reach the "ring road." There may also be an on-ramp for southbound traffic onto the expressway. It is also most important to provide a convenient approach for motorists coming on Route 9 from the south to reach the "ring road" and down-town area. For this purpose the Plan indicates a ramp from Route 9 onto River Road and the improved Main Street. This will make a very attractive entrance into the center of Middletown in a park-like setting by the Connecticut River. There is also an access ramp onto Route 9 southbound directly from the "ring road" at Union Street. These traffic facilities will encourage shoppers from the communities to the south to come to Middletown's retail areas. For the convenience of motorists at Union Street to or from the north an on-and an off-ramp may also be located here.

The third major artery is Route 6A, a cross-state highway. This now traverses Middletown via Washington Street and the Middletown-Portland Bridge. This road is now being relocated and reconstructed as an expressway in Meriden, where it is part of an interchange complex which will connect Middletown with both I-91 and the Wilbur Cross Parkway. The present 6A expressway construction ends near the Meriden-Middlefield line, west of the Mount Higby Reservoir, where it connects with the existing Route 6A leading into Washington Street.

Extension of the expressway eastward through Middletown and across the Connecticut into eastern Connecticut is most important to the economic future of the City. It will give Middletown its third important regional traffic artery. Continuation of the Route 6A expressway will be undertaken when funds become available, but under the present schedule this may not occur for several years. However, Middletown must be ready with its ideas for the best location to serve the City when the State Highway Department starts planning for actual construction.

It becomes evident that the present Middletown-Portland Bridge will be insufficient to carry both the traffic of the new expressway and that of the growing local communities. A second bridge in this area will be needed. It will be logical to locate this at some distance from the existing bridge, presumably to the south of the center. Since the new Route 6A will be the principal access to Middletown from the west and southwest, as well as from across the river, and since the central area will be increasingly the principal traffic generator, it follows that the new expressway should be as close to the center as possible. Otherwise a long connection would have to be provided, and Middletown's commercial center would not benefit as much from the new artery.

There is a good location for a bridge near the end of Eastern Drive, at the northwest corner of state hospital property. The land near the river is at an elevation of about 100 feet above sea level. The deepest part of the channel is on the Middletown side, so that it would be possible for the bridge to slope towards the opposite shore, where the land is at a lower elevation. Map IX shows the recommended location of the new Route 6A in the central area and of its interchange with Route 9. It also shows proposed interchanges between the expressway and the "ring road" surrounding the center. Map VIII shows the recommended location of the proposed expressway in the rest of the City's area. It has been planned so as to meet the standards of the State Highway Department.

THE CENTRAL DISTRICT

The importance of Middletown's downtown area as a regional center has already been stressed. Combining a growing retail and office center with the expanding activities connected with Wesleyan University, it will be a growing generator of traffic. The Plan shows that Main Street should be the retail and commercial focus and as such it should be primarily an "access street" and "parking lot" to serve the businesses along it. Fortunately, it is very wide and can handle a considerable amount of parking, if it does not have to accommodate an appreciable through traffic. Therefore, the chief element of the downtown area plan is the "ring road" or circumferential boulevard, which will take traffic around the central district and feed it into parking facilities by numerous side streets.

The first stage in the development of this circumferential route will consist of the portion south of Washington Street. Pearl Street in this part should be widened and extended by way of Hubbard Street to reach South Main Street at the present end of the Route 17 expressway link. The latter is used to form the southerly part of the ring. Similarly, DeKoven Drive should be widened and connected to "ring road" as is shown on Map IX. This will involve moving the DeKoven House back from DeKoven Drive, which is a feasible project, economically justified to secure the necessary traffic improvements. Most of the work of the first stage is planned so that it can be accomplished as part of an early urban renewal project. When the State closes Acheson Drive to local traffic, it will be necessary to have the connections at Hartford Avenue to DeKoven Drive, as shown on Map IX. Since the exclusive use of Acheson Drive for through traffic is part of the State's expressway project, it is logical to expect the State to pay the cost of the interchange and connections to the "ring road".

The northwesterly part of the "ring" system involves widening Pearl Street north of Washington Street and improving the approach to the Middletown-Portland Bridge. The latter is a state highway facility and improvements to the bridge approach will be up to the State Highway Department. The present approach is congested and restricted in space. It will be entirely inadequate to meet future growth of the City and the towns across the River. Map IX shows the proposed improvements to the bridge approach and the northerly part of the "ring" system, together with its intersection with the proposed thoroughfare described below which is designed to connect with Interstate Route 91 and the

industrial area along it. This part of the "ring" system would form the second stage and much of it may be done as parts of one or more urban renewal projects.

