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foreword
FOREWORD

The essence of the concept of planning is a sense of direction. The planning process begins with a sense of need, a basic dissatisfaction or a concept of the desirable and ultimately leads to a program of action to reach the desirable.

Between the need and the action, knowledge and comprehension of the 'existing' projects what 'shall be'. The substance of Part One is this objective knowledge of the present situation and pertinent history, covering the physical, social and economic characteristics of the community. Only when such an inventory is analyzed, can the problems and potentialities of the community be assessed, realistic goals for development be established and satisfactory plans for the future be prepared.

Part One is composed of five chapters. The first of these provides an appropriate introduction designed to place Weston in the larger region of which it is a part and examines briefly the regional factors which would influence the development of the Town, in both the short-run and the long-run.

In the next chapter, the physical conditions of the Town, both natural and man-made, are analyzed. Topography and soil characteristics are examined with the intention of evaluating the suitability of various areas of the Town for future development. The Existing Land Use and Neighborhood studies analyze the physical condition of the Town and provide an evaluation of vacant lands.

All the chapters of Part One--Inventory Analyses, and specifically the Population study, Chapter III, provide a sociological background of the Town. Community planning is principally planning for the people--today's people and tomorrow's people. These studies describe the people of Weston in terms of families, homeowners and renters, workers and commuters, income-receivers and taxpayers, long-time residents and newcomers, and of course, young and old and male and female.

Chapter IV analyzes Weston's economic base. It examines the economic activities in the Town, the economic characteristics of its residents, as well as the factors pertinent to its future economic growth.

The last chapter of this part of the Master Plan provides a summary of all the above analyses. It synthesizes the findings of the individual preceding chapters, so that a comprehensive picture of the existing situation in Weston may be reached.

(i)
It should be noted that the inventory surveys, analyses and the conclusions derived therefrom are all general in character. No major effort has been made in this phase of the Master Plan Report to scrutinize any specific activity, public facility, or area in great detail. This is done for these reasons:

(1) to arrive at a general picture of various conditions in the Town, and how they interact together, without giving disproportionate emphasis to any one condition;

(2) to arrive at a general Town-wide policy for future development (Part Two of the Report) within which framework detailed studies and plans for specialized public facilities can be made (Part Three of the Report); and

(3) to make it easy for various Town authorities, civic and private organizations, or individuals to find the specialized information, in which they are most interested, assembled together in a separate section of the Master Plan Report.

Considerable effort has been spent to submit much of the information of the Inventory Analyses in tabular and graphic form so that any interested person can use the same data for his own purposes or as a basis for further studies. It would undoubtedly prove useful to the Town if the data provided in this Report are updated for various periods of time, whenever new information is available.

The foregoing interrelated studies of Part One indicate the characteristic features of the Town, its major problems and possible potentialities. They also set the basis for: (1) understanding those forces which have affected and would affect Town growth; (2) predicting the possible future trends in these forces; and (3) assessing the feasibility of harnessing and directing these forces to the advantage of the Town and region.

However, planning is not only a research and fact-finding operation, but is one in which the "Master" Plan emerges objectively from these data. The second step is to set forth those planning objectives which Weston wants. The difference between what a community has and what it wants will determine both the size and the rate of the action programs. The subject of Part Two of the Master Plan Report is to determine the planning goals and policies, which will then be the basis of those Comprehensive Development Plans of Part Three. Planning will then involve the pursuit of a course of action which will lead to the realization of the predetermined objectives.
Based upon the findings of Part One, as well as discussions with various Town authorities, officials and organizations, the desirable, long-range ends towards which future development of the Town might be directed—the goals and objectives—have been spelled out in Chapter VI of Part Two. These were further developed to arrive at certain desirable policies for development. The policies may be considered as the intermediate step between the aforementioned goals and the actions that might be taken to materialize these goals. These policies are general, for they allow a number of alternative actions from which the Town may choose; but they are also specific, as they determine the character, type and location of development.

The Plans for Future Development in Part Three include (1) proposals for public services; and (2) proposals for directing private development—residential, commercial and industrial. These two kinds of development are interdependent: private development needs and in some cases determine the provision of public services, and public services can be used on the other hand as a tool to direct private development. The possibilities and needs for both public and private development must be further scrutinized.

The first five chapters of Part Three focused on public services: Schools (Chapter VII), Recreation-Conservation (Chapter VIII), Other Community Facilities (Chapter IX), Circulation (Chapter X) and Utilities: Water, Drainage and Sewerage (Chapter XI). Based on the projections and policies of Parts One and Two, the magnitude and distribution of future public services have been proposed. Chapters VII through XI are in essence the core of the Master Plan, as the Town takes "positive" action in deciding the types and actual locations of facilities, their architectural style, quantity and quality. These are all designed to be integrated and are in line with the overall policy recommendations.

The possibilities and needs for various types of private development evaluated in the Future Land Use Plan, Chapter XII. It offers certain specific recommendations that the Town might take to direct private actions towards sound development of the Town. The physical implications of this plan together with the proposals contained in the other chapters of Part Three constitute the Future Development Plan.

Whereas the Future Development Plan comprises all of the proposals of the previous portions of the Master Plan, the studies included in Part Four are concentrated upon carrying out the proposals of the Plan by legal and fiscal measures.
The legal measures are those tools that cope—as fully as possible in a democracy—with the problems of land use and goals as spelled out in the previous parts. They include Zoning (Chapter XIII), Subdivision Regulations (Chapter XIV) and the Official Map (Chapter XV). Specific matters pertinent to these subjects, which required Planning Board action during the course of preparation of this Report were discussed in relationship to the Plan. Decisions and recommendations were reached for Town Meeting consideration. Included under this cover are summary statements of the recommendations.

The Capital Budget Program (Chapter XV) reviews the current practices in Town and suggests refinements and modifications of the procedure for the preparation of the program to cope with the various recommendations of the Master Plan.

To present the graphic material of this Report in a clear and consistent form, it was necessary to prepare an accurate and up-to-date base map for the Town that can be reproduced at convenient scales. The map contains the basic information (streets and highways, railroads, water bodies, public and semi-public holdings), to which additional data and proposals were added for various exhibits of the Report. The procedure of preparing this base map was as follows.

A map of the Town at a scale of 1 inch to 800 feet, measuring approximately 3-1/2 feet by 4-1/2 feet, was prepared by photographic process from a mosaic of U. S. Geological Survey quadrangle sheets, with contours. This was traced after being revised by using available information obtained from the recently updated Town Atlas as well as the Department of Public Works and Massachusetts Turnpike Authority maps. As far as it was possible to determine accurately, new streets and approved subdivisions were added. The boundaries of various public and semi-public holdings were added after extensive research and checking of Town and other records.

Further photography yielded tracings at a scale of 1" = 2000' (17 x 22) and 1" = 4000' (8-1/2 x 11). The base map can be easily revised as changes occur, new subdivisions are approved and property lines are modified.
part one
Inventory Analyses
I. REGIONAL INFLUENCES

A. INTRODUCTION

A region is usually determined by a variety of natural and man-made indices and is convenient for planning or administration for specified purposes. The definition of the region includes the criteria which define it. It can be a group of nations (such as the European Common Market) or a group of states (such as the New England States), sharing interrelated problems. There are natural regions formed by natural circumstances as river basins (TVA and SuAsCo). There are regions which are made up of a whole group of urban centers which are truly not metropolitan, but which are organizations of local units with common problems (such as the planning regions defined by the Division of Planning of the Massachusetts Department of Commerce). And finally, there is the metropolitan region, a core city surrounded by suburbs, defined by population density, degree of economic integration, transportation patterns, land use, and the spread of certain service functions between the core city and its suburban communities.

History indicates that early New England towns tended to grow and develop independently of neighboring communities and that people regarded a town line as a fairly definite boundary within which they should live. Today, this parochial concept still pertains in varying degrees. However, in making use of new techniques of production, transportation and distribution of exchange, the commercial-industrial U. S. population has arranged itself in a pattern of metropolitan regions. *

This pattern reflects an underlying set of inter-relationships which are based on interdependency and on a division of labor. By a process of reciprocal adjustment, the inhabitants of every metropolitan community have evolved a pattern of distribution and arrangement with respect to each other and to the metropolis. The activities of any individual local community became a function not only of its immediate locality, but also of the relative ecological position with respect to the dominant metropolis. Some towns become predominantly commercial, industrial or residential in character, but their inter-relationships and close association tend to bind them all into an integral unified whole. A local community may gain additional functions from, or lose them to others, but the element of inter-community exchange remains a basis, at least in the foreseeable future.

* Recent trends show that the entire Eastern Seaboard from Portsmouth, New Hampshire, south to Newport News, Virginia is composed of contiguous metropolitan areas separated with thin bands of rural communities and thus is emerging into a huge "megalapolis" called the "Atlantic Urban Region."
The goals of this chapter are to define the region as well as the local communities which bear an influence on Weston and to examine and identify the town's interconnections with them. Such an introductory analysis can serve as a guide for formulating realistic goals and integrating or at least coordinating future policies and plans for the Town with those of the metropolitan region and other communities. Therefore, it would direct the Master Plan study in this respect.

B. LOCATION AND ACCESS

The Town of Weston is located in Middlesex County, Massachusetts, boarded on the north by Lincoln, on the East by Waltham and Newton, on the south by Wellesley, on the southwest by Natick and on the west by Wayland. It is 12 miles from Boston, 29 miles from Worcester, 27 miles from Lowell, and 207 miles from New York City.

The location of towns as related to major highway and rail networks increase their accessibility to areas of socio-economic activities, population concentrations and business, industrial and recreational complexes. This affects their functions and structures. The principal highways in Weston are (1) Interstate Highway 90 (Mass. Turnpike) which runs along the southern section of Town and connects New York State, Springfield, Worcester and Boston; (2) U. S. Route 20 (the Old Post Road) which runs east and west in the central section of the Town, going east through Waltham and Watertown to Boston and west to the south of Worcester and through Springfield, Westfield, Pittsfield and into the State of New York; (3) State Highway 30, 117 and 128. Route 30 runs east and west along the southern section, going east into Newton and Brookline and west along Route 9, crossing to Westborough and joining with Routes 140 and 122 in Grafton. Across the northeast section of Weston runs Route 117 which goes east into Waltham joining U. S. Route 20 and northwest into Leominster where it meets Route 12. Route 128, the circumferential highway around Boston, enters the southeast section of Weston from Waltham on the north and proceeds into Newton on the south.

The Boston and Main Railroad provides passenger and freight services in Weston on its two miles; the Boston-Hudson Line running east-west (parallel to Route 20) with two stations, Weston and Cherry Brook; and the Boston-Fitchburg Line in the northeast section (parallel to Route 117) with three stations: Kendal Green, Hastings and Silver Hill. All stations are within 15 miles from Boston. The Kendal Green has 10 trains each way on the weekdays.

The New York Central Railroad runs in the southeast section of the Town (parallel to the Charles River) with its Riverside station in the Auburndale
section of Newton. Some commuters from Weston use this station.

The Riverside terminal of the MBTA in Newton likewise serves many Weston commuters utilizing the rapid transit facilities direct to Boston over the old Highland Branch line of the Boston & Albany Railroad.

It is apparent from the previous description that the highway and rail networks that pass through Weston are all of an east-west direction with very little provision for north-south travel. In the circulation concept -- considering that the most obvious ties of American towns to their regions are their transport roads -- Weston is on an east-west "corridor" that ties Eastern Massachusetts to the City of Boston.

C. IDENTIFICATION OF AREAS OF INFLUENCE

The definition of the region includes the criteria on which it was defined. Usually, its boundaries are not precisely or permanently marked because its extent depends upon variables that are constantly changing. Most important, however, is the identification of its core and its functional components.

1. The Greater Boston Region*

Many private and civic groups have undertaken a study of metropolitan planning in their programs, while others have been formed with the sole purpose of examining one or all of the problems involved.

Of the pertinent efforts, the Greater Boston Economic Study Committee, organized in 1957, carried on for five years a significant pioneer program in applied research with two aims, (1) gathering, organizing, and circulating basic economic data which would advance an understanding of economic trends operating in the Boston area and (2) studying specific economic and financial problems and making appropriate recommendations to guide leaders in metropolitan affairs towards solutions.

The GBESC analyzed a region of 153 cities and towns extending as far as New Hampshire and Rhode Island and generally following the route of the Outer Belt Highway U. S. 495.

The Mass Transportation Commission was organized by the governor in 1958 and was given the initial assignment of planning for "mass transportation facilities and policies affecting the Commonwealth, metropolitan Boston and the City of Boston." It has taken full advantage of matching federal funds for transportation planning. It is now conducting a comprehensive analysis of all existing land use and transportation and economic plans and proposals in the Boston Metropolitan region.

*For the regions mentioned in this section see Plate I-1.
The MTC surveyed a region of 144 municipalities that differed only slightly from the GBESC study boundaries.

In 1963 the Boston Regional Planning Project was designed to produce a preliminary comprehensive plan and development program for its planning areas, with special emphasis on the areas transportation needs. The Project is jointly sponsored and financed by the MTC, the Mass. Department of Public Works, with the cooperation of the Urban Renewal Administration of the U. S. Housing and Home Finance Agency and the U. S. Dept. of Commerce, Bureau of Public Roads. By 1966 it is hoped that data concerning origin and destination, land use surveys and population and economic base studies will be gathered, proposals for highway and public transportation improvements, land development and preservation of open space will be offered.

The BRPP is surveying a region of 152 municipalities that differed only slightly from both GBESC and MTC Areas.

The expanded regional boundaries used by the above studies are probably evolving at this time and could actually be realized at the end of this decade. For certain purposes, the expanded scope and original data contained in these studies will be used (see below) in defining Weston's position within a larger context -- i.e., that of the Greater Boston Region.

2. **Logical Planning Areas**

The State Department of Public Works has been concerned with planning, construction and maintenance of State and Federally-aided highways. It maintains authority over rivers, harbors and great ponds and cooperates with the federal government on flood control projects. It assists cities and towns in the building and maintenance of local highways (Chapters 90 and 81) and consults with them on the location of highways. (Several communities do have the "veto power" to disapprove proposed locations).

State interest in regional planning is better evidenced in the enabling legislation that set up the Massachusetts Department of Commerce, Division of Planning to "initiate, encourage and carry on regional and metropolitan planning, and to advise and assist local planning boards and other municipal agencies in cooperative efforts intended for the mutual benefits of the municipalities constituting such regional or metropolitan areas." *

* Chapter 23A of the General Laws, section 6e.
In 1960 the Massachusetts Department of Commerce undertook a state-wide study ** in which "urban centers" in the state were defined toward which other communities are economically oriented. These urban centers where defined on the basis of population, employment, retail trade and assessed valuations data. To examine the degree of orientation of various communities to urban centers, certain factors, for which data were available, were chosen by the Department as "orientation criteria." Although no single criterion selected could be considered as controlling the definition of the orientation of the area, taken collectively they provide relatively objective results. In order to place each item in its proper relationship, a point scoring system was devised with each criterion weighted according to its importance as a measure of orientation. Below is a brief description of the orientation criteria used.

a. Areas of Employment Security Offices

These areas were used since they serve as a grouping of towns, but were scored low as they are set-up arbitrarily by the Division of Employment Security. To a certain extent, they do indicate the "immediate" labor-market area of the urban center.

b. Service Areas of General Hospitals

The "State Plan for the Construction of Hospitals and Medical Facilities" sets up general hospital service areas, based on available beds and average daily admissions. Groups of towns are included in the area served by each general hospital.

c. Standard Metropolitan Statistical Areas

The Bureau of Census Standard Metropolitan Statistical Areas are based on a number of criteria similar in many instances to the ones used here. This criterion is scored more heavily than the previous two.

d. Contiguity to Urban Center

Those towns which are physically contiguous to an urban center and had at least reasonably good road connections to it were given a score up to ten points.

** Massachusetts Department of Commerce, A Study of Areas for Regional Planning in Massachusetts, Boston, 1960
e. Continuity of Development from Urban Center

A community was awarded an orientation score up to 15 points if there appeared to be continuous building development extending from the urban center to the community.

f. Existing and Proposed Limited Access Highways

The influence of major inter- and intra-state highways was evaluated by a score up to 15 points, depending on the quality of the access road and the distance of access. Half scores were assigned for proposed routes.

g. Extended Free Telephone Calling Areas

The development of extended local calling was taken as one of the best indicators of the amount of contact and interest between communities. Although the various telephone exchanges are not coterminous with cities and towns, the major portion of the populace served was used in awarding points on a community basis.

h. Newspaper Circulation Patterns

This criterion indicated the common interest and choice of residents, and most nearly approximated the final definitions of any of the criteria used. Using Audit Bureau of Circulations reports and private figures when the paper did not belong to the Bureau, points were awarded on a percentage basis up to 20.

i. Commuting Patterns of Manufacturing Employees

This criterion was weighed as heavily as that of newspaper circulation, since it was felt that it was extremely indicative of a person's interests and ties. Comprehensive data of these patterns were assembled on a state-wide basis.

One of the purposes of this study was to determine the "logical planning areas" and to create the regional planning districts that would serve these areas.*

* Accordingly, five regions are now forming with the guidance of the Division of Planning, under the Regional Planning Law, Chapter 40B: Berkshire County, Lower Pioneer Valley, Central Massachusetts, Central Merrimack Valley and Southeastern Massachusetts.
The outcome of this study showed 103 towns composing the "Bay Region" with a significant orientation towards Boston. Within this Region five areas (60 of these cities and towns) have a stronger orientation to the local urban centers than to Boston. Eight sub-regions have their orientation stronger to Boston than to their sub-regional center. Weston falls in this category and hence it has stronger orientation toward Boston than toward Waltham.

Table I-1 summarizes Weston's orientation to urban centers on the basis of the above orientation criteria.

<table>
<thead>
<tr>
<th>Criteria *</th>
<th>Totals</th>
<th>Boston</th>
<th>Waltham</th>
<th>Framingham</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Market Area</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Areas</td>
<td>8</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Standard Metropolitan Areas</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contiguity to urban center</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity of Development</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited access highways</td>
<td>23</td>
<td>14</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Telephone Areas</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspaper Circulation</td>
<td>20</td>
<td>11</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Commuting</td>
<td>20</td>
<td>17</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>122</td>
<td>85</td>
<td>25</td>
<td>12</td>
</tr>
</tbody>
</table>

* See text for definitions

In the report of the Planning Division the administration of planning for the Boston region should be in the hands of an independent metropolitan planning department established by the legislature as a metropolitan agency with responsibility limited to this geographical area. This was accomplished by the recent formation of the Metropolitan Area Planning Council, discussed later.

- 8 -
3. **Metropolitan Boston**

Basic to the study of any metropolitan region is a determination of what geographic boundaries enclose it. For metropolitan Boston a number of definitions are now in use. Its boundaries expand and contract depending on the source of data, the purpose of study and the function of the area.

a. **Metropolitan District Commission**

The MDC was created in 1919 by uniting the Metropolitan Parks Commission and Metropolitan Water and Sewerage Board. Fifty cities and towns (including Weston) in the Greater Boston area make use of one or more MDC services. The three primary functions of the MDC are water, sewerage and parks and boulevards. It is financed for operating expenses by the Commonwealth, which in turn assesses the member communities. For capital improvements MDC issues bonds as approved by the legislature and guaranteed by the State. MDC coordinates plans with the Department of Public Works in the construction of federally-aided roads. Because it is the single large metropolitan agency in existence, the legislature had tended to assign it any projects not clearly the concern of another group, and as a result, the commission directs some projects which bear little relation to its primary functions.

b. **Boston Standard Metropolitan Statistical Area**

To permit all Federal statistical agencies, such as the U. S. Bureau of Census to utilize the same areas for the publication of general purpose statistics, the Bureau of the Budget has established Standard Metropolitan Statistical Areas. The Boston SMSA -- as defined -- consists of the dominant central city of Boston and all the socially and economically integrated surrounding cities and towns. Boston (and to some extent, other adjacent inner cities) is dominant in that it contains a larger concentration of employment, services and specialized facilities than is necessary to support its own resident population. Weston, along with other surrounding cities and towns, is therefore integrated with Boston to the extent that its residents support these specialized facilities or work and conduct business in and communicate with the central city.

c. **Metropolitan Area Planning Council**

In August 1963, there was enacted legislation creating a Metropolitan Area Planning Council to "provide for regional planning in the Metropolitan Boston Area." This Council is composed of the City of Boston
and those cities and towns which are members of any MDC sewer, water or parks district, and any contiguous communities which become members of these districts. Any city or town, not within, but contiguous to the district may become a member upon application. Each of the present 47 member communities including Weston is represented on the Council by a voting representative. In addition, 23 additional members are appointed by the governor. The powers of the Council are advisory in nature and their recommendations do not have the force of law.

The responsibilities of the Council are generally as follows:

(1) conduct professional anticipatory research on virtually every aspect of the metropolitan environment;

(2) review and comment on all major capital improvement, development and redevelopment programs that may be laid before the Planning Council; and

(3) provide assistance to individual cities and towns in their planning activities especially when two or more of the municipalities have common problems.

d. Massachusetts Bay Transportation Authority

In 1964 the governor proposed to enlarge the 14 community MTA into a new Massachusetts Bay Transportation Authority comprising the 78 cities and towns of the Boston SMSA. Legislation was passed to accomplish this purpose. The authority is financed through a 200 million bond issue. The authority is empowered to operate in the public interest all forms of mass transportation facilities, either through ownership or through contracts with private companies. The former metropolitan Transit Authority was absorbed into this new Bay Authority. The task will include, among other assignments:

(1) extend the rapid transit system to Route 128 in Reading and to south Braintree over the Old Colony Line;

(2) guarantee by subsidy the continuation of commuter or freight services on the New Haven, Boston & Main, and Boston & Albany Railroads for three years; and

(3) furnish local services on buses and street cars.
Massachusetts Department of Commerce and Development
and the
Weston Planning Board

Gentlemen:

This Master Plan Study and Report for the Town of Weston is submitted in
fulfillment of a Federal Title VII Planning Assistance Contract with your
respective agencies.

The Plan has been designed as a framework to assist the Town and its vari-
ous governmental units in preparing recommendations for its future growth
and development. Obviously, such a plan is therefore not an end, but
merely a representation of the process through which the community can re-
solve its problems in terms of both present circumstances and future needs.
It must be reassessed periodically to be of continuing, maximum utility.
This is a responsibility, not only of the Planning Board, but of all other
Town officials and the residents of the community as well.

During the preparation of this Plan and Report many agencies, groups and
citizens of the Town were most cooperative in furnishing information and
observations. The Town Engineer, Mr. Charles H. Stimpson, the Town's
Executive Secretary, Mr. J. Ward Carter, the School Superintendent, Dr.
Otty R. Norwood and his staff were all helpful at all times both in supply-
ing data for analysis purposes and in reviewing the studies as they pro-
gressed. The Board of Selectmen maintained a continuing interest through-
out the period of the work.

Particularly, the guidance, enthusiasm and contribution of the Planning Board
itself are gratefully acknowledged. While its constant participation aided
in the materialization of this study, the primary responsibility lies on the
consultant. The Board's objective attitude and sincere concern for the Town
and its future are indeed the assurance that planning will become an active
participant in the decision-making process of the community.

Very truly yours,

Charles E. Downe

CED:LBJ
As a member of this new district, Weston will have its chairman of the Board of Selectmen as a member of the agency's Advisory Board which will have significant and sweeping powers over the Authority's budget, capital improvement programs, service changes, fares, the general manager, and all other matters submitted to it by its Board of Directors.

4. Other Semi-Independent Authorities

The Massachusetts Turnpike Authority was created in 1952 to construct, maintain, repair, and operate a toll express highway at such locations as may be approved by the Department of Public Works. The Authority also has jurisdiction over the Sumner and Callahan Tunnels. Each project was financed by its own bonds, payable solely from its own receipts. The Authority is not subject to the supervision of the DPW.

The Massachusetts Port Authority was created in June 1956 and activated February 1959. Revenue from its bonds was expended to purchase Logan Airport, Hanscom Field, the Boston Port facilities and the Mystic River Bridge. The Authority's function is to release the taxpayers of the cost of those facilities and to make them self-supporting through unified management on a business-like basis. The Port Authority has broad interests in the fields of mass transportation and the facilitation of traffic for commerce and industry. The legislature has authorized it to "investigate the necessity for additional facilities for the development and improvement of commerce in Boston and its metropolitan area."

5. The Sudbury-Assabet-Concord River Basin

Another type of region which is recognized as a logical, physical unit for planning is the river basin or drainage area with the purpose of the orderly utilization of its water and related land resources. This type of region is natural and its problems may extend beyond an individual administrative unit, making any solution dependent upon the cooperation among the various communities.

The SuAsCo basin encompasses part or all of 36 towns which are located in both Middlesex and Worcester Counties. Most of the towns are in the aforementioned suburban zone of the Greater Boston Region, but are outside the limits of the legislative proposals for the Boston Metropolitan region.

While the assets and problems of the SuAsCo region have encouraged its identity, there is nevertheless no one agency in the Commonwealth which deals solely with planning for this river basin, rather, there are many governmental agencies at each level, as well as private groups, which are active in the area.
D. REGIONAL FACTORS AFFECTING WESTON GROWTH

1. Population

a. General:

The GBESC revealed population projections for its Study Area, utilizing the cohort-survival technique based on different assumptions with respect to fertility rates and migration patterns yielding "high" and "low" growth rates. The mean of the two projections was considered the "most probably" future population of the Study Area. The expected growth rates are shown in Table I-2.

<table>
<thead>
<tr>
<th>Period</th>
<th>GBESC Area</th>
<th>Massachusetts</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-60</td>
<td>9.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960-70</td>
<td>9.7%</td>
<td>12.6%</td>
<td>19.1%</td>
</tr>
<tr>
<td>1970-80</td>
<td>11.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960-80</td>
<td>22.4%</td>
<td></td>
<td>44.3%</td>
</tr>
</tbody>
</table>


Table I-2 shows that the 1960-1980 most probably rate of increase for the GBESC Study Area, although as high or higher than it has been in the recent past, is just over half as great as for the nation as a whole (22.4% and 44.3% respectively). The difference between the 1960-1970 rates of growth of the GBESC Area and Massachusetts is attributed largely to the fact that the GBESC Area's share of the State's population is expected to decline -- a continuation of the past trend. While the GBESC Area had 2/3 of the the State's population in 1960, it contributed 4/5 of its out-migrants between 1950 and 1960.

The age distribution of the Area's population is not expected to be altered drastically. In the 'under 15' and '65 and over' age groups marked increases are expected both absolutely and in percentage terms. The 15 to 44 age group will be increasing very rapidly in number, but will be fluctuating in percentage. The 45 to 64 age group will increase slowly in number until 1970 then stabilize or even decline
and its percentage of the total population will decline in the 1960-1980 period.

As for the sex distribution, the population will experience a small increase in the proportion of males although females will still predominate in numbers. The ratio for the 'under 15' age group will remain nearly stable with a small male excess. There will be some increase in the proportion of males in the 15 to 44 and 55 to 64 age groups. For ages 65 and over, a continuing decline in proportions of males is anticipated.

b. Spatial Patterns of Growth

The growth patterns and present distribution of GBESC population is explained by the transportation network. Historically, the large concentrations of people have developed along the superior rail and highway connectors between the City of Boston and other important regional and national centers. These transportation facilities provide the best access to the central city, and correspondingly, they have had the greatest location advantages for both residential and industrial purposes. As a result, concentration of people and industry have developed along them. In the earlier period, the major radial expansions of population began to develop to the west, northwest and southeast. The process of filling in between the radials was confined to Boston and a smaller area immediately adjacent to it. Since 1950 the outward radial movements have continued and they are expected to persist to 1970.*

* The population projection of the GBESC Area 'as a whole' was based on the application of 'cohort-survival' technique, to U. S. Census data for 1950. When the 1960 census counts became available, it was found that GBESC's 1960 estimate for the Study Area as a whole was off by less than 0.2%. The redistribution among the cities and towns was derived at by the apportionment technique, i.e., the trends in the shares of every town of the whole population of the Area at five-year intervals between 1925 and 1955. These shares were checked for reasonableness on the basis of (1) land available for residential development; (2) recent rates of residential construction; (3) the town's relationship to the transportation network; and (4) estimates of the town's level of population. However, the 1960 census proved that the trends working to redistribute the area's population among various cities and towns were understated. Therefore, they were subject to further readjustment. In spite of readjustments it is realized that the results are much less secure than the projection for the larger GBESC Area.
The filling in between the radials in the inner suburbs will be accelerated and will extend to a distance of about 15 miles from downtown Boston.

While not all of the cities and towns of the Core are expected to lose population by 1970, the losses estimated for some (Boston, Cambridge, Somerville, Everett and Chelsea) will more than offset any increases which may occur in the remaining communities, thus yielding a loss of about 6.0% over 1960. Despite its relative decline the Core will remain the area of greatest population density and absolute concentration because growth elsewhere in the area will tend to be widely dispersed.

In the area beyond the Core, the towns group themselves into fairly well defined growth sectors. The greatest absolute and percentage growth will occur in sector IV (that contains Weston) extending directly west and dominated by Routes 20 and 9. Together with sectors II, (between Routes 38 and 3) and VIII, (along South Shore) these three sectors will account for about 62% of all the growth in the GBESC Area between 1960 and 1970, as they also did in the fifties.

Within each sector, growth by towns is very uneven. But as a rule, the nearer the town is to the Core, the greater its growth. About half of the population increase in the fifties took place in the band of towns along Route 128, just outside the Core, but within 15 miles of downtown Boston. Generally, the "Route 128" communities had the greatest percentage growth; the areas of lesser percentage increase tended to be located in the next outer suburban ring. However the growth pattern in the sixties is expected to behave somewhat differently. Both the highest absolute and the percentage increases will by-pass the "Route 128" communities. This can be explained partly by a slow down in the rate of decentralization to the suburbs (which has been their substantial source of growth), and partly by the fact that the outer suburbs will bear the main impact of this type of growth.

c. Trends in the West Sector:

The West Sector can be divided into three zones or bands of suburbs as shown on Plate I-1. The inner band closest to the Core includes Weston and may be designated as inner suburbs. The next two groups in terms of distance from the Core may be designated as intermediate and outer suburbs. Table I-3 shows the Population Trends in the Core, Inner and Intermediate Suburbs of the West Sector.
<table>
<thead>
<tr>
<th>WEST SECTOR</th>
<th>Population 1950</th>
<th>Population 1960</th>
<th>Population 1970</th>
<th>Changes '50-'60 Number</th>
<th>Changes '50-'60 %</th>
<th>Changes '60-'70 Number</th>
<th>Changes '60-'70 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brookline</td>
<td>57,589</td>
<td>54,044</td>
<td>51,000</td>
<td>-3,545</td>
<td>-6.2</td>
<td>-3,044</td>
<td>-5.6</td>
</tr>
<tr>
<td>Watertown</td>
<td>37,329</td>
<td>39,092</td>
<td>40,000</td>
<td>1,763</td>
<td>4.7</td>
<td>908</td>
<td>2.3</td>
</tr>
<tr>
<td>Inner Suburbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newton</td>
<td>81,994</td>
<td>92,384</td>
<td>95,000</td>
<td>10,390</td>
<td>12.7</td>
<td>2,616</td>
<td>2.8</td>
</tr>
<tr>
<td>Waltham</td>
<td>47,187</td>
<td>55,413</td>
<td>59,000</td>
<td>8,226</td>
<td>17.4</td>
<td>3,587</td>
<td>6.5</td>
</tr>
<tr>
<td>Needham</td>
<td>16,313</td>
<td>25,793</td>
<td>32,000</td>
<td>9,480</td>
<td>58.1</td>
<td>6,207</td>
<td>24.0</td>
</tr>
<tr>
<td>Wellesley</td>
<td>20,549</td>
<td>26,071</td>
<td>28,000</td>
<td>5,522</td>
<td>26.9</td>
<td>1,929</td>
<td>7.4</td>
</tr>
<tr>
<td>WESTON</td>
<td>5,026</td>
<td>8,261</td>
<td>10,500</td>
<td>3,235</td>
<td>64.4</td>
<td>2,239</td>
<td>27.0</td>
</tr>
<tr>
<td>Intermediate Suburbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natick</td>
<td>19,838</td>
<td>28,831</td>
<td>36,000</td>
<td>8,993</td>
<td>45.3</td>
<td>7,169</td>
<td>25.0</td>
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<tr>
<td>Framingham</td>
<td>28,086</td>
<td>44,526</td>
<td>62,000</td>
<td>16,440</td>
<td>58.5</td>
<td>17,474</td>
<td>39.5</td>
</tr>
<tr>
<td>Wayland</td>
<td>4,407</td>
<td>10,444</td>
<td>17,000</td>
<td>6,037</td>
<td>137.0</td>
<td>6,556</td>
<td>62.5</td>
</tr>
<tr>
<td>Maynard</td>
<td>6,978</td>
<td>7,695</td>
<td>8,000</td>
<td>717</td>
<td>10.3</td>
<td>3,050</td>
<td>39.5</td>
</tr>
<tr>
<td>Sudbury</td>
<td>2,596</td>
<td>7,447</td>
<td>12,500</td>
<td>4,851</td>
<td>186.9</td>
<td>5,053</td>
<td>62.5</td>
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<td>INNER SUBURBS</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sector III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td>2,427</td>
<td>5,613</td>
<td>8,000</td>
<td>3,186</td>
<td>131.0</td>
<td>2,387</td>
<td>42.5</td>
</tr>
<tr>
<td>Sector V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westwood</td>
<td>5,837</td>
<td>10,354</td>
<td>15,000</td>
<td>4,517</td>
<td>77.0</td>
<td>4,646</td>
<td>45.0</td>
</tr>
</tbody>
</table>

(1) and (2) U.S. Census; (3) G.B.E.S.C. Projection; (4) through (7) computed.
In the fifties, the inner suburbs have experienced larger absolute increments of population growth than the intermediate suburb (with the exception of Framingham). But the rates of growth of the inner suburbs have been less than those of the intermediate suburbs. However, peak conditions of growth appear to have passed the inner suburbs by in favor of the intermediate zone. Through 1970 the latter are expected to get both higher absolute gains and at higher rates of growth.

Out of the ten communities in both the inner and intermediate suburbs of the West Sector, Weston ranks ninth in absolute population growth of the fifties as well as the expected growth in the sixties. In terms of its rate of growth, however, it ranked third in the fifties and fifth in the sixties.

Out of the aforementioned ten communities, Weston, Wayland and Sudbury had populations of about 5,000 or less in 1950. By 1970 both Wayland and Sudbury would have increased at a rate three-fold of Weston (285%, 282% and 109% respectively. Lincoln, an inner suburb to the north of Weston and with a 2,427 population 1950 increased at a rate double that of Weston to 1960. Its rate of increase is expected to continue higher than Weston's to 1970. Westwood, a comparable inner suburb of the Southwest Sector V has a population of 5,837 in 1950. Its growth was 77% in the fifties and is expected to slow down to 45% in the sixties. Both rates are appreciably higher than those of Weston.

The remainder of this section will explore some of the causes that might have influenced this pattern of growth.

2. Existing Land Uses

Although the Boston region is one of the oldest inhabited and most densely settled parts of the nation, it is far from being completely developed. The distribution among various land uses is: Residential 18.4%; Commercial 1.1%; Industrial 1.4%; and Public Utilities, Institutional, Recreational and undeveloped 79.1%. Despite trends toward decentralization, the core area still contains the largest concentration of most urban land uses. Outside the core, the predominant land use is single family residence (with the possible exception of the heavily-industrialized communities.) Generally, the density decreases with distance from the core (or major subcenters). This is expressed physically in terms of land uses. Most of the developable land area of the inner suburbs has been filled in by residential subdivisions and other urban development. Development has so far clung closely to major highway radials, leaving substantial amounts of vacant land in the interstices.
The West Sector is no exception. Plate 1-2 illustrates the point. The percentage of 'built-up' area to total land increases towards Boston (the outer suburbs 10%, the intermediate suburbs 27% and the inner suburbs 48%).