BALANCE OF CIRCULATION PLAN

Map VIII shows the Circulation Plan for the rest of the City, outside the central area. In addition to the regional expressways which have been described, there are two proposals for principal thoroughfares. The first of these starts at the northwest corner of the "ring road" and extends northwesterly in a line generally parallel to North Main Street. It then crosses the Coginchaug River and follows a westerly line to Country Club Road. At this point there is a projected interchange with Route I-91. We understand that the State Highway Department has adequate land for this interchange and will construct it when the traffic volume warrants.

This thoroughfare is most important in the future development of Middletown in providing good circulation between the industrial area along Route I-91 and the center, as well as the Middletown-Portland Bridge. The interchange at Route I-91 is especially important to the full development of the industrial area. In addition, the increasing residential development of this part of the City, (Neighborhoods A, B and C on Map IV), will place a heavy burden on existing roads, such as Westfield and Newfield Streets, which this proposed thoroughfare will relieve. It should be designed as a limited access highway, with as little access to private properties as possible. However, local streets could be connected to this thoroughfare and crossings and interchanges would generally be at grade.

This thoroughfare is not part of any state program, and the City may have to undertake its construction. Its realization could be jeopardized by any subdivision which might block the route. Therefore, we recommend that the Planning Commission immediately take steps to make an engineered layout of this road under the authority of Section 8-29 of the General Statutes. This will force a recognition of the right-of-way by any future subdividers. The City could then proceed by gradual steps to complete the road, but it should acquire the necessary land as soon as possible. If any section of the right-of-way is threatened by a proposed subdivision, the City should take the necessary financial measures to preserve it through purchase or condemnation. This thoroughfare should be laid out so as to permit the construction of a four-lane divided highway, although only two lanes might be built at first. The recommended right-of-way width is 120 feet, although more space may be needed in places where extensive grading will be required. In congested and urban areas, a width of 100 feet may be sufficient.

The second proposed thoroughfare is a circumferential route to provide a better means of circulation between the northern and southern parts of the City. This would lead from an intersection with the other proposed thoroughfare just described, following the Coginchaug River Valley, crossing Washington Street near the railroad overpass and proceeding southerly along the edge of Long Lane

Farm to South Main Street at the Randolph Road corner. It should have an interchange with the proposed Route 6A expressway. Randolph Road would continue the circumferential route to Saybrook Road. This proposed thoroughfare should also be designed with limited access, like the first one. Similarly, it should be officially laid out by the Planning Commission before extensive development takes place in the area which it traverses. As shown on Map VIII a considerable portion of its length lies in land which is either unsuitable for development or already in some form of public ownership.

Certain highways are designated on Map VIII to be secondary thoroughfares next in importance to the principal thoroughfares just described. Some of these are now state highways and therefore maintained by the State. Those which are a city responsibility should gradually be improved to proper standards in accordance with a long-range program.

Secondary thoroughfares shown on the Plan which are now state highways include:

- Washington Street, the present Route 6A
- Newfield Street, the present Route 72
- Randolph Road, the present Route 155
- Ballfall Road-East Street, the present Route 217
- South Main Street, the present Route 17

Secondary thoroughfares shown on the Plan which are now City highways include:

- Middle Street serving the Route I-91 industrial area. The improvement of this thoroughfare should receive a high priority because of the anticipated high volume of industrial traffic, including truck traffic. Saybrook Road.

Another group of highways is designated on the Plan as "Collector Streets", next in importance after the thoroughfares. The aim of the Plan is to keep as much traffic as possible on these streets, which create large superblocks in their pattern. Within these superblocks development of residences can take place with minor access streets freed from fast or heavy traffic.

As far as possible the secondary thoroughfares should have a right-of-way width of 70 feet, but in any case, at least 60 feet. The right-of-way for collector streets should be 60 feet wide where possible. Both types should have gradients not exceeding 6 per cent and curves with radii of at least 800 feet. In the case of access streets and other minor roads, the right-of-way should be at least 50 feet wide. Gradients should not exceed 8 per cent, or in very exceptional cases, 10 per cent.

10. IMPLEMENTATION OF THE PLAN

The future development of Middletown is the joint responsibility of private individuals and of the City officials. The City will have to provide the streets and utilities, the schools, the parks and other public improvements which will be needed in the future. Private initiative will provide the new stores and offices, factories, and homes which will make up the community's inventory of buildings. The City must schedule its projects for improvements so as to have them when they are needed and so as to be in a position to finance them. The Plan of Development should be accompanied by a capital improvement program to accomplish this purpose. The private sector of development is involved primarily with the use of land. The City influences private development chiefly through its zoning powers and through the control of new subdivision of land.