In a comparison of the inner suburbs of the various sectors, those of the West Sector, on the whole, are more developed. They exceed all the inner suburbs in the percentage of total land devoted to single family residence. However, both the groups along the North and South Shores exceed them in multi-family residence and in commercial development, which might be attributed to the fact that the former communities witnessed population concentration (multi-family residence) of the street car era and since then developed into large commercial centers.

The percentages allocated to industrial uses in the North, West and South-west Sectors are the highest in all inner suburbs. Since 1947 the communities along Route 128 have been capturing most of suburban industrial expansion, two-thirds of which was located at its junctions with the expressway system.

Table I-4 examines the distribution of land uses of the inner suburban communities of the West Sector IV as well as some comparable inner suburbs of abutting sectors III and V. It also shows the intermediate suburbs of sector IV, abutting Weston.

Lincoln, Westwood, Wayland and Weston had almost the same degree of development (62% to 68% undeveloped). However, Weston had the highest percentage of open development (institutional, recreational and conservation).

3. Manufacturing Growth

Some factors that are often noted in connection with industrial location can be grouped as follows:

Group one - existing and planned expressway system, location of population, labor concentration, special industrial needs and desires, community preferences for or against industrial development, industrial development plans;

Group two - natural resources, sea-port and air-port facilities, low-cost water and electric power:

While the factors in group two will determine whether industrial growth will occur in Greater Boston Region or elsewhere in the nation, the first set establishes the basic framework within which most specific industrial location decisions are made within the region.
### TABLE I-4 LAND USE COMPOSITION, WESTON AND SELECTED COMMUNITIES, 1960

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
<th>Wholesale &amp; Manufacture</th>
<th>Open Development</th>
<th>Vacant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
</tr>
<tr>
<td><strong>INNER SUBURBS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sector III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td>1380 14.8</td>
<td>30 0.3</td>
<td>--</td>
<td>--</td>
<td>6404 68.4</td>
<td>9318 100</td>
</tr>
<tr>
<td><strong>Sector IV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newton</td>
<td>8207 73.7</td>
<td>195 1.8</td>
<td>153 1.4</td>
<td>1880 16.8</td>
<td>699 6.3</td>
<td>11,134 100</td>
</tr>
<tr>
<td>Waltham</td>
<td>2590 32.4</td>
<td>182 2.3</td>
<td>576 7.3</td>
<td>1960 24.6</td>
<td>2672 33.5</td>
<td>7980 100</td>
</tr>
<tr>
<td>Needham</td>
<td>3564 44.6</td>
<td>90 1.1</td>
<td>217 2.7</td>
<td>1882 23.6</td>
<td>2245 28.0</td>
<td>7998 100</td>
</tr>
<tr>
<td>Wellesley</td>
<td>3438 53.4</td>
<td>107 1.7</td>
<td>52 0.8</td>
<td>1795 28.0</td>
<td>1040 16.1</td>
<td>6432 100</td>
</tr>
<tr>
<td>WESTON</td>
<td>1654 15.1</td>
<td>36 0.3</td>
<td>82 0.8</td>
<td>2110 19.2</td>
<td>7068 64.6</td>
<td>10,950 100</td>
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<tr>
<td><strong>Sector V</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westwood</td>
<td>1780 25.4</td>
<td>10 0.1</td>
<td>100 1.4</td>
<td>760 10.8</td>
<td>4400 62.3</td>
<td>7050 100</td>
</tr>
<tr>
<td><strong>INTERMEDIATE SUBURBS</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sector IV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayland</td>
<td>2270 23.3</td>
<td>70 0.7</td>
<td>60 0.6</td>
<td>1310 13.4</td>
<td>6055 62.0</td>
<td>9765 100</td>
</tr>
<tr>
<td>Natick</td>
<td>3708 39.0</td>
<td>227 2.4</td>
<td>244 2.5</td>
<td>1115 11.6</td>
<td>4229 44.5</td>
<td>9523 100</td>
</tr>
</tbody>
</table>
The GBESC study concluded that; (1) certain suburban areas, particularly along or near the northern and western portions of Route 128 and the adjacent radials, appear likely to continue to receive the major share of Greater Boston's industrial growth; (2) some further decrease in the share for the Core is predicted; and (3) other suburban and outlying sub-regions appear to be in line for moderate to substantial growth.

With respect to the Route 128 subregion, the GBESC study assumes continuing rapid growth through 1970 with some slowing in the 1970-1980 decade. The assumption is that substantial expansion is fairly well assured through 1970, but that selective labor shortages and possibly a decrease in the number of available prime industrial sites may tend to decelerate industrial growth in the decade to follow.

Based on the mentioned factors of location, in addition to the distribution of expected population growth and industrial employment, the Greater Boston Economic Study Committee's analysis anticipated a need for some 3,290 industrial acres in the Route 128 Band area. This estimate was based upon the "employment density" technique, industries being classified as intensive, moderately intensive, moderately extensive, and extensive land users. The average density used for projection was 26 workers per acre (as compared to 1960 figures of 29 in GBESC Region and 21 for Route 128 Area).

As the trend has been generally towards decentralization of manufacturing, which acts to lower employment densities, and with the general trend favoring lower densities throughout all parts of the metropolitan areas, it would not be unreasonable to reduce the projected workers per acre density even more. Practices and trends in other metropolitan areas throughout the nation proved that a density of 15 workers per acre is more reasonable. This will yield an estimated need for about 5,220 acres.

There are about 5,420 acres of open land zoned for industrial purposes in GBESC communities. About 60% of this land is physically unsuitable for such development, (although in some communities like Framingham and Needham the unsuitable land is only 20%). This "unsuitability" factor will bring the supply down to 3220 acres. Moreover, the zoning picture is further complicated by the fact that not all industrial districts are restrictive, rather they are of the cumulative type, i.e., they allow "higher" uses such as residence. This is apt to cut down on the supply.

However, zoning patterns are in constant flux, and the pool of land which is potentially available for industrial purposes could be far larger than the amount of land currently zoned for industry. For land zoned for non-industrial purposes could be rezoned for industry at the request of an industrial
developer or firm. This depends, however, on community decisions.

Communities vary widely in their desire to attract different types of industry. Some towns want no industry at all, and virtually all others want electronics or research operations. While there are many factors in industrial location that are beyond the control of the community, some discretion exists, and where it does, the decision of the community becomes a factor in industrial location. Weston may or may not rezone open land for industry; may or may not undertake a program of industrial promotion; may or may not improve its street linkages to regional expressways; and may or may not engage in tax negotiations with potential new firms.

Allocating all, or virtually all, of the prime land in Weston and similar towns to single family residential use have restricted the community to relatively high-quality homes and limited the amount for industrial use. This, in turn, removes both the need and the desire for industrial expansion. For residents do not particularly seek jobs in industrial plants, thus eliminating the labor oriented industries from locating in such communities. On the other hand, the dearth of industrial land prevent concentration of industries thus eliminating the economic benefits of agglomeration -- a location factor that attracts more industries.

However, as the highly accessible communities, that possess considerable attractive open land, hold it off industrial use, the supply of prime industrial land directly on Route 128 becomes smaller (with many of the remaining sites being held for extremely high prices) and thus will accelerate development along radial highways and along the newer northern and southern reaches of Route 128. On the other hand, if some of the more centrally located Route 128 communities (Weston and neighboring towns) rezone available land for industrial use, there may be an intensification of manufacturing growth in the very subarea which has already experienced the greatest postwar expansion.

4. Growth of Retail Trade

The Boston Region is one of the nation's leading retail centers and retailing is a major source of regional employment. In the past decade suburbanization has had an important impact on the role of the central cities of metropolitan areas as major retail centers.

The suburbanization of retail trade is structured in such a manner that a residential suburb functioning as a part of a large metropolitan area, can easily exist with little or no retail trade taking place within its own boundaries. Conversely, some of the towns in the metropolitan area may provide community shopping facilities that draw support from many other communities in the same sector.
In a study conducted by the Boston Globe newspaper in 1962, shopping centers have been classified by a weighted point system that has taken into account store number, store size, store type and retail sales norms. For the region around Weston both existing and planned shopping areas have been plotted on Plate I-3 showing their pulling or attracting power by circles whose areas are proportional to their different services, facilities and characteristics.

It is clear that Weston is not a commercial center. It is a wholly residential community, has traditionally been such, and is guided by zoning policies aimed at retaining its low-density residential character. Although it is possible for Weston to choose whether or not it makes an effort to expand its retail trade, nevertheless, it is clear that as each year passes, the total population of Weston, Wayland, Lincoln and adjacent towns will increase, which in turn will mean a higher purchasing power to support more stores.

On the basis of their trading areas, shopping centers are usually classified into neighborhood, community, suburban, and regional. The magnitude of the demand for shopping space in Weston, considering its setting within its region and the surrounding towns, seems to call for the use of alternative combinations of one or two of shopping centers, i.e., neighborhood center and/or community center. Table I-5 summarizes the characteristics activities of such centers.

The extent to which any community shopping center in Weston can draw patronage from the nearby towns will depend upon the competitive position that it can establish. Although it is not impossible for a new center to be started (built around some large department or specialty store), as more shopping demand will develop, it is important to note that the region is well serviced by community shopping stores offering good quality shopping goods, both in the older centers and in the new highway-oriented centers. As for neighborhood shopping centers, they seem feasible to develop as local population density develops.

E. INTEGRATING WESTON'S DEVELOPMENT WITH ITS SURROUNDING COMMUNITIES

The communities that surround Weston are: Waltham and Newton to the east, Lincoln to the north, Wayland and Natick to the west, and Wellesley to the south. The policies for development of Weston should be coordinated with those adopted (or under consideration) by its adjacent communities. This section will touch upon the conditions in these surrounding communities which might influence Weston.
<table>
<thead>
<tr>
<th></th>
<th>Neighborhood Center</th>
<th>Community Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major function</td>
<td>Sale of convenience goods and personal services</td>
<td>Some functions of the Neighborhood Center plus sale of shopping goods (wearing apparel, appliances and wider variety of merchandise)</td>
</tr>
<tr>
<td>2. Radius of service area</td>
<td>1/2 mile</td>
<td>1 to 3 miles</td>
</tr>
<tr>
<td>3. Population to support center</td>
<td>3,000 - 15,000</td>
<td>15,000 - 30,000</td>
</tr>
<tr>
<td>4. Families</td>
<td>1,000 - 4,000</td>
<td>4,000 - 8,000</td>
</tr>
<tr>
<td>5. Location</td>
<td>Intersections of collector streets and secondary roads</td>
<td>Intersections of major roads and/or expressways</td>
</tr>
<tr>
<td>6. Number of stores and shops</td>
<td>7 - 15</td>
<td>15 - 35</td>
</tr>
<tr>
<td>7. Leading tenants</td>
<td>Supermarket and drugstore</td>
<td>Variety store and small department store</td>
</tr>
<tr>
<td>8. Other tenants</td>
<td>Several service stores such as a dry cleaner, beauty shop, shoe repair laundry, barber and possibly a small variety store</td>
<td>In addition to the stores included in neighborhood a complete range of convenience goods outlets, specialty goods stores emphasizing apparel and home furnishings, professional offices and usually branch banks</td>
</tr>
<tr>
<td>9. Site area (gross land area)</td>
<td>4 - 8 acres</td>
<td>10 - 30 acres</td>
</tr>
<tr>
<td>10. Gross floor area</td>
<td>30,000 - 75,000 sq. ft.</td>
<td>100,000 - 250,000 sq. ft.</td>
</tr>
<tr>
<td>11. Parking requirements*</td>
<td>200 - 600 spaces</td>
<td>1,000 - 2,500 spaces</td>
</tr>
</tbody>
</table>

* (Parking area is three to four times gross floor area of building and 400 sq. ft. are allowed per parking space)
1. Existing Land Use

Large tracts of undeveloped land and swamps that interrupt urban development exist between Weston on the one side and Lincoln, Wayland, and Natick on the other. With the exception of the immediate commercial development in Wayland along Route 20, the land use along all the connecting roads between these towns and Weston is developed for residential use. The residential development in Wellesley along the Town line is of greater intensity and higher density than residential development in Weston. Both Route 128 and the Charles River with its recreational complex, disrupt the continuity of development between Newton and the southwest portions of Waltham. The only area where a potential conflict seems to exist is that around Lexington Street. Industrial development has sprung out in Waltham in an area south of Cambridge Reservoir with excellent accessibility to one of Route 128 interchanges. This industrial development is bordering residential development in Weston.

2. Utilities and Community Facilities

Adequate and appropriate community services are both an effect and cause of population, industrial and commercial growth. A regional approach is by far the more effective in meeting the demand for utilities and community facilities. The need for such an approach will be more and more felt in the future as the population pressure increases.

The reasons for such an approach are several. Population is not evenly distributed throughout the region. Watersheds and drainage areas do not coincide with administrative boundaries. Sources of water supply are not geographically distributed according to the needs of groups of local residents. Most important is the fact that it is costly for smaller towns to stand by themselves and provide themselves single-handedly with a high level of services for their population.

A regional approach can solve these and other problems much more efficiently and still maintain the identity of the individual community. Weston is familiar with the MDC services and the SuAsCo basin regional efforts.

3. Transportation and Circulation

Anticipating an increase in population in all surrounding towns and an increase in car ownership and trucking operations and facilities, a sizeable increase in traffic is on the horizon.

As was mentioned before, Weston lies in the east-west corridor that forms the spine of the West Sector of the Greater Boston Region. Commuters of
the communities west and northwest travel through Weston on the Mass. Turnpike, Route 20, Route 30 and Route 117.

Aside from the Turnpike, Routes 20 and 30 carry the highest volume of the through traffic in the Town. In Wayland the DPW has contemplated a relocation of Route 20 by-passing the Town Center. The Wayland Master Plan has recommended the relocated road to be limited in access, divided in direction and with grade separated interchanges with major routes or connections to large concentrations of industry and retail business. In Sudbury, part of the area adjacent to Route 20 is now used for business and industrial purposes. The projected land use of a much larger area in both Wayland and Sudbury is for industry. Even though the traffic generation is not great at present, it will become so as the land proposed for industrial use in both towns is developed.

As for Route 30, some of the increase in its traffic volume might be absorbed by the Mass. Turnpike after its extension to Boston. In Wayland development around it is residential with some dispersed commercial activities. The nature of the traffic seems to be mainly commuting (rather than commercial or industrial). No plans are anticipated for its relocation.

As for Route 117, the possibility of relocating it around the Lincoln, Weston Town Line to join Winter Street in Waltham has been ruled economically unjustified. The DPW plans at present seem to rest on improving the existing facility by correcting some of its curvatures and intersections.

Being a limited access road, the Turnpike did not present in the past any problems. However, its extension to Boston, with an interchange in Weston, would bring into the picture the problem of integrating the regional facility to the local network. A high capacity road invites users from a wide area and causes traffic to converge. Superimposing such regional facility over the existing pattern will necessitate some adjustments in the latter.

With the exception of the limited access Route 128, north-south regional traffic is carried further to the west of Weston on Routes 128 connecting Route 2 to Route 9 and Route 16 and passing through the centers of Concord, Wayland and Natick. The DPW is now making some improvements at the Lincoln-Concord Town Line. Merriam and Wellesley Streets join the centers of Lincoln, Weston and Wellesley.

In conclusion, the implications of the brief discussion above are several. A review of the utilities, transportation and future land use plans of the surrounding towns would be covered later in these specific chapters of the Master Plan Report. It suffices to mention now that such a review would be fruitful for Weston in identifying problems and solutions.
II. EXISTING LAND USE

A. INTRODUCTION

The major purpose of the Master Plan Study is to suggest a desirable pattern of the future physical development for the Town. Realistic suggestions require a thorough knowledge of the factors that enhance or limit such physical development -- both natural and man-made.

Most important of the natural factors are the topography of the terrain and the character of the soils. These affect the capability of land for man-made developments. On the other hand, the extent, intensity, and character of man-made development will point out the direction (taking other socio-economic factors into consideration) for the future suggestions including continuation or redevelopment of land already partially or fully developed, and the type of development that should take place on vacant land.

B. NATURAL CHARACTERISTICS

Plate II-1 shows the generalized topography of the Town by 50 feet contour intervals in tones of gray. The darker tones indicate higher land elevations above Mean Sea Level, and the closer contours indicate steeper slopes. As shown on the Map, the terrain is generally undulating with elevations ranging from 100 to 300 feet.

The Town’s soil is a mixture of (1) moist, good textured soil, and (2) rough, stony, penetrated with wet soil. Neither steep slopes, swamps, or the presence of bedrock ledge have had any appreciable effect in discouraging development in Weston. Conversely, steep slopes were assets to increase the attractiveness of sites. Spatial and quantitative analysis are carried out in the following section.

C. EXISTING LAND USE

1. Data Collection

Land use information was compiled principally from three sources.

a. The Boston Regional Planning Project (BRPP) Land Use Inventory, based on aerial photographs taken in 1963 and checked by field surveys. The northeastern part of the Town was covered by maps at a scale of 1” = 300’ and the remainder by 1” = 150’ maps.
EXISTING LAND USE
JUNE 1964

PLATE II. 2

LEGEND

RESIDENCE

RETAIL & SERVICE

Rental Apartments

Personal Services & Finance

STORAGE, WHOLESALE & MANUFACTURE

TRANSPORTATION

PUBLIC & SEMI-PUBLIC BUILDINGS

Elementary & Secondary Schools

Colleges & Higher Education

Churches

Town Offices & Other Institutions

Utilities, Storage & Dump

OPEN SPACE

Conservation

Wetlands - F.R.M.

Parks - Recreation

Conservation, Etc.

Agriculture, Woodlots, Forest
b. Town Engineer's atlas at a scale 1" = 100' from which all the public and semi-public lands and their acreages were taken.

c. A field survey in which the above information was checked especially where it was felt that additional information was required such as in the case of subsequent developments and use changes.

The land use data were classified into the following categories:

1. Residence
2. Retail and Service
   a. Retail Establishments
   b. Personal, Office and Finance
3. Storage, Wholesale and Manufacture
4. Transportation
5. Public and Semi-public
   a. Elementary and Secondary Education
   b. Colleges and Higher Education
   c. Churches
   d. Town Offices and Other Institutions
   e. Town Utilities, Garages and Dump
6. Open Space
   a. Cemeteries
   b. Watersheds and Rights-of-way
   c. Parks and Other Recreation
   d. Conservation
   e. Agriculture, Woodlands and Vacant

Plate II-2 shows the existing pattern of land uses in Weston. The area of land devoted to various uses, as shown on the map and in the quantitative analysis of this report, may not always coincide with property lines. Where these properties are held in public or semi-public ownership, the exact acreage of land and property lines, as given in the Town Atlas were used. For private properties, the amount of land allocated to various uses was determined from the BRPP aerial photographs and from field observations. In the majority of cases, such amount was adjusted to the actual property holdings for it was a relatively high percent of the actual holding with the result that the area not in use is not likely to be developed. In a few cases of exceptionally large holding the portion of land which is not actually devoted (or required by existing zoning by-laws) to the main use or other accessory uses was considered vacant,
because such portion can always be utilized for expansion of existing uses or to accommodate new uses in the future. For example, the owner of a large piece of property can subdivide, sell, or rent that portion of the land which is not presently being used, especially if it has access to a street. This method for allocating land uses is helpful in evaluating the potentialities of the land for future development.

2. **Delineation of Neighborhoods**

In many studies of this Master Plan Report it will be found useful to subdivide the Town into smaller areas for analysis purposes. For instance, in the studies of community facilities, utilities and services and traffic and circulation, it is most valuable to have the land use, population and other data broken down by smaller geographical units, which will be called "neighborhoods". Such neighborhoods can be further subdivided into smaller units, "sub-neighborhoods", or added together to form larger areas, sub-communities, for the purposes of planning the distribution of various types of facilities, since each type of facility may require a different service area to function economically.

In defining Weston's neighborhoods, the following criteria were considered.

a. Each neighborhood should be of sufficient size so that, when ultimately developed, it can be feasibly served by community facilities of local nature such as playgrounds or parks. In turn these could serve as its potential focus. Being pedestrian or bicycle-oriented it need not be served by major thoroughfares, and thus the hazards of through traffic can be avoided.

b. The neighborhoods should form appropriate physical units. Thus, physical barriers which would limit the contiguous expansion of existing development should, wherever possible, define the boundaries of neighborhoods rather than cut through them. Such barriers may be natural, such as lakes, extensive land reservations, swamps, ridges or other "unbuildable" lands; or man-made such as railroads, major utility lines, major highways and extensive institutional holdings.

c. Neighborhoods should originate from the existing development of the Town. Each neighborhood or "sub-neighborhood" should generally be of homogeneous characteristics, as determined by the existing character of development, the nature of topography and the general appearance of the area.

Plate II-3 is a geographic representation of most of the above mentioned criteria as they apply to Weston. The existing Town forests, parks, golf courses
and other local facilities were considered as potential "focal points" for
neighborhoods. The public schools, civic or shopping facilities were con-
sidered as focal points which serve the whole Town.

The map also shows various types of "boundary limitations," i.e., physical
barriers which would limit contiguous development in the Town, and therefore
delineate the boundaries of neighborhoods.

The above analysis, as shown in Plate IV-3, resulted in identifying eight
neighborhoods in the Town. The "sub-neighborhoods" which are identified
on the map are those areas, existing or potential, which might be suitable
for compact development of homogeneous land use. These neighborhoods
will be used throughout the Report for purposes of analyses.

3. Analysis of Developed Land

The Town totals 11,000 acres in area of which 240 acres are water bodies.
Of the remaining 10,760 acres, 6,960 acres (or 64.7% of land area) are
developed or held in public or semi-public ownership. Some 3,800 acres
(or 35.3%) are either woodlands, in agriculture use, undeveloped or
vacant. Table II-1 shows the acreage allocated to various land uses by
neighborhoods. Residential development composes 35.4% of the town
land; commercial, manufacturing and railroad facilities take about 1.6%;
recreational land composes 9.8% and institutional takes about 17.9%.
Table II-2 compares the distribution by various categories of Weston's
developed land and its acreage per hundred population to other American
communities.

In 1955 Harland Bartholemew Inc. made a study of land uses in a number
of U. S. cities including 28 central cities under 50,000 people and 33
satellite (or self-contained, non-central) towns and cities. No such
nation-wide study has been done for suburban communities. A compari-
son of Weston's land use with Bartholemew's figures would reveal some
of the peculiarities of the Town. Bartholemew's categories for the devel-
oped portions of his sample cities were all comparable to those devised
for Weston, except that in the latter, the acreage devoted to streets and
highways (other than limited access) is included in other land use cate-
gories. Bartholemew's figures, as shown in Table II-2, are adjusted by
proportionately distributing the acreage of streets and highways and add-
ing it to other land use categories so that they can be compared to the
Town figures.

From Tables II-1A, 1B and 2 many observations can be made regarding the
land use in Weston.
<table>
<thead>
<tr>
<th>Categories</th>
<th>Total</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. TOTAL AREA</td>
<td>11,000</td>
<td>1,600</td>
<td>1,000</td>
<td>1,100</td>
<td>1,100</td>
<td>1,550</td>
<td>1,950</td>
<td>1,500</td>
<td>1,200</td>
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<tr>
<td>II. WATER BODIES</td>
<td>240</td>
<td>15</td>
<td>00</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>120</td>
<td>15</td>
<td>75</td>
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<tr>
<td>III. TOTAL LAND</td>
<td>10,760</td>
<td>1,585</td>
<td>1,000</td>
<td>1,095</td>
<td>1,095</td>
<td>1,545</td>
<td>1,830</td>
<td>1,485</td>
<td>1,125</td>
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<td>PERCENTAGE OF TOWN LAND</td>
<td>100.0</td>
<td>14.7</td>
<td>9.3</td>
<td>10.2</td>
<td>10.2</td>
<td>14.4</td>
<td>17.0</td>
<td>13.8</td>
<td>10.4</td>
</tr>
<tr>
<td>A. Total Developed</td>
<td>6,360</td>
<td>955</td>
<td>660</td>
<td>585</td>
<td>795</td>
<td>795</td>
<td>1,410</td>
<td>785</td>
<td>975</td>
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<td>Residence</td>
<td>3,805</td>
<td>275</td>
<td>620</td>
<td>440</td>
<td>355</td>
<td>455</td>
<td>730</td>
<td>495</td>
<td>435</td>
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<td>Retail &amp; Service</td>
<td>19</td>
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<td>2</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wholesale &amp; Mfg. &amp; R.R.</td>
<td>151</td>
<td>18</td>
<td>10</td>
<td>10</td>
<td>97</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Institutional</td>
<td>1,032</td>
<td>352</td>
<td>0</td>
<td>45</td>
<td>310</td>
<td>168</td>
<td>12</td>
<td>135</td>
<td>10</td>
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<tr>
<td>Recreation &amp; Conservation</td>
<td>1,053</td>
<td>309</td>
<td>28</td>
<td>86</td>
<td>29</td>
<td>169</td>
<td>262</td>
<td>30</td>
<td>140</td>
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<tr>
<td>Regional</td>
<td>900</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>400</td>
<td>125</td>
<td>375</td>
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<td>B. Total Undeveloped</td>
<td>3,800</td>
<td>630</td>
<td>340</td>
<td>510</td>
<td>300</td>
<td>750</td>
<td>420</td>
<td>700</td>
<td>150</td>
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<td>Unsuitable</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swamps &amp; Wetlands</td>
<td>860</td>
<td>300</td>
<td>90</td>
<td>40</td>
<td>100</td>
<td>110</td>
<td>10</td>
<td>180</td>
<td>30</td>
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<tr>
<td>Steep Slopes</td>
<td>105</td>
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<td>00</td>
<td>30</td>
<td>00</td>
<td>30</td>
<td>25</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Suitable</td>
<td>2,835</td>
<td>320</td>
<td>250</td>
<td>440</td>
<td>200</td>
<td>610</td>
<td>385</td>
<td>515</td>
<td>115</td>
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</tbody>
</table>

* See Map for delimitation of neighborhood boundaries
### TABLE II-1B LAND USE ANALYSIS BY NEIGHBORHOODS* (by percentages)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL LAND (Acres)</td>
<td>10,760</td>
<td>1585</td>
<td>1000</td>
<td>1095</td>
<td>1095</td>
<td>1545</td>
<td>1830</td>
<td>1485</td>
<td>1125</td>
</tr>
<tr>
<td>PERCENTAGE</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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<td>100.0</td>
</tr>
<tr>
<td>A. Total Developed</td>
<td>64.7</td>
<td>60.3</td>
<td>66.0</td>
<td>53.5</td>
<td>72.7</td>
<td>51.4</td>
<td>77.0</td>
<td>52.8</td>
<td>86.7</td>
</tr>
<tr>
<td>Residence</td>
<td>35.4</td>
<td>17.4</td>
<td>62.0</td>
<td>40.2</td>
<td>32.5</td>
<td>29.4</td>
<td>40.0</td>
<td>33.3</td>
<td>38.7</td>
</tr>
<tr>
<td>Retail &amp; Service</td>
<td>0.2</td>
<td>-</td>
<td>0.1</td>
<td>0.4</td>
<td>0.4</td>
<td>0.2</td>
<td>0.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wholesale &amp; Mfg. &amp; R.R.</td>
<td>1.4</td>
<td>1.2</td>
<td>1.0</td>
<td>0.9</td>
<td>8.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.3</td>
</tr>
<tr>
<td>Institutional</td>
<td>9.6</td>
<td>22.2</td>
<td>-</td>
<td>4.1</td>
<td>28.4</td>
<td>10.9</td>
<td>0.6</td>
<td>9.1</td>
<td>0.9</td>
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<td>19.5</td>
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<td>7.9</td>
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<td>10.9</td>
<td>14.3</td>
<td>2.0</td>
<td>12.4</td>
</tr>
<tr>
<td>Regional</td>
<td>8.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>21.8</td>
<td>8.4</td>
<td>33.4</td>
</tr>
<tr>
<td>B. Total Undeveloped</td>
<td>35.3</td>
<td>39.7</td>
<td>34.0</td>
<td>46.5</td>
<td>27.3</td>
<td>48.6</td>
<td>23.0</td>
<td>47.2</td>
<td>13.3</td>
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<td>Unsuitable</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Swamps &amp; Wetlands</td>
<td>8.0</td>
<td>19.0</td>
<td>9.0</td>
<td>3.6</td>
<td>9.1</td>
<td>7.1</td>
<td>0.6</td>
<td>12.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Steep Slopes</td>
<td>1.0</td>
<td>0.6</td>
<td>-</td>
<td>2.7</td>
<td>-</td>
<td>1.9</td>
<td>1.4</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Suitable</td>
<td>26.3</td>
<td>20.1</td>
<td>25.0</td>
<td>40.2</td>
<td>18.2</td>
<td>39.6</td>
<td>21.0</td>
<td>34.8</td>
<td>10.2</td>
</tr>
</tbody>
</table>

* See Map for delimitation of neighborhood boundaries
<table>
<thead>
<tr>
<th>Category</th>
<th>% of Developed Land</th>
<th>Acres per 100 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weston</td>
<td>Satellite City*</td>
</tr>
<tr>
<td>Residential</td>
<td>54.5</td>
<td>58.1</td>
</tr>
<tr>
<td>Business</td>
<td>0.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Industrial &amp; Railroad</td>
<td>2.2</td>
<td>17.3</td>
</tr>
<tr>
<td>Recreational</td>
<td>15.1</td>
<td>6.1</td>
</tr>
<tr>
<td>Institutional</td>
<td>27.9</td>
<td>15.0</td>
</tr>
<tr>
<td>Local</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Harland Bartholemew Inc., figures adjusted as explained in text.
** The developed land as a percent of the total town/city area amounts to 64.7% in Weston, 64% in the 'Typical' Satellite City, and 55% in the 'Typical' Small Central City.

a. Residential

About 3,805 acres (35.4% of the Town or 54.5% of the developed land) are allocated to residential uses consisting largely of single family homes. A number of two-family structures are concentrated on Viles and Lexington Streets with a few others scattered in older parts of the Town. In terms of the percentage of the developed area, residential land use in the Town is comparable to other cities. Residential land use per 100 population is understandably much higher in Weston than "satellite" or "central" cities due to the predominance of suburban single family house developments. However, comparison with other suburban towns in Massachusetts shows that Weston allocates, on the average, three times more land per person for residences. These lower densities are a result of the Town's zoning regulations.

A quantitative and qualitative analysis of the residential development will be included in this chapter, Section D Neighborhoods: Existing and Potential Development.
b. Retail, Business and Services

Some 18 acres (less than 0.2% of the town and 0.3% of the developed area) are allocated to retail business and services, consisting of 62 different establishments distributed as shown in Table II-3. There is less than 0.2 acres per 100 population which is 50 to 100% less than "satellite" or "central" cities (0.3 and 0.42 respectively).

Considering that about half of this acreage is occupied by farm establishments with drive-in or open development (green houses and ice

<table>
<thead>
<tr>
<th></th>
<th>Totals</th>
<th>Neighborhoods</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18.0</td>
<td>0.5</td>
<td>1.5</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<td>Area in Acres</td>
<td>0.5</td>
<td>1.5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
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<td>-</td>
</tr>
<tr>
<td>Total No. of Establishments</td>
<td>62</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>45</td>
<td>1</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>A. Retail</td>
<td>25</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>13</td>
<td>1</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>1) Farm Products (Florists, green houses and dairy)</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2) Hardware &amp; Building Materials</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Other Retail</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>B. Services</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>14</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>4) Automotive &amp; Gas Station</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>5) Other Services</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C. Banks, Offices &amp; Medical Services</td>
<td>21</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>18</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>6) Banks</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7) Medical Offices &amp; Services</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>8) Other Offices</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
cream stands), the land allocated to business in the Town is far less than that required to meet its demands. In other words, Weston is dependent on other communities for its shopping services. Location-wise, 75% of the retail and business service establishments is concentrated in the Town center, (Neighborhood No. 4) constituting a commercial "highway row" along the Old Boston Post Road. Other spot developments are mainly along Routes 117 and 30.

c. Wholesale, Manufacturing and Railroad

About 150 acres (1.4% of the town or 2.2% of the developed area) are devoted to wholesale, manufacturing and railroads. This small percentage of developed land, however, does result in a high per capita ratio as compared to other towns. Some 70 acres constitute railroad rights-of-way; 65 are on the eastern edge of the Town occupied by the two quarries. The remainder is distributed among a small workshop, a stable, trucking garage and four storage yards.

d. Recreational

Some 1050 acres fall in this category which covers all the land used for "active recreation" such as the three golf courses, town parks and camps, and for "passive recreation" as the Town forests and lands owned by the Weston Forest and Trail Association Inc. This constitutes 15.1% of the developed area as compared to 6 to 9% in "satellite" or "central" cities and thus results in 18 to 25 times as much land per capita as in the other cities.

e. Educational & Institutional

Included in this category are (1) public and private schools, churches, town offices and garages which take some 1030 acres (9.6% of the Town land or 14.8% of developed area), and (2) MDC watersheds and rights-of-way of limited access highways, using some 900 acres (8.8% of town and 12.9% of developed area). Percentagewise, the land allocated for such uses is twice as much in Weston as in the "satellite" or "central" towns, yielding about 15 times as much on a per capita basis.

4. Analysis of Vacant Land

Undeveloped land is generally considered a potential economic resource for the future. However, topographical and geological factors impose various limitations on the development. These include (a) degree of natural
drainage or wetness (swamps and land of high retention), (b) slope of
the land (moderate 15 to 25%, steep over 25% and (c) amount of stones
and boulders on and below the surface and the presence and depth of
hardpan or clayey layers.

A detailed analysis of all postwar subdivisions in Weston* indicated con-
clusively that neither small swamps (under 200 feet in minimum dimension)
nor slopes under 25% had any appreciable effect either in discouraging
residential development or on the number of lots per acre in such develop-
ments. This is explained in part by the relatively large lots prevailing
in the Town of sufficient sizes to "absorb" small swamps and moderate
slopes within their bounds. On the other hand development took place on
existing streets regardless of the existence of bedrock ledge or moderate
grade differential. Such difficulties were considered assets adding to the
attractiveness of sites for at least individual homes (as distinct from specu-
lative developments).

Consequently, in the following analysis of the vacant land, the two physi-
cal conditions that will be considered deterrents to full residential develop-
ment in Weston are (1) major swamps and land with high retention and
(2) steep slopes over 25%.

Plate II-4 shows the location of swamps as indicated on U.S.G.S. topo-
graphic maps. In addition, doubtful areas or bounds were checked by the
Boston Regional Planning Project aerial photographs taken in 1963 after a
rainy season, thus showing lands with high retention. From the U.S.G.S.
topographic maps, areas with steep slopes were delineated and transferred
to Plate II-4. The remainder of the vacant land is considered suitable for
future development. Tables II-1A and 1B show the distribution of all cate-
gories of vacant land by neighborhood in acres and percentages.

*Allen Benjamin, Report on Basic Master Plan Studies, Weston, 1956
5. **Procedure of Land Capacity Determination**

The aforementioned analysis of all postwar subdivisions in Weston revealed the following ratios of lots per acre that might be expected in future subdivisions of interior land, if containing no major swamps or steep areas.

<table>
<thead>
<tr>
<th>Zoning District</th>
<th>Minimum Lot Area (sq.ft.)</th>
<th>Minimum Lot Width/Frontage (ft.)</th>
<th>Probable Number of Lots per Gross Acre of Buildable Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>60,000</td>
<td>200</td>
<td>0.55</td>
</tr>
<tr>
<td>B</td>
<td>40,000</td>
<td>150</td>
<td>0.75</td>
</tr>
<tr>
<td>C</td>
<td>30,000</td>
<td>125</td>
<td>1.05</td>
</tr>
<tr>
<td>D</td>
<td>20,000</td>
<td>100</td>
<td>1.35</td>
</tr>
</tbody>
</table>

Source: Allen Benjamin, *Report on Basic Master Plan Studies*, Weston 1956 pp. 5 to 8

The study further determined a "possible" and a "probable" number of dwelling units that could be built in the vacant tracts. The "possible" units are estimated without consideration to such conditions as swamps or topographic limitation that would make their development unlikely. Those tracts which are divisible into six lots or less were actually laid out into lots. When a new street was required to give lots frontage, it was laid out on the plans in conformity with the Town's zoning and subdivision requirements. For those tracts which contained a large amount of frontage, a tier of frontage lots was assumed and the number of lots determined by dividing the total frontage by the lot width requirements for the zoning district in which the tract lies. The lot per acre factor as shown in Table II-4 was then applied to the remaining interior area to determine its capacity.