CAPITAL IMPROVEMENT PROGRAM

A capital improvement program is a financial scheduling of the important expenditures which are required to secure for the community the physical improvements and equipment which it needs and which are to be provided by the municipality. Its principal purpose is to provide an orderly means of financing these expenditures within the capacity of the City to pay for them. It makes possible a measure of foresight in planning for this financing.

Some capital expenditures, especially those which are relatively small, are paid for directly from the City's annual income. Others are paid for by borrowing. In this case, the amounts needed to pay for interest and amortization each year, known as "debt service", must be included in annual appropriations.

Each year the City spends an average of around \$50,000 out of the general fund income for departmental capital outlays such as typewriters, office furniture and equipment, motor vehicles, public works equipment and similar items. In recent years the City has also appropriated approximately \$100,000 annually as a special fund for highway improvements and about \$70,000 as a special reserve fund for capital purposes. The annual repayment of past bond issues has cost about \$450,000 in the last few years, but will be approximately \$600,000 in the next few years because of added borrowing late in 1964 to pay for new school construction, the new police station, improvements in the Center Street urban renewal project and sewer improvements. Interest on these bonds will require close to \$190,000 in the coming fiscal year. We see that the total spent each year on account of capital improvements is now approximately one million dollars. This points to the importance of efficient management of the capital program.

In Middletown there are three fire districts, whose finances are separate from those of the City. The operation of the sanitary sewer system is also separate from the general fund, the annual operating costs being met by service charges to the residents served. However, the capital costs of extensions to sanitary services and treatment plant have been met by general obligation bonds whose debt service has been part of the general fund. The Water Department is financed by its service charges and pays the debt service on its bonds. The latter are not a general obligation of the City.

In order to provide a background of financial data, essential to any consideration of the program, a study has been made of the trends of general fund income and expenditures for the past six years. These figures have been projected ahead to 1971. Estimates have been made of the grand list applicable to future years and the resulting tax rate needed to meet the general fund operations, including operation of schools and debt service on the presently existing bonded debt. These data are summarized in Table 16. The general City operating costs include expenditures for general government, police protection, public works, welfare, parks and recreation and sundry municipal services. Indirect revenues include state grants for education and welfare, together with miscellaneous receipts. Debt service on school bonds is included with other bond redemption and interest. The taxable grand list of October, 1964, applicable to the fiscal year 1965-66, shows the result of a complete revaluation of properties, as well as a considerable amount of buildings, especially at the Hartford Electric Light Company plant. This will reduce the tax rate needed to raise the required funds in 1965-66 to approximately 31½ mills. The estimates given here for 1970-71 indicate a probable tax rate of about 32 mills for the operation of the City as it is now carried on, including paying for the present debt and including capital outlays of \$250,000 to be paid from income. This is referred to below as the base tax rate.

Table 15 shows the amount of the present bonded debt outstanding today, together with annual payments required for redemption and interest through fiscal year 1970-71. It will be observed that the bonded debt will be cut in half in the next six years and that the total annual debt service requirement will be reduced by more than \$155,000.

The estimated budgets for fiscal years 1966-67 through 1970-71 include the sum of \$250,000 for capital expenditures from income. This should cover at least \$100,000 to \$150,000 a year for highway improvements in order to carry out a long-range program for bringing the streets and roads up to the standards mentioned in Chapter 9. The \$250,000 item is covered by the base tax rate mentioned before and will also be used for equipment and minor capital improvements for the various departments.

In addition to the items already covered by the base tax rate estimated for future years, certain other capital costs should be paid from annual income. The City will be constantly under the necessity of purchasing land for one purpose or another. In view of the rapid pace of development, it is good business to acquire

land before development makes it difficult or costly. The most efficient and economical procedure will be to establish a land acquisition program and to appropriate annually a certain sum for this purpose. We recommend \$75,000 a year, which will be equivalent to less than one-half mill on the tax rate.

Similarly there is a great need for a progressive program to improve the City's parks and recreation facilities. We recommend that at least \$75,000 should be appropriated annually for that purpose. In view of the proposed improvements at Crystal Lake, this should be increased to \$125,000, for the fiscal years 1966-67 and 1967-68. This would be equivalent to less than one mill in those two years and to less than one half a mill in the fiscal years ending in 1969, 1970, and 1971.