In estimating the "probable" number of dwelling units, swamps, areas with steep slopes and areas above the elevation of the Town's water service were all deducted. Actual number of lots in preliminary subdivisions prepared by prospective developers was used instead of using the lots per acre ratios.

The 1956 study estimated that the ultimate "possible" capacity of the Town was 5443 dwelling units and that the ultimate "probable" capacity was 4565 dwelling units.
DEVELOPMENT TRENDS AND POTENTIAL

LEGEND

DEVELOPED LANDS
PUBLIC & SEMI-PUBLIC
DEVELOPMENT PRIOR TO 1930
1920-1925
1926-1935
1936-1945
UNDEVELOPED LANDS
SWAMPS
WET LAND
STEEP SLOPES
SUITABLE FOR URBAN USE

WESTON MASSACHUSETTS

PREPARED BY THIS DOCUMENT WAS FINANCED IN PART THROUGH A FEDERAL PLANNING GRANT FROM THE HOUSING AND HOME FINANCE AGENCY UNDER THE PROVISIONS OF SECTION 701 OF THE HOUSING ACT OF 1945 I"
<table>
<thead>
<tr>
<th>TABLE II-5  EXISTING AND ULTIMATE &quot;PROBABLE&quot; RESIDENTIAL DEVELOPMENT, BY NEIGHBORHOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>I. EXISTING</strong></td>
</tr>
<tr>
<td>Residential Land Use (acres)</td>
</tr>
<tr>
<td>Number of Dwelling Units</td>
</tr>
<tr>
<td>Dwelling Unit/Residential Acre</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>II. POTENTIAL</strong></td>
</tr>
<tr>
<td>Total Suitable Land (acres)</td>
</tr>
<tr>
<td>(a) Suit. in Res. Dist. A(6000)</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (1)*</td>
</tr>
<tr>
<td>(a) Suit. in Res. Dist. B(40,000)</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (2)*</td>
</tr>
<tr>
<td>(a) Suit. in Res. Dist. C(30,000)</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (3)*</td>
</tr>
<tr>
<td>(a) Suit. in Res. Dist. D(20,000)</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (4)*</td>
</tr>
<tr>
<td>Total No. of Potential Dwelling Units</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>III. ULTIMATE</strong></td>
</tr>
<tr>
<td>Residential Land Use (acres)</td>
</tr>
<tr>
<td>No. of Dwelling Units</td>
</tr>
<tr>
<td>Dwelling Unit/Residential Acre</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>IV. PERCENTAGE GROWTH</strong></td>
</tr>
<tr>
<td>Land Use</td>
</tr>
<tr>
<td>No. of Dwelling Units</td>
</tr>
<tr>
<td>Dwelling Unit/Residential Growth**</td>
</tr>
</tbody>
</table>

* Applying ratios for dwelling units per acre (Table II-4) - (1) 0.55, (2) 0.75, (3) 1.05 and (4) 1.35
** (+) indicates increase, (-) indicates decrease, (0) indicates no change of the present density
### TABLE II-6  EXISTING AND ULTIMATE "POSSIBLE" RESIDENTIAL DEVELOPMENT BY NEIGHBORHOOD

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. EXISTING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential Land Use (acres)</td>
<td>3805</td>
<td>275</td>
<td>620</td>
<td>440</td>
<td>355</td>
<td>455</td>
<td>730</td>
<td>495</td>
<td>435</td>
</tr>
<tr>
<td>Number of Dwelling Units</td>
<td>2355</td>
<td>160</td>
<td>490</td>
<td>291</td>
<td>193</td>
<td>219</td>
<td>372</td>
<td>356</td>
<td>274</td>
</tr>
<tr>
<td>Dwelling Unit/Residential Acre</td>
<td>.62</td>
<td>.58</td>
<td>.79</td>
<td>.66</td>
<td>.54</td>
<td>.48</td>
<td>.51</td>
<td>.72</td>
<td>.63</td>
</tr>
<tr>
<td><strong>II. POTENTIAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Vacant Land</td>
<td>3800</td>
<td>630</td>
<td>340</td>
<td>510</td>
<td>300</td>
<td>750</td>
<td>420</td>
<td>700</td>
<td>150</td>
</tr>
<tr>
<td>(a) Vacant in Res. Dist. A (60,000)</td>
<td>3070</td>
<td>585</td>
<td>185</td>
<td>360</td>
<td>25</td>
<td>735</td>
<td>375</td>
<td>685</td>
<td>120</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (1)*</td>
<td>1686</td>
<td>322</td>
<td>101</td>
<td>198</td>
<td>14</td>
<td>403</td>
<td>206</td>
<td>376</td>
<td>65</td>
</tr>
<tr>
<td>(a) Vacant in Res. Dist. B (40,000)</td>
<td>515</td>
<td>30</td>
<td>25</td>
<td>130</td>
<td>260</td>
<td>10</td>
<td>35</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (2)*</td>
<td>381</td>
<td>22</td>
<td>18</td>
<td>97</td>
<td>194</td>
<td>7</td>
<td>25</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>(a) Vacant in Res. Dist. C (30,000)</td>
<td>180</td>
<td>--</td>
<td>130</td>
<td>20</td>
<td>--</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>20</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (3)*</td>
<td>186</td>
<td>--</td>
<td>136</td>
<td>20</td>
<td>--</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>20</td>
</tr>
<tr>
<td>(a) Vacant in Res. Dist. D (20,000)</td>
<td>35</td>
<td>15</td>
<td>--</td>
<td>--</td>
<td>15</td>
<td>5</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>(b) No. of Dwelling Units (4)*</td>
<td>47</td>
<td>20</td>
<td>--</td>
<td>--</td>
<td>20</td>
<td>7</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total No. of Potential Dwelling Units</td>
<td>2300</td>
<td>364</td>
<td>255</td>
<td>315</td>
<td>228</td>
<td>417</td>
<td>241</td>
<td>387</td>
<td>93</td>
</tr>
<tr>
<td><strong>III. ULTIMATE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential Land Use (acres)</td>
<td>7605</td>
<td>905</td>
<td>960</td>
<td>950</td>
<td>655</td>
<td>1205</td>
<td>1150</td>
<td>1195</td>
<td>585</td>
</tr>
<tr>
<td>No. of Dwelling Units</td>
<td>4655</td>
<td>524</td>
<td>745</td>
<td>606</td>
<td>421</td>
<td>636</td>
<td>613</td>
<td>743</td>
<td>367</td>
</tr>
<tr>
<td>Dwelling Unit/Residential Acre</td>
<td>.61</td>
<td>.58</td>
<td>.78</td>
<td>.64</td>
<td>.64</td>
<td>.53</td>
<td>.53</td>
<td>.62</td>
<td>.63</td>
</tr>
<tr>
<td><strong>IV. PERCENTAGE GROWTH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Use</td>
<td>100%</td>
<td>230%</td>
<td>55%</td>
<td>116%</td>
<td>85%</td>
<td>165%</td>
<td>57%</td>
<td>140%</td>
<td>35%</td>
</tr>
<tr>
<td>No. of Dwelling Units</td>
<td>98%</td>
<td>227%</td>
<td>52%</td>
<td>108%</td>
<td>118%</td>
<td>190%</td>
<td>65%</td>
<td>108%</td>
<td>34%</td>
</tr>
<tr>
<td>Dwelling Unit/Residential Growth**</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

* Applying ratios for dwelling units per acre (Table II-4) - (1) 0.55, (2) 0.75, (3) 1.05 and (4) 1.35
** (+) indicates increase, (-) indicates decrease, (0) indicates no change of the present density
In 1960 a revision, following the same procedure of these calculations, was prepared by the present consultant yielding lesser numbers for both the "possible" capacity (5279 dwelling units) and the "probable" capacity (4401 dwelling units). The reduction was due to the elimination of certain tracts of land from future residential growth. These were allocated for (a) town forests, recreational facilities and schools, (b) private schools, (c) the Weston Forest and Trail Association, and (d) the widening of Route 128.

The procedure used for the purpose of this Master Plan Study is similar to those utilized in the earlier studies. The "possible" ultimate capacity is now estimated at 4655 dwelling units and the "probable" is 4052 dwelling units. The lower results can be attributed to three factors: (1) all home sites larger than required by zoning have not been subdivided even though legally possible, because of the likelihood that they will remain in their existing character; (2) recent development has not necessarily followed the minimum zoning requirements but rather provided larger lots for new homes; and (3) additional land has been purchased for conservation purposes.

The "probable" and "possible" new residential growth and the "probable" and "possible" ultimate capacities and densities in the Town as well as their distribution among the various neighborhoods is shown in Tables II-5 and II-6.

D. NEIGHBORHOODS - EXISTING AND POTENTIAL DEVELOPMENT

Neighborhood (1): Jericho

Bordered by the Lincoln-Weston Town Line on the north, the Wayland-Weston Town Line on the west, Route 20 on the south and Concord Road and Weston College holdings (that interrupt continuity of development) on the east, this neighborhood includes 1585 acres or 14.7% of the town land. About 60.3% of the area (955 acres) is developed or held in public and semi-public ownership while 39.7% (630 acres) is vacant.

Two subneighborhoods of residential development are readily recognized. The southern is composed of housing along Route 20 and around Warren Avenue containing some 105 dwelling units* lying in districts zoned for 20,000 and 40,000 sq. ft. lots. The northern comprises some 55 units along and around Sudbury Road and Concord Road in the 60,000 sq. ft. district. All houses occupy some 275 acres or 17.4% of the neighborhood area, thus yielding an overall density of 0.58 dwelling units per acre.

* All counts of dwelling units are obtained from Plate II-5 "Dwelling Unit Distribution."
Some four acres are developed for two commercial firms (a dairy farm and a building materials company) on three separate sites, while about 15 acres comprise the railroad right-of-way, all counting for 1.2% of the neighborhood area.

Institutional facilities take some 352 acres (22.2%) distributed between the First Baptist Church, the Whitemore Home and the Water Dept. yard (11 acres), and Weston College (341 acres). Recreation-conservation facilities are composed of Ogilvie Town Forest (48.5 acres), Jericho Town Forest (257.5 acres) and Weston Forest and Trail Association (2.7 acres), all totaling some 309 acres or 19.5% of the neighborhood area.

About half of the undeveloped land is not suitable for urban development (buildings) consisting of some 300 acres of swamps and 10 acres of land with slopes over 25%. The 320 acres of suitable land are distributed in amounts of 275, 30 and 15 acres among the zoning districts of 60,000, 40,000 and 20,000 sq. ft., per lot respectively, which would provide for some 194 new dwelling units putting the ultimate probable capacity of the neighborhood at 354 dwelling units (a density of 0.6 d.u./acre). The ultimate possible capacity will be 524 units (or 0.58 d.u./acre).

With the existing street pattern, the Jericho Forest and the swamps along the Wayland-Weston Town Line constitute a complete separation between the two subneighborhoods. However, the swamps are a natural extension of the Forest and could be added to it to enforce the Town’s conservation plan and provide a physical barrier against any outside development of a character which does not conform to that of Weston. On the other hand, the streets that would provide access to the undeveloped land could be laid out so as to tie the two subneighborhoods to the Forest, thus changing it from a barrier to a desired focus for the neighborhood.

**Neighborhood (2): Merriam-Conant**

Bordered by the B. & M. Railroad (Fitchburg Division) on the north and northeast, the Jericho neighborhood on the west, the B. & M. Railroad (Clinton Division) on the south and Pigeon Hill on the southeast, this neighborhood includes 1,000 acres (or 9.3% of the Town land), of which 660 acres (or 66.0%) are developed. Of the total, 620 acres (62.0%), 11.5 (1.1%) and 28.5 (2.9%) are allocated to residential, commercial/manufacturing/railroad, and recreational uses respectively. Some 340 acres (34.0%) are not developed.

Development occurs in two subneighborhoods around the two main streets, Merriam and Conant. The Merriam development contains 207 dwelling units (in the 30,000 sq. ft. district) the Conant 283 dwelling units, mainly in the 40,000 and 30,000 sq. ft. districts and a few in the 20,000 sq. ft. district,
both totaling 490 dwellings at a density of 0.79 d.u.s/acre.

The railroad rights-of-way, some abandoned commercial activities (nurseries) and a small backyard shop contribute some 11.5 acres of developed land. No institutional activities are present, while the Town and the Weston Forest and Trail Association own four separate small sites adding to 28.5 acres.

About one-quarter (90 acres) of the undeveloped land are swamps. The remaining 250 acres are distributed into 155, 15 and 80 acres in residential zoning districts of 60,000, 40,000 and 30,000 sq. ft. respectively, providing for 180 new dwelling units or an ultimate "probable" neighborhood capacity of 670 houses (a density of 0.77 d.u.s/acre). The ultimate "possible" capacity is 745 homes (0.78 d.u.s/acre). Both Merriam and Conant Streets act, at the time being, as feeder streets carrying the south-north "through" traffic. However, preliminary analysis shows that it would be feasible to transfer such traffic through a new circulation system (that will be discussed later) and thus reduce their function to the level of residential collector streets that could be met by their existing layouts and dimensions. The physical structure of the neighborhood could be further improved by developing certain areas of the vacant land as neighborhood focii that could be tied together by a system of pedestrian paths and greenways.

**Neighborhood (3): Cat Rock Hill**

This neighborhood lies in the northeast corner of the Town and is bordered on the southwest by the Fitchburg Division of the B. & M. Railroad. Its area is 1095 acres (10.2% of the town land) of which 440 acres (40.2%) are developed in residential use, 14 acres (1.3%) are allocated in retail, service and railroad use, 45 acres (4.1%) devoted to institutional activities, and 86 acres (7.9%) to Town recreation activities or conservation. All development, public and semi-public holdings, total 585 acres (53.5%). The remaining 510 acres (46.5%) are not yet developed.

The existing residential development consists of 291 dwelling units distributed in clusters around Lexington Street (in the 40,000 sq. ft. district), Route 117 (40,000, 30,000 and 20,000 sq. ft. districts) and Grant Road (60,000 sq. ft. district) -- all with an average density of 0.66 d.u./acre.

Commercial activities consist of a grocery store, an ice-cream stand and a gas station, a dog farm, some abandoned nurseries, and a convalescent home. The railroad contributes some 10 acres. Institutional facilities comprise Cambridge Preparatory School and the Methodist Church. Recreational facilities consist of the Cat Rock Hill Park, a small Town holding off Legion Road and the Valley Pond Club.
Of the undeveloped land, 40 acres are swamps or land with high retention and 30 acres are areas of steep slopes. The remaining 440 acres are zoned for residential use: 345 acres with a minimum lot area of 60,000 sq. ft. and 95 acres with a minimum lot area of 40,000 sq. ft. These could provide for 261 new dwelling units bringing the neighborhood's ultimate "probable" capacity to 552 units at a density of 0.66 d.u./acre. The ultimate "possible" capacity is 606 dwelling units (0.64 d.u./acre).

As now exists, this neighborhood has as its spine, the heavily travelled Route 117. Moreover, some of its traffic generator uses (school, Cat Rock Hill Park, and Valley Pond Club) are poorly accessible. An improved lateral connector might add to their value as potential focii for the neighborhood while it attracts movement within the neighborhood and separates it from the "through" traffic on Route 117.

**Neighborhood (4): The Core**

The northern edge of this neighborhood contains the residential developments along Church Street (on Pigeon Hill and around Webster Road). Its Western boundary is Concord Road with considerable traffic, the garages of the Highway Dept. and the cemeteries that interrupt continuity of development. Its southern boundary is the heavily-travelled Route 20. However, the public school and Harvard sites have been included within it, as well as the few residences bordering them along Wellesley and School Streets. Although they are cut off the neighborhood by a heavy traffic volume on Route 20, it is believed that their proximity to the civic and shopping focii of the town would have an overriding "pull" force to the neighborhood. The eastern boundary is the Waltham-Weston Town Line and the Fitchburg Division of the B. & M. Railroad.

Of the 1095 acres (10.2% of the Town land) that constitute this neighborhood, 795 acres (or 72.7%) are developed while 300 acres (27.3%) are vacant. The distribution of developed land among various uses is: 355 acres (32.5%) for residences, 4 acres (0.4%) for retail and service establishments, 97 acres (8.8%) for wholesaling, manufacture and railroads, 310 acres (28.4%) for institutional activities, and the remaining 29 acres (2.6%) for recreation.

In addition to the aforementioned two residential developments of 60 dwelling units in the vicinity of the schools and 113 dwelling units along Church Street, a third subneighborhood stretches along the north side of the Old Boston Post Road (20 d.u.s), all adding to 193 dwelling units at a density of 0.54 d.u./acre.
This neighborhood is the civic and shopping center of the Town. It houses about three-fourths of the retail business and service establishments, concentrated on about 4 acres of land. It comprises two storage facilities, a riding stable and two manufacturing firms (Mass. Broken Stone Co. and Garden City Gravel Corp.)

It also contains the Town Hall, the Post Office, the Fire and Police Station, the Highway Dept. offices and yards, the Library, the Town Schools (Junior, Brook County and Woodland), a nursery school, Harvard Arboretum, four churches (the Christian Science Society, St. Peter Parish, the First Parish in Weston and St. Julia Roman Catholic Church), the Weston Boy Scouts house, the Society for the Preservation of New England Antiquities, the Town cemeteries (Central, Farmers and Linwood) and the Town Dump. The recreational facilities include Kendal Green riding area as well as the Common and other town parks.

One-third of the 300 vacant acres is swampy or wetland. Of the remaining 200 acres, 175 are zoned for 40,000 sq. ft. lots and 25 acres are zoned for 60,000 sq. ft. lots, thus yielding 145 additional new dwellings and bringing the ultimate "probable" capacity of the neighborhood to 338 dwelling units at a density of 0.61 d.u./acre. The ultimate "possible" capacity is 421 dwelling units (0.64 d.u./acre).

The apparent problems of the Core include (1) the provision of parking for the Town's Civic and Shopping Center, (2) the library extension or relocation, (3) the provision of a safe access to the school campus which is surrounded by heavily-travelled roads and (4) the improvement of the circulation pattern to increase the Core's accessibility from all the other neighborhoods, to handle the traffic on its "local" streets and to separate it from "through" traffic on Route 20.

**Neighborhood (5): Regis**

Bordered by the heavily-travelled Route 20 on the north, the Wayland-Weston Town Line on the west, Route 30 (with its mounting traffic volumes) on the south and Wellesley Street, Regis and Harvard Colleges and Town cemeteries (that interrupt contiguous development) on the east, this neighborhood includes 1545 acres (14.4% of the Town).

Som 795 acres (51.4%) are developed of which 455 acres (29.4%) are in residential development, about 3 acres (0.2%) for commercial, 168 acres (10.9%) for Regis College and 169 acres (10.9%) for the Town Forest. Undeveloped land constitutes 705 acres (or 48.6%).
Two subneighborhoods are being formed, separated by the Highland Town Forest. One, to the south of Route 20, contains 95 dwelling units; the other, to the north of Route 30, contains 124 dwelling units. Very few houses are in the 20,000 and 40,000 sq. ft. districts while the bulk is in a 60,000 sq. ft. district. Existing density is 0.45 d.u./acre.

The only commercial facility is the ice cream stand on Route 20 occupying some 3 acres. Regis College comprises the institutional land use category (0.5 acre is a cemetery), and the 156 acres Highland Town Forest and the Weston Forest and Trail Association 13 acre lot comprise the recreational category.

Of the 750 undeveloped acres, 110 acres are swamps or wet land and 30 acres have steep slopes. The 610 acres of buildable land are distributed between 60,000, 40,000 and 20,000 sq. ft. districts into 595, 10 and 5 acres respectively. They can provide for 341 new homes making the ultimate "probable" capacity 560 homes or 0.54 d.u./acre. The ultimate "possible" capacity is 636 homes (0.53 d.u.s/acre). Most of the marsh land is a natural extension of the Highland Forest that could be developed as a green core for the neighborhood.

Neighborhood (6): The Reservoir

Bordered by Route 20 on the north, Harvard and Regis holdings on the west, Route 30 on the south and the Charles River and the Stony Brook Reservoir on the east, this neighborhood contains 1830 acres (17% of the town land). Some 1410 acres (77%) are developed while 420 acres (23%) are vacant. Residential development contributes 730 acres (40%), commercial 5.5 acres (0.3%), recreational 262 acres (14.3%) and institutional 412.5 acres (22.4%). The latter includes a school site of 12.5 acres (0.6%) and the MDC and Cambridge reservations and Route 128 right-of-way, totalling 400 acres (21.8%).

String residential developments occur along the north-south streets joining the two highways (Route 20 and 30), interrupted by the two golf courses and the Weston Reservoir watershed. The dwelling units, numbering 372, lie largely in the 60,000 and 40,000 sq. ft. districts, resulting in a density of 0.72 d.u./acre.

Retail, business and service activities include three nurseries, a gas station, and a medical service building, while wholesaling is represented by a lumber yard. Recreational facilities are represented by two golf courses.

Some 420 acres are undeveloped of which 10 acres are swamps and 25 acres having steep slopes. This puts the area suitable for development at 385
acres of which 340 acres are in 60,000 sq. ft. district, 35 acres in 40,000 sq. ft. district and 10 acres in 30,000 sq. ft. district. Some 223 dwelling units could be added, bringing the neighborhoods' ultimate probable capacity to 595 homes at a density of 0.55 d. u. /acre. The ultimate possible capacity is 613 dwelling units (0.53 d. u. /acre).

This neighborhood is developed in a linear pattern with green fingers penetrating through its developments. Its apparent problem seems to be the lack of sufficient southwest-northeast roads to cut through the longitudinal developments, providing alternative access to other parts of Town without having to pass through Routes 30 and 20.

**Neighborhood (7): Hundred Woods**

Bordered by Route 30 on the north, Natick-Weston Town Line on the west, Wellesley-Weston Town Line on the south, and Pierce Hill Norumbega Reservoir watershed on the west, this neighborhood contains 1485 acres (13.8% of town) -- 785 acre (52.8%) of developed and 700 acres (47.2%) of undeveloped lands. Some 495 acres (33.3%) are developed for residential use, 30 acres (2.0%) for recreation (Newton Girl Scouts and Town Conservation) and 260 acres (17.5%) for institutions including 135 acres (9.1%) of educational facilities and 125 acres (8.4%) of MDC reservation and MTA rights-of-way.

Three subneighborhoods can be recognized around Winter Street, Bogle Street and Glen Road, all containing 356 dwelling units at a density of 0.75 d. u. /acre. The only commercial development (nursery) has been abandoned. The neighborhood contains the High School, the Rivers Country Day School and the Summer Camp Day School.

Out of the 700 undeveloped acres, 180 acres are swamps and 5 acres are steep slopes, stopping the continuous expansion of urban development from Wellesley to Weston. The remaining 515 acres could house some 284 additional new homes bringing the ultimate "probable" capacity to 640 at 0.63 d. u. /acre. The ultimate "possible" capacity is 743 dwelling units (0.62 d. u. /acre).

**Neighborhood (8): Ridgeway**

With Route 30 as its northern boundary, Norumbega Reservoir Watershed and Pierce Hill as its western, the Wellesley-Weston Town Line as its southern and the Charles River as its eastern boundary, this neighborhood includes 1125 acres (10.4% of the town) of which 975 acres (86.7%) are developed or held in public or semi-public ownership. Of these, 435 acres (38.7%) are developed for residential use, 15 acres (1.3%) for rail-
roads, 140 acres (12.4%) for recreation (MDC golf course) and Town conservation, 385 acres (34.3%) for institutional use and 10 acres (0.9%) for educational purposes (Northeastern University). The remaining 375 acres (33.4%) are for the Norumbega Watershed and the rights-of-way of the Mass. Turnpike and Route 128.

Residential development occurs around Ridgeway and Glen Roads and Oak Street, containing 274 dwelling units (0.63 d. u./residential acre).

Out of the 150 undeveloped acres, 30 acres are swamps and 5 acres have steep slopes. The 115 suitable acres lie in the 60,000, 40,000 and 30,000 sq. ft. districts in that order 95, 10 and 10 acres. Some 69 new homes could be added bringing the neighborhood ultimate "probable" capacity to 343 dwelling units (0.62 d. u./residential acre). The possible capacity is 367 (0.63 d. u./acre).

Both the Hundred Woods and Ridgeway neighborhoods are accessible by Route 30. The extension of the Mass. Turnpike with the new interchange might require the provision of an east-west feeder cutting through these two neighborhoods.
III. POPULATION

A. INTRODUCTION

Population growth, especially rapid growth, is one of the factors which cause many of the problems with which municipalities and other units of government are confronted. Plans and programs for public facilities are made to serve the people, and future use of land is dependent, among other factors, on the future number and characteristics of the population.

An accurate forecast of the population is, therefore, a prerequisite to sound planning. Such a forecast demands a thorough understanding of the past patterns and trends in population growth and characteristics. However, it should be noted that past trends do not necessarily continue at the same rate, unless all other contributing factors do not change drastically. Population projections follow the assembly and analysis of all other data pertinent to population growth.

B. PAST GROWTH

Weston's population growth during the past 50 years (see Table III-1) has had three distinct periods: (1) slow growth of about 4.1% every 5 years up to 1920; (2) moderate growth averaging less than 15% every 5 years from 1920 to 1950, off-setting the 6.7% decline of the period from 1935 to 1940; and (3) high growth of over 28% on the average every 5 years since 1950. During the fifties, the rate of growth has been greater than any other decade in this century, with absolute increases totalling more than that which the Town had gained during the period from 1900 to 1950. The remainder of this report will examine some of the causes and characteristics of this recent growth pattern.

The gross population density in Weston has increased from 293 persons per square mile (or one person for every 2.1 acres) in 1950 to 364 (or one person for every 1.7 acres) in 1955, and to 492 (or one person for every 1.25 acres) in 1960. The area developed for residential use is about 3805 acres as of June 1964 (or one person for every 0.5 acres).
TABLE III-1 POPULATION GROWTH - (1910-1960)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>5 Year Increase</th>
<th>10 Year Increase</th>
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<tr>
<td></td>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>1910</td>
<td>2,106</td>
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<tr>
<td>1915</td>
<td>2,192*</td>
<td>86</td>
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<tr>
<td>1920</td>
<td>2,282</td>
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<td>2,906</td>
<td>624</td>
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<tr>
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<tr>
<td>1935</td>
<td>3,848</td>
<td>516</td>
<td>15.5</td>
</tr>
<tr>
<td>1940</td>
<td>3,590</td>
<td>-258</td>
<td>-6.7</td>
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<tr>
<td>1945</td>
<td>4,473</td>
<td>883</td>
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<tr>
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<tr>
<td>1960</td>
<td>8,261</td>
<td>2,004</td>
<td>32.0</td>
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Average
1910-1960  15.3  33.3

* Estimated

Sources: U. S. Census 1910, '20, '30, '40, '50, '60
State Census 1925, '35, '45, '55

C. SOURCES OF POPULATION GROWTH

Local population increase can be attributed to two sources: (1) natural increase, resulting from a larger number of babies being born to residents than the number of persons dying each year; and (2) net in-migration, resulting from a larger number of persons moving into Town than those moving out of it. The relative weight of each of the above as a source of population growth depends on the size of the community as well as its saturation. In a small town with considerably large area of vacant lands suitable for residential use, natural increase is likely to account for only
a small percentage of population growth. This has been the situation in Weston as Table III-2 shows. Out of the 2,004 increase in the 1960 population over that for 1955, 339 persons or (16.9%) are attributed to natural increase (591 births and 252 deaths) and 1668 persons (or 83.1%) are attributed to net in-migration.

<table>
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<tr>
<th>Year</th>
<th>Population</th>
<th>Total Increase</th>
<th>Births</th>
<th>Deaths</th>
<th>Natural* Increase</th>
<th>Net In-** Increase Migration</th>
<th>% of Total Increase</th>
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<tr>
<td>1963</td>
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<td></td>
<td>87</td>
<td>67</td>
<td>20</td>
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</tr>
</tbody>
</table>

* Births over deaths
** In-migrants in excess of out-migrants (total increase less natural increase)

Source: U. S. Census 1960, State Census 1955, Annual Town Reports

1. Natural Increase

The average annual birth-rate, death-rate, and the rate of natural increase for the 1955-1959 period are computed by respectively dividing one-fifth of the total births, deaths, and the natural increase into the average of the 1955 and 1960 populations.
The total births of 591 gives a "crude" birth rate of 16.3 while the 252 total deaths give a 6.9 death rate resulting in an average natural increase of 9.4 persons per thousand population.

Table III-3 shows that between 1955 and 1960 the "crude" birth rate has declined by 10.0% (from 16.0 to 14.4 per thousand). The birth rate for women between 15 and 44 years old has declined at a greater rate (21.2%) despite an increase in their percentage to the total population. This could be explained in part by the decline of the most active child-bearing age group of 20-34. The decline in the birth rate seems to be continuing in the "sixties", as evidenced by the steady decline in the number of births.

| TABLE III-3  ANALYSIS OF LOCAL BIRTH RATES, 1955-1960 |
|---------------------------------|-------|-------|--------|-------|
|                                  | 1955  | 1960  | Change '55-'60 | % Change |
| Total Population                 | 6,257 | 8,261 | 2,004            | 32.0     |
| Total Births                     | 100   | 119   | 19               | 19.0     |
| "Crude" Birth Rate*              | 16.0  | 14.4  | -1.6             | -10.0    |
| **Women 15-44**                  |       |       |                   |         |
| Number                           | 1,176 | 1,786 | 610               | 52.0     |
| % of Population                  | 18.8  | 21.6  | 2.8               | 14.9     |
| 'Specific' Birth Rate **         | 85    | 67    | -18               | -21.2    |
| **Women 20-34**                  |       |       |                   |         |
| Number                           | 522   | 622   | 100               | 19.2     |
| % of Population                  | 8.3   | 7.5   | -0.8              | -9.6     |
| **Women 15-19 & 35-44**          |       |       |                   |         |
| Number                           | 654   | 1,164 | 510               | 78.0     |
| % of Population                  | 10.4  | 14.1  | 3.6               | 34.2     |

* Annual births per 1000 total population
** Annual births per 1000 women of age 15-44

Source: U. S. Census 1960, State Census 1955, Annual Town Reports
2. **In-migration**

That portion of the population growth that cannot be attributed to a greater number of births than deaths is logically due to a greater number of persons moving into town (in-migrants) than moving out of town (out-migrants). Table III-2 indicates that about four-fifths of Weston's population growth (83.1%) during the period from 1955-1960 was due to net in-migrants.

The characteristics of the net in-migrants are generally different than those of the overall Town population. Depending on the amount and percentage of net in-migration, therefore, the characteristics of the overall town population will be changed to a greater or lesser degree. This will be discussed in the following section.

D. **POPULATION CHARACTERISTICS**

1. **Age and Sex Distribution (1955 and 1960)**

Plate III-1 and the census figures which support it compare all age groups by sex and changes in their numbers over the 1955-1960 period. In 1960, there were 8,261 persons living in Weston: 3,922 males and 4,339 females, as compared to 1955 figures of 6,257, 3,168 and 3,089 respectively.

The following findings could be inferred from an analysis of these figures:

(a) The 'under 20' age group had accounted for about 56.5% of the total population's growth in the period under study. However, the percentage of pre-school children (0-4) to the total population has been decreasing while the school age children 5-19 represent progressively larger proportions of the population.

(b) The population in the lower child bearing years (20-34) is decreasing in proportional size.

(c) The largest increase of adult population is occurring in the upper child bearing ages 40-44.

2. **In-migrants Age Structure**

The changes in the population age structure could be further understood with a closer examination of the in-migrant population as shown in Table III-4. The population which was reported in an age group in
### TABLE III-4 AGE STRUCTURE OF THE NET IN-MIGRANT POPULATION 1955-1960

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>G. Q. + D. U.s</td>
<td>G. Q. + D. U.s</td>
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</tr>
<tr>
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<tr>
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<td>295</td>
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<td>242</td>
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<td>8.6</td>
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<td>769</td>
<td>231</td>
<td>--</td>
<td>231</td>
<td>169</td>
<td>6.2</td>
</tr>
<tr>
<td>20-24</td>
<td>324</td>
<td>418</td>
<td>29</td>
<td>--</td>
<td>29</td>
<td>29</td>
<td>5.2</td>
</tr>
<tr>
<td>25-29</td>
<td>356</td>
<td>296</td>
<td>-28</td>
<td>--</td>
<td>-28</td>
<td>-20</td>
<td>5.7</td>
</tr>
<tr>
<td>30-34</td>
<td>469</td>
<td>475</td>
<td>119</td>
<td>--</td>
<td>119</td>
<td>8</td>
<td>7.5</td>
</tr>
<tr>
<td>35-39</td>
<td>485</td>
<td>617</td>
<td>148</td>
<td>--</td>
<td>148</td>
<td>8</td>
<td>7.8</td>
</tr>
<tr>
<td>40-44</td>
<td>471</td>
<td>674</td>
<td>189</td>
<td>4</td>
<td>193</td>
<td>6</td>
<td>7.5</td>
</tr>
<tr>
<td>45-49</td>
<td>468</td>
<td>553</td>
<td>82</td>
<td>10</td>
<td>92</td>
<td>92</td>
<td>7.5</td>
</tr>
<tr>
<td>50-54</td>
<td>443</td>
<td>524</td>
<td>56</td>
<td>10</td>
<td>66</td>
<td>66</td>
<td>7.1</td>
</tr>
<tr>
<td>55-59</td>
<td>312</td>
<td>443</td>
<td>--</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>5.0</td>
</tr>
<tr>
<td>60-64</td>
<td>251</td>
<td>304</td>
<td>-8</td>
<td>21</td>
<td>13</td>
<td>13</td>
<td>4.0</td>
</tr>
<tr>
<td>65-69</td>
<td>187</td>
<td>242</td>
<td>-9</td>
<td>26</td>
<td>17</td>
<td>17</td>
<td>3.0</td>
</tr>
<tr>
<td>70 &amp; up</td>
<td>287</td>
<td>380</td>
<td>-94</td>
<td>144</td>
<td>50</td>
<td>50</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Total 6,257** 8,261 1,413 252 1,665 72 1,593 100.0 100.0 100.0 100.0

* Births 1956-1960 (Town Annual Reports)  ** Not including 591 Births, + G.Q. = Group Quarters
1955 census was considered to be in the next older age group in 1960. To the excess of the 1960 figure over the 1955 figure is added the number of those who died in this age group during the five year period. The result would indicate the total net in-migrants (excess of in-migrants over out-migrants) for each age group.

The 1960 census considers residents of rooming houses, college dormitories, military barracks, or institutions as part of the population of the locale in which their quarters are situated. In 1960 Weston had 736 institutional inmates, mainly students boarding in Cambridge Prep. School, Regis College and Weston College. This figure comprises an increase of some 122 students and 72 students over the comparable figure in 1950 and 1955 respectively.

Excluding the increase of those in the group quarters, the in-migrant distribution was then computed so as to be compared with other communities.

The following could be inferred about the migration activities in town:

(a) As compared to the indigenous family, the typical in-migrant family in Weston--as in other suburbs--is relatively a younger family with higher numbers of children. This is expressed by higher percentages in the 0-19 and the 35-44 age groups and by lower percentages in all other age groups.