Major projects like new senior and junior high schools, sewer extensions needed especially in connection with industrial development and some of the improvements in the downtown area will presumably be financed by bond issues. By way of illustration, a program for these items totalling approximately 7½ million dollars, could be financed by annual payments equivalent to not more than three mills on the tax rate, beginning in the fiscal year 1967-68.

The Capital Improvement Program is intended to be a guide to the governing body of the City. Since projections of figures to several years ahead are based on estimates, it is vital that the data be revised annually and the figures be brought up to date. Each year the projections will be carried one year further into the future. Other projects will be proposed from time to time and their costs related to the total cost of the program.

TABLE 15

CAPITAL IMPROVEMENT PROGRAM
OUTSTANDING BONDED DEBT, 1965-1971*

Fiscal Year	Outstanding Debt Beginning of Fiscal Year	Paid in Fiscal Year Beginning July 1			Outstanding Debt End of Fiscal Year
		Redemption	Interest	Total	
1965-66	\$ 6,752,000	\$ 621,000	\$ 189,409	\$ 810,409	\$ 6,131,000
1966-67	6,131,000	622,000	172,108	794,108	5,509,000
1967-68	5,509,000	582,000	155,272	737,272	4,927,000
1968-69	4,927,000	577,000	138,915	715,915	4,350,000
1969-70	4,350,000	577,000	120,549	697,546	3,773,000
1970-71	3,773,000	552,000	102,620	654,620	3,221,000

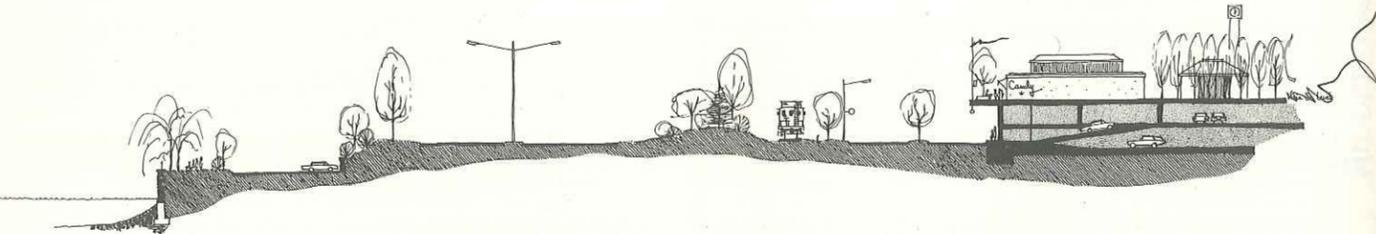
*Bonds issued for schools, sewers, municipal building, police station, highways and redevelopment; bonds of water department and parking authority not included.

TABLE NO. 16
MIDDLETOWN CAPITAL BUDGET PROGRAM
PROJECTION OF INCOME, EXPENDITURES, GRAND LIST AND TAX RATES

	FISCAL YEARS			
	1960 Budget	1964 Budget	1965 Budget	1970 Estimated
BASIC DATA				
Population, excluding Institutions and University Students, June 30 of Fiscal Year	30,000	32,500	33,000	35,500
Public School Enrollment September 30 of Fiscal Year	5,585	6,050	6,100	6,600
As Percentage of Population	18.6	18.6	18.5	18.6
Taxable, Grand List (Second Year Previous)	\$ 89,159,310	\$ 99,707,445	\$ 146,135,810	\$ 170,000,000
Taxable Grand List Per Capita	2,972	3,068	4,428	4,788
School Operating Costs Per Pupil (Excluding Debt Service)	381	469	512	580
City Operating Costs Per Capita (Excluding Schools and Debt Service)	50	57	61	66
Average All State School Operating Grants Per Pupil	92	119	121	126
EXPENDITURES				
General City Operating Costs (Excluding Schools, Debt Service, Capital Expenditures)	\$ 1,496,521	\$ 1,837,485	\$ 2,027,021	\$ 2,345,000
School Operating Costs	2,126,975	2,868,138	3,120,731	3,830,000
Bond Redemption, Issues Prior to Jan. 1, 1965	418,000	462,000	621,000	552,000
Interest on Bonds, Issues Prior to Jan. 1, 1965	176,265	126,837	205,015	102,620
Capital Expenditures from Income	99,407	253,967	231,013	250,000
Total Yearly Expenditures	4,317,168	5,548,427	6,204,780	7,079,620
INCOME				
Indirect Revenues	896,408	1,246,002	1,609,448	1,650,000
Amount to be Raised by Taxation	3,496,741	4,186,627	4,595,332	5,429,620
Total Income	4,393,149	4,432,629	6,204,780	7,079,620
TAX RATE				
Tax Rate, Actual, Mills per \$	39.3	42.0	31.45	31.90
Tax Rate Needed to Meet Future Total Yearly Expenditures Shown on Line 13				