(b) In comparison with other suburbs, however, there is relatively a lower percentage of children 5-9 years old and a higher percentage of children 10-19 years of age. On the other hand, there is a lower percentage in the 30-39 age bracket and higher percentages in the 40 and over population. These indicate that in-migrant families taking residence in Weston are relatively 'older' families a fact accentuated by larger, more expensive homes that could not be generally afforded by younger families.

(c) The 20-29 age group is usually represented by a considerable percentage of in-migrants in other suburbs whereas in Weston this does not apply probably for two reasons: (1) lack of any big numbers of newly-married couples and (2) larger numbers of students out-migrating to universities as expressed by the longer years spent in education.
3. **Size of Family**

In communities where an institutional population (such as Regis, Weston College and Cambridge Preparatory School) is present, a refined measure of the trend in family size may be secured by using population in households rather than total population. Institutional population in 1950 was 614 and in 1960 was 736. The increase from 1955 to 1960 was some 72, putting the 1955 institutional population at 664 (an increase of 50 over 1950).

Table III-5 shows that the average size of family has been decreasing about 2.9% per five-year period in Massachusetts. In 1950 Weston had a higher average family size (3.74) than the State. During the period from 1950-1955 it dropped drastically (about 10%) to a level lower than that of the State. However, in the 1955-60 period it rose back to almost its original high level. The reasons might be better explained by a further analysis of the relationship of homebuilding and population growth.

**TABLE III-5. TRENDS IN FAMILY SIZE, WESTON AND MASSACHUSETTS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>5026</td>
<td>614</td>
<td>4412</td>
<td>1178</td>
</tr>
<tr>
<td>1955</td>
<td>6257</td>
<td>664*</td>
<td>5593</td>
<td>1640**</td>
</tr>
<tr>
<td>1960</td>
<td>8261</td>
<td>736</td>
<td>7525</td>
<td>2038</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>'50-'55</td>
<td>1231</td>
<td>50</td>
<td>1181</td>
<td>462</td>
<td>-9.1%</td>
</tr>
<tr>
<td>'55-60</td>
<td>2004</td>
<td>72</td>
<td>1932</td>
<td>398</td>
<td>+8.5%</td>
</tr>
<tr>
<td>'50-60</td>
<td>3235</td>
<td>122</td>
<td>3113</td>
<td>860</td>
<td>-1.3%</td>
</tr>
</tbody>
</table>

* Estimate  
** Assumes 3% vacancies in the number of D.U.'s reported in July 1955 (Benjamin Report)
E. HOME BUILDING AND POPULATION GROWTH

Home building is both a cause and effect of population growth. It is a cause in that generally a new home is built to attract occupants. It is an effect in that as the population grows, space must be provided for the new population to live in.

Table III-6 relates increases in dwelling units to population growth per 5-year periods. By dividing the increase in population by the increase in dwelling units for each period, the resulting figures, representing the average number of new persons per new dwelling unit, were lower than the average family size in the 1950-55 period and higher for the 1955-60 period. This indicates, at least in part, that the average size of net in-migrant family was lower than the average overall family size from 1950 to 1955 and higher from 1955 to 1960.

Part of the new dwelling units is needed for local demand, i.e., to accommodate natural increase, and the rest is for the in-migrants. Exactly how much was assigned for each of these groups in the previous periods is difficult to assess. However, Table III-4, above indicated that between 1955 and 1960 there were 1593 in-migrants: 710 adults and 883 children. It could be reasonably assumed two adults formed a family unit, thus resulting in a total of 355 families (with an average size of 4.5 persons. Of the 398 dwelling units added to the Town (see Table III-6), 43 were then needed for the natural increase—an average of 7.9 persons per dwelling unit.

It is clear from the computation of Table III-6 that the average size of the net in-migrant family of the 1950-55 period has been far smaller than the 3.57 average size of family in the Town as a whole. These are likely to be older parents whose adult children attend colleges or seek their livelihood out of the community. In the 1955-60 period, however, the size of the in-migrant family rose to 4.50. Since the greatest land area remaining for house construction is zoned for 60,000 square feet per lot and the price of the land is high, it is likely that the cost of houses on these lots would be high and the houses themselves large with a more than average number of bedrooms, which would attract larger size families of substantial means. It is not unreasonable to assume that the 1955-1960 trend will continue, thus increasing the Town-wide, average size of family in the next 10 to 15 years to a little over 3.72.

- 61 -
<table>
<thead>
<tr>
<th>Period</th>
<th>Population Increase in D.U.</th>
<th>New Persons per New D.U.</th>
<th>Size of Net In-migrant Family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Natural In-migration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) (2) (3)</td>
<td>(4) (5) (6) (7) (8) (9)</td>
<td></td>
</tr>
<tr>
<td>1950-55</td>
<td>1181 331 850</td>
<td>462* 42 420</td>
<td>2.55 3.57 2.00</td>
</tr>
<tr>
<td>1955-60</td>
<td>1932 339 1593</td>
<td>398* 43 355</td>
<td>4.85 3.55 4.50</td>
</tr>
<tr>
<td>1950-60</td>
<td>3113 670 2443</td>
<td>860 85 775</td>
<td>3.62 3.72 3.15</td>
</tr>
</tbody>
</table>

(1) See Table III-5
(2) Town Annual Reports
(3) Col. (1) - Col. (2)
(4) See Table III-5
(5) One dwelling unit assigned for every 7.9 persons of natural increase
(6) Col. (4) less Col. (5)
(7) Col. (1) divided into col. (4)
(8) Mean of average family sizes (see Table III-5)
(9) Col. (3) divided by col. (6)
F. FUTURE POPULATION

1. Introduction

A projection of the future population is essential for estimating future Town needs. Proposals for the future sizes and locations of various land uses, of community facilities and public works cannot be made without anticipating the future numbers and distribution of the population which these proposals are designed to serve. In the following section two projections of the Town's future population are made.

(a) An estimate of the 1964 population projected through 1980, which determines the short-range future needs.

(b) Ultimate population, i.e., the maximum population that the Town could absorb, if all the vacant lands are developed. This sets a ceiling for the needed community facilities.

2. Short-Range Projections to 1980

A most difficult part of this particular study is to arrive at a realistic short-term projection of population for use in other phases of the Master Plan analysis. Actually, Weston is one small unit which takes its place in the growth pattern of a large metropolitan area, radiating primarily from Boston. While an accurate projection of what will happen in the large area is relatively straightforward, the projection of what will happen in any part of this whole is more complex and subject to greater error.

Four methods are hereinafter used to forecast the Town's population through 1980. The first of these is based on the assumption that the building rate will continue as it has in the last ten years. The second forecasts the future rate of population growth on the basis of past historical trends. The third is based on relating Weston population to the population of the Boston region. The fourth attempts to forecast the components of population growth: natural increase and in-migration. The estimates reached are illustrated in Plate III-2.

a. Building Trend Method

From a planning point of view, one of the most desirable methods of determining what population will do over a short term is to use the dwelling unit as a basic element. A unit may be defined as a single family house, an apartment or other group of rooms, or a single room, when it is occupied or intended for occupancy as separate living quarters by one family. In Weston a dwelling unit
PLATE III.2

POPULATION PROJECTION

Possible Ultimate

Probable Ultimate

Census Projection

a BUILDING TREND METHOD
High 120 Dwelling Units/Year
Medium 80 Dwelling Units/Year
Low 40 Dwelling Units/Year

b RATE OF GROWTH METHOD
High 28% 5-year growth
Medium 20% 5-year growth
Low 18% 5-year growth

c APportionMENT METHOD
(Weston as percent of Greater Boston Region)

d NATURAL INCREASE - IMMIGRANT METHOD
<table>
<thead>
<tr>
<th>Year</th>
<th>Assessed Houses</th>
<th>Building Permits for New Homes</th>
<th>Ratio of Houses to Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Average Increase</td>
<td>Number</td>
</tr>
<tr>
<td>1950</td>
<td>1186</td>
<td>94</td>
<td>109</td>
</tr>
<tr>
<td>1951</td>
<td>1280</td>
<td>67</td>
<td>95</td>
</tr>
<tr>
<td>1952</td>
<td>1347</td>
<td>92</td>
<td>68</td>
</tr>
<tr>
<td>1953</td>
<td>1439</td>
<td>71</td>
<td>79</td>
</tr>
<tr>
<td>1954</td>
<td>1510</td>
<td>108</td>
<td>124</td>
</tr>
<tr>
<td>1950-'54</td>
<td>432</td>
<td>86.4</td>
<td>475</td>
</tr>
<tr>
<td>1955</td>
<td>1618</td>
<td>121</td>
<td>125</td>
</tr>
<tr>
<td>1956</td>
<td>1739</td>
<td>94</td>
<td>104</td>
</tr>
<tr>
<td>1957</td>
<td>1833</td>
<td>66</td>
<td>70</td>
</tr>
<tr>
<td>1958</td>
<td>1899</td>
<td>45</td>
<td>49</td>
</tr>
<tr>
<td>1959</td>
<td>1944</td>
<td>54</td>
<td>74</td>
</tr>
<tr>
<td>1955-59</td>
<td>380</td>
<td>76.0</td>
<td>422</td>
</tr>
<tr>
<td>1960</td>
<td>1998</td>
<td>84</td>
<td>95</td>
</tr>
<tr>
<td>1961</td>
<td>2082</td>
<td>92</td>
<td>93</td>
</tr>
<tr>
<td>1962</td>
<td>2174</td>
<td>85</td>
<td>87</td>
</tr>
<tr>
<td>1963</td>
<td>2259</td>
<td>92</td>
<td>95</td>
</tr>
<tr>
<td>1964</td>
<td>2351</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960-64</td>
<td>353</td>
<td>88.3</td>
<td>370</td>
</tr>
<tr>
<td>1950-64</td>
<td>1154</td>
<td>83.6</td>
<td>1267</td>
</tr>
</tbody>
</table>

Source: Town Annual Reports; Massachusetts Department of Labor and Industries
has in recent times become synonymous with a single-family residence. While the actual number of dwelling units exceeds the number of 'houses' or residential structures (because of the existence of some multi-family structures), all increases of assessed houses over the past 10 to 15 years are assumed to be single family residence, and therefore, represent corresponding increases in dwelling units.

Table III-7 shows the dwelling houses assessed from 1950 to 1963. The annual average increase over the whole period averages slightly above 80, although the extremes have reached a high of 128 and a low of 45. These rates are naturally subject to change according to various factors such as the regional housing market as well as the attitudes of land-owners and developers. Assuming an average family size of 3.72 and some 750 to 1200 additional institutional population, the different annual building rates of 40, 80 and 120 will result in population estimates as shown in Table III-8. The 1964 population residing in dwelling units is estimated at 8700 (2340 x 3.72), and the total 1964 population is 9,450.

**TABLE III-8. POPULATION ESTIMATE BY BUILDING TREND METHOD**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) LOW:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dwelling Units</td>
<td>2340</td>
<td>2580</td>
<td>2780</td>
<td>2980</td>
</tr>
<tr>
<td>Population in D.U.</td>
<td>8700</td>
<td>9600</td>
<td>10,300</td>
<td>11,000</td>
</tr>
<tr>
<td>Institutional Population</td>
<td>750</td>
<td>900</td>
<td>1050</td>
<td>1200</td>
</tr>
<tr>
<td>Total population</td>
<td>9450</td>
<td>10,500</td>
<td>11,350</td>
<td>12,200</td>
</tr>
<tr>
<td>(2) MEDIUM:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dwelling Units</td>
<td>2340</td>
<td>2820</td>
<td>3220</td>
<td>3620</td>
</tr>
<tr>
<td>Population in D.U.</td>
<td>8700</td>
<td>10,400</td>
<td>11,900</td>
<td>13,400</td>
</tr>
<tr>
<td>Institutional Population</td>
<td>750</td>
<td>900</td>
<td>1050</td>
<td>1200</td>
</tr>
<tr>
<td>Total population</td>
<td>9450</td>
<td>11,300</td>
<td>12,950</td>
<td>14,600</td>
</tr>
<tr>
<td>(3) HIGH:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dwelling Units</td>
<td>2340</td>
<td>3060</td>
<td>3660</td>
<td>4260</td>
</tr>
<tr>
<td>Population in D.U.</td>
<td>8700</td>
<td>11,300</td>
<td>13,550</td>
<td>15,800</td>
</tr>
<tr>
<td>Institutional Population</td>
<td>750</td>
<td>900</td>
<td>1050</td>
<td>1200</td>
</tr>
<tr>
<td>Total population</td>
<td>9450</td>
<td>12,200</td>
<td>14,600</td>
<td>17,000</td>
</tr>
</tbody>
</table>

Assuming annual increase of dwelling units (1) 40, (2) 80, and (3) 120
b. Extrapolation of Past Trends

Mathematical-graphical extrapolation of past trends, including arithmetic and geometric projections, the method of least squares or logistic curves, is a well known method for population projection. All these methods when applied would give a very wide range of projection which might render their application relatively useless. A more practical way of applying this technique is to project the rate of growth (usually with smaller magnitudes thus limiting the range), then deciding upon the most probable rate (for the factors that might have influenced the past growth might not be still playing their influential role), and last, applying this rate to the existing population.

As previously shown in Table III-1., the five-year rates of population growth are 15.3% for the period from 1910-1960, 23.4% for the period 1940-1960 and 28.2% for the period 1950-1960. If the trends that prevailed since 1960 would continue through 1965, the rate of growth of the 1960-65 period would be between 18% and 23%.* The average 5-year growth for the period 1950-1965 would become about 26% and it is not unlikely that it would prevail through 1980. The population estimates shown in Table III-9 are computed for three different five-year rates of growth 18%, 26% and 28%.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(18% growth)</td>
<td>8261</td>
<td>9,750</td>
<td>11,500</td>
<td>13,600</td>
<td>16,000</td>
</tr>
<tr>
<td>MEDIUM:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(26% growth)</td>
<td>8261</td>
<td>10,400</td>
<td>13,100</td>
<td>16,500</td>
<td>20,700</td>
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<tr>
<td>HIGH:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(28% growth)</td>
<td>8261</td>
<td>10,550</td>
<td>13,500</td>
<td>17,300</td>
<td>22,200</td>
</tr>
</tbody>
</table>

c. Weston as a Percentage of the Greater Boston Region

Reasonable estimates for the Town's future population can be reached if the Town is related to the Boston Region and ratios are established as to how Weston may be expected to share in the population forecast of the whole Region.

*Estimates for the 1964 population are derived by two methods: the Building Trend Methods gives 9450 (as shown in Table III-8 or 18% growth over 1960; the Migration-Natural Increase Method gives 9708 (see Table III-11 below) or 23% growth over 1960.
### TABLE III-10. POPULATION ESTIMATE BY APPORTIONMENT METHOD

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. M.T.C. REGION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population of Inner Suburbs</td>
<td>817,000</td>
<td>1,028,000</td>
<td>1,191,000</td>
<td>1,381,000</td>
</tr>
<tr>
<td>Population of Weston</td>
<td>5,026</td>
<td>8,261</td>
<td>10,500</td>
<td>13,100</td>
</tr>
<tr>
<td>Ratio: Weston to Inner Suburbs</td>
<td>.62%</td>
<td>.80%</td>
<td>.88%</td>
<td>.95%</td>
</tr>
<tr>
<td><strong>II. G.B.E.S.C. Regions Population</strong></td>
<td>(n.a.)</td>
<td>3,467,543</td>
<td>3,802,500</td>
<td>4,245,000</td>
</tr>
<tr>
<td><strong>A. Population of Inner Band</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio: Inner Band to Region</td>
<td>27%</td>
<td>.29%</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Population of Weston</td>
<td>5,026</td>
<td>8,261</td>
<td>10,500</td>
<td>13,100</td>
</tr>
<tr>
<td>Ratio: Weston to Inner Band</td>
<td>.69%</td>
<td>.88%</td>
<td>.95%</td>
<td>1.00%</td>
</tr>
<tr>
<td><strong>B. Population of Sector IV</strong></td>
<td>159,765</td>
<td>235,307</td>
<td>306,900</td>
<td>392,000</td>
</tr>
<tr>
<td>Ratio: Sector IV to Region</td>
<td>6.8%</td>
<td>8.05%</td>
<td>9.3%</td>
<td></td>
</tr>
<tr>
<td>Population of Weston</td>
<td>5,026</td>
<td>8,261</td>
<td>10,500</td>
<td>13,100</td>
</tr>
<tr>
<td>Ratio: Weston to Sector IV</td>
<td>3.15%</td>
<td>3.50%</td>
<td>3.42%</td>
<td>3.34%</td>
</tr>
</tbody>
</table>

(n.a.) = not available
Table III-10 shows Weston's population as related to the Inner Suburbs and the Western Sector of the Greater Boston Region. The 1975 populations have already been estimated for all the areas in both the G.B.E.S.C. and the M.T.C. Studies. The 1980 population was estimated for the whole region in the M.T.C. Study. Computing the ratios of both the Inner Suburbs and the Western Sectors and extrapolating them, their respective populations were estimated for 1980. Weston's ratios were computed for 1950, 1960 and 1970 and then projected to 1980. Its population was then calculated accordingly.

While G.B.E.S.C. and M.T.C. projections have low and high estimates, the figures reported are the averages of these which were considered the more likely to happen. Accordingly, Weston's population is estimated to be 10,500 and 13,100 in 1970 and 1980 respectively.

d. Migration and Natural Increase Method

This method is a simplification of the cohort survival technique and provides annual estimates only for the total population without breaking out age-sex components. It is based on the following. The population of an area at the close of a period is equal to its population at the start of the period plus natural increase (the excess of births over deaths) during the period, plus the net migration during the period.* Yearly estimates of the population are worked out for the period 1955 to 1964 based upon the findings of Table III-6. The results are shown in Table III-11. In utilizing this method to prepare a forecast, the following assumptions are implied:

(1) Birth rate: As indicated in Table III-3, the birth rate dropped by 10% from 1955 to 1960. There is no evidence that the trend of the birth rate has reversed itself; in 1961 it was 13.8, in 1962 it was 12.1 and 1963 it was 10.1 per thousand population (exclusive of institutional population). Accordingly, a birth rate of 10 persons per 1000 population is not unreasonable for the foreseeable future.

(2) Death rate: Death rate was found to average 6.9 persons per 1000 population and is assumed to continue.

* As adjusted from a formula set up by the Bureau of Census.
<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Increase For Natural</th>
<th>Increase For In-migrants</th>
<th>Population in Dwelling Units</th>
<th>Total</th>
<th>Institutions</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td>1955</td>
<td>1640</td>
<td>126</td>
<td>7</td>
<td>119</td>
<td>53</td>
<td>533</td>
<td>586</td>
</tr>
<tr>
<td>1956</td>
<td>1766</td>
<td>99</td>
<td>8</td>
<td>91</td>
<td>62</td>
<td>410</td>
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<td>1957</td>
<td>1865</td>
<td>69</td>
<td>10</td>
<td>59</td>
<td>82</td>
<td>265</td>
<td>347</td>
</tr>
<tr>
<td>1958</td>
<td>1934</td>
<td>47</td>
<td>7</td>
<td>40</td>
<td>58</td>
<td>180</td>
<td>238</td>
</tr>
<tr>
<td>1959</td>
<td>1981</td>
<td>57</td>
<td>11</td>
<td>46</td>
<td>84</td>
<td>205</td>
<td>289</td>
</tr>
<tr>
<td>1060</td>
<td>2038</td>
<td>72</td>
<td>8</td>
<td>64</td>
<td>66</td>
<td>288</td>
<td>354</td>
</tr>
<tr>
<td>1961</td>
<td>2110</td>
<td>78</td>
<td>7</td>
<td>71</td>
<td>52</td>
<td>320</td>
<td>372</td>
</tr>
<tr>
<td>1962</td>
<td>2188</td>
<td>73</td>
<td>4</td>
<td>69</td>
<td>35</td>
<td>312</td>
<td>345</td>
</tr>
<tr>
<td>1963</td>
<td>2261</td>
<td>79</td>
<td>3</td>
<td>76</td>
<td>20</td>
<td>342</td>
<td>362</td>
</tr>
<tr>
<td>1964</td>
<td>2340</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Estimates; U.S. Census for the 1960 figure
(2) Based on (1)
(3) A dwelling unit assigned for 7.9 persons of natural increase
(4) Col (2) less Col (3)
(5) Annual Town Reports; See Table III-2
(6) Col (4) multiplied by the in-migrant family size of 4.5 persons
(7) Col (5) + Col (6)
(8) Col 7 added to the population of the previous year
(9) Estimates; U.S. Census for the 1960 figure
(10) Col (8) + Col (9)
PROJECTION OF DWELLING UNITS

A. 1955 Benjamin Study
B. 1960 Downe Study
C. 1964 Master Plan Study

1. Upper Ceiling: POSSIBLE Number of Dwellings With Full Development Of All Vacant Land
2. Lower Ceiling: PROBABLE Number of Dwellings With Full Development Of Suitable Vacant Land
3. Probable Growth Curve
(3) Family size: A continuing average immigrant family size of 4.5 persons.

(4) Immigration, rather than natural increase, was found to be more responsible for Weston's population growth. Moreover, as was stated earlier, there is a correlation between immigrants and home building activity, for a new home is generally built to attract occupants from out of town. Thus, population estimates could be arrived at by utilizing home building information as explained in Table III-6 for the different rates of home building.

(5) The town-wide total of "possible" or "probable" ultimate dwellings would probably never be reached, for even in those towns which have been "built up" for years, some vacant lots can generally be found. As Weston will grow and large tracts of land will be totally developed, the pace of development will have to taper off. The average growth of 80 dwelling units per year will likely drop (as shown on Plate III-3) by 10 dwelling units every five-year period until it is estimated to reach 20 dwelling units per year by 1990.

Population estimates have been worked out on a year-by-year basis through 1980 for these rates and are summarized in Table III-12.

3. Ultimate Population

Table II-1 of the Land Use Analysis indicated the existing vacant land as distributed among the various neighborhoods of Weston. Tables II-5 and II-6 indicated the "probable" and "possible" additional new dwelling units that could be added to the existing stock in the town. Accordingly, the probable and possible dwelling unit capacity of Weston was estimated. Should the past trend of large immigrant family prevail, the Town-wide family size will tend to rise (compare the figures in Table II-12 which give results of 3.86, 3.95, 4.02 and 4.07 in 1965, '70, '75 and '80 respectively. Applying an average of 4.0 persons per dwelling unit to these probable and possible dwelling units will result at a probable ultimate population of 16,210 persons and a possible ultimate population of 18,620 persons (see Table III-13). To these might be added some 1200 institutional residents resulting in a probable population of 17,410 and a possible population of 19,820.
<table>
<thead>
<tr>
<th>Year</th>
<th>Increase in D.U.</th>
<th>Increase in D.U. population</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N.I. In- Mig. Increase D.U.s Birth Death In-migrants Total</td>
<td>in D.U. Insti-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>1964</td>
<td>47680</td>
<td>2340</td>
<td>90 62</td>
</tr>
<tr>
<td>1965</td>
<td>46670</td>
<td>2420</td>
<td>93 64</td>
</tr>
<tr>
<td>1966</td>
<td>46670</td>
<td>2490</td>
<td>97 66</td>
</tr>
<tr>
<td>1967</td>
<td>46670</td>
<td>2560</td>
<td>100 69</td>
</tr>
<tr>
<td>1968</td>
<td>46670</td>
<td>2630</td>
<td>103 71</td>
</tr>
<tr>
<td>1969</td>
<td>46670</td>
<td>2700</td>
<td>106 74</td>
</tr>
<tr>
<td>1970</td>
<td>45660</td>
<td>2770</td>
<td>110 76</td>
</tr>
<tr>
<td>1971</td>
<td>45660</td>
<td>2830</td>
<td>112 78</td>
</tr>
<tr>
<td>1972</td>
<td>55560</td>
<td>2890</td>
<td>115 79</td>
</tr>
<tr>
<td>1973</td>
<td>55560</td>
<td>2950</td>
<td>118 82</td>
</tr>
<tr>
<td>1974</td>
<td>55560</td>
<td>3010</td>
<td>121 84</td>
</tr>
<tr>
<td>1975</td>
<td>54550</td>
<td>3070</td>
<td>124 86</td>
</tr>
<tr>
<td>1976</td>
<td>54550</td>
<td>3120</td>
<td>126 87</td>
</tr>
<tr>
<td>1977</td>
<td>54550</td>
<td>3170</td>
<td>129 89</td>
</tr>
<tr>
<td>1978</td>
<td>54550</td>
<td>3220</td>
<td>131 91</td>
</tr>
<tr>
<td>1979</td>
<td>54550</td>
<td>3270</td>
<td>133 92</td>
</tr>
<tr>
<td>1980</td>
<td>54550</td>
<td>3320</td>
<td>133 92</td>
</tr>
</tbody>
</table>

(1) Every 7.9 persons of Natural Increase assigned a dwelling unit
(2) Col (3) less Col (1)
(3) See Plate III-3
(4) Col (3) + d.u.s of previous year
(5) 10% of population in d.u. of previous year
(6) 6.9% of population in d.u. of previous year
(7) Col (5) less Col 6
(8) Col (2) multiplied by average in-migrant family size 4.5
(9) Col (7) + Col (8)
(10) Col (9) added to pop. of previous year
(11) Estimate
(12) Col (10) + Col (11)
TABLE III-13. PROBABLE AND POSSIBLE ULTIMATE POPULATION

<table>
<thead>
<tr>
<th></th>
<th>Dwelling Units</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing Added Ultimate</td>
<td>Per Dwelling Unit Ultimate</td>
</tr>
<tr>
<td>Probable</td>
<td>2355 1697 4052</td>
<td>4.00 16,210</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible</td>
<td>2355 2300 4655</td>
<td>4.00 18,620</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Adding 1200 institutional inmates

Plate III-4 shows both the "probable" and "possible" ultimate population distribution in various town neighborhoods.

The population distribution shown on Plate III-4 is not tied to a specific target date. The time by which the Town would reach its ultimate development would be largely affected by future Town and regional policies for decades to come. Accordingly, the map suggests a pattern of the probable distribution of future ultimate community facilities without specifying any target date or dates.

In order for the Town's future policies to be continually congruent with each other, short-range proposals must be thought of as part of a total, long-range policy. Thus, plans for the ultimate size, kind and distribution of community facilities which would serve the population and its distribution shown on Plate III-4 may be considered as a long-range plan which is to be carried out by a series of short-range, continuous proposals. The scheduling of those short-range proposals, in time and space, depends largely on the respective rates of growth of the various neighborhoods.
DISTRIBUTION OF ULTIMATE POPULATION

FAMILY DISTRIBUTION

Existing

Expected

ULTIMATE DWELLING UNITS a

ULTIMATE POPULATION b

NEIGHBORHOOD BOUNDARIES

PLANNING BOARD

WESTON MASSACHUSETTS

CHARLES E. ROWE • PLANNING CONSULTANT

PREPARATION OF THIS DOCUMENT WAS FINANCED IN PART THROUGH AN URBAN PLANNING GRANT FROM THE HOUSING AND HOME FINANCE AGENCY UNDER THE PROVISIONS OF SECTION 70 OF THE HOUSING ACT OF 1949 AS AMENDED
IV. ECONOMIC BASE

A. INTRODUCTION

A community's economic base is usually determined by those production activities which provide employment to residents and commuters, stimulate the flow of money and strengthen the tax base. A community may grow without serious economic problems, if these basic activities continue to grow correspondingly.

This, however, does not mean that each town and city must necessarily have its proportionate share of growing production if it is to maintain its economic well-being. For towns and cities are highly interdependent and integrated in larger self-contained economic units: metropolitan areas and regions. In these economic units some parts depend on production and export of goods as their economic base, while other parts live on the export of labor to production centers, thus producing income and serving their population. Weston seems to be one of such residential communities. However, this pattern is never 'pure', so each town and city in the metropolitan area has some of its economic base determined by its production and some by the income of its residents.

The above statements imply two aspects that need to be considered in this study. First, the Town cannot be examined without regard to the region, since it does not, and cannot, function as an independent economic unit. Second both sources of income, that from production and that from residents, should be examined.

The intent of this analysis is to provide the Town with a statement of the present socio-economic composition of the community, relate these conditions and trends to those of the larger region and examine some of the factors which may affect Weston's potential economic growth. Such an analysis can serve as a framework within which decisions can be made which will help maintain a healthy and prosperous community.

Following is an examination of the present economic activities in the Town: Employment and Wages, Capital Investment and Municipal Economics; and an analysis of the population's economic characteristics: Occupations and Incomes.
B. EMPLOYMENT

1. Regional Trends

Nationally, the largest segment of the "covered non-agricultural employment"* is provided by the manufacturing industry, totalling about one-third. Wholesale and retail trade combined rank second with about one-fifth of the total and the government and service categories each provide one-seventh. Finance, construction, transport and mining are relatively less important as "employers."

Total national employment in manufacturing industries increased by almost 70% between 1940 and 1950. The rate of increase slowed to only 12% in the 1950 to 1960 decade despite continuing rises in output, due to great strides in automation and work rationalization which altered the employment structure and to a decline or leveling off in production workers, accompanied by a steep rise in the number, and in the proportion to total workers, of white collar personnel (administrative, clerical and research workers).

Employment growth in major non-manufacturing sectors of the national economy was substantially greater than the increase in manufacturing employment over the 1950-1960 decade. The expansion of trade employment in this period was in line with population growth.

This national pattern generally holds true for larger economic units (see Plate IV-1 and Table IV-1), such as the Greater Boston Region, although the latter relies to a relatively greater degree on finance and service occupations and to a lesser degree on manufacturing. Although the level of manufacturing employment did not change materially, the emphasis was shifted, i.e., technologically advanced hard goods replacing the traditional soft goods industries, with the textile and leather industries losing five jobs for every six jobs gained in the expanding electrical machinery complex.

Within the Boston Region, the Boston SMSA has far and away the major concentration of non-manufacturing jobs, achieving an economic diversity because of a lesser reliance on manufacturing.

* Excluding out of the labor force those in the armed forces, the unemployed, farm workers, self-employed persons, unpaid family workers, and domestic workers in private households.
### TABLE IV-1  PERCENT OF NON-AGRICULTURAL EMPLOYMENT BY MAJOR CATEGORIES 
FOR SELECTED ECONOMIC UNITS - 1950 and 1960

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>16.1 27.6</td>
<td>4.7 4.4</td>
<td>4.4 4.3</td>
<td>7.2 6.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.5 20.0</td>
<td>30.8 28.8</td>
<td>36.0 31.7</td>
<td>33.4 30.9</td>
</tr>
<tr>
<td>Transportation</td>
<td>2.9 1.7</td>
<td>8.3 6.3</td>
<td>7.7 5.9</td>
<td>8.9 7.4</td>
</tr>
<tr>
<td>Trade</td>
<td>25.0 20.7</td>
<td>25.1 22.4</td>
<td>23.6 21.7</td>
<td>21.6 21.0</td>
</tr>
<tr>
<td>Finance</td>
<td>2.5 1.5</td>
<td>6.7 6.9</td>
<td>5.8 6.3</td>
<td>4.1 4.9</td>
</tr>
<tr>
<td>Service</td>
<td>) 51.0 28.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>) 12.2 13.2</td>
<td></td>
<td>11.2 12.6</td>
<td>13.5 15.7</td>
</tr>
<tr>
<td>Total Percent</td>
<td>100.0 100.0</td>
<td>100.0 100.0</td>
<td>100.0 100.0</td>
<td>100.0 100.0</td>
</tr>
<tr>
<td>Employees</td>
<td>243 530</td>
<td>884* 1078*</td>
<td>1088* 1285*</td>
<td>44738* 54347*</td>
</tr>
</tbody>
</table>

* In thousands

Source: Mass Transportation Commission

The bulk of regional suburban industrial expansion in the 1947-1959 period occurred in the Route 128 band of communities, especially in those due west of Boston (Lexington and Waltham) in plants on or near the expressway. The Route 128 subregion retained 2000 jobs in textile, leather, lumber and primary and fabricated metals as compared to a 17,000 job increase in electrical machinery employment. This was accompanied by substantial gains in several other industries, resulting in almost a doubling of the industrial employment.

Examining Weston within its Region for the period from 1950 to 1960, it could be derived that:

(a) Construction has always had a higher percentage of total employment in Weston than in the larger economic areas. There has been a sharp increase in the current period under examination.

(b) Although manufacturing has increased, it does not play the role of the largest employer in Weston.
(c) The share of transport and finance in providing employment is by far less than in the larger areas and it is decreasing.

(d) The percentage of trade employment in Weston, although comparable to larger units, is decreasing at a faster rate than in the larger units.

(e) Service, government and unclassified, once providing more than half of Weston's employment, is dropping in proportion to the total employment and is approaching comparable figures of the larger economic areas.

2. Employment in Weston

An examination of the rate of growth of employment in Weston from 1950 to 1962 shows three distinctive periods *:

(a) Employment opportunities decreased while population was increasing from 1950-1953.

(b) There are sizeable increases in employment succeeded by periods of almost no increase resulting in an overall rate of increase equal to that of population from 1953 to 1959.

(c) A dramatic rate of increase of employment exceeding the rate of population growth since 1960.

Plate IV-2 and Table IV-2 show the covered employment in Weston. Following is a brief discussion of the change in the structure of the economy by different industrial categories.

a. Agriculture

With increased urbanization, competing demands on land for urban development understandably are eliminating agriculture as a major land use within metropolitan areas. This in turn is reflected by a drop in agricultural employment. In the 1953-57 period, agriculture in Weston contributed about 15% of the local jobs. Since 1958 its contribution has been dropping both in actual numbers and percentage of total employment. With continuous urban growth,

* The change in the Standard Industrial Classification of the U. S. Dept. of Labor since 1958 makes it difficult to follow the recent trends in employment structure precisely. Total employment figures are not affected with this change. For expanding the specific industrial categories, two 4-year periods will be discussed separately 1953-57 and 1958-62.
LOCAL EMPLOYERS, EMPLOYEES & WAGES

AGRICULTURE MINING
CONSTRUCTION
MANUFACTURING
TRANSPORTATION UTILITIES
WHOLESALE RETAIL
FINANCE
SERVICE

number of firms

number of employees

total annual wages
TABLE IV-2 COVERED EMPLOYMENT 1953-1962

<table>
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<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Change</td>
<td></td>
<td></td>
<td>Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% Change</td>
<td></td>
<td></td>
<td>% Change</td>
</tr>
<tr>
<td>Agriculture</td>
<td>E</td>
<td></td>
<td>43 53</td>
<td>10</td>
<td>23</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td></td>
<td>15.0 14.8</td>
<td>13.9</td>
<td></td>
<td>11.6 3.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-7.7</td>
<td></td>
<td></td>
<td>-25 -46</td>
</tr>
<tr>
<td>Construction</td>
<td>E</td>
<td>39</td>
<td>51</td>
<td>12</td>
<td>31</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>13.6</td>
<td>14.3</td>
<td>16.6</td>
<td>14.2</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>46.5</td>
<td></td>
<td></td>
<td>152 230</td>
</tr>
<tr>
<td>Manufacturing</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>%</td>
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<td>--</td>
<td>--</td>
<td>17.6</td>
<td>17.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54</td>
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<td>66</td>
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<td>Transportation</td>
<td>E</td>
<td>7</td>
<td>13</td>
<td>6</td>
<td>85</td>
<td>12</td>
</tr>
<tr>
<td>and Utilities</td>
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<td>3.6</td>
<td>8.3</td>
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<td>-0.9</td>
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<td>-3 -25</td>
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<td>Wholesale and Retail</td>
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<td>82</td>
<td>21</td>
<td>34</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>21.4</td>
<td>22.9</td>
<td>29.2</td>
<td>17.2</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24.8</td>
<td></td>
<td></td>
<td>81 100</td>
</tr>
<tr>
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<td>E</td>
<td>6</td>
<td>6</td>
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<tr>
<td></td>
<td>%</td>
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<td></td>
<td></td>
<td>3 50</td>
</tr>
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<td>Services &amp; Unclassified</td>
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<td>130</td>
<td>153</td>
<td>23</td>
<td>11</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>45.5</td>
<td>42.7</td>
<td>320</td>
<td>35.5</td>
<td>29.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19.9</td>
<td></td>
<td></td>
<td>65 40</td>
</tr>
<tr>
<td>Totals</td>
<td>E</td>
<td>286</td>
<td>358</td>
<td>72</td>
<td>25</td>
<td>465</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>327</td>
<td></td>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>

E = Number of employees

Source: Massachusetts Department of Commerce

...agricultural employment is naturally expected to continue to drop. This is no big loss to the local economy for agriculture pays its worker about 40% less than the average wages in the Town (see Table IV-3).

b. Construction

Employment in construction has been on the increase. By 1962 it became the basic employer in the Town providing for 27.6% of local employment which, in turn, contributes about 33% of the annual wages and represents some 20% over the Town average wage. This situation is understandable as the migration to suburbs requires a great supply of home construction. The employment offered by construction has paralleled the growth of new housing and further development in the Town may give a chance for further employment increases in this category.
TABLE IV-3  EMPLOYMENT AND WAGES - 1962

<table>
<thead>
<tr>
<th></th>
<th>No. of Firms</th>
<th>No. of Employees</th>
<th>% of Total</th>
<th>Annual Wages ($000s)</th>
<th>% of Total</th>
<th>Employee per Firm</th>
<th>Wage per Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>10</td>
<td>29</td>
<td>3.6</td>
<td>82</td>
<td>2.2</td>
<td>2.9</td>
<td>2820</td>
</tr>
<tr>
<td>Construction</td>
<td>33</td>
<td>218</td>
<td>27.6</td>
<td>1228</td>
<td>33.0</td>
<td>6.6</td>
<td>5630</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8</td>
<td>136</td>
<td>17.2</td>
<td>891</td>
<td>24.0</td>
<td>17.0</td>
<td>6520</td>
</tr>
<tr>
<td>Transportation and Utilities</td>
<td>3</td>
<td>9</td>
<td>1.1</td>
<td>53</td>
<td>1.4</td>
<td>17.7</td>
<td>5900</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>30</td>
<td>161</td>
<td>20.3</td>
<td>591</td>
<td>15.8</td>
<td>5.4</td>
<td>3660</td>
</tr>
<tr>
<td>Finance</td>
<td>6</td>
<td>9</td>
<td>1.1</td>
<td>48</td>
<td>1.3</td>
<td>1.5</td>
<td>5330</td>
</tr>
<tr>
<td>Service &amp; Government</td>
<td>29</td>
<td>230</td>
<td>29.1</td>
<td>832</td>
<td>22.3</td>
<td>8.0</td>
<td>3620</td>
</tr>
</tbody>
</table>

Source: Massachusetts Department of Commerce

c. Manufacturing

For the year 1953 Weston had two very small manufacturing firms, -- a workshop and a firm fabricating metal products -- with insignificant employment. By 1958 there were 8 firms employing some 82 workers. In 1961 manufacturing activities included dairy products, wood products, printing, paving and roofing materials, electric lighting, and electric equipment each represented by one firm and four firms of electrical machinery and supplies. These industries employed 124 persons and payed some $724,000 in wages. By 1962, the number of firms dropped to 8 although employment increased to 136 and the payroll to $891,000. The wage of manufacturing workers was about 40% higher than the average wage in the Town. However, the land use survey conducted in June 1964 shows only the workshop, the printing shop and the crushed stone firm. Most of the other manufacturing firms were non-conforming uses under the Town's zoning by-laws which hindered their expansion and encouraged them to relocate outside the Town. With Weston's current attitude towards industry, no growth can be expected in this sector of the economy.
d. Trade

Wholesale and retail is the second major employer in Town. Employment has increased in the 1953-62 period. While the increase was about one-third in the first 4 years, it doubled in the last four. In 1962 it became the second major employer in Town.

In 1961, eight wholesale firms reported 23 employees in November and an annual payroll of $129,000, and 20 retail firms employed 122 persons with an annual payroll of $368,000. Accordingly, the average annual payroll per employee in wholesale trade is $5,600 as compared to $3,000 in retail. From these figures, it would appear that the number of employees in retail trade includes a considerable percentage of part-time workers. This would account for the relatively high percentage of employment in the retail and wholesale group.

As most trade activity in the Town concerns those selling goods purchased by the residents daily or weekly, for example, food, the position of trade is not a "basic" activity, for it does not contribute to the import of money to the Town. However, expansion of trade activity could be desirable, for it would, on the other hand, prevent exodus of money to other communities and thereby sustain local business operations.

e. Finance and Transport

Finance and transport have provided an insignificant amount of local employment, although this activity is paying wages from 13 to 25% higher than the town average. Weston, being a suburb, is dependent and is likely to continue to depend on the central city (or other subregion centers) for furnishing these services.

f. Service and Government

Early in the period under study, service activities used to provide a substantial (40%) percent of the local employment. This could be explained by the large number of household workers. Since 1958, the number of firms listed in this category remained almost constant. Although the number of workers is increasing, their percentage to the total local employment is decreasing. These jobs are paying some 17% less than the average wage in Town and thus do not indicate an important "expansion potential".

- 84 -
3. **Local Employment Relative to Labor Force**

An index of the economic maturity of a community, or its dependence on other Towns for employment, is obtained by comparing the covered employment to the civilian labor force. The smaller the employment labor force ratio, the more the community is dependent on others. In 1950 the covered employment was 342, while the labor force consisted of 1713 persons. In 1960 the figures were 558 and 2974 respectively. In other words more than 80% of the labor force in the Town seeks employment outside the community.

C. **CAPITAL INVESTMENT IN THE COMMUNITY**

The local property tax has increasingly been the single most important source of income for Massachusetts' communities. This means that tax-producing property is essential to the well-being of any community. Table IV-4 and Plate IV-3 show the trends in assessed valuations of real and personal property in Weston in recent years. Although these figures do not represent market value, they do indicate the trend of capital investment in property in the Town.

In the seven-year period from 1955-1961 the value of real estate rose by 52.5% (averaging 7.5% a year), the value of personal property rose by 48.0% and the total assessed valuation rose by 52.0%. The assessed valuation has been steadily dominated by real estate (94.0%) and increasingly by buildings, from 75.4% to 78.1%.

During 1963 a review of all taxable real estate was completed resulting in a substantial increase in assessed valuations as of January 1, 1963. The land assessment was raised to a greater degree than that of buildings, while personal property increased proportionally as previously.

Chapter II above has shown that 27.7% of the Town area is occupied by recreational, educational and institutional land uses. While these together represent 43.0% of the developed area of the Town, they contribute very little to the Town’s tax base, since over 90% of the recreation, educational and institutional land uses are tax-exempt. Judging from land use data the Town is heavily dependent upon residential property.

D. **MUNICIPAL ECONOMICS**

1. **Local Government as an Employer**

In 1963 the local government employed 213 persons on permanent basis and 50 persons on part-time basis, of which 130 permanent and 40 part-time employees were for the school department. Of the $1,736,600 government
<table>
<thead>
<tr>
<th>Year</th>
<th>Real Estate</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Land</td>
<td>Building</td>
<td>Total</td>
<td>Personal</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>1955</td>
<td>$000</td>
<td>3,803</td>
<td>15,448</td>
<td>19,251</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>18.5</td>
<td>75.4</td>
<td>93.9</td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>$000</td>
<td>-4,014</td>
<td>16,749</td>
<td>20,763</td>
<td>1,317</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>18.1</td>
<td>76.0</td>
<td>94.1</td>
<td></td>
</tr>
<tr>
<td>1957</td>
<td>$000</td>
<td>4,172</td>
<td>18,076</td>
<td>22,248</td>
<td>1,418</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>17.6</td>
<td>76.4</td>
<td>94.0</td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td>$000</td>
<td>4,240</td>
<td>19,489</td>
<td>23,729</td>
<td>1,494</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>16.8</td>
<td>77.3</td>
<td>94.1</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>$000</td>
<td>4,302</td>
<td>20,339</td>
<td>24,642</td>
<td>1,579</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>16.4</td>
<td>77.6</td>
<td>94.0</td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>$000</td>
<td>4,490</td>
<td>21,416</td>
<td>25,906</td>
<td>1,671</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>16.4</td>
<td>77.6</td>
<td>94.0</td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>$000</td>
<td>4,716</td>
<td>22,798</td>
<td>27,514</td>
<td>1,784</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>16.1</td>
<td>77.8</td>
<td>93.9</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>$000</td>
<td>4,969</td>
<td>24,399</td>
<td>29,368</td>
<td>1,868</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>15.9</td>
<td>78.1</td>
<td>94.0</td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>$000</td>
<td>10,277</td>
<td>28,859</td>
<td>39,137</td>
<td>1,987</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>25.0</td>
<td>70.1</td>
<td>95.1</td>
<td></td>
</tr>
</tbody>
</table>

Increase in $000's

<table>
<thead>
<tr>
<th>Period</th>
<th>Increase</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>55 - 62</td>
<td>1,166</td>
<td>8,951</td>
<td>10,117</td>
<td>607</td>
<td>10,724</td>
</tr>
<tr>
<td>62 - 63</td>
<td>5,308</td>
<td>4,460</td>
<td>9,769</td>
<td>119</td>
<td>9,888</td>
</tr>
<tr>
<td>55 - 63</td>
<td>6,474</td>
<td>13,411</td>
<td>19,886</td>
<td>726</td>
<td>20,612</td>
</tr>
</tbody>
</table>

Average Annual Increase in $000's

<table>
<thead>
<tr>
<th>Period</th>
<th>Increase</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>55 - 62</td>
<td>167</td>
<td>1,279</td>
<td>1,445</td>
<td>87</td>
<td>1,572</td>
</tr>
<tr>
<td>55 - 63</td>
<td>809</td>
<td>1,676</td>
<td>2,486</td>
<td>91</td>
<td>2,576</td>
</tr>
</tbody>
</table>

Source: Annual Town Reports
payroll, the school employees were paid $1,199,500 or 69% of the total. The average salary paid by the government amounts to about $6,600 per employee based on total number of employees. In terms of number of employees, payrolls and average salary, the government is therefore the largest employer in Town.

2. Municipal Income and Expenditures

In Massachusetts, local government services, including many that are provided at the state level in other sections of the country, are financed principally through property taxes. In recent years population, property values and taxes have increased rapidly in suburban communities. Table IV-5 illustrates this point for Weston. From 1955 to 1963 population increased some 54% while the gross amounts to be raised for Town expenditures increased by 141%.

### TABLE IV-5 ANALYSIS OF TOWN REVENUES, 1956-1963

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Amount Raised $(000)</th>
<th>Net Amount Raised $(000)</th>
<th>Net as % of Gross</th>
<th>Total Assessed $(000)</th>
<th>Tax Rate</th>
<th>Population</th>
<th>$ Per Capita Valuation</th>
<th>Tax Levy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>1,362</td>
<td>824</td>
<td>60.6</td>
<td>20,512</td>
<td>40.00</td>
<td>5,593</td>
<td>3,660</td>
<td>147</td>
</tr>
<tr>
<td>1956</td>
<td>1,402</td>
<td>932</td>
<td>66.4</td>
<td>22,080</td>
<td>42.00</td>
<td>6,179</td>
<td>3,600</td>
<td>151</td>
</tr>
<tr>
<td>1957</td>
<td>1,715</td>
<td>1,046</td>
<td>61.0</td>
<td>23,666</td>
<td>44.00</td>
<td>6,651</td>
<td>3,600</td>
<td>157</td>
</tr>
<tr>
<td>1958</td>
<td>1,856</td>
<td>1,190</td>
<td>64.2</td>
<td>25,223</td>
<td>47.00</td>
<td>6,998</td>
<td>3,600</td>
<td>170</td>
</tr>
<tr>
<td>1959</td>
<td>2,199</td>
<td>1,384</td>
<td>63.0</td>
<td>26,221</td>
<td>52.60</td>
<td>7,236</td>
<td>3,620</td>
<td>190</td>
</tr>
<tr>
<td>1960</td>
<td>2,634</td>
<td>1,681</td>
<td>63.8</td>
<td>27,578</td>
<td>60.80</td>
<td>7,525</td>
<td>3,675</td>
<td>223</td>
</tr>
<tr>
<td>1961</td>
<td>2,638</td>
<td>1,851</td>
<td>70.0</td>
<td>29,298</td>
<td>63.00</td>
<td>7,879</td>
<td>3,720</td>
<td>236</td>
</tr>
<tr>
<td>1962</td>
<td>2,899</td>
<td>1,942</td>
<td>67.0</td>
<td>31,236</td>
<td>62.00</td>
<td>8,251</td>
<td>3,780</td>
<td>236</td>
</tr>
<tr>
<td>1963</td>
<td>3,285</td>
<td>2,119</td>
<td>65.0</td>
<td>41,124</td>
<td>51.40</td>
<td>8,596</td>
<td>4,800</td>
<td>247</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase 55-63</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,923</td>
<td>1,295</td>
<td>4.4</td>
<td>20,612</td>
<td>11.40</td>
<td>3,003</td>
<td>1,140</td>
<td>100</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent Increase</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>141</td>
<td>156</td>
<td>7.3</td>
<td>101</td>
<td>28.5</td>
<td>54</td>
<td>31.0</td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>

Source: (1), (2), (4) & (5) Town Annual Reports  
(3) Column (2) divided into Column (1)  
(6) Estimates (excluding institutional population) See Table III-11  
(7) Column (4) divided by Column (6)  
(8) Column (2) divided by Column (6)
The share of the total Town budget raised from local taxes (tax levy or net amount to be raised) has been fluctuating between 60 and 70%. The total assessed valuation increased in this period 101%, and local taxes by 156%, resulting in a 28.5% higher tax rate and a 68% higher per capita tax levy.

An increase in the tax rate is but one alternative to meet the rise in govern- ment costs whenever the rise in assessed valuations is not able to produce the required income. Theoretically, the Town has two other alternatives (1) receipt of larger grants from senior governments, and/or (2) an expansion of the property tax base by the introduction of new business, industry and higher-value houses which can normally contribute more in tax dollars than they require in Town services.

A diversification of the tax base can add strength and stability in a town that is growing during a time when the property tax is predominant, pro- vided that the diversification is done without detriment and harm to the existing well-established values now supporting the town government.

3. **Tax Rate**

The Massachusetts Federation of Taxpayers' publishes an annual list of "equalized" or full-value tax rates for Massachusetts cities and towns. These calculated rates assume that property in all communities would be valued at the full market value. These figures allow a more adequate comparison of tax rates in various towns. In Table IV-6 these rates are shown for Weston and other comparable inner, intermediate suburbs since 1961.

Out of the nine communities compared, Weston has dropped from the middle rank in 1961 to the second lowest in 1962 and 1963 in its actual tax rate. Its equalized tax rate was the second lowest in 1961 and 1962 and the third lowest in 1963 -- some 8 to 17% below average. However, the Weston resi- dent has been paying the highest tax -- some $45 to $67 or 20 to 30% above average. The average Weston family is also paying the highest tax although this represents a lower percent of its annual income.

**E. ECONOMIC CHARACTERISTICS OF THE POPULATION**

1. **Occupations**

An important distinction should be made between 'occupation' and 'employ- ment'. Occupation refers to the kind of work that occupies the residents of the Town. Occupation groups, as defined by the U. S. Census, include professionals, managers, laborers and others. Employment, on the other
<table>
<thead>
<tr>
<th>Community</th>
<th>Actual Tax Rates</th>
<th>Equalized Tax Rates</th>
<th>Per Capita Tax</th>
<th>Median Family Income</th>
<th>Tax/Family Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lincoln</td>
<td>100.00</td>
<td>103.00</td>
<td>112.00</td>
<td>24.80</td>
<td>25.50</td>
</tr>
<tr>
<td>Newton</td>
<td>62.80</td>
<td>67.20</td>
<td>66.60</td>
<td>26.10</td>
<td>27.70</td>
</tr>
<tr>
<td>Waltham</td>
<td>57.80</td>
<td>61.20</td>
<td>64.20</td>
<td>24.80</td>
<td>25.40</td>
</tr>
<tr>
<td>Needham</td>
<td>61.70</td>
<td>63.00</td>
<td>64.50</td>
<td>20.20</td>
<td>21.60</td>
</tr>
<tr>
<td>Wellesley</td>
<td>60.00</td>
<td>64.00</td>
<td>68.00</td>
<td>22.80</td>
<td>22.40</td>
</tr>
<tr>
<td>WESTON</td>
<td>63.00</td>
<td>62.00</td>
<td>51.40</td>
<td>72.50</td>
<td>73.50</td>
</tr>
<tr>
<td>Westwood</td>
<td>86.00</td>
<td>92.00</td>
<td>93.00</td>
<td>32.50</td>
<td>34.80</td>
</tr>
<tr>
<td>Wayland</td>
<td>66.00</td>
<td>67.00</td>
<td>34.00</td>
<td>29.50</td>
<td>30.00</td>
</tr>
<tr>
<td>Average</td>
<td>26.00</td>
<td>27.00</td>
<td>26.40</td>
<td>179</td>
<td>193</td>
</tr>
</tbody>
</table>

Source: (1)-(9) Massachusetts Federation of Taxpayers "Taxtalk": September 1961, October 1962, and November 1963

(10) Column (9) multiplied by average size of household as reported in the 1960 U.S. Census
(11) U.S. Census 1960
(12) Column (10) divided into Column (11)
<table>
<thead>
<tr>
<th>Group</th>
<th>WESTON 1950</th>
<th>1960</th>
<th>1950 - Percent</th>
<th>1960 - Percent</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>WESTON</td>
<td>Boston</td>
<td>U.S.A.</td>
<td>WESTON</td>
</tr>
<tr>
<td></td>
<td>SMA*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE COLLAR - Totals</td>
<td>1133</td>
<td>2117</td>
<td>67.0</td>
<td>48.5</td>
</tr>
<tr>
<td>Prof., Tech. &amp; Kindred</td>
<td>445</td>
<td>749</td>
<td>26.3</td>
<td>12.1</td>
</tr>
<tr>
<td>Mgrs., Off., &amp; Prop.</td>
<td>320</td>
<td>703</td>
<td>18.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Clerical</td>
<td>160</td>
<td>349</td>
<td>9.5</td>
<td>17.9</td>
</tr>
<tr>
<td>Sales</td>
<td>208</td>
<td>316</td>
<td>12.3</td>
<td>8.7</td>
</tr>
<tr>
<td>BLUE COLLAR - Totals</td>
<td>238</td>
<td>269</td>
<td>14.0</td>
<td>34.3</td>
</tr>
<tr>
<td>Craftsmen &amp; Foremen</td>
<td>131</td>
<td>130</td>
<td>7.7</td>
<td>14.9</td>
</tr>
<tr>
<td>Operatives</td>
<td>107</td>
<td>130</td>
<td>6.3</td>
<td>19.4</td>
</tr>
<tr>
<td>MISCELLANEOUS - Totals</td>
<td>322</td>
<td>563</td>
<td>19.0</td>
<td>17.2</td>
</tr>
<tr>
<td>Pvt. Hs'ld Workers</td>
<td>109</td>
<td>184</td>
<td>6.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Service Workers</td>
<td>122</td>
<td>152</td>
<td>7.2</td>
<td>9.4</td>
</tr>
<tr>
<td>Laborers</td>
<td>73</td>
<td>91</td>
<td>4.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Not Reported</td>
<td>18</td>
<td>136</td>
<td>1.1</td>
<td>0.9</td>
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</table>

* Standard Metropolitan Area
** 1958 Figure

Source: U. S. Census 1950, 1960
hand, refers to jobs held within the Town, categorized by industry group, without regard to where the job holders live.

The occupations of residents of the community are significant to the Master Plan because the plan is primarily prepared to serve the ends of the people residing in the community. A person's occupation indicates, to some extent, the type of community he will select and demand. This tells the Town something about the kind and quality of facilities needed, and the manufacturer about the local labor market from which he draws employees.

Education is one indicator in the occupation analysis. The median number of completed school years in Weston was 13.0 in 1950 and 14.8 in 1960 as compared to 11.9 and 12.1 respectively in the Boston Metropolitan Area.

Plate IV-4 shows the change in the occupational characteristics of Weston's residents from 1950 to 1960. Most of the gain has been in the white collar groups, especially in the managerial and professional categories. Table IV-7 shows occupation characteristics in numbers and percentage as compared to the Boston Metropolitan Area and to the nation. The white collar categories constituted 67% of Weston's labor force in 1950 and 72% in 1960 as compared to an average of 49% in the Boston SMSA and 39% in the nation. Blue collar labor is decreasing in Weston at a higher rate than that of the larger economic areas.

2. Income Characteristics

In 1960 the median family income in Weston was $13,703 -- 105% more than the $6,687 median family income of the Boston Metropolitan Area. Table IV-8 shows the percentages of families in various income groups for Weston, the comparable "inner" and "intermediate" suburbs and the Boston SMSA. The same information is presented graphically in Plate IV-5. About 70% of Weston's families has an income of $10,000 or more. The percentage of families in the $15,000 and over income bracket (43.4%) is higher in Weston than in any other community or the Boston Metropolitan Area.

The secondary peak in the $1,000 to $2,000 income bracket could be explained by the large number of students boarding in the various colleges. When these unrelated individuals are considered, the median income drops to $8,377 only about 50% more than the $5,537 respective figure for the Metropolitan Area.
<table>
<thead>
<tr>
<th>Income Group</th>
<th>Lincoln</th>
<th>Newton</th>
<th>Waltham</th>
<th>Needham</th>
<th>Wellesley</th>
<th>WESTON</th>
<th>Westwood</th>
<th>Wayland</th>
<th>Natick</th>
<th>SMSA</th>
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<tr>
<td>Under $1,000</td>
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<td>1.5</td>
<td>2.0</td>
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<td>0.4</td>
<td>0.6</td>
<td>0.3</td>
<td>1.2</td>
<td>2.4</td>
</tr>
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<td>1.8</td>
<td>2.4</td>
<td>1.7</td>
<td>1.4</td>
<td>3.0</td>
<td>1.5</td>
<td>1.3</td>
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<td>1.7</td>
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<td>4.1</td>
<td>6.4</td>
<td>2.9</td>
<td>3.5</td>
<td>2.1</td>
<td>3.2</td>
<td>4.6</td>
<td>3.8</td>
<td>7.1</td>
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<td>4.4</td>
<td>7.4</td>
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<td>14.1</td>
<td>7.6</td>
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<tr>
<td>6,000 - 6,999</td>
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<td>12.0</td>
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</tr>
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<td>8,000 - 8,999</td>
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<td>11.2</td>
<td>8.3</td>
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<td>6.1</td>
</tr>
<tr>
<td>10,000 - 14,999</td>
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<td>20.1</td>
<td>14.7</td>
<td>26.5</td>
<td>24.5</td>
<td>25.2</td>
<td>25.8</td>
<td>28.2</td>
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<td>15,000 - 24,999</td>
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<td>4.2</td>
<td>13.4</td>
<td>20.5</td>
<td>21.5</td>
<td>9.4</td>
<td>12.8</td>
<td>5.9</td>
<td>5.1</td>
</tr>
<tr>
<td>25,000 - and over</td>
<td>9.7</td>
<td>10.0</td>
<td>0.7</td>
<td>4.6</td>
<td>12.3</td>
<td>21.9</td>
<td>2.4</td>
<td>4.3</td>
<td>1.2</td>
<td>2.1</td>
</tr>
</tbody>
</table>

| Median Family Income | 8,841 | 9,008 | 6,804 | 9,282 | 11,478 | 13,703 | 8,690 | 9,363 | 7,550 | 6,687 |

Source: U.S. Census 1960
V. RECAPITULATION

A. REGIONAL SETTING

Weston lies within the Greater Boston Region in an inner suburban ring of communities immediately adjacent to the Region's Core Area and in an urban sector extending to the west around Routes 9 and 20. The Region could be further divided into metropolitan areas and groups of urban centers with common problems that could form logical planning areas. Weston is a suburban community with the Boston Metropolitan Area with orientation toward the core communities around Boston. The decisions taken by certain independent or quasi-independent authorities functioning within the Metropolitan Area exert influences upon Weston. Furthermore, Weston touches upon a natural region -- that of the SuAsCo River Basin. Increased awareness of the importance of preserving natural resources might introduce further responsibilities on Weston.

There are factors interplaying within the Greater Boston Region that would affect Weston's growth. Population in the Region is expected to increase some 11.6% and 22.4% by 1970 and 1980 respectively with increases in the younger (under 15) and the older (over 65) segments of the population. The west sector will experience the greatest absolute and percentage growth of all sectors of the Region with an estimated 30.4% increase by 1970 and a 67.0% increase by 1980 over the 1960 population.

The growth is expected to by-pass the inner suburbs in favor of the intermediate ring of communities further to the west from the Core. Most of the comparable inner suburbs in the sectors abutting the west sector have witnessed and are expected to continue to witness rates of growth higher than that of Weston.

Within the Region density of development (expressed physically by the use of land) decreases with the distance from the Core. Suburbs that have easy access to the Core are filling up. Consequently, in the suburbs of the west sector the land is more developed -- predominately with single family residence (as development had increased in the motor era). Moreover, they contain a high percentage of open development (institutions and recreation).

The percentage of land use for industrial development in the inner suburbs of the west sector has been increasing since 1947 largely because of the Route 128 influence and is expected to continue through 1970 with some slowing in the 1970-1980 period due to the decrease in the number of available prime industrial sites and the attitude of communities toward industrial expansion.
The location of retail facilities and population concentration are usually interdependent. The north and south sectors have a higher percentage of land devoted to commercial use as they developed population concentrations at earlier stages. Recent suburbanization of the motor age changed the structure of retail trade so that a residential suburb can now depend on numerous communities of the Metropolitan Area. The distribution of the shopping centers that have developed accordingly suggests that Weston would not become a commercial center on any regional level. However, its commercial activities could be expected to grow in a local nature as its population increases. Relating Weston to its surrounding communities no real dangerous conflict of interest in the use of land seems to exist with the possible exception of the north-east corner at the Waltham City Line. Major physical barriers, (natural such as swamps or man-made such as limited access highways) will help to secure the preservation of Weston's existing character. Where such barriers do not exist development extends beyond town lines in a more or less harmonious character.

Only in one area -- that of circulation patterns and traffic flows -- could any real danger exist. The communities to the west of Weston along Routes 20 and 117 will continue to use these routes in a more intensified manner. There are no immediate plans for relocating these routes or building any substitutes that might divert such traffic away from Weston. On the other hand, the extension of the Toll Turnpike to Boston with an interchange in Weston might attract more traffic to Weston. It would be necessary for the town to restructure its circulation pattern to escape such difficulties without disturbing its existing character.

B. PHYSICAL CHARACTERISTICS

In 1964 some 65% of the land area in the Town had been developed or held in public and semi-public ownership. Residential development constitutes some 54.5% of the developed land, institutions 28%, recreation 15% and the remaining 2.5% is used between industrial and business activities.

About 75% of the vacant land is suitable for urban development while 25% is either swampy or on steep slopes. Neither swamps nor slopes have had any dominant effect in discouraging development in Weston. Accordingly, if all the vacant land were devoted to future residences, the Town could "possibly" double its existing residential development but "probably" the increase would be closer to 70 to 75%. However, the densities measured in dwelling units per acre will not change drastically.

Based on the existing and potential size of the Town, the character and location of development, the points of interest as well as the natural or man-made features, eight neighborhoods could be logically delineated in the Town. The possible and probable capacity of each neighborhood to absorb future growth has been estimated.
C. POPULATION

Not only has the population of Weston increased in the past 50 years (1910-1960), but its rate of increase was climbing. In-migration, rather than natural increase, is more responsible for this population growth. The 'crude' birth rates are declining and the trend seems likely to persist in the sixties.

The comparison of the age structure of two successive censuses (1955 and 1960) indicates that more than half the increase in total population was gained in the under 20 age group coming from in-migrant children, local births and boarding students in that order. Net losses are experienced in the 20-35 male population.

The age characteristic of in-migrants shows a considerably higher percentage in the 0-19 and 35-44 age groups as compared to the same age groups in the 1955 and 1960 populations. When compared to other suburbs, there is in Weston a higher percentage of 10-14 years age group and 35-44 age groups and a lower percentage of the 30-34 age group indicating that the in-migrant family is relatively older than those who migrate to other suburbs, a fact accentuated by the larger, more expensive homes built in Weston.

The average family size declined substantially in the first five years of the fifties, but is showing a substantial increase since then. The Town-wide family size in 1960 was 3.69. The size of the in-migrant family of the 1955-1960 period averaged 4.5 persons and is likely to continue in the future due to the character of residential development prevailing in town.

Weston's future population (exclusive of institutional population) is expected to be 10,960 in 1970, 12,380 in 1975, and 13,585 in 1980, residing in some 2,770, 3,070, and 3,320 dwelling units respectively. Adding the institutional inmates would put the Town's population at 11,860, 13,430, and 14,785 in 1970, 1975 and 1980 respectively.

The "possible" ultimate capacity of the Town is about 4655 dwelling units quartering some 18,620 persons and an additional institutional inmates of 1200 bringing the total population to 19,820. The "probable" ultimate capacity is 4052 dwelling units quartering 16,210 persons resulting in a total population of 17,410.

D. ECONOMIC BASE

Local employment can hardly be considered an "economic base" for the Town because about 80% of the labor force seeks their employment outside Weston. Of the local employment, local government, construction and trade are the
highest in both numbers and wages.

The assessed valuation has been steadily dominated by real estate—mainly homes—and the Town is heavily dependent upon residential property as its tax-base. Diversification of the tax base can add strength to the Town's tax base—if it could be achieved without detriment to the existing Town's character.

The demand for more and higher quality services provided by the local government is increasing as expressed by the rise in the share of the Town budget raised from local taxes. The average family in Weston pays the highest local taxes—as compared with communities of similar character—although this represents a lower portion of its annual income. However, compared to the value of its property, Weston is a low tax town.

Weston's residents are mainly 'white-collar' with a large percent occupied in Professional and managerial categories. This is indicated also by a higher completed years of schooling and higher family incomes as compared to other similar communities or to the Boston S.M.S.A.
part two
Goals and Policies
VI. GOALS AND POLICIES

A. INTRODUCTION

1. Regional Implications

Within the context of the current comprehensive planning program, it is essential at this stage of the planning process to set forth goals and policies which appear to serve Weston's basic self-interest. However, the most fundamental problems of urbanization, such as transportation, housing, employment opportunities, economic obsolescence and open space show no respect for political boundary lines. The attempt of each community to maximize its own interests at the expense of all other communities can lead to needless friction at best and chaos at the worst. Weston's goals should then be tested against the forces at work within the region and in certain cases, revised accordingly. In other cases Weston's resources will enable the trends to be altered or arrested.

2. Planning: a Public Policy

Contrary to the popular conception, a "master" plan is not a static, fixed, idealized concept of a wholly new or rebuilt community to be implemented at some remote date. Rather it is the process of developing public policy. A "master" or comprehensive plan is a body of statements or recommendations on public policies which is both broad in scope and long-range in perspective, drawn as a framework for the guidance of Town officials and the community at large, and continually reviewed in the light of ever-changing conditions.

Moreover, the comprehensive plan has considerable impact on private property, for instance, in some cases offering protection against incompatible development, in some cases restricting the development potential of property to less than what the owner may desire, and in other cases providing data and indicating opportunities for private development which were not apparent previously.

The degree of agreement on goals and policies constitutes a distinct difference between "public" (governmental) and "private" planning. Because one of the major functions of government is to arbitrate the conflicting interests of individuals and groups in a pluralistic society, a consensus on objectives frequently is difficult to achieve. Therefore, the planning process is not necessarily safely removed from current "political" pressures.
3. **Consensus on the Goals and Policies**

But goals and policies cannot be set forth in a vacuum. In a democracy, public policy should represent a consensus of the governed. A variety of sources was utilized in drafting the goals and policy statements which follow. Included were discussions with the selectmen, town officials, and the various town committees, and the reading of the public press and other published materials about the Town by various civic organizations.

It is recognized that no one of the aforementioned sources provides a representative cross-section of the community. However, these collective sources seem to be adequate in view of the purposes of this report and the scope of the work program. The ultimate test of the goals and policies is the town meeting.

4. **From Goals to Policies to Proposals**

The planning process includes (1) broad general goals, (2) specific objectives or policies, and (3) detailed proposals to carry out the general goals and specific policies.

It might be considered more advisable to pass by a discussion of goals and policies in the interests of discussing more "practical" and specific matters. Invariably discussion of specific proposals bogs down on uncertainty as to basic objectives, or certain proposals, although sound in their own way, perhaps, are inconsistent with other proposals. Thus, in a planning program which purports to be comprehensive, policy statements and decisions evolve from the general to the particular. Each decision on a specific "practical" issue is contingent upon more general goals and policies previously agreed to and set forth. Thus, planning policies which, in many respects, are the heart of the comprehensive plan are very much dependent upon agreed goals.

a. **Goals**

Planning goals are the basic community objectives, are the highest level of public policy, and reflect as much general agreement of the community as possible. In practice, planning goals must reflect a balance between utopian desires and idealized aspirations on the one hand, and economic-technical feasibility and political reality on the other. Because human values tend to evolve slowly, and the impact of technological change on our way of life is gradual, goals can be considered as relatively fixed and permanent.
Example: Transportation Goal -- To provide efficient and safe communication for persons traveling in Weston between residential areas and employment centers, commercial areas and recreation areas with the minimum adverse effects upon residential areas.

b. Policies

Policies are the general guidelines or principles for the public actions that will achieve the stated goals and will alter or develop the physical environment. For the purposes of this report, they are grouped by subject area, such as land use, economic base and transportation.

Planning policies are more subject to change than goals. The forces at work in the region, such as technological change, population growth, transportation systems, or the incentives offered by inter-governmental grant-in-aid formulae may suggest changes in planning policies.

Example: Transportation Policy -- To separate local vehicular traffic from regional and town arterial traffic and to divert regional traffic away from residential and commercial areas.

c. Proposals

Proposals are the specific actions that will achieve stated goals and policies. They are the means, whereas goals and policies, are the ends. Because there are generally a number of ways of achieving each policy, proposals are quite flexible and might be modified frequently over the course of several years.

Example: Transportation Proposal -- Extend Conant Street through the presently undeveloped land in the fringe of the town center to connect with Wellesley Street.

B. GOALS

To repeat, planning goals are the most basic community objectives and are the highest level of public policy. They are considered to be relatively fixed and permanent.

1. Basic Goal

Preserve and enhance the present general character of Weston as an outstandingly attractive suburban residential community and protect it from adverse effects of urbanization and non-residential forms of land development.
2. **Regional Goal**

Assist Weston to become properly integrated into its region; cooperate with other cities and towns, state agencies, public authorities and private groups to the extent advisable to achieve the town's other goals; and resist any regional trends and influences substantially adverse to the town's efforts to achieve its other goals.

3. **Social Goal**

Accommodate further moderate population growth in a manner consistent with present characteristics of Weston.

4. **Physical Goal**

Reach realistic decisions about the future use of land, recognizing it as a scarce resource to be conserved rather than exploited; create and maintain a balance of land use activities compatible with and complementary to a predominantly residential community; provide a residential environment having the qualities of comfort, safety, convenience and aesthetic satisfaction; preserve and enhance the visual character and features of the natural and man-made physical environment and reduce or remove unsightly features from the community; and provide for orderly growth of the community while preserving and extending a measure of diversity among its neighborhoods.

5. **Public Service Goal**

Provide a high quality of education and other community facilities to fulfill the multiple needs of a citizenry with increasing amounts of leisure time; preserve the amenities associated with the town's open character; and strive for efficiency and reasonable cost without compromising quality.

6. **Transportation Goal**

Facilitate convenient and safe transportation in and through Weston with minimum adverse effects upon residential areas and strive for limited access, or by-pass, highways to accommodate regional transportation.

7. **Economic and Fiscal Goal**

Promote the sound economic development of the town and maintain and enhance a sound, economic basis of taxable property.
C. PLANNING POLICIES

1. Land Use Policies

   a. General:

      (1) Retain residential land use, and the public and semi-public
          uses which serve it, as the predominant land use.