ZONING

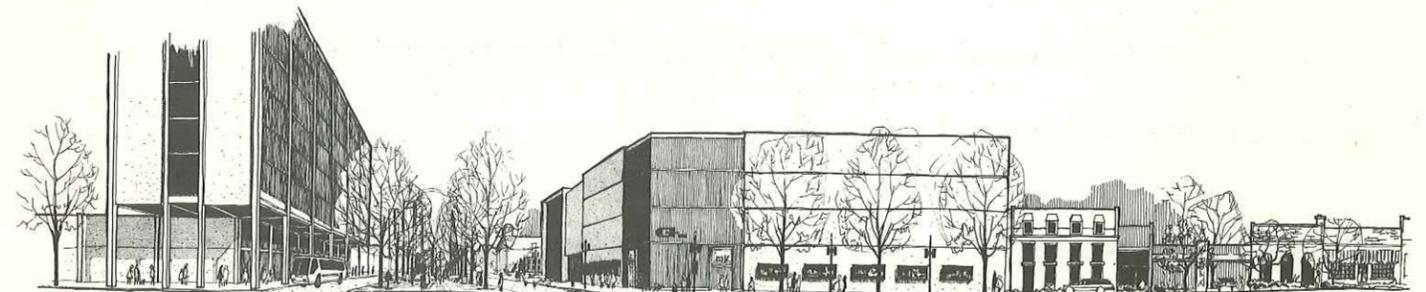
The City's zoning ordinance was adopted in 1927 and has been amended many times. To meet today's needs, there should be an entirely new ordinance coordinated with the Plan of Development and designed to carry out its aims. Zoning in Middletown is very different from that in the average urban community, since Middletown contains both a compact downtown area and all degrees of development from urban to rural. The Plan of Development provides for a continuation of the rural character in outlying sections of the City and the zoning for these areas should be established to carry out this objective. In other places, it should provide for the varied kinds of development envisaged by the Plan.



Riverside Park Route 9 Expressway Railroad DeKoven Drive Terrace to Main Street

This sketch shows proposed treatment of the riverfront part of future downtown Middletown. It represents a cross section at approximately the present location of William Street, showing how the level of Main Street can be extended over parking facilities as a terrace, which provides space for buildings and landscaped areas.

Map VIII and Map IX summarize the Plan of Development for Middletown combining general recommendations for the future use of land, for school and recreation facilities and for principal streets and highways.



Main Street looking south College Street towards Pearl Street

This sketch shows the character which the future downtown Middletown can have through urban renewal. It represents the view from Main Street looking south and the south side of College Street at the right. It shows how modern urban buildings can blend with the architecture of the best of the old buildings.