      (2) Limit development of non-residential uses to those which
          serve the residents of Weston or provide tax revenue to
          the Town without detracting from its residential character.

      (3) Strive to insulate office, commercial and industrial uses,
          both existing and future, from residential areas.

      (4) Develop minimum standards of suitability for all uses and
          undertake a program of removing or modifying those struc-
          tures or conditions which do not meet the minimum standards.

      (5) Define and make provisions for the protection of areas of
          particular architectural or scenic character.

      (6) Strive for high quality of design of public buildings and
          spaces.

      (7) Adopt zoning provisions which will improve the design
          quality of structures, buildings, yards and parking and
          loading areas.

      (8) Improve the appearance of entrances to Weston.

   b. Residential:

      (1) Protect existing residential areas against depreciation in
          economic value or livability caused by incompatible uses
          or activities.

      (2) Establish the neighborhood system of child-centered recreational
          facilities to preserve desirability of residential areas.

      (3) Consider the construction of a limited number of apartment units --
          particularly to meet the needs of older residents -- in carefully
          selected areas and subject to strict aesthetic and functional
          controls.
(4) Maintain a suitable level of town services, such as sewer, water, and streets for all housing units in the Town.

(5) Resist conversion of one-and two-family houses into additional housing units.

(6) Achieve a high minimum standard of housing accommodations for all residents by the adoption or revision of appropriate codes and the encouragement of privately sponsored tax-paying rehabilitation or new construction with recourse to public ownership or assistance only when the basic needs of residents of the community for adequate housing cannot be satisfied in the private housing market.

c. Commercial:

(1) Concentrate commercial activities in the Town center and consider possibilities of a few neighborhood centers which would not compete with the existing center.

(2) Improve the appearance of retail centers and provide for the safety, comfort, and convenience of pedestrians.

(3) Insure that the impact of such uses as to appearance and operation does not detract from adjacent properties.

(4) Discourage "strip development" of such uses along arterial streets.

(5) Strengthen the commercial centers to serve the needs of Weston residents with easy and convenient access and adequate off-street parking and loading facilities.

(6) Prevent fragmentation of such major commercial areas by the intrusion or continued existence of unrelated uses such as residences.

(7) Allow auto-oriented and drive-in facilities and services only in locations which will not be detrimental to traffic flow or residential areas.

(8) Require ample off-street parking and loading areas for all such uses.
d. Industrial:

(1) Consider industrial development in areas which will be well isolated from, and will have minimum adverse effects on residential, public, institutional, or commercial use areas.

(2) Prevent fragmentation of such industrial areas by the intrusion of unrelated uses such as residential or minor commercial uses.

(3) Require that industrial use areas are provided with ample off-street parking and loading areas.

2. Community Facilities Policies

a. Schools

(1) Continue a centralized elementary school system allowing administrative flexibility in using school grounds and buildings.

(2) Adopt a centralized secondary school system if feasible in the face of expected increase in enrollments, and if the existing Junior High School could be properly used for elementary purposes.

b. Recreation and Open Space

(1) Preserve open character and natural setting wherever possible in the remaining undeveloped areas of the town and encourage conservation and reclamation of the Town's natural resources in all suitable areas of the Town.

(2) Provide facilities for a recreation program to meet the needs of all ages by a continued system of neighborhood recreation facilities for younger children and centralized recreation facilities for teen-age children and adults.

(3) Establish a network of pedestrian trails and green linkage between major recreational and educational facilities.

c. Other Town Facilities

(1) Anticipate the Town's needs for all future land and buildings and acquire or retain land as soon as possible for such purposes.
(2) Develop and maintain standards and programs for the rehabilitation or replacement of Town buildings and facilities.

d. Private Institutions

(1) Encourage further development of educational institutions because of the possible contributions they might make to Weston's cultural life.

(2) Concentrate further institutional development on land presently owned or controlled by the institutions in view of their generally tax-exempt status.

(3) Encourage any further development of educational institutions to maintain suitable aesthetic and functional standards.

3. Transportation and Circulation Policies

(1) Separate local vehicular traffic from regional and Town arterial traffic where practicable and divert regional traffic away from residential and commercial areas.

(2) Expedite the passage of regional traffic through the Town on a few major arteries, control land development along those arteries and restrict access to them to maintain their carrying capacity.

(3) Accommodate the efficient movement of traffic within Town along designated arterial streets with ample off-street parking and loading areas for the convenience and safety of Town residents.

(4) Work for the continuation of railroad service, or in the event of its discontinuance, the extension of transit service from the core of the metropolitan area to locations readily accessible to Weston residents.

(5) Work for a level of public bus service adequate for the needs of Town residents and institutions.

(6) Maintain and improve access to the regional highway and transit networks.

(7) Develop adequate standards for off-street parking and loading for all land use activities in all parts of Town.
4. **Fiscal Policies**

(1) Maintain a wise local expenditure level consistent with the quality of service demanded by the Town's residents to conserve the decreasing tax base potential.

(2) Continue and refine the six-year public improvements program to be reviewed and updated annually.

(3) Favor "pay-as-you-go", self-liquidating, and shorter term financing arrangements whenever practicable.

(4) Conserve the present tax base and expand it only in a manner consistent with Weston's goals.

(5) Encourage financial participation in community costs by institutional land users, and strive to secure tax payments or tax-equivalent contributions in instances where such land users expand or develop beyond their present holdings.

5. **Planning Standards**

Standards are a type of measurement, and in many respects represent policy determinations. Some standards can be relatively precise and are not disputable. For instance, dimensions for parking stalls are dependent upon the width, length and turning radius of the automobiles currently in use. Other so-called standards, such as the number of acres of recreation space per 1,000 people, or the number of pupils per classroom, can be flexible and depend upon a number of values and policy considerations. For the latter type of "standard", it is advisable that the standard be adjusted and tailored to fit the particular needs and resources of the Town and in particular the level and quality of services desired by the residents of Weston.

Thus, the preparation of planning standards is properly an element in the policies section. It seems advisable, though, to establish specific local planning standards in the sections of the Report dealing directly with the analysis of the various proposals for planning action in part three.
part three
Development Plans
VII. SCHOOLS

A. INTRODUCTION

Closely correlated with the population growth of a town is its need for expanding public facilities, in particular, the schools. In cases where towns are growing rapidly, the school building problem can cause a severe and acute crisis; but even in cases where the population growth is slow, the need for the orderly and gradual expansion of facilities is essential.

This Chapter is concerned primarily with the location and size of future schools, sites, and playgrounds, so that additions to the school system may be well coordinated with the overall development of the Town. Past enrollments are analyzed and future enrollments as estimated by the School Committee are reviewed. Existing facilities are surveyed. Accordingly, space requirements are based upon past and present policies in regard to design features of the school system and upon the projected ultimate population.

B. ENROLLMENTS: TRENDS AND PROJECTIONS

1. Significance

Enrollments, past and future, are an annual and continuing subject of study by the school administration. The Master Plan Study, being of a general nature, provides a broad base for a detailed analysis of enrollment projections. Projections are based upon the estimated future population as well as other data from the Inventory Analysis. Using these data it is possible to examine past and future enrollments in respect to the character and amount of land development, the trends in population and the overall growth potential.

2. Past Trends

   a. Enrollment as Related to Population

   Table VII-1 relates enrollment to population. Since 1955 the portion of the Town's population enrolled in public schools has been climbing and has averaged 27.0%. With an aging population and declining birth rates, the increases in enrollment percentages could only be attributed to the in-migrant population.
<table>
<thead>
<tr>
<th></th>
<th>Population*** No.</th>
<th>K No.</th>
<th>%</th>
<th>1 No.</th>
<th>%</th>
<th>1-6 No.</th>
<th>%</th>
<th>7-8 No.</th>
<th>%</th>
<th>9-12 No.</th>
<th>%</th>
<th>7-12 No.</th>
<th>%</th>
<th>Total K-12 No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>5593</td>
<td>116</td>
<td>2.1</td>
<td>133</td>
<td>2.4</td>
<td>801</td>
<td>14.3</td>
<td>213</td>
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<td>305</td>
<td>5.4</td>
<td>518</td>
<td>9.2</td>
<td>1435</td>
<td>25.6</td>
</tr>
<tr>
<td>1956</td>
<td>6179</td>
<td>133</td>
<td>2.1</td>
<td>129</td>
<td>2.1</td>
<td>881</td>
<td>14.2</td>
<td>241</td>
<td>3.9</td>
<td>322</td>
<td>5.2</td>
<td>563</td>
<td>9.1</td>
<td>1577</td>
<td>25.4</td>
</tr>
<tr>
<td>1957</td>
<td>6651</td>
<td>147</td>
<td>2.2</td>
<td>166</td>
<td>2.5</td>
<td>915</td>
<td>13.8</td>
<td>276</td>
<td>4.1</td>
<td>378</td>
<td>5.7</td>
<td>654</td>
<td>9.8</td>
<td>1716</td>
<td>25.8</td>
</tr>
<tr>
<td>1958</td>
<td>6998</td>
<td>151</td>
<td>2.2</td>
<td>166</td>
<td>2.4</td>
<td>967</td>
<td>13.8</td>
<td>307</td>
<td>4.4</td>
<td>394</td>
<td>5.6</td>
<td>701</td>
<td>10.0</td>
<td>1819</td>
<td>26.0</td>
</tr>
<tr>
<td>1959</td>
<td>7236</td>
<td>160</td>
<td>2.2</td>
<td>189</td>
<td>2.6</td>
<td>995</td>
<td>13.8</td>
<td>319</td>
<td>4.4</td>
<td>448</td>
<td>6.2</td>
<td>767</td>
<td>10.6</td>
<td>1922</td>
<td>26.6</td>
</tr>
<tr>
<td>1960</td>
<td>7525</td>
<td>161</td>
<td>2.1</td>
<td>205</td>
<td>2.7</td>
<td>1036</td>
<td>13.8</td>
<td>352</td>
<td>4.7</td>
<td>501</td>
<td>6.6</td>
<td>853</td>
<td>11.3</td>
<td>2050</td>
<td>27.2</td>
</tr>
<tr>
<td>1961</td>
<td>7879</td>
<td>161</td>
<td>2.0</td>
<td>202</td>
<td>2.6</td>
<td>1091</td>
<td>13.9</td>
<td>350</td>
<td>4.5</td>
<td>556</td>
<td>7.1</td>
<td>906</td>
<td>11.6</td>
<td>2158</td>
<td>27.5</td>
</tr>
<tr>
<td>1962</td>
<td>8251</td>
<td>199+</td>
<td>2.4</td>
<td>182</td>
<td>2.2</td>
<td>1153</td>
<td>14.0</td>
<td>347</td>
<td>4.2</td>
<td>637</td>
<td>7.7</td>
<td>984</td>
<td>11.9</td>
<td>2336</td>
<td>28.3</td>
</tr>
<tr>
<td>1963</td>
<td>8596</td>
<td>190+</td>
<td>2.2</td>
<td>227</td>
<td>2.6</td>
<td>1260</td>
<td>14.6</td>
<td>363</td>
<td>4.2</td>
<td>681</td>
<td>7.9</td>
<td>1044</td>
<td>12.1</td>
<td>2494</td>
<td>28.9</td>
</tr>
<tr>
<td>1964</td>
<td>8958</td>
<td>200+</td>
<td>2.2</td>
<td>205</td>
<td>2.3</td>
<td>1293</td>
<td>14.4</td>
<td>406</td>
<td>4.5</td>
<td>679</td>
<td>7.6</td>
<td>1071</td>
<td>11.9</td>
<td>2564</td>
<td>28.7</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.17</td>
<td>2.44</td>
<td></td>
<td>14.06</td>
<td></td>
<td>4.27</td>
<td></td>
<td>6.50</td>
<td></td>
<td>10.75</td>
<td></td>
<td>27.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* As of October 1
** Population residing in dwelling units (excluding institutions)
*** Estimates - see Table III-11
+ Including 16, 18, and 10 transitional pupils in 1962, 1963, and 1964

Source: Superintendent of Schools
The typical in-migrant family since 1955 has been larger in size than the 1955 town-wide family with more school age children -- on both the elementary and secondary level -- than pre-school children. On the average every 100 in-migrants formed roughly 19 families and were 11, 19, 15 and 11 children in the 0-4, 5-9, 10-14 and 15-19 age groups respectively as shown in Table III-4. Thus, the impact of the in-migrant family on school enrollment in this period was felt sooner-- following their moving into Town -- in contrast to the situation in other suburbs where in-migrant families are relatively younger, thus contributing to the increase in births which in turn affect school enrollments 5 to 6 years later.

The percent of Weston population enrolled in the elementary schools has been decreasing from a high of 16.4 in 1955 until it reached 15.9 in 1960 and 1961. It rose to 16.4, 16.8 and 16.6 in 1962, 1963 and 1964 respectively due to the impact of larger in-migrant families of the post-1955 period.

The percentage of population enrolled in secondary schools rose from 9.3 in 1955 to 12.1 in 1963 and then dropped to 11.9 in 1964. In grades 7-8 there was a persisten increase until 1961, a drop between 1961-1963 and an increase in 1964. In grades 9-12 the increase continued through 1963 with a slight drop in 1964. These drops have understandably occurred, respectively, some 6 and 8 years later than the drops in the elementary levels. However, their duration was and would not be expected to last for five or six years, as it was in the elementary grades, due to the fact that the typical in-migrant family since 1955 has contributed immediately to the secondary enrollments, thus off-setting the effect of fewer elementary pupils being promoted to the secondary grades.

b. Enrollment as Related to Dwelling Units

Table VII-2 relates yearly enrollment to the number of occupied dwelling units. Comparing Table VII-1 and Table VII-2, it is clear that the total public school pupils (at the elementary junior and senior level) generated by an average of 100 dwelling houses have been increasing at a faster rate (25.5% over the whole period) than the increase in the portion of population enrolled in public schools (11.3%). This is because the average household size has been increasing in the same period. While the household size might continue to increase in the short-run future, it is expected to level off in the long-run future.
<table>
<thead>
<tr>
<th>Year</th>
<th>Dwelling Units*</th>
<th>K</th>
<th>Elementary 1</th>
<th>1-6</th>
<th>Secondary Junior 7-8</th>
<th>Senior 9-12</th>
<th>Total 7-12</th>
<th>Total K-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>1640</td>
<td>7.1</td>
<td>8.1</td>
<td>49.0</td>
<td>13.0</td>
<td>18.6</td>
<td>31.6</td>
<td>87.7</td>
</tr>
<tr>
<td>1956</td>
<td>1766</td>
<td>7.5</td>
<td>7.3</td>
<td>49.8</td>
<td>13.6</td>
<td>18.2</td>
<td>31.8</td>
<td>89.1</td>
</tr>
<tr>
<td>1957</td>
<td>1865</td>
<td>7.9</td>
<td>8.9</td>
<td>49.1</td>
<td>14.8</td>
<td>20.2</td>
<td>35.0</td>
<td>92.0</td>
</tr>
<tr>
<td>1958</td>
<td>1934</td>
<td>7.8</td>
<td>8.6</td>
<td>50.0</td>
<td>15.9</td>
<td>20.3</td>
<td>36.2</td>
<td>94.0</td>
</tr>
<tr>
<td>1959</td>
<td>1981</td>
<td>8.1</td>
<td>9.5</td>
<td>50.2</td>
<td>16.1</td>
<td>22.6</td>
<td>38.7</td>
<td>97.0</td>
</tr>
<tr>
<td>1960</td>
<td>2038</td>
<td>7.9</td>
<td>10.1</td>
<td>50.8</td>
<td>17.3</td>
<td>24.6</td>
<td>41.9</td>
<td>100.6</td>
</tr>
<tr>
<td>1961</td>
<td>2110</td>
<td>7.6</td>
<td>9.6</td>
<td>51.8</td>
<td>16.6</td>
<td>26.4</td>
<td>43.0</td>
<td>102.4</td>
</tr>
<tr>
<td>1962</td>
<td>2188</td>
<td>9.1</td>
<td>8.3</td>
<td>52.7</td>
<td>15.9</td>
<td>29.1</td>
<td>45.0</td>
<td>106.8</td>
</tr>
<tr>
<td>1963</td>
<td>2261</td>
<td>8.4</td>
<td>10.0</td>
<td>55.6</td>
<td>16.0</td>
<td>30.0</td>
<td>46.0</td>
<td>110.0</td>
</tr>
<tr>
<td>1964</td>
<td>2340</td>
<td>8.6</td>
<td>8.8</td>
<td>55.4</td>
<td>17.4</td>
<td>28.5</td>
<td>45.9</td>
<td>109.9</td>
</tr>
</tbody>
</table>

* Estimates - see Table III-11

Source: Table VII-1

c. Enrollment in First Grade as Related to Births and In-migrants

Pupils enrolled in the first grade are those; (1) born 6 years previous to year of enrollment, (2) children less than 1 year old of in-migrant population 6 years previously, (3) children 1 year old of in-migrant population 5 years previously, (4) children 2 years old of in-migrant population 4 years previously, (5) children 3 years old of in-migrant population 3 years previously, (6) children 2 years old of in-migrant population of 2 years before, (7) children 5 years old of the in-migrant population of 1 year before, and (8) children 6 years old of the in-migrant population of the same year (from January to September).
The percentage breakdown by 5-year age group of in-migrant population (as shown in Table III-4 of the Population Analysis) suggests an approximate breakdown by every age as follows:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1 years</td>
<td>0.5%</td>
</tr>
<tr>
<td>1-2 years</td>
<td>1.3%</td>
</tr>
<tr>
<td>2 - 3 years</td>
<td>2.2%</td>
</tr>
<tr>
<td>3 - 4 years</td>
<td>2.7%</td>
</tr>
<tr>
<td>4 - 5 years</td>
<td>3.7%</td>
</tr>
<tr>
<td>5 - 6 years</td>
<td>3.8%</td>
</tr>
<tr>
<td>6 - 7 years</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

Comparing actual first grade enrollments with enrollment as computed on this basis in Table VII-3 shows clearly that a relationship between 1.14:1 and 1.27:1 is established. Experience in other communities shows that this ratio approaches the higher limit in years of rapid growth and the lower limit in years of slow growth. This could be reasonably used for enrollment projections in the near future.

3. Ultimate Enrollment

The ultimate school enrollment, that is, enrollments at the time when the Town reaches its ultimate population, provides the long-range framework within which decisions for the future location and the capacity of a school can be made.

The 'ultimate' school enrollment in various grade-groups is determined by the following factors:

(a) the ultimate population of the Town,
(b) the percent of that population under 18 years of age,
(c) the portion of this age group enrolled in public schools and
(d) the percent of such enrollment in different grade groups.

a. The Ultimate Population

Chapter III has found that the ultimate population of the Town, based on the availability of land for development and the existing zoning policies, would range from 16,210 persons (probable) to 18,620 persons (possible).
<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>In-migrants 6-7</th>
<th>In-migrants 5-6</th>
<th>In-migrants 4-5</th>
<th>In-migrants 3-4</th>
<th>In-migrants 2-3</th>
<th>In-migrants 1-2</th>
<th>In-migrants 0-1</th>
<th>Births</th>
<th>First Grade Enrollments</th>
<th>Year of Computed Actual Factor Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>533</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>16</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>110</td>
<td>159</td>
<td>182 .1.14</td>
</tr>
<tr>
<td>1957</td>
<td>410</td>
<td>16</td>
<td>16</td>
<td>15</td>
<td>12</td>
<td>9</td>
<td>5</td>
<td>2</td>
<td>137</td>
<td>187</td>
<td>227 .1.21</td>
</tr>
<tr>
<td>1958</td>
<td>265</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>108</td>
<td>161</td>
<td>205 .1.27</td>
</tr>
<tr>
<td>1959</td>
<td>180</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>137</td>
<td></td>
<td></td>
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<tr>
<td>1960</td>
<td>205</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>119</td>
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<td>11</td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>109</td>
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<td></td>
</tr>
<tr>
<td>1962</td>
<td>320</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>310</td>
<td>12</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964</td>
<td>342</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) As estimated in Table III-11 Column (6) of the Population Report  
(2) Through (8) distribution percentages applied to column (1)  
(9) Annual Town Report: and Table III-2 of the Population Report  
(10) Summation following dotted line  
(11) Superintendent of Schools  
(12) Column (11) divided by column (10). The average of the three years is 1.2
b. Percent of the Population under 18 Years

Table VII-4 shows the percentage of persons under 18 years old within the total population for various statistical areas in the Commonwealth.

The figures shown for Weston are for the persons under 19 years of age. If these are adjusted for the persons under 18 years, the percentage of this group in the Town would still be higher than in the larger areas cited. This is due in part to the high proportion of recent, large immigrant families. However, as the 'suburban boom' fills the developable land and the population approaches its ultimate size, it is probable that the age distribution will begin to approach the average for the larger areas. It is not unreasonable, therefore, to expect that approximately 35% of the population will be under 18 years of age.

<table>
<thead>
<tr>
<th>TABLE VII-4 PERCENTAGE OF POPULATION UNDER 18 YEARS OF AGE</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth of Massachusetts</td>
<td>33.2</td>
</tr>
<tr>
<td>Urban Fringe</td>
<td>33.6</td>
</tr>
<tr>
<td>Urban Settlements</td>
<td>34.2</td>
</tr>
<tr>
<td>(2,500 - 10,000)</td>
<td></td>
</tr>
<tr>
<td>Weston *</td>
<td>40.4</td>
</tr>
</tbody>
</table>

* Population under 19 years

Source: U. S. Census - 1960

c. The Portion of the Under-18-Years-of-Age Group Enrolled in Public Schools

The ratio of pupil enrollments to the under-18-years-of-age group varies from year to year. However, prior population studies and analyses show that an average of about two-thirds of this age group is enrolled in school. This gives the figures of 3,900 pupils as the probable and 4,500 pupils as the possible enrollments. (These figures represent about 24% of the ultimate Town population cited above.)

d. Percent of Enrollment in Different Grade Groups

If the enrollment divides equally by grade into kindergarten, elementary (1-6), junior high (7-8) and senior high (9-12) the enrollments
### TABLE VII-5 PERCENTAGE DISTRIBUTION OF ENROLLMENT BY GRADE GROUPS 1955-1964

<table>
<thead>
<tr>
<th>Year</th>
<th>Elementary K</th>
<th>1-6</th>
<th>Junior 7-8</th>
<th>Senior 9-12</th>
<th>Total K-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>8.1</td>
<td>55.8</td>
<td>14.8</td>
<td>21.3</td>
<td>100.0</td>
</tr>
<tr>
<td>1956</td>
<td>8.4</td>
<td>55.9</td>
<td>15.3</td>
<td>20.4</td>
<td>100.0</td>
</tr>
<tr>
<td>1957</td>
<td>8.6</td>
<td>53.3</td>
<td>16.1</td>
<td>22.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1958</td>
<td>8.3</td>
<td>53.2</td>
<td>16.8</td>
<td>21.7</td>
<td>100.0</td>
</tr>
<tr>
<td>1959</td>
<td>8.3</td>
<td>51.8</td>
<td>16.6</td>
<td>23.3</td>
<td>100.0</td>
</tr>
<tr>
<td>1960</td>
<td>7.9</td>
<td>50.4</td>
<td>17.2</td>
<td>24.5</td>
<td>100.0</td>
</tr>
<tr>
<td>1961</td>
<td>7.4</td>
<td>50.6</td>
<td>16.2</td>
<td>25.8</td>
<td>100.0</td>
</tr>
<tr>
<td>1962</td>
<td>8.5</td>
<td>49.4</td>
<td>14.9</td>
<td>27.2</td>
<td>100.0</td>
</tr>
<tr>
<td>1963</td>
<td>7.6</td>
<td>50.5</td>
<td>14.6</td>
<td>27.3</td>
<td>100.0</td>
</tr>
<tr>
<td>1964</td>
<td>7.8</td>
<td>50.4</td>
<td>15.8</td>
<td>26.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Average</td>
<td>8.1</td>
<td>53.1</td>
<td>15.8</td>
<td>24.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Superintendent of Schools

### TABLE VII-6 ULTIMATE PUBLIC SCHOOL ENROLLMENT BY GRADE GROUPS

<table>
<thead>
<tr>
<th></th>
<th>Elementary K</th>
<th>1-6</th>
<th>Junior 7-8</th>
<th>Senior 9-12</th>
<th>Total K-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Distribution of K-12 Enrollment in Percent</td>
<td>7.7</td>
<td>46.1</td>
<td>15.4</td>
<td>30.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Enrollments**

- Based on Probable Population: 300, 1,800, 600, 1,200, 3,900
- Based on Possible Population: 350, 2,080, 690, 1,380, 4,500

**Probable Enrollment**

- In percent of total Population: 1.8%, 11.1%, 3.7%, 7.4%, 24.0%
- Per 100 dwelling units: 7.4%, 44.4%, 14.8%, 20.6%, 96.2%

* For ultimate population and dwelling units see Table III-12
<table>
<thead>
<tr>
<th></th>
<th>K-6</th>
<th>7-8</th>
<th>9-12</th>
<th>Total K-12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio*</td>
<td>Enrollment</td>
<td>Ratio*</td>
<td>Enrollment</td>
</tr>
<tr>
<td>1965</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop.</td>
<td>16.6</td>
<td>1,550</td>
<td>4.5</td>
<td>420</td>
</tr>
<tr>
<td>D.U.</td>
<td>64</td>
<td>1,550</td>
<td>18</td>
<td>435</td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop.</td>
<td>16.0</td>
<td>1,750</td>
<td>4.7</td>
<td>515</td>
</tr>
<tr>
<td>D.U.</td>
<td>62</td>
<td>1,720</td>
<td>19</td>
<td>525</td>
</tr>
<tr>
<td>1975</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop.</td>
<td>15.0</td>
<td>1,860</td>
<td>4.7</td>
<td>580</td>
</tr>
<tr>
<td>D.U.</td>
<td>59</td>
<td>1,810</td>
<td>19</td>
<td>585</td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop.</td>
<td>14.0</td>
<td>1,900</td>
<td>4.5</td>
<td>615</td>
</tr>
<tr>
<td>D.U.</td>
<td>56</td>
<td>1,860</td>
<td>18</td>
<td>600</td>
</tr>
</tbody>
</table>

* Ratio for (1) is % of population enrolled in public schools
* Ratio for (2) is number of pupils generated by 100 dwelling units

(1) Column 10 of Table III-12
(2) Column 4 of Table III-12
should run uniformly 7.7%, 46.1%, 15.4% and 30.8% respectively. In actuality, the percentages are somewhat higher at the elementary level. Table VII-5 shows that the averages of the past 10 year enrollment were 8.1%, 53.1%, 15.8% and 24.0% for the above school grade groups respectively. While the percentages of kindergarten and elementary enrollments have been decreasing, secondary school enrollment has been increasing at a fast rate. The 1964 figures give percentages of 7.8, 50.4, 15.8 and 26.0 respectively. It is reasonable to expect that when Weston reaches its ultimate population these percents will tend to be very near the theoretical percentages of equal enrollment by grade. For the ultimate projections, the theoretical distribution gives figures as shown in Table VII-6.

4. Enrollment Through 1980

Short-run enrollment projections for a suburban community can be made by either one of two general techniques:

(1) relation to future population and/or dwelling units, based on past trends and the projection of such relationships and

(2) survival method, by estimating 1st grade enrollments and following each grade enrollment through school, using assumptions for birth rates, death rates, in-migration and drop-outs converted via past trends to survival factors.

a. Enrollment Estimates as Related to Population and Dwelling Units

The curves representing school enrollments as percentages of population and numbers of pupils generated by 100 dwelling units have been established on Plate VII-1. The percentages and numbers of pupils are then derived for 1965, 1970, 1975 and 1980. These are then applied to projected population and dwelling units as taken from Table VI-12 of the Population Report thus yielding enrollments as shown in Table VII-7 and on Plate VII-2.

This technique may be reliable, if population is projected with accuracy, and if relationships such as the percent of enrollment to population or dwelling units can be established, based on past trends as well as the ability to foresee future changes in these trends. With expected declining building rates and declining birth rates in Weston it would be reasonable to expect a drop in the percent of population enrolled in elementary schools and in the number of elementary pupils generated
by 100 dwelling units. Thus, the elementary curve should start tapering immediately until it reaches the number based on ultimate population somewhere around the year 2000. The junior high enrollment curve could be expected to rise for some two years before changing its direction while the senior high enrollment curve could continue to rise for some six years before dropping.

b. School Committee Projections

In its estimates for future enrollments in Table VII-8 the School Committee utilized the 'survival ratio' method. This technique is based principally on historic trends derived from grade enrollments over certain periods of time and presumes that all factors related to enrollment over this period will remain constant during the period of projection. However, it does not analyze separately factors that affect enrollment such as age-specific migration, birth rates and number of births and related factors.

<table>
<thead>
<tr>
<th>TABLE VII-8</th>
<th>ANALYSIS OF WESTON SCHOOL COMMITTEE ENROLLMENT ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K</td>
</tr>
<tr>
<td>1965 Enrollment</td>
<td>(1)</td>
</tr>
<tr>
<td>% of Population</td>
<td>(2)</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>(3)</td>
</tr>
<tr>
<td>1970 Enrollment</td>
<td>(1)</td>
</tr>
<tr>
<td>% of Population</td>
<td>(2)</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>(3)</td>
</tr>
<tr>
<td>1975 Enrollment</td>
<td>(1)</td>
</tr>
<tr>
<td>% of Population</td>
<td>(2)</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>(3)</td>
</tr>
</tbody>
</table>

(1) Weston School Committee
(2) Enrollment as percent of population as in Table III-12 Column 10
(3) Enrollment per 100 dwelling units as in Table III-12 Column 4

c. Enrollment Estimates as Related to Births and In-migration

Estimation of first grade enrollments through 1980 for the previously projected building rates was based on the findings of Tables III-12 and VII-3. Accordingly, the number of first grade pupils generated by 100 dwelling units was found to climb to about .6 in 1965 and
then to decline to about 6.3, 5.9 and 5.8 pupils in 1970, 1975 and 1980 respectively. As related to population, first grade enrollment is following the same trend: 2.49% in 1965, 1.59% in 1970, 1.46% in 1975 and 1.41% in 1980.

Enrollments in kindergarten could be derived in a similar way as first grade enrollments by relating them to births and in-migrants although the presence of private nursery schools in the Town and the preference of some parents for their children to attend such schools make it difficult to estimate such enrollments with accuracy. However, since 1955 kindergarten enrollment has averaged some 90 to 95% of first grade enrollments, it is reasonable to assume this trend will continue, thus becoming the basis for estimating kindergarten enrollments.

Enrollments for every other grade were then based on a 100% class survival (all pupils in one grade to be transferred to the next grade in the following year). Added to them was the proportion of in-migrants in the age group that is likely to enroll in that elementary grade.

Kindergarten and elementary enrollments generated by 100 dwelling units were found to be rising to 65.5 pupils in 1965 and declining thereafter to 54.0, 44.5 and 42.2 in 1970, 1975 and 1980 respectively. As related to population for the years above, the percentages are 17.0, 13.7, 11.1 and 10.3 respectively.

Secondary school enrollment generated by 100 dwelling units was found to be rising to 49.2 pupils in 1965, reaching a peak of 59.2 (five years later than the elementary peak) in 1970 and tapering thereafter to 54.2 and 43.0 in 1975 and 1980 respectively.

Table VII-9 summarizes enrollments by grade groupings through 1980. Enrollments derived by this method usually overcome the deficiencies of the "class-survival technique" which is based only on past trends. The above method takes into consideration the effects of in-migration as well as the births and thus overcomes any underestimates resulting from a sudden building boom, or overestimates because of the slowing down of building activities.

However, this technique depends on too many assumptions. Since the first grade enrollment, upon which the whole projection would be based, consists of the future births and the children of in-migrants, and since those cannot be accurately predicted, results derived from this method are liable to contain certain accumulated errors.
Therefore, it is felt that school enrollments derived by this method could be relatively more reliable when used for short-range projections (say 5 year periods). These results, when checked periodically, would give a constant up-dating and point of control.

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>1-6</th>
<th>7-8</th>
<th>9-12</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment</td>
<td>216</td>
<td>1,370</td>
<td>441</td>
<td>749</td>
<td>2,776</td>
</tr>
<tr>
<td>% of Population</td>
<td>2.3</td>
<td>14.7</td>
<td>4.7</td>
<td>8.0</td>
<td>29.7</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>9.0</td>
<td>56.5</td>
<td>18.2</td>
<td>31.0</td>
<td>114.7</td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment</td>
<td>161</td>
<td>1,341</td>
<td>552</td>
<td>1,085</td>
<td>3,139</td>
</tr>
<tr>
<td>% of Population</td>
<td>1.4</td>
<td>12.3</td>
<td>5.0</td>
<td>9.9</td>
<td>28.6</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>6.0</td>
<td>48.0</td>
<td>20.0</td>
<td>39.2</td>
<td>113.2</td>
</tr>
<tr>
<td>1975</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment</td>
<td>170</td>
<td>1,200</td>
<td>477</td>
<td>1,190</td>
<td>3,037</td>
</tr>
<tr>
<td>% of Population</td>
<td>1.4</td>
<td>9.7</td>
<td>3.9</td>
<td>9.6</td>
<td>24.6</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>5.5</td>
<td>39.0</td>
<td>15.5</td>
<td>38.7</td>
<td>98.7</td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment</td>
<td>181</td>
<td>1,219</td>
<td>452</td>
<td>975</td>
<td>2,827</td>
</tr>
<tr>
<td>% of Population</td>
<td>1.3</td>
<td>9.0</td>
<td>3.3</td>
<td>7.2</td>
<td>20.8</td>
</tr>
<tr>
<td>Enroll./100 d.u.</td>
<td>5.6</td>
<td>36.6</td>
<td>13.6</td>
<td>29.4</td>
<td>85.2</td>
</tr>
</tbody>
</table>

---

d. Appraisal

All estimates are vulnerable since changes may occur in trends over the period of projection. Some projection methods, however, are more flexible in application and permit the introduction of additional data, thereby adjusting trend lines to reflect likely enrollments.

The projection techniques of relating enrollments to population or dwelling units and those utilizing the survival ratio method implicitly take into consideration the aforementioned factors which affect enrollment. However, they do not separately analyze these factors. In cases where towns are continuing to grow or decline in relatively steady rates, they are apt to give fairly good results. Weston is on the threshold of a changing trend: a slow-down of growth due to a decline in building rates, further complicated by a drop in the percentage of the child-bearing population and a decline in birth rates. In such a case,
extrapolation of past trends certainly yields high projections. Techniques based on utilizing these changes in trends -- as the birth-in-migrant method -- are apt to give a more accurate picture, at least in direction, if not in magnitude.

Therefore, the school plan will be based on the estimates derived by the latter technique. Accordingly, elementary enrollment would reach a peak by 1967, with numbers that would not appear again long before the late eighties. Peaks in junior high enrollments and senior high enrollments will occur later -- about six and eight years respectively.

C. THE SCHOOL PLAN

1. Criteria for Space and Location Requirements

To determine the school building needs in terms of size, location and time, certain standards or criteria are normally considered and policies regarding them defined. Although Weston has a generally clear-cut position on most of these criteria, they are listed and discussed for orientation and clarification purposes.

a. Centralized vs. Neighborhood Schools

There are generally two alternative schemes for school location. One is to distribute schools geographically in the Town's neighborhoods and the other is to concentrate its facilities in a central campus. The first system might give a chance of combining education with recreation facilities -- neighborhood parks and playgrounds -- in neighborhood centers at walking distance of population concentrations. However, because of neighborhood's age cycle and their uneven growth, it presents the problem of less freedom in distributing the classes among the different grades which results in wide deviations in the number of students in a class and less efficiency in utilizing available physical space.