LAND USES

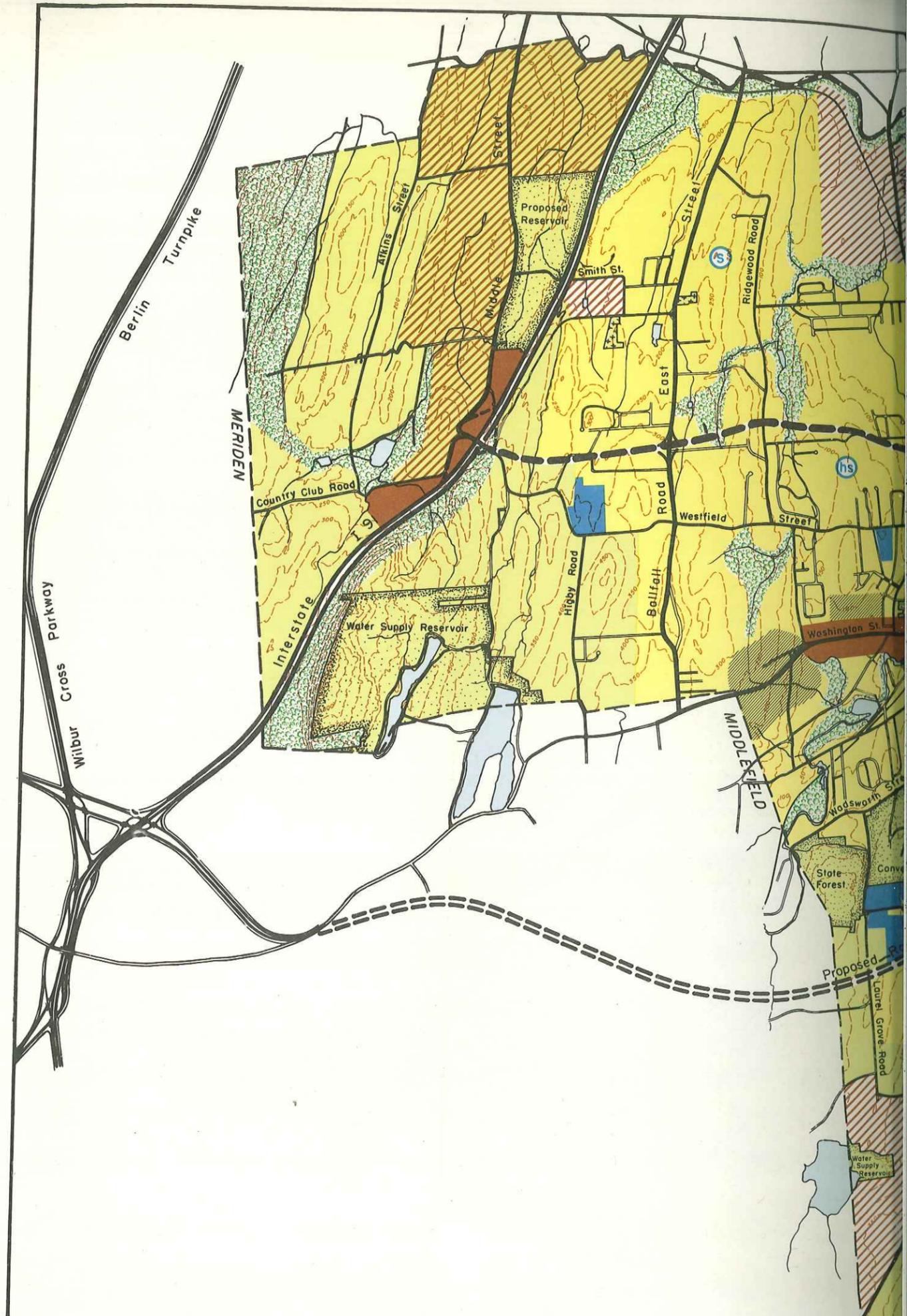
-  Existing Institutions and Public Land
-  Existing Cemeteries
-  Rural Residential Areas - Single family houses, density: acre lots or larger; institutions, clubs.
-  Suburban Residential Areas - Single family houses, density: 20,000 and 12,000 square foot lots; institutions, community clubs.
-  Urban Density Residential Areas - Fringes of central district, combining one and two family houses with multi-family projects.
-  Compact residential communities in outlying locations combining low-density garden apartments, row houses and single family houses, with adequate community facilities.
-  Apartment-Commercial Areas - Combining one and two family houses with office buildings and apartment projects; restaurants and limited neighborhood retail sales permitted if within an apartment building.
-  Neighborhood Commercial Areas - Neighborhood stores or services of limited size, such as food stores, drug stores, barber shops, etc.
-  Roadside Commercial Areas - For stores, restaurants, motels, gas stations, garages, etc.
-  Waterfront Commercial Areas - For marinas, boat yards, waterfront motels and restaurants.
-  Industrial Park Areas - For low density restricted industrial developments.
-  General Industrial Areas
-  Heavy Industrial Areas
-  Special Industrial Areas - Quarry, U. S. Government Canel Project, large scale utility plants.
-  Downtown Area - See Map IX