On the other hand, the centralized system which Weston has adopted, allows the use of grounds and buildings efficiently, and permits more flexibility in distributing students and teachers and in offering various educational programs. The policy of providing not-to-big, separate schools within the campus eliminates any psychological deterrent effects of the large school on the child. These educational benefits override the cost of transportation (school bussing) on which this system relies.
b. Average Number of Students per Classroom

Since 1962 the upper and lower limits of class size for all grades in Weston’s school system have been established by the School Committee with the advice of the School Superintendent and his staff. These limits represent best professional knowledge and are tempered by the willingness of Weston residents with due consideration to local tradition as well as the current status of public opinion. Such limits are adhered to more closely as the number of sections at any grade level or in any course increases. In the secondary schools, class enrollments are allowed to rise slightly above or fall below established limits where highly desirable organizational pattern necessitates such an action or in case of developmental, experimental advanced or unpopular courses.

In October 1962 the average class sizes were 23.9 at the kindergarten level; 27.6 in the elementary (1-6) grades; 26.7 in grades 7 and 8; and 22.0 in grades 9 through 12. An average of 25 pupils per classroom is therefore adopted for elementary and junior secondary facilities. The use of a standard of 25 pupils per classroom refers to an average for the entire system. Individual classes may vary above or below these figures. The use of this standard is to establish the number of rooms needed and to predict when they will be needed.

c. Grades Served by Schools

There are many ways of designing and organizing a town-wide school plant to serve the Town's total enrollment for all grades K through 12. In terms of kindergarten, elementary and secondary (junior and senior high school) grades, commonly used systems are K-6-4, K-6-3, K-6-2-4, K-6-6 and K-5-3-4. Variations of these are occasionally found depending on existing local conditions.

Although the existing school system in Weston follows a K-6-2-4 pattern, the school committee does not require a strict adherence to such distribution if enrollment by grade groups would necessitate a slightly different pattern. It is felt that a K-5-3-4 might as well meet the educational requirements. However, a separation between the junior and senior secondary pupils of different age groups is required.

d. School Size

For economic and educational benefits, the Massachusetts School Building Assistance Commission and the U. S. Department of Health, Education and Welfare are in agreement that an elementary school
should provide for at least two sections for each grade, a minimum of 12 elementary school classrooms and one kindergarten, housing between 300 and 400 children. In cases where the population is sufficiently concentrated, a school with three classrooms for each elementary grade plus two kindergarten rooms is considered ideal. In similar fashion this would serve between 500 and 600 children.

Secondary schools should be larger in size than elementary schools, in order that science areas and similar facilities can be provided economically and used efficiently. A minimum of 500 students per junior high school and 750 per senior high school is generally accepted.

e. Site Acreage and Location

The Massachusetts School Building Assistance Commission has established as a guide for the size of sites the following area standards:

Elementary schools -- 5 acres plus 1 acre for each 100 pupils

Secondary schools -- 10 to 15 acres plus 1 acre for each 100 pupils

These criteria are presented as a guide not a goal or a minimum. It is important that school sites should be chosen large enough to house adequately planned future expansion as well as outdoor physical education.

Location near adult recreational facilities also permits the use of the school grounds as a community center. Sites near commercial areas, heavily traveled roads and grade crossings are discouraged.

In a neighborhood school system the desirable walking distance ranges between 0.75 and 1 mile for elementary pupils and between 1 and 1.5 miles for secondary pupils. In a centralized school system with a heavy reliability on school bussing these are not applicable. However, safe provisions for walking should be considered. Footpaths, greenways and sidewalks leading to schools would minimize the hazard of walking in streets and reduce the need for bussing those living in the school vicinity who might prefer to walk to school.

2. Evaluation of the Existing School Facilities

Five schools make up Weston's existing school system:

Brook Elementary School (a complex of 3 buildings); Country Elementary School; Woodland Elementary School; The Junior High School; and, The Senior High School. In addition to the above schools the Case House quarters
the central administrative staff and has occasionally provided rooms for classes for kindergarten and junior high school pupils.

a. The Case House

Built in 1889 with an addition of one room in 1952, the Case House totals 17 rooms of which 7 are occupied by the administration and 7 for service facilities. Its 3 ground floor rooms (with areas slightly less than desired class area) were used over a nine year period starting in 1952 as kindergarten classrooms. These 3 rooms have lately been approved by the State Department of Public Safety for occupancy by a total of 75 junior high students.

b. The Brook School

This school is composed of three buildings on a 20 acre site of which 10 acres are a play area. Building "A" was built in 1898 and remodeled in 1952. It contains 7 classrooms, an auditorium, 3 office spaces and a large industrial arts room. Recently, its physical condition (heating, fire detection devices, lighting, wiring and exterior) has been brought up to desired standards.

Building "B" was constructed in 1910 and remodeled in 1958. The unit has six 900-square foot rooms, two of which have been converted to a library and the others are not now in use. The rooms are light and airy with clean, uncluttered lines. If the building is to be used for prolonged classroom occupancy (more than one year), the Department of Public Safety would require the installation of unit ventilators in all classrooms, the construction of a cinderblock fire wall at the foot of the stairway in the basement along with a few other minor building repairs. If the building is to be occupied for a year only, it would be approved if heating pipes in the classrooms were covered and the fire wall installed. Toilet facilities in the building are outmoded.

Building "C" is the most attractive of the three Brook School units. It has 15 classrooms, a teacher's room, and a gymnasium. At present all the classrooms are in use.

c. Country School

The Country School, opened in 1955, houses children in grades K through 6. The school site comprises 30 acres with 8 acres given to play area. It has 20 classrooms, all in use, an auditorium seating 300 students, a music room, library, conference room, a two-station gymnasium, a teacher's room, and service facilities.
d. Woodland School

The Woodland School, located adjacent to the Country School, has a total acreage of 31, with 10 acres given to play areas. The building, simply designed, has two six-room classroom wings, all in use, an administrative core, and a two-station gymnasium. A third six-room addition and an auditorium will be ready in September, 1965.

e. The Junior High School

Built as a six year junior-senior high school in 1950, the present junior high now houses only grades seven and eight. It has a total of 20 classrooms, a library, a two-station gymnasium, a kitchen, a dining area, which needs enlargement and improvement, teachers' room, and administrative offices. Prior to the opening of the new high school 501 students were in the building which operated then with approximately 95% utilization. The facility lacks an auditorium.

f. The High School

The Weston High School is located on a 62 acre site at the intersection of Wellesley Street and Route 30. It has a library, a two-station gymnasium, administrative, guidance, and health offices, an auditorium seating 650, 32 classrooms including music, household and fine arts, a language laboratory, a lecture hall and three resource centers. The varied sizes of classrooms and the resource centers give the school a good deal of flexibility without committing it wholly to any one educational program.

Table VII-10 contains a statistical summary of the school physical facilities and their use. In general, it could be stated that all school buildings -- with the exception of the Brook School and the Case House -- are in good physical condition, and their sizes are within the range of acceptable standards. The school sites exceed the minimum requirements and allow ample space for physical education and pleasant environment. There are, however, some reservations with concern to the Junior High. Initially planned as an elementary facility, the building was changed to accommodate the junior high school. The site would not allow the expansion needed for future junior student enrollments and for the physical education facilities, without encroachment on the adjacent sites of the Case House and the other elementary schools.
<table>
<thead>
<tr>
<th>Unit</th>
<th>Year Built</th>
<th>Graded Served</th>
<th>Number of Classrooms</th>
<th>Other Facilities</th>
<th>Site in Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case House</td>
<td>1889, 1952</td>
<td>K &amp; 1</td>
<td>3</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td>Brook School</td>
<td></td>
<td>K-6</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Bldg. &quot;A&quot;</td>
<td>1898, 1952</td>
<td>K-6</td>
<td>7</td>
<td>Auditorium, 3 offices, industrial arts</td>
<td>20</td>
</tr>
<tr>
<td>Bldg. &quot;B&quot;</td>
<td>1910, 1958</td>
<td>K-6</td>
<td>-- (4)*</td>
<td>Library</td>
<td></td>
</tr>
<tr>
<td>Bldg. &quot;C&quot;</td>
<td>1939, 1949</td>
<td>K-6</td>
<td>15</td>
<td>Teachers room, gym</td>
<td></td>
</tr>
<tr>
<td>Country School</td>
<td>1955</td>
<td>K-6</td>
<td>20</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Woodland School</td>
<td>1959</td>
<td>K-6</td>
<td>12 + (6)**</td>
<td>Library, gym, kitchen, cafeteria, teachers and administration offices</td>
<td>10</td>
</tr>
<tr>
<td>Junior High</td>
<td>1950</td>
<td>7-8</td>
<td>20</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td>Senior High</td>
<td>1961</td>
<td>9-12</td>
<td>32</td>
<td>Library, gym, administration, guidance and health offices, and language laboratory and lecture hall.</td>
<td>20</td>
</tr>
</tbody>
</table>

Total 159

* require extensive remodelling
** will be ready in September, 1965

Source: Weston Superintendent of Schools
3. Establishment of Needs

Applying the policy of twenty-five kindergarten, elementary and junior high school pupils per classroom to their projected enrollment from Tables VII-6, the total numbers of needed classrooms can be derived and summarized as follows in Table VII-11.

<table>
<thead>
<tr>
<th>Year</th>
<th>K</th>
<th>1-6</th>
<th>7-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>4</td>
<td>51</td>
<td>20</td>
</tr>
<tr>
<td>1965</td>
<td>5</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td>1966</td>
<td>4</td>
<td>55</td>
<td>20</td>
</tr>
<tr>
<td>1967</td>
<td>4</td>
<td>56</td>
<td>20</td>
</tr>
<tr>
<td>1968</td>
<td>4</td>
<td>56</td>
<td>20</td>
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<tr>
<td>1969</td>
<td>4</td>
<td>55</td>
<td>21</td>
</tr>
<tr>
<td>1970</td>
<td>4</td>
<td>54</td>
<td>22</td>
</tr>
<tr>
<td>1971</td>
<td>4</td>
<td>51</td>
<td>23</td>
</tr>
<tr>
<td>1972</td>
<td>4</td>
<td>49</td>
<td>23</td>
</tr>
<tr>
<td>1973</td>
<td>4</td>
<td>48</td>
<td>22</td>
</tr>
<tr>
<td>1974</td>
<td>4</td>
<td>48</td>
<td>20</td>
</tr>
<tr>
<td>1975</td>
<td>4</td>
<td>48</td>
<td>19</td>
</tr>
<tr>
<td>1976</td>
<td>4</td>
<td>48</td>
<td>18</td>
</tr>
<tr>
<td>1977</td>
<td>4</td>
<td>48</td>
<td>18</td>
</tr>
<tr>
<td>1978</td>
<td>4</td>
<td>48</td>
<td>18</td>
</tr>
<tr>
<td>1979</td>
<td>4</td>
<td>48</td>
<td>18</td>
</tr>
<tr>
<td>1980</td>
<td>4</td>
<td>49</td>
<td>18</td>
</tr>
</tbody>
</table>

Ultimate

| Probable | 6 | 72 | 24 |
| Possible | 7 | 84 | 28 |

The seventy-eight needed kindergarten and elementary (K-6) classrooms can be organized in different alternative arrangements, six of which follow in Table VII-12.

The twenty-four needed junior secondary classes could be provided in one school.
<table>
<thead>
<tr>
<th>Facility</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K 1-6</td>
<td>K 1-6</td>
<td>K 1-6</td>
<td>K 1-6</td>
<td>K 1-6</td>
<td>K 1-6</td>
</tr>
<tr>
<td>Brook School</td>
<td>2 20</td>
<td>-- 15</td>
<td>-- --</td>
<td>4 18</td>
<td>-- 15</td>
<td>-- --</td>
</tr>
<tr>
<td>Country School</td>
<td>2 18</td>
<td>-- 20</td>
<td>2 18</td>
<td>2 18</td>
<td>-- 20</td>
<td>2 18</td>
</tr>
<tr>
<td>Woodland</td>
<td>-- 18</td>
<td>-- 18</td>
<td>-- 18</td>
<td>-- 18</td>
<td>-- 18</td>
<td>-- 18</td>
</tr>
<tr>
<td>Converted Junior High</td>
<td>2 18</td>
<td>-- 20</td>
<td>2 18</td>
<td>-- --</td>
<td>-- --</td>
<td>-- --</td>
</tr>
<tr>
<td>New School &quot;A&quot;</td>
<td>-- --</td>
<td>-- --</td>
<td>2 18</td>
<td>-- 18</td>
<td>-- 18</td>
<td>2 18</td>
</tr>
<tr>
<td>New School &quot;B&quot;</td>
<td>-- --</td>
<td>6 --</td>
<td>-- --</td>
<td>-- --</td>
<td>6 --</td>
<td>2 18</td>
</tr>
<tr>
<td>Case House</td>
<td>-- --</td>
<td>-- --</td>
<td>-- --</td>
<td>-- --</td>
<td>-- --</td>
<td>-- --</td>
</tr>
<tr>
<td>Total</td>
<td>6 74</td>
<td>6 73</td>
<td>6 72</td>
<td>6 72</td>
<td>6 71</td>
<td>6 72</td>
</tr>
</tbody>
</table>

The estimate for needed space in senior high schools is usually dependent on (1) the educational program and its adopted organization such as traditional, 'accordion' large group-small group and variations of each (usually less room space required for the 'accordion' arrangement); (2) on the availability of special purpose facilities (libraries, lecture rooms, laboratories and study halls) as well as the normal classrooms; (3) on the nature and amount of student course selection; (4) time allocation for the various subjects; (5) the length and nature of the school day; and lastly, (6) policies and practices regarding class sizes.

A study has been conducted in 1962 to determine the educational specifications for the senior high school addition, analyzing these factors upon which plans have been prepared and the construction will be soon underway. Upon probable completion in 1966-67, the Weston Senior High School will have a capacity of 1100 pupils. Although some one hundred pupils short of the expected maximum enrollment in 1973 and 1975, it is felt that with very minor adjustments the facility can accommodate this total number. Accordingly, it is not necessary to make a detailed estimation of needs in the same manner as at the elementary and junior levels.

4. Alternative Building Programs

The Town has agreed to concentrate the elementary facilities on the school campus in the center of Town. New elementary facilities would then be provided for in the core subject to the availability of enough suitable acreage with no economic or technical liabilities.
As for the junior high school, there are two possibilities, either relocating it on a site adjacent to the senior high school or expanding the present building on the existing site if enough acreage for expansion and physical education could be provided.

Two sets of factors are necessary to determine a building program. The first set has to deal with the mechanics of the program. This includes (a) criteria for location and space requirements, (b) the estimated future needs (as shown in Table VI-11), and (c) the length of the procedure involved -- such as choosing and acquiring sites, designing the school, achieving the financing, constructing and furnishing the school -- all of which usually requires three Town Meeting votes and a minimum of two years from start to finish.

The second set of factors depends on the Town's electorate in drawing the important policies that will determine the direction and magnitude of the building program. These include the timing in which obsolete facilities (such as the Case House and later Brook School) should be abandoned, and the decision whether the present junior high school should be continued and expanded or otherwise converted to accommodate an elementary facility, presuming a new junior high school.

To establish a firm building program within the scope of this study would require more community decisions on the various factors enumerated above than are currently available. The problem of sewerage facilities in the center of the Town is also strongly related to the disposition of added school facilities. When certain decisions are reached, a building program would be easily determinable.
VIII. RECREATION-CONSERVATION

A. INTRODUCTION

Since 1940 the use of recreation areas, municipal, state and federal, throughout the nation has been growing faster than the growth of population. The social factors that have led to increased demand for recreation facilities -- such as (1) population growth, (2) longer life expectancy, (3) larger families, (4) higher incomes, (5) a shorter work week and (6) increased emphasis on physical fitness -- seem to be continuing.

The need for conservation lands as a part of a total community is equally essential to the need for recreation areas. Such lands are essential to (1) preserve the balance of nature, (2) provide adequate and economical drainage, (3) reserve desirable natural features such as ponds and hills for the general public, (4) protect the essential water resources, and (5) provide for such desirable activities as hunting, fishing and nature study.

The setting aside of recreation and conservation areas, though apparently costly, can in fact be a remunerative activity to a community in the following ways:

1. preservation of its natural resources, particularly water,
2. prevention of development in its unsuitable areas (expensive to service),
3. increase the community's attractiveness, and hence attraction of prestige, desirable residential development,
4. substantially increase the value of properties abutting and near such lands,
5. contribution to the physical and mental health of its citizens and thereby to its economic base.

Recreation-Conservation uses are second only to residential uses in their demands upon the total acreage of a town. Because of their close relationship with natural features, they contribute in large measure to the ultimate form of the community by effecting the distribution of development.

The above reasons clarify the particular significance of the Recreation-Conservation Plan to the Master Plan Study. The following analysis and program are therefore concerned mainly with spatial requirements and not so much with the type or quality of facilities. The preparation of the
report is in large part a by-product of the inventory phases of the Master Plan, complemented by field inspections and interviews. The Recreation-Conservation facilities will be defined, the existing situation analyzed and the future needs determined and evaluated for the Town's ultimate population.

B. PLAYGROUNDS

The playground is an outdoor recreation area for the families of a 'neighborhood.' The primary purpose of a playground is to serve the recreation needs of elementary school-age children, although it is also desirable to provide facilities for older and younger age groups as well. National standards recommend that a playground site should be from 3 to 7 acres and within 1/4 to 1/2 mile walking distance of those families served. A playground site location should meet other criteria besides its centrality such as safe access, freedom from nearby traffic and general topographic suitability. Availability of land might, however, necessitate slight deviations from ideal sites. The size of the playground is dependent upon the population served, allowing one acre for every 800 persons (or 200 d.u.'s). Thus, the size could vary from a small 3 acre site serving 2400 people (600 d.u.'s) to a 7 acre site serving 5600 people (or 1400 d.u.'s).

The relatively large lot size characterizing Weston's residential development may reduce the necessity or need for providing such neighborhood playgrounds, but they would still be desirable, as "private" lots are not a good substitute for "group" play areas.

The playgrounds in Weston cluster mainly about the elementary schools except for a small baseball diamond at the corner of Viles Street and Brook Road. The size and distribution of these playgrounds is such that they do not adequately serve a significant percentage of Town families.

The ultimate future population and its distribution within the various neighborhoods in Town were discussed in the Inventory Analyses. Based upon such projections as well as the aforementioned site criteria, it is recommended that the Town should designate, and if necessary, acquire the playground sites as shown in Plate VIII-1.

C. PLAYFIELDS

Playfields are areas planned to accommodate the organized active recreational needs of "teen-age" and adult groups of two or more neighborhoods. By national standards there should be a playfield to serve all persons living within a 1/2 to 1 mile radius. These standards also recommend one playfield of 15 to 20 acres for every 20,000 population considering that one acre is needed for about 800 people served.
Usually playfields are located near or adjacent to high school grounds, and Weston is no exception. Based on population Weston would not need an additional facility. However, because of the physical size of the town it might be desirable to consider a second playfield to serve the northern section of the town. The site with the highest accessibility to all neighborhoods north of Route 20 is at the intersection of Viles Street and North Avenue. It is recommended that the Town designate and acquire the site as shown on Plate VIII-1.

D. SPECIAL INTENSIVE RECREATION AREAS

This category includes areas containing tennis courts, swimming pools or bathing beaches, public golf courses, skating rinks and similar facilities. There are no rigid standards for the provision of these specialized facilities. However, it seems that the opinion of the town, as expressed by the Recreation Committee, is to adopt high standards and provide facilities to meet those standards.

Existing specialized public facilities consist of the swimming facilities at Memorial Pool and the Valley Pond Club, three tennis courts at the Brook School, four tennis courts and a skating pond at the Senior High School, and the skating rink at Cat Rock Hill. Several golf courses serve the Town: the MDC course at Riverside is open to the general public and two private courses, Weston Golf Club and Pinebrook Country Club which are operated on a membership basis. All form important elements in the overall system of intensive recreation.

There is little doubt that the Memorial Pool is becoming physically inadequate and that it has to be replaced by a swimming pool preferably in a central location (in the elementary school campus) if drainage and sewerage problems could be economically solved. It is preferable that a decentralization policy (by neighborhoods) should be adopted in building additional tennis courts. It would seem advisable to build new courts in conjunction with the neighborhood playgrounds.

In providing for these intensive activities, sites should be large enough to accommodate adequate off-street parking facilities.

E. PARKS

While playgrounds, playfields and intensive recreation areas provide areas for active recreation, there is a need for open space that will be conducive to passive recreation. The primary purpose of parks is to provide the citizens of a community with areas in which they may relax out-of-doors in a natural setting. Parks also increase the intrinsic value of Town by adding their own beauty and the beauty of a setting for surrounding development. By National Recreation Association Standards, each community should have
at least one sizeable park that produces the feeling of openness and serenity associated with the natural landscape. Parks could be classified into the following four categories: (1) neighborhood parks, (2) scenic parks, (3) community parks, and (4) linkage parks.

1. **Neighborhood Parks**

These are small public park areas in neighborhoods that provide a pleasant natural area for use by the nearby (5 to 10 minutes walking distance) residents in their leisure time. At the present no such facilities are provided for and it is recommended that they be created as an adjunct to proposed playgrounds.

2. **Formal or Scenic Parks**

These are usually found at (a) important road intersections, (b) entrances to the town, (c) shopping centers and (d) approaches to public and semi-public buildings.

Presently, this system of parks is composed of the Town Common, Town House Park, Soldiers Field, Weston Park and Children's Park. It is recommended that these sites shown on Plate VIII-1 and presently owned by the Town, be developed for such purposes. A mall might also be developed in the shopping center.

3. **Community Parks**

These are large tracts of land developed with facilities to include (a) open turf areas, (b) cleared paths, (c) picnic areas, (d) water features and (e) play equipment.

At present, the Cat Rock Hill area could be considered in this category and it is recommended that it be fully developed. The approximate 50 acres at the northwest corner of Town could be developed for such use. The Town should acquire the northern slopes of Hundreds Hill at the Wellesley Town Line and develop it as Community Park for the southern parts of Town.

4. **Linkage Parks (Greenways)**

These primarily serve for hiking, horse-back riding and other outdoor activities, and tie the various school and recreation-conservation sites providing residents, especially children, with a way free of street hazards.* They

* While stressing the value of avoiding streets, linkage parks might not exclude short sections necessitating travel along present or future streets thus requiring certain design specification for those streets.
can be from 15 to 200 feet in width and can range in improvements from a nature trail to a paved walk with street lights and park benches.

A step in this direction has already been undertaken by the Town in the Forest and Trail Association, Inc., in their program to acquire easements throughout certain other parts of the Town as recommended by the Report on a Plan for Weston Green Belt by an advisory committee, submitted March 1959. The latter showed that the desirable features of a linkage system outweigh conclusively and by far any potential undesirable features. It is feasible physically, economically, and accepted by various land owners involved. It is recommended that the Town should consider seriously a long-range plan for forming a continuous strip or "greenbelt" of open areas, incorporating existing and proposed public and semi-public lands. Intervening areas with a low residential development value (i.e., wet and swampy or containing ledge) might be acquired in fee as strips of land connecting the large areas. In other instances, gaps caused by buildable or developed land might be bridged by easements, when possible. The linkage system is shown diagrammatically on Plate VIII-1.

F. CONSERVATION AREAS

A conservation area is a tract of land, which is left in its natural state to retain the natural or scenic beauty of the area, to provide a watershed for a reservoir or to protect and encourage wildlife. Although man-made changes in a conservation area are usually limited, specific features, such as ponds, are often developed to provide specialized recreation.

Such areas should be sufficiently large to provide physical insulation from adjacent streets and dwellings and should be naturally endowed insofar as possible with a variety of topographic and growth features as woods, brooks and ponds. They could fall in either of the following categories.

1. Forests

They are areas of wild life sanctuaries. Weston has at present two large Town Forests: (1) over a 100 acres off Highland Street, and (2) over 200 acres west of Concord Road and north of Clinton Division of the Boston Maine Railroad (Jericho).

To the northwest of each forest there are areas of high water-table that would seem to preclude any intensive development, and it is felt that in the best interest of the Town their development should be discouraged. These areas are recommended as natural extension of the existing forests.
2. **Water Conservation**

These are areas around lakes, wells, rivers, brooks, reservoirs and other water sources, reserved to prevent any obstruction or pollution of potable water.

Weston has various areas used for such purpose around Weston and Norumbega reservoirs as well as along the Charles River. The previously recommended extension of Jericho Town Forest covers areas that lie in the SuAsCo river basin and could be considered in such a category.

3. **Buffer Areas**

These are areas reserved to screen unpleasant developments or to psychologically heighten the physical separation of developments possessing different character.

Three such facilities are recommended: (1) an area on the west side of the proposed wholesale and light industrial zone (Mass Broken Stone Site), (2) an elongated area at the northeast corner of Town screening the Waltham industrial park, and (3) a strip along Route 20 by-pass south of the shopping center.

G. OTHER PUBLIC AND SEMI-PUBLIC LAND

There are also many acres of "open land" in Weston that contribute in maintaining the open character of the Town. Some have facilities for non-public recreation as the various private college and school sites, camps and golf courses. Others are of a conservation nature such as the cemeteries, the Harvard Arboretum, the MDC watersheds and the rights-of-way of expressways.

H. **EFFECTUATION TOOLS**

In recent years much new legislation and activity have originated in the Federal and State capitals to assist municipalities in catching up to the burgeoning recreation-conservation demand. Many private and semi-public agencies are also stepping up their acquisition programs regarding recreation and conservation lands.

The following is a brief check-list of techniques and programs available to acquire the areas suggested in the proposed plan:

(a) purchase in "fee simple" with or without eminent domain,

(b) gifts accepted outright or in life-estate,
(c) transfer of tax-title land to the recreation-conservation agencies,

(d) development and/or transfer of land held by other town departments for recreation-conservation use and management,

(e) requiring developers to set aside a portion of new subdivisions for recreation-conservation use,

(f) purchasing oversized lots for other capital improvements such as streets, schools or cemeteries, and using the excess for recreation and conservation,

(g) purchase of development rights or easements by the town for conservation lands,

(h) provisions for 'cluster subdivisions' and 'density zoning' with reservation of open public lands,

(i) generous drainage easements and set-back requirements from major streams,

(j) flood plain and conservation zoning,

(k) use of Federal "open space land" portions of the U. S. Housing Act of 1961, that provides up to 20% of land acquisition costs for permanent recreation and conservation land of over 10 acres in size.

(l) state funds that provide up to one-half the acquisition costs of conservation and recreation lands purchased by conservation commissions.

(m) purchase of lands in 'fee simple' with 'lease-back' provisions to an open space user, either indefinitely or until the land is needed and

(n) cooperation with the State and/or other regional or private agencies to establish and develop recreation-conservation areas in and near the Town.

This is by no means a complete list but hopefully indicates some courses of action that have not been considered in the past.
IX. MISCELLANEOUS COMMUNITY FACILITIES

A. INTRODUCTION

The school system is so dominant in suburbia today in terms of employees, required acreage and buildings, and dollars on the tax rate, that there is a strong tendency to equate the concept of "community facilities" with "educational facilities." Previous analysis has already emphasized the similar importance of "recreation and conservation facilities," in terms of land use, maintenance or property values, conservation of natural resources, and the continuation of physical and mental health of all age groups. Several other community services that require specific facilities are equally essential, although not quite as significant in terms of the landscape or the impact on the Town's tax rate.

The services to be examined in this portion of the report are essential services, services without which the Town would not be a community. Therefore, the facilities should first be provided upon a basis of need. The level to which these services are developed, or the standards which will be set by the Town, will probably be established on a basis of demand.

B. GENERAL OBJECTIVES

A plan for community facilities is concerned with the land and structures for accommodating and housing public agencies and public utilities. The plan and program should fulfill two objectives:

1. to provide a site for each building and service facility at such location and such size as to perform its function efficiently and in harmony with existing and proposed developments, both public and private, and

2. to accomplish a planned grouping of several of the most important public buildings for reasons of efficient use, accessibility and good civic design.

The section that follows will discuss only these services provided by the Town and will attempt to give a brief appraisal of their existing situation and suggest policies and criteria for their location.
C. POLICIES, CRITERIA, APPRAISAL OF FACILITIES AND RECOMMENDATIONS

1. Public Library

Several public and semi-public committees, experts and consultants have been actively clarifying policies and objectives regarding the Weston Public Library. They have evaluated its present facilities, estimated its future needs and suggested several courses of action. The conclusions of these committees and consultants appear in several studies *, most of which maintained that additional library space has been for some time and is now urgently needed. It is neither unusual nor surprising that the facility built in 1899 for 1800 population is unsuited to the needs of a growing population (the present population is some 10,000 and the estimated ultimate population is 18,000), and a constantly rising rate of circulation (14 per capita). Table IX-1 shows library space for various population sizes.

Certain conclusions concerning distribution of facilities, location and site characteristics have been established in these studies as follow:

a. Centralization of Facilities

There are two alternatives of providing the needed additional space:

(1) A children's library provided for separately in a new building or combined with the elementary school library. This has been deemed undesirable for (a) additional costs caused by divided administration, staffing and maintenance, (b) inconvenience of family use (parents accompanied by children), (c) prohibitive cost of constructing a new building and, at the same time, remodeling the present library to make use of the 'gained' space which would still be short of its needs, and (d) dissimilarity of purposes, functions, methods of operation, and book collections of schools and public libraries.

### TABLE IX-1  PUBLIC LIBRARY - ESTABLISHMENT OF NEEDS

<table>
<thead>
<tr>
<th></th>
<th>Existing Facilities (1)</th>
<th>Needed for 15,000 popu. (2)</th>
<th>Needed for 18,000 popu. (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Reading Room</td>
<td>1,100</td>
<td>2,250</td>
<td>3,200*</td>
</tr>
<tr>
<td>Childrens Room</td>
<td>1,400</td>
<td>2,950</td>
<td>2,950</td>
</tr>
<tr>
<td>Art Display, Music Room</td>
<td>50</td>
<td>450</td>
<td>600*</td>
</tr>
<tr>
<td>Multi-purpose Room</td>
<td>--</td>
<td>750</td>
<td>750</td>
</tr>
<tr>
<td>Stack, Work Areas</td>
<td>2,000</td>
<td>4,000</td>
<td>5,500*</td>
</tr>
<tr>
<td>Catalog, Charging, Lobby</td>
<td>450</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Staff, Executive Office</td>
<td>450</td>
<td>1,100</td>
<td>1,100</td>
</tr>
<tr>
<td>Custodial, Mechanical</td>
<td>450</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Service, Stairs, Corridors</td>
<td>1,650</td>
<td>2,500</td>
<td>2,500</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>7,550</strong></td>
<td><strong>15,200</strong></td>
<td><strong>17,800</strong></td>
</tr>
</tbody>
</table>

Source: (1), (2) Report of the special Public Library Expansion Committee, 1965 (figures rounded)  
(3) Established by the Master Plan  
(*) Indicates areas which would most likely require additions because of increasing population and circulation.

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(2) Establishment of branch libraries. This has been deemed undesirable because of (a) expensive staffing and maintenance and (b) costly duplication of material. With limited resources it would not be prudent to consider the construction of a branch library until the needs of a central library are fully met.

Accordingly, it is concluded that a policy of centralization of all library facilities is most desirable, and it is recommended that this policy be adopted as part of the Master Plan Study.

b. Centrality of Facility

Centralization of all facilities in one library requires that the library should have as equal and easy access to all the population as possible. Geographically, and in terms of population concentrations, the Town Common is now, and will continue to be the Town's gravity center. Therefore, it is recommended that the library be located on a site near the Town's Common.
c. Adequacy of the Site

The site should be large enough not only to house the buildings that would comprise all the space needed (as shown on Table IX-1) but also to provide for an aesthetically-pleasing setting and landscaping, the proper access, and the provision for the necessary parking facilities.

With these criteria established the Town seems to have only the following alternative course of action; one is to build an addition on to the present library, or, two, to build a library on a new site.

a. Addition to the Present Library Building

The present library is centrally and conveniently located. The building is sound but outmoded, and has to be changed and added to if it is to serve the needs of the Town. These changes include increasing the space by the children's facilities, the reading rooms and the open readers (to make for informality and inviting reading areas), and adequate work and rest areas for the staff. It is physically feasible to bring the present library building into line with these demands by either utilizing the present site, or by encroachment on the neighboring Jones House land. However, the present structure will be subject to drastic interior changes of an anticipated prohibitive cost about 75 percent of a complete new building (Richmond-Goldber Report).

Parking facilities will bring still further uneconomic implications, especially if it is not handled within a total plan for the entire town center. The present on-street parking -- inadequate as it is -- will most certainly not be permitted due to increasing traffic demands. The cost of creating parking facilities on the site will be prohibitive due to unfavorable soil and topographic conditions.

From all facts stated above, it is neither prudent, practical or economically feasible to update or upgrade the present library.

b. A New Library

A new building will have the advantages of easy provision of modern services to meet the increasing library demands. Modern designs are usually more efficient, requiring less personnel and thus minimizing total wages. Its useful life would be longer than that of a remodeled building and its maintenance costs less demanding. Since the present library building could be readily converted to other uses, the whole package will be economically favorable.
A good location for the new building would be near the Town Common. The availability of vacant or uncommitted land in the Town Center would narrow the choice of site to two parcels: The Park Department land (1.8 acres west of the Town House) and the Jones House land (6.6 acres on the south side of the Boston Post Road).

The first parcel is easily visible across the Common from the Boston Post Road, yet away from the heavy traffic flow of that road. Access to it is by the Town House Road. A library building could be designed and set in relatively the same harmonious architectural treatment (color, texture, material) with the Town House and other civic buildings surrounding the Common. The site is large enough to provide an ample tree-screened parking area that could be jointly utilized by the Town Hall users. The argument against this site is that it should be reserved for the expansion of the Town Hall to meet the growing space needs, although these could be met by the conversion of the meeting room to offices.

The larger area of the Jones land would allow for more architectural freedom in setting the building and providing it with the desirable landscaping. Moreover, it is felt that a library built on this site could be included within a scheme for reconstructing the Town's shopping center and thus benefiting from and utilizing its services (parking etc.) at no additional cost, for such services have to be provided, with or without the library. In addition, it will contribute to the architectural appearance and vitality of the shopping center. The primary drawback to the use of this site is the acquisition of the land which would necessitate community acceptance and Town Meeting action.

Both sites will necessitate some legal action in transferring titles to and from the involved ownerships. Although the Jones land would be slightly more preferable for a new library so it could be integrated with the shopping center, the land is relatively unavailable because of its ownerships, present use and historical significance. The Park Department site is highly advantageous as an alternative and it is recommended that this site be selected and adopted for a new library. (Town Meeting action in March 1965 did decide on this location.)

2. **Fire Station**

Continuing investment by a community in the expansion of fire prevention activities yields high returns in terms of safety. However, successive steps to improve fire protection should be taken in accordance with a
long-range plan that recognizes the various basic considerations that affect the efficient performance of protection facilities. These include: (a) a reliable, efficient fire alarm system (boxes, circuits, repeater and transmitter); (b) availability of proper apparatus (trucks and engines); (c) adequacy of well-trained fire protection personnel (permanent and call firemen); and (d) most advantageous locations, in terms of running time, of the stations housing men and apparatus. These factors would be considered to evaluate the existing system, to determine its deficiencies, and to suggest possible alternative solutions in deciding a future course of action by the Town.

In a study conducted by a Special Fire Protection Committee * it was found that less than half of the alarm box locations listed by the Weston Fire Department have connections to alarm circuits. Presently, the central station repeater and transmitter apparatus is obsolete and needs replacement. The fire-fighting apparatus equipment and the number of personnel are reasonably adequate for present needs.

Built in 1915, in the Town Center, the fire station has become increasingly crowded over the years as the department has grown and apparatus increased in number and size of pieces. The building occupies an 11,000 square feet lot (89' x 117'). A driveway on the west gives access to a small paved parking area and to the lower level of the station. The building houses the major pieces of fire apparatus on its 3-bay-opening first floor. The second floor contains a small bedroom, the Chief's office, a recreation or meeting room, and a combined kitchenette and fire alarm apparatus room. The communications and control center occupies a makeshift space at the base of a house drying tower. The basement houses the remaining apparatus and equipment.

The existing fire station is located about 1 3/4 miles equidistant from the east and west borders of the Town, and about 3 1/2 miles from the south and 2 1/2 miles from the north borders. Due to its geographical location, more prompt responses can be expected from the station on most calls originating from the north side of Town as compared with those from the south. Informal cooperation response upon telephone reports with Wellesley Fire Department is practiced. Formal, mutual aid arrangements are hampered until Weston can respond with adequate manpower and equipment. However, formal arrangements exist between Weston and both Waltham and Wayland.

* The Committee was appointed by the Moderator pursuant to vote under article 5 of special town meeting, November 14, 1961. Its report was published June 8, 1962.
The steady foreseeable growth of the town will impose a gradual, but a steadily increasing burden on the Fire Department to carry on successfully its fire prevention and fighting efforts. This will involve strengthening the alarm system, increasing the staff and housing both men and apparatus suitably. The crowded condition of the central station makes it necessary to consider alternative plans by which the growing needs of the department may be met.

In considering alternative plans mutual arrangements with Wellesley should be eliminated for the following reasons. Reserve forces in Wellesley are not now such as to permit extension of formal mutual aid arrangements. If Wellesley were to provide fire services to Weston on a contractual basis, the minimum extension of its facilities would involve additional apparatus, manpower and space -- all of which will be as costly for Wellesley as for Weston. With increasing personnel, Weston might operate on the same basis as Wellesley -- a normal response requires a minimum of three men manning one piece of equipment.

Since the present station is now considered badly located and incapable of expansion, two alternatives have been presented. * The first is to provide one new central station near the center of the Town; the second is to build two new stations, one south of the Post Road and the other north of it. The purchase of sites was recommended to be made at an early date. It is anticipated that the sale of the present Central Fire Station, if rezoned for business, will substantially reduce the net cost of the proposed construction.

In 1962, the Special Fire Protection Committee discarded the first alternative of a single new Central Fire Station because of economic reasons, the unavailability of a suitable site, and the excessive running time to the south side of town. Its report asserted that the Town will ultimately need two fire stations, the existing station with minor alternations and additions, and a subsidiary station in the south portion of Town. It recommended that precedence should be given to increasing the number of firemen located in the Central Station. As the Town grows and its fire protection demands increase, added manpower will be distributed in the most efficient way between the two stations.

From a master plan viewpoint, the main concern is the adequacy of the physical facilities (including its financial implication) and the locations of these facilities to maintain the shortest time-distances to all points in Town. It is important that these two aspects of the issue be considered

* Report submitted in December 1961 by a special committee -- appointed by the Selectmen in May 1959 -- to look into the question of the possible future need for additional fire protection in the south side of Weston.
in prospective, (considering the Town when it is ultimately developed) and be integrated with other constituents of the master plan, especially the community facilities, circulation and zoning proposals. For it is obvious that these proposals, when implemented, would have their mark on the population and its distribution, as well as on the time-distance travel within the Town.

Accordingly, this report concurs with the 1961 and 1962 special committee's conclusions that the Town, when ultimately developed, will need two fire stations and with the 1961 report that the present station is badly located and incapable of expansion. The circulation system (see Chapter X following) constitutes a possible corrective measure within the existing state of development of the Town. It is easier to locate the fire stations, where they can cope with the circulation system than vice versa. The effect of the circulation proposals on time-distance and flow of traffic would put the existing fire station at a point of high congestion and, most importantly, unfavorable running time to existing future residential development. Added to this is the inadequacy of the existing site to accommodate all needed facilities for a fire (and possibly police) station. Moreover, the site constitutes engineering difficulties such as drainage and sewage. It is felt that these factors outweigh the savings suggested by the 1962 Special Fire Protection Committee. In contrast, two sites are suggested as having the highest accessibility to all points in Town: (1) at the intersection of the proposed Newton Avenue and the northerly extension of Wellesley Avenue which would be appropriate for the central fire station, and (2) at the intersection of Villes Street with North Avenue for the subsidiary station.

With the knowledge that the Town voted in its 1965 meeting to acquire a site near the intersection of Ash Street and South Avenue and to form a new committee to study further the central fire station, it is recommended that further action be postponed and that the proposed committee take the findings of this report into consideration during its course of study.

3. Town House

With the exception of public works facilities and the Fire Department, all of the general government functions of the Town are administered at the Town Hall. The Georgian Town Hall is well located on an attractive site at the Town Common. However, the space it provides for the various functions is already quite insufficient. The most efficient long-range continuance of the Town Hall as an administration center will require some substantial remodeling and expansion within the foreseeable future. The structure is sound and adaptable for some more intensive use.
4. **The Town Dump**

Weston currently operates a local dump for disposal of all its solid wastes, combustible and non-combustible exclusive of garbage. The dump is relatively remote and isolated, so its operation does not seriously create an unbearable nuisance for the Town. The trench burning and covering of portions of the dump periodically does reduce possible contamination and eliminate major unsightliness. However, the site itself, including its control and operation, is not particularly well-managed. A more efficient and neat operation might preclude a possible closing down of the dump by the Massachusetts Department of Public Health.

There are alternative methods of refuse disposal that the Town might consider for its long-range plans -- incineration, composting, and sanitary land fill. The size of Weston, now and in the future, would not allow an efficient operation of the smallest incinerator thus limiting the utilization of such a method to the possibility of cooperation with one or more adjoining communities. Composting is a relatively new technique -- not widely used here -- but being considered now by a few communities in the metropolitan area as the answer to solid waste disposal. Sanitary land fill requires extensive area and fill material which can be efficiently and economically handled. It is possible that the present Weston site could be converted to this type of operation though it would be costly and would require a detailed procedure for conversion carefully conceived and engineered. Incineration requires some dump capacity for non-combustibles and ash residue. It would be unwise to continue the filling of the dump to its entirety prior to a final choice of one of these long-range methods.

The Metropolitan Area Planning Council has an application pending with the Housing and Home Finance Agency for a Title VII planning grant to make a regional study of solid waste disposal. The study is designed to answer the waste disposal question for the metropolitan area and therefore for all of its constituent communities. The study will take 18 months to complete, but preliminary observations and comments are expected within 9 to 12 months from the start of the work.

Under existing circumstances it would appear advisable for the Town to continue the use of its present dump until the completion of the above-mentioned regional study. A long-range permanent answer to the Town's disposal problem might well be a regional answer because of the size of the Town in relationship to the costs and characteristics of a locally-oriented disposal procedure and system. Following the regional study, an appraisal of Weston's possible course of action would be far more meaningful. The present dump capacity appears sufficient to sustain the Town's need for at least the next two to five years, so that the momentary postponement of a decision would not seriously jeopardize the public health.
4. **Other Facilities**

There are other tracts and parcels of land occupied by various Town agencies for the performance of their functions. These include the garages of the Highway and Water Departments and Cemeteries. The Highway Department occupies a site of about 8 acres south of the Boston Post Road by-pass to the west of the proposed Wellesley Avenue extension. The Water Department occupies some 11 acres on Warren Avenue. The latter site is adjacent to Cherry Brook Pond and contains wet lands which have been suggested for recreation-conservation purposes (see Plate VIII-1). It is suggested that the Warren Avenue area is suitable for residential development of higher densities (walk-up apartments) as delineated in the Future Land Use Report (see Chapter XII). Accordingly, it is suggested that the existing incompatible uses, such as warehouses, be relocated in due time to the proposed wholesale and limited industrial zone at the easterly Town line north of Route 20, and that the Water Department garages be moved to the Highway Department site.

Presently, the cemeteries occupy some 70 acres, half of which could be available for future use. Usually, the average overall capacity of cemeteries, with a normal ratios of family plots to single graves, is 620 burials per gross acre (including roads, paths and administration use). This brings the future capacity of Weston’s cemeteries to about 21,700 burials. Applying the present death rate of seven per thousand to the ultimate population of about 18,000, a saturation stage will not be reached before 200 years, or double the 100 year range for which cemeteries are usually planned. Therefore, no addition to the cemeteries are required.
X. CIRCULATION

A. INTRODUCTION

The movement of people and goods efficiently through a community can never be the result of a happy accident. Traffic congestion and the rising costs of providing for family and personal transportation demands are issues which increasingly concern citizens as well as professionals. The transportation system is one of the means through which growth and change are translated into land development. As the pattern of development is constantly being crystallized by day-to-day building, the Town must be sure that such construction will not stand as an obstacle to predictable circulation needs, in terms of new rights-of-way and expansion or realignment of existing ways.

This part of the Master Plan is concerned with both the "flow" and the "physical" systems of circulation-vehicular as well as pedestrian. It analyses the traffic volumes currently using the different ways, traces trends over the recent past and goes on to project future traffic flows. It sets circulation goals and suggests policies and standards. It discusses the general character of the present street system, focusing attention on the function of each street, the width of its right-of-way and the extent of its curvature. It evaluates the present physical system in the light of the expected changes in flows and the desired standards, thus pointing up deficiencies and proposing improvements that should be made over a period of years. Proposals which result from all of these studies are included in the Master Plan so that they would serve best the general development pattern indicated in the Future Land Use Plan.

B. PRESENT TRAFFIC FLOW

Precise information regarding the existing traffic flow is essential if the existing circulation network is to be evaluated and a determination made as to whether it is properly handling the traffic demands.

1. Present Volumes and Recent Changes

In the past 20 years many economic, social and technological changes accompanied by governmental actions have had a marked impact on travel patterns. Suburbanization made possible by availability of mortgage money, higher standards of living, changes in personal goals and taste concerning social and recreational habits, technological advances resulting in decentralization of commercial and industrial activities and improvements in the automobile (over the transit vehicles), all increased car ownership, influencing the frequency as well as the mode of travel.
Traffic counts have been taken over the years by the Massachusetts Department of Public Works on regional roads such as Routes 128, 117, 90, 30 and 20. In 1956, the Department of Public Works figures were compiled and supplemented by numerous counts on Weston's public ways. The 1963 Boston Regional Planning Project study gathered traffic counts for both regional highways and local roads of regional significance. These are shown on Plate X-1 by shaded bands whose widths are in proportion to flow. The figures summarize the changes in traffic volumes since 1956.

The Boston Regional Planning Project also conducted a survey wherein a disproportionate stratified, systematic random sample of residents within the BRPP area was interviewed (3% in Weston). Information obtained included, among other things, characteristics of travel made by all persons over 5 years old, changes and frequency of using transit systems, detailed origin and destination as well as purpose of trips, auto driver trips, auto passengers, and parking facilities. A separate survey was made of travel of commercial trips (taxi and truck) based on a 10% sample, and on the mass transit riding characteristics (82% of commuter railroads, and 25% of rapid transit, boarding passengers).

2. Classification of the Present Flow

To understand the traffic flow pattern and its recent changes, an analysis of the three broad classifications of traffic flow should be recognized:

(a) Internal traffic between various sections of the town, particularly to and from the shopping, business and administrative centers, schools, and major recreational facilities within the town borders.

(b) Traffic between points outside the town and traffic generators within the town, including residential, business and industrial areas and institutional and recreational foci of regional significance.

(c) Through traffic between points outside the town with neither origin nor destination within Weston itself.

In the absence of a complete origin-destination survey in Weston, it is hard to break down precisely the traffic volumes into these three categories. However, the analysis below attempts to utilize the information gathered for the BRPP regional study in the best possible manner.

Table X-1 and Plate X-2 show all vehicle trips within Weston or between Weston and other areas as gathered by the BRPP and which will be utilized in the analysis below:
a. Magnitude and Distribution of Internal Traffic

A model is established based on the theory that all trips produced by a residential area are attracted by various land uses. The strength of attraction varies directly with the intensity of development of the attracting land uses and indirectly with the time-distance between the attracting land use and the residential areas. The model is applied in this manner. The Town is divided into zones. A system of links (existing streets) connects the "centroids" of the zones. Each zone is treated as "producing" and "attracting" trips. The production of trips by a zone is based on the number of dwelling units in that zone, and the number of "internal" trips produced per dwelling unit. The attraction of trips other than work and shopping to a zone usually is based on the number of dwelling units in the "attracting" zone. A zone attracts "work" trips based on employment in the zone and "shopping" trips on the basis of total retail sales or commercial floor area in a zone. Because of the character of the existing land use in Weston, major shopping and employment concentration occur mostly in the Town Center. Therefore, it was assumed that half of the internal trips will be produced and/or attracted on the basis of dwelling units, while the other half will be attracted to the Town Center from each zone according to the number of dwelling units in each zone. Internal traffic flows are summarized on the system of links and assigned to the existing street network as shown on Plate X-1.

b. Traffic with Origin or Destination in Weston

The traffic between Weston and other communities (which is shown partly on Plate X-2 and in Table X-1) was assigned to its most likely regional routes and to "gates" of entry to or departure from Weston. The traffic volume at each gate was distributed to the zones they are most likely to serve on the basis of the number of dwelling units in each zone. The traffic flows between Weston and other communities are assigned to the existing street network within Weston and shown on Plate X-1.

c. Through Traffic

After estimating both the internal traffic and traffic between Weston and other communities, through traffic could be derived by subtracting these volumes from the existing traffic counts on the major streets (see Plate X-1).

Another pertinent differentiation between types of traffic is in terms of vehicles -- mainly between trucks and other modes. As Table X-1 shows, about 3296 trips or 36% of Weston's internal trips and 3622 trips or 15% of those originating in or destined to Weston are carried out by trucks. Although truck trips between points outside Weston with neither origin nor destination within the Town, are not available, it could be safely assumed that they follow the overall regional pattern thus constituting some 16% of the through traffic.

- 156 -
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<th></th>
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<td>750.4</td>
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<td>0.0</td>
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<td>11. Watertown</td>
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<td>19.9</td>
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</table>

Source: BRPP
3. **Analysis of the Present Flow**

According to the percentage of the various kinds of traffic moving on streets, those in Weston's system, today, are serving one or more of four* major functions:

(a) those primarily carrying traffic generated by their abutting residences with either origin or destination within or without Weston—**residential streets**;

(b) those that accommodate, in addition—**significant intra-neighborhood movement**—**collectors**;

(c) others serve as **feeders**, while accommodating large volumes of **intra-Town movement**; their significant traffic is equally attributed to movement between Weston and other communities and to through traffic.

(d) still other street—**highways**—primarily serve traffic passing through Weston with neither origin nor destination in Weston.

The breakdown of Weston's streets by the kinds of traffic they carry correlates with the overall volumes of traffic they accommodate. Residential streets are handling less than 400 vehicles per day, while collectors range between 400 and 2,000 vehicles. Feeders accommodate between 4,000 and 8,000 vehicles. Highways are carrying over 10,000 vehicles.

The traffic pattern can best be explained by relating population to local and regional employment, shopping and institutional facilities. Understandably, Plate X-1 shows that traffic within the town increases as it converges at the Town center, where major civic, commercial and educational activities occur. The traffic between Weston and other communities develops on those routes which connect to regional arteries which, in turn, lead to major employment and shopping facilities. As can be seen from Plate X-2 and Table X-1, over half of all trips generated in Weston are attributed to some 11 communities that lie in the western sector of the BRPP as discussed in the Regional Influences Report. The eastward movement is by far the highest using the "gates" near Waltham and Newton on Route 20, 30 and 117 in that order. The westward movement comes next and is distributed almost equally on Routes 20 and 30 and "gates" at Weston-Wayland and Weston-Natick town lines. Northern movement leaves through Route 117 at Lincoln and southern movement uses Wellesley, Cliff and Ridgeway Streets at Wellesley.

* In addition, there are two limited access highways, Route 128 and the Massachusetts Turnpike which are not of direct service to Weston and which have not been dealt with in the analysis.
As can be seen from Plate X-1 there is a heavy flow of through traffic in Weston, whether or not desired, and carried mostly on regional roads, Routes 117, 90, 30 and 20. As was mentioned in the Regional Influences Report, Weston lies in the east-west corridor that forms the spine of the west sector of the Greater Boston Region. These east-west roads, are the most heavy travelled routes in Town. The origin-destination study conducted for BRPP shows that both internal and external desire lines of travel coincide with this pattern.

The distribution of Regional highways is set in such a way that north-south traffic is channelled to the east of Weston on Route 128, and to the west on Routes 125 and 27 which connect Route 2 to Routes 9 and 16 passing through the centers of Concord, Wayland and Natick. However, north-south through travel is of a significant magnitude as Weston's local streets provide the junction between Routes 117, 20 and 30.

As for the movement of trucks on Weston roads, it could be assumed that: (1) most of the internal truck trips are the result of distributing services and merchandise from local retail and wholesale outlets (near the Town Center) to residences all over the Town; (2) trucks originating or destined in Weston could be either delivering similar services from out-of-town commercial outlets to Weston residences or to the local commercial outlets; and (3) through trucks are most likely using the regional roads (or might be limited to them).

C. FUTURE TRAFFIC FLOWS

1. General Factors Affecting Travel Patterns

To make a sound appraisal of future traffic patterns, the various socioeconomic and technological factors that bear on changing travel patterns must be properly evaluated and assumptions regarding them clearly stated.

Low density development is most likely to continue in Weston. As was shown in Table II-5 of the Existing Land Use Report, the ultimate development of the Town would not result in any marked change in the existing residential densities. As people are going to demand more privacy and more space for recreation and community facilities, it is unlikely that there will be any substantial increase in the overall density of the Town.

Increase in the standard of living usually results in more leisure hours. It is difficult to predict changes in leisure-hour patterns, but most likely their effect will be reflected in changing the time of peak travel rather than its magnitude.

These social changes reflect economic advancements. Increase in family income usually results in increased automobile ownership, accompanied by an increase in automobile travel, and lower usage of public transit and car pooling. However, change in travel patterns of high income groups will be less dramatic as a ceiling in car ownership occurs in families with incomes over $10,000.
In Weston about 70% of the population is and will likely continue to be in this income bracket. The present car ownership and use pattern could be safely expected to continue, although it is also likely that people will depend more upon mass transit when it is improved.

A technical revolution in handling goods has resulted in the suburbanization of warehouses which will tend to increase, rapidly, truck trips per day per family regardless of the rate at which auto travel increases. Although automation and innovations in communication techniques may reduce the potential need for travel, employment in service activities will increase with an expected increase in travel to downtown and outlying commercial areas.

Improvement in the design of the automobile and improvement in highways (controls and guidance systems on free, limited-access facilities) will reduce travel time and encourage more travel.

Again, future travel patterns will partly depend on the extent to which Weston anticipates change and takes account of it in its planning program; in its zoning policies and regulations governing the development of commercial and industrial activities; in the street system it provides and in the level of transit service that is available.

These factors will be taken into consideration in projecting the future magnitude and direction of various types of traffic in Weston as discussed below.

2. **Internal Traffic Movement**

Today, there are some 9120 vehicle trips (4 trips per dwelling unit) circulating between various sections of Weston particularly to and from the Town Center, where civic, commercial and recreational facilities exist. Weston's population, as has been discussed previously, can almost double on available buildable land with the result that some 18,000 trips should be provided for. Potential areas that will absorb most of this growth lie to the northeast of Route 117, along Concord and Sudbury Roads, Highland Street, South Avenue (Route 30), Wellesley Street, and to the north of the eastern part of Route 20.

A disproportionately large volume of new home building in these areas will increase the existing internal traffic flow. Moreover, when these areas become more and more developed, the movement between them and the already developed areas in Town will increase, resulting in taxing the streets of the latter, although by relatively smaller proportions. The same model which was used for examining the existing pattern gives the expected volumes as shown on Plate X-3.
3. Traffic with either Origin or Destination in Weston

As has been discussed in the Regional Influence Report, Weston is not a regional employment or commercial center. However, it is a relatively important institutional (educational) and recreational center and these can be expected to generate appreciable amounts of traffic.

Full residential development could double Weston's population and generate 100% more traffic oriented towards the region's employment and commercial centers.

It is difficult to assess the destinations of future traffic volumes. However, it could be safely assumed that the Town's eastern "gates" will experience the highest impact because Weston's orientation would seem to lie in the region's core area (central cities); and because of the use of Route 128 as a distributor to other regional highways.

The situation will be altered by the introduction of the Massachusetts Turnpike extension to Boston and its interchange in Weston. It could be expected that a significant percent of the present eastern oriented traffic now using Routes 20, 30 and 117, as well as the expected additional traffic will use the Turnpike, as it will offer tremendous savings in the time-distance of the commuting trip. This will result in taxing all existing north-south streets in the Town, with the greatest impact on Newton, Wellesley and Ash Street. Estimation of expected volumes is presented on Plate X-3.

4. Through Traffic

Weston will become more of a crossroad, as the population in the region increases and as people go through it to regional employment and shopping centers in the core as well as along Route 128. A significant share of this type of traffic growth is not to affect Weston as sharply as the previous two types; for it will remain on the limited access highways, Route 128 and the Massachusetts Turnpike. However, as was mentioned in the Regional Influence Report, much of the future development expected in communities lying to the west of Weston along Route 20 is of a high generating capacity (commercial and industrial).

Communities oriented to Routes 117 and 30 might generate more commuting activities in terms of expected residential development. It would not be unreasonable to expect such overall traffic to increase 250%, but this would not necessarily be uniformly distributed over Routes 117, 30 and 20. The Boston and core-oriented traffic might find it to its advantage to pass through Weston to get to the Turnpike. This again will intensify the use of the Town's north-south routes as presented in Plate X-3.
5. **Implications of Increase**

This predictable increase in all traffic will not and should not follow the same patterns within the Town as the present patterns; for new streets may be built to funnel traffic away from existing streets. Plate X-3 should not be considered as pinpointing precisely the exact numbers of future cars. But rather it is useful in estimating the particular "range of flow". The physical standards for the construction of a street are based on broad functional classification (residential, collector, feeder, highway) and do not vary with minor variations in flow.

Its use could be explained as follows. A street such as Newton Street, by the nature of the development around it, could be considered, at present, a 'collector' since it accommodates both internal and external traffic and is significant for intra-neighborhood movement. However, projected volumes assigned to it would alter its function from a collector to a feeder street unless an alternate feeder is provided to accommodate the projected traffic volumes. If not, Newton Street would cease to become a neighborhood collector and its physical dimensions would have to be increased.

6. **Analysis of the Future Flow**

Based on the classification of streets according to their various functions and to the future traffic flow, Weston's circulation system would most likely have to accommodate the following volumes of traffic:

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<tr>
<th>Type of Street</th>
<th>Total Vehicles per day</th>
<th>Trucks (16-36% of Total)</th>
</tr>
</thead>
<tbody>
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<td>less than 300</td>
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<tr>
<td>Collectors</td>
<td>800 to 2500</td>
<td>300-900</td>
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<tr>
<td>Feeders</td>
<td>3000 to 15,000</td>
<td>1000 - 2400</td>
</tr>
<tr>
<td>Highways</td>
<td>over 15,000</td>
<td>over 2400</td>
</tr>
</tbody>
</table>

D. **THE CIRCULATION PLAN**

1. **The Policies**

The Circulation Plan as discussed below is intended to establish a "framework for decision-making" by both state and local agencies in reference to the traffic needs of the local population.

This Plan has accepted the following motivating policies:
a. To Serve the Future Land Use Plan

The distribution of land uses determines the movement of people and goods and thus the transportation facilities required to accommodate this movement. On the other hand, the availability of transportation facilities determines in part, the location of residential, industrial and commercial development. The two factors -- land use and transportation -- have been compared and adjusted until a desirable balance between the two has been achieved. The growth of Weston has been discussed in previous chapters, leading to a Future Land Use Plan which will be discussed in a later chapter. The Circulation Plan would be used to implement the Future Land Use Plan.

b. Design According to Function and Projected Needs

Streets should be planned and improved according to their function and to projected traffic needs in accordance with the best possible engineering practice. To insure that both new and renovated streets will be adequate in future years, a set of design criteria and standards is established as shown on Table X-2 below.

c. Integration of Regional and Local Systems

High capacity regional roads (the Turnpike and to a certain extent Routes 128, 117, 30 and 20) invite users from a wide area and cause traffic to converge. Getting on and off such main routes can create traffic jams on the old street system that was supposed to feed traffic into these expressways or highways and carry it off without delay (as evidenced by the increased number of accidents at many intersections). Regional highways should work in complete harmony with the local streets to and from an integrated network. They should be supplemented by an adequate local street system.

d. Separation of Through and Local Traffic

Highways and feeder streets should help to preserve residential communities and neighborhoods as well as institutional, business and industrial districts. They should be designed to serve these areas and define them rather than go through them.

e. Minimize Local Traffic

Circulation problems cannot be solved simply by providing more circulation 'capacity'. An effective solution calls for limiting the 'demand' for transportation as well as supplying additional capacity. Demand can be reduced by eliminating unnecessary travel. This could be achieved through

* As a great percentage of truck trips carried on Weston's street system is attributed to services rendered for the Town -- its commercial as well as its residential areas -- it would be impractical to impose severe limitations on the truck movement. However, the plan would ultimately provide roads that will be capable of handling all through trips, thus inviting such traffic to use these roads and channelling it off other local streets. As an intermediate step, such through truck traffic might be limited to state and county roads subject to the legal limitations.
the development of a community in which it is possible to walk with ease to certain facilities. One means of achieving such a "pedestrian" community is to adopt the "neighborhood" concept with residential areas around recreation and/or shopping facilities. Planned shopping centers, for instance, eliminate roadside clutter, parking problems and the interruption of smooth traffic flow.

f. Separation of Vehicular and Pedestrian Traffic

By adopting a "neighborhood" concept, the plan would allow the movement of vehicles from feeders to collectors to residential streets while providing for pedestrian walkways through sidewalks or greenways with footpaths to schools, shopping and parks.

2. Criteria and Standards

a. Classification of Streets

A street could be classified according to the function it serves into one of the following types:

1. an "expressway" which carries mainly inter-state and/or inter-town through traffic,

2. a "highway" which carries mostly through traffic, but nevertheless accommodates a considerable percentage of traffic with either origin or destination in the Town,

3. a "feeder" that provides direct connection between an expressway or a highway and various parts of Town -- the Town center, neighborhoods, schools, community parks, shopping centers or industrial areas. Certain controls on design (provision of park strips) and the type of traffic (excluding trucks and commercial vehicles) are exerted on some feeders lending it to be classified as a "parkway."

4. a "collector" that collects traffic from one or more "residential" streets and carries it to a feeder or directly to a highway.

5. a "residential" street which serves principally the abutting properties and carries no through traffic and

6. a "trail", a "walkway" or a "footpath" that is used by pedestrians and bicycle riders, and, in some cases, is wide enough to allow safety vehicles or police cruisers.
b. Desirable Standards

The breakdown of streets into these categories may be made more precise if the classification of each street is determined by its specific traffic volumes, (i.e., the average number of cars and trucks in both directions within a given period of time -- say, twenty-four hours.) However, the functional classification (and not the minor variations of flow) determines the physical standards for street construction, the width of its right-of-way, the number of lanes, its gradient, curvature, minimum sight distances and design speeds. These are summarized in Table X-2 and presented in a graphic form in Plate X-4. Expressways have a very high capacity in handling traffic volumes, over 100,000 vehicles, because of their limited access nature as well as their physical design features. Because they are not within the administrative domain of the Town, their standards have been omitted.

As Table X-2 indicates, a right-of-way of less than 50 feet in width is not recommended even for the least-traveled street. Justification for this absolute minimum width and for greater widths as traffic flow increases lies in the several different uses to which a right-of-way is put. Principal among these users are: (1) moving traffic, (2) parking (whether regular or emergency), (3) planting strips and storage, (4) slopes within sections of cut or fill, and (5) in some instances sidewalks. The widths required for these different purposes change with the classification of the street concerned.

Traffic lanes vary from 8.5 to 15 feet while parking lanes are generally constant at 8 feet. Capacity of a traffic lane varies most rapidly for changes in width between 8.5 and 10 feet. Capacity for a 10-foot lane has about 90% of the capacity of a 12-foot lane. Increases in capacities for lane widths above 12 feet are marginal with a practical ceiling at the 15-feet width. Capacity decreases because of interference along highway lanes or 'marginal friction'. Although in a suburban community all lanes could operate at 100% capacity, the capacity at a Town center decreases to 85% because of left turns and to 80% to 50% because of pedestrian movements.

Capacity of a given roadway facility and its ability to accommodate traffic depends on several variables among which are the number, width and effectiveness of moving lanes, headways between successive vehicles, composition of traffic, parking conditions and traffic signalization, as well as other marginal and intersectional interferences.

Capacity of a three-lane, two-way street is intermediate between the capacity of two-lane and four-lane roadways. Capacity of one-way
### TABLE X-2 HIGHWAYS AND STREETS: DESIGN STANDARDS

<table>
<thead>
<tr>
<th></th>
<th>Highway</th>
<th>Feeder</th>
<th>Parkway</th>
<th>Collector</th>
<th>Residential Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic volume</td>
<td>over 15,000</td>
<td>3-15,000</td>
<td>3-15,000</td>
<td>800-2,500</td>
<td>less than 800</td>
</tr>
<tr>
<td>Right-of-way</td>
<td>70-100</td>
<td>60'</td>
<td>60-100'</td>
<td>60'</td>
<td>50'</td>
</tr>
<tr>
<td>Traffic lane</td>
<td>2 @ 13'</td>
<td>3 @ 13'</td>
<td>3 @ 13'</td>
<td>2 @ 12'</td>
<td>2 @ 10'</td>
</tr>
<tr>
<td></td>
<td>2 @ 12'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking lanes</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>1 @ 8'</td>
<td>none</td>
</tr>
<tr>
<td>Planting strip</td>
<td>2 @ 8'</td>
<td>2 @ 8'</td>
<td>1 @ 8'</td>
<td>2 @ 9'</td>
<td>1 @ 9'</td>
</tr>
<tr>
<td>or shoulder</td>
<td>min.</td>
<td></td>
<td>1 @ *</td>
<td></td>
<td>1 @ 14'</td>
</tr>
<tr>
<td>Sidewalks **</td>
<td>1 @ 5'</td>
<td>1 @ 5'</td>
<td>1 @ 5'</td>
<td>2 @ 5'</td>
<td>1 @ 5'</td>
</tr>
<tr>
<td>Design speed (miles per hour)</td>
<td>50'</td>
<td>40</td>
<td>40</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Maximum gradient</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>6%</td>
<td>7 to 8%</td>
</tr>
<tr>
<td>Maximum horizontal curvature</td>
<td>5 deg.</td>
<td>5 deg.</td>
<td>5 deg.</td>
<td>11 deg.</td>
<td>20 deg.</td>
</tr>
<tr>
<td>Minimum sight distance</td>
<td>800'</td>
<td>800'</td>
<td>800'</td>
<td>500'</td>
<td>200'</td>
</tr>
</tbody>
</table>

* Variable ranging between 8' and 48'.
** Minimum of 8' in business areas

Street is higher than a two-way street of the same approach width. Planting strips and shoulders are needed for several reasons: (1) they provide space for occasional parking without increasing pavement width (which increases would not be justified in Weston due to the infrequency of such parking); (2) they would provide room for snow storage, especially where the road runs through a cut; (3) in streets without sidewalks, the slopes can be graded from the gutter line and in some cases, leveled to allow occasional or emergency walking off the pavement; (4) they would furnish a reserve to allow for widening of the pavement if standards change or if the traffic should increase over predicted amounts; (5) they provide space for slope grading, which usually should be done on the public easement and not on the abuttor's land; (6) they accommodate all gutters and drainage ways (often up to three feet wide) and guard rails where required; and (7) they give the Town the right to cut brush and shrubbery along the roadway (particularly on curves) for traffic visibility (which is important in a rural town).
RESIDENTIAL STREET

STANDARD COLLECTOR

PARKWAY

FEEDER-3 LANES

HIGHWAY 4 LANES

ALL DIMENSIONS IN FEET

\[ x = \text{MINIMUM } 8' \]
With low pedestrian volumes (100 or less per day), a sidewalk on one side is considered justified and necessary when there are 100 vehicles or more per peak hour, or an average daily volume of about 700 cars. With higher pedestrian volumes -- over 100 per day -- a sidewalk on one side is justified when there are only 30 vehicles per peak hour, or an average daily volume of about 200 cars. Except near schools and the business district, it is doubtful if such pedestrian volumes will ever be reached in Weston. Consequently, it may be said that most residential streets in densely populated areas will eventually require a sidewalk. Sidewalks on both sides of a street are considered justified and necessary only with pedestrian volumes over 300 per day and traffic volumes over 100 vehicles per peak hour, or 700 vehicles per day. This situation could eventually prevail in Weston near (community facilities, playgrounds and schools) on collectors parkways.

While no single "standard cross-section" for an entire right-of-way, especially in a rural area, can be presented, the typical uses of a right-of-way width mentioned above -- pavement, shoulders, gutters, guard rails, slopes and occasional sidewalks -- indicate that the "extra" space may be fully utilized by many combinations.

The greatest deficiency of the Town's many streets is the need for lateral expansion space for future widenings. Where existing or proposed streets pass through undeveloped land, a full right-of-way width can and should be reserved. However, in built-up portions of Town such reservations are often impractical, if not impossible, and design criteria must be altered to meet the needs of the particular problem. It is suggested that as redevelopment of built-up frontages takes place along streets suffering from width restrictions, steps should be taken to acquire wider rights-of-way. Thus, in time, full street widths may be attained.

Once sufficiently-wide rights-of-way have been reserved, the remaining standards can be attained wherever needed. For example, pavement and shoulder widths need to be increased from lesser widths to those recommended only as traffic demands require it. Similarly curbing, planting strips and sidewalks need to be introduced only when houses are built.

3. Evaluating the Existing Street System

The Town's street system has evolved over the years from a situation prior to the development of the automobile in which Weston had relatively few streets to the present situation under which the Town has over sixty miles of public ways carrying traffic flows varying from a one hundred to over twenty-two thousand cars per day.
a. Right-of-Way Width

Each public way in Weston is laid out over a right-of-way that varies from twenty to two hundred feet in width. In some cases, the actual width of the pavement or roadway surface occupies nearly all of this right-of-way; in others, there is still substantial unoccupied space on one or both sides of the pavement.

Under existing subdivision control regulations in Weston, no street in a development is generally approved (even as a private street) that has a right-of-way width of less than fifty feet.

There are, however, at the present time over twenty-five miles of public roads in the Town with rights-of-way narrower than fifty feet. Of these about one-half are narrower than forty feet. These streets are by no means all residential since some serve as collectors or feeders. Some stretches of Merriam Street, for example, have only a thirty-foot right-of-way while some parts of North Avenue and the Boston Post Road have rights-of-way of less than fifty feet. Plate X-5 shows graphically the existing width of all rights-of-way of Weston’s streets.

Plate X-5 shows deficiencies in the right-of-way widths for these streets classified as collectors, feeders, or highways based on the projected traffic flows. The relative seriousness of a deficiency could be extreme, substantial, moderate and minor. The relationship between actual width deficiencies in feet and these categories for various types of streets is as follows:

<table>
<thead>
<tr>
<th>TABLE X-3 DEFICIENCY RATING OF WESTON’S STREETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collector</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Desirable minimum width of right-of-way</td>
</tr>
<tr>
<td>Existing right-of-way</td>
</tr>
<tr>
<td>Deficiency</td>
</tr>
<tr>
<td>Rating</td>
</tr>
</tbody>
</table>

The above relationship is based on two considerations: (1) for any given type of street, the seriousness of a deficiency in width increases as the right-of-way decreases, i.e., as the magnitude of the deficiency itself increases and (2) between types of streets, the seriousness of any given deficiency increases as the classification of the street increases in importance.
b. Alignment

Persons familiar with Weston's streets need not be told that many roads are winding in nature or contain dangerous sharp curves, i.e., Sudbury Road, Concord Road, Conant Road, Newton Street and Oak Street are all good examples. Many of these streets were originally laid out in areas of uneven terrain, where outcroppings of ledge made it impossible at that time to build a less-winding road. The Weston Highway Department has been removing such hazards gradually