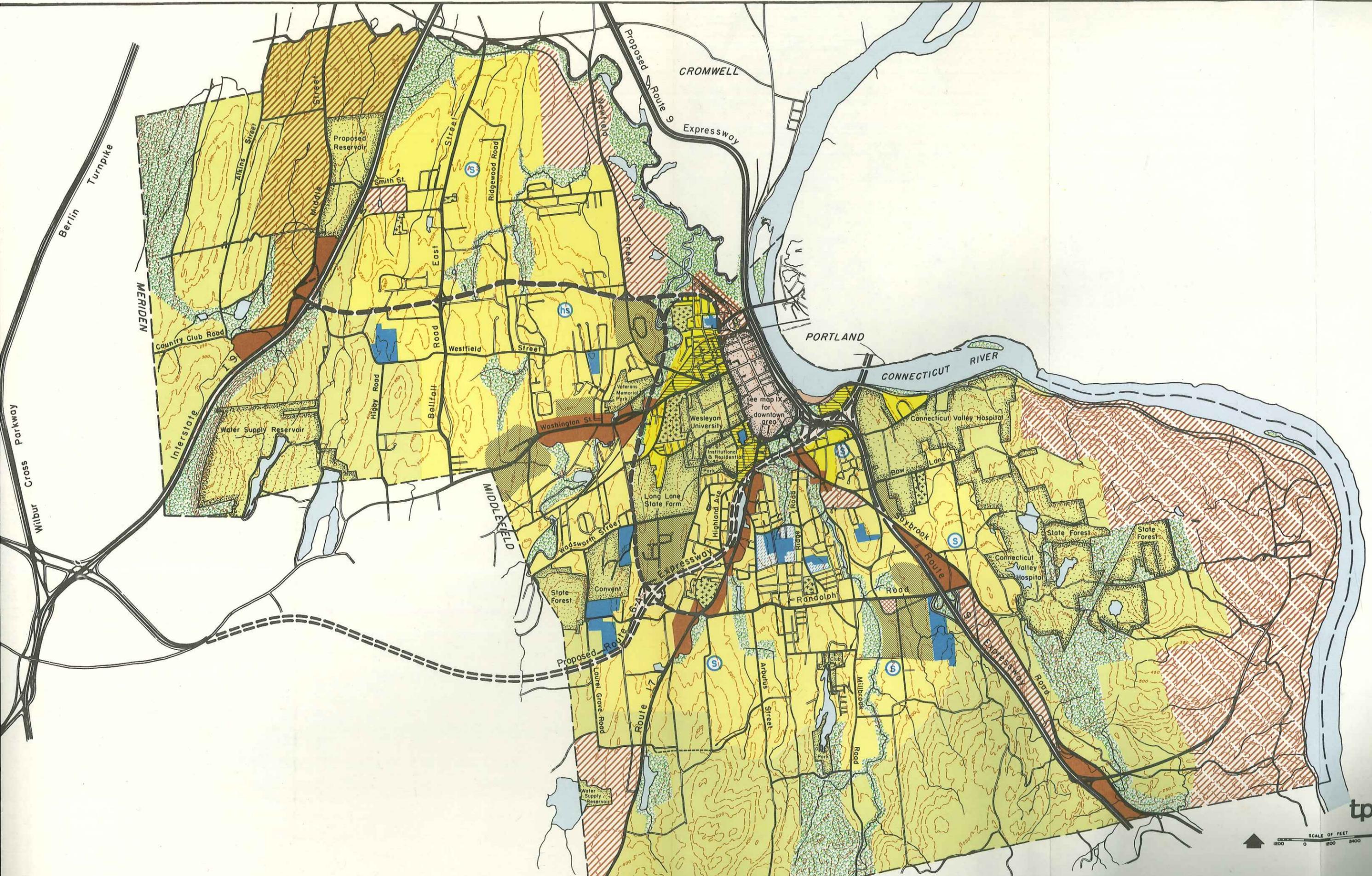
PUBLIC FACILITIES

-  Existing Public Elementary or Secondary School to remain in future; See Chapter 6. Dashed lines indicate site expansion.
-  General location of site for new Public Elementary or Secondary School; See Chapter 6.
-  Proposed recreation and conservation areas: See Chapter 7. Within the areas shown with this symbol the City should acquire as much land as possible for recreation and conservation purposes. It should obtain easements or otherwise control the banks and flow of streams which are important to drainage where shown by this symbol.

HIGHWAYS

- | Existing | Proposed | |
|---|---|---|
|  |  | State Expressway |
|  |  | Principal Thoroughfare, controlled access |
|  |  | Secondary Local Thoroughfare |
|  |  | Collector Street |





CROMWELL

PORTLAND

CONNECTICUT RIVER

MIDDLETOWN

tpa

SCALE OF FEET
1200 0 1200 2400 3600

GENERAL PLAN VIII

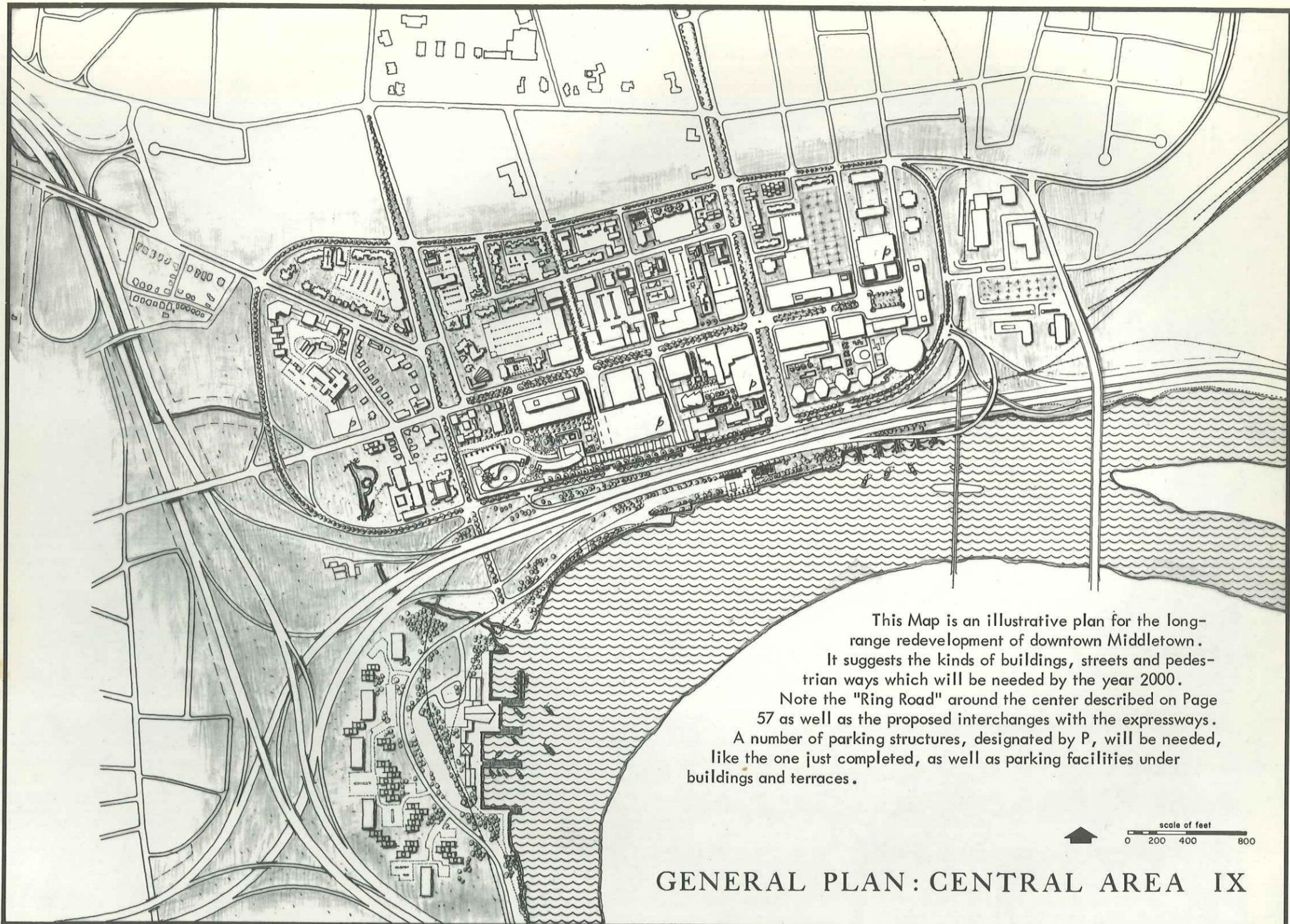
Renewal of Middletown's center will be accomplished by stages. This map indicates the types of buildings which should occupy the different parts of the central district. Plans for early renewal projects should provide for gradual development of buildings and related spaces to achieve the kind of center which future Middletown will need, as shown on the map underneath.



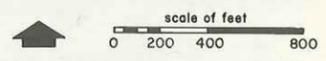
apartments
marina
restaurants

This Map is an illustrative plan for the long-range redevelopment of downtown Middletown. It suggests the kinds of buildings, streets and pedestrian ways which will be needed by the year 2000. Note the "Ring Road" around the center described on Page 57 as well as the proposed interchanges with the expressways. A number of parking structures, designated by P, will be needed, like the one just completed, as well as parking facilities under buildings and terraces.

GENERAL PLAN: CENTRAL AREA IX



This Map is an illustrative plan for the long-range redevelopment of downtown Middletown. It suggests the kinds of buildings, streets and pedestrian ways which will be needed by the year 2000. Note the "Ring Road" around the center described on Page 57 as well as the proposed interchanges with the expressways. A number of parking structures, designated by P, will be needed, like the one just completed, as well as parking facilities under buildings and terraces.



GENERAL PLAN: CENTRAL AREA IX

indicates the types of buildings which will occupy the site. This map is a long-range plan for the year 2000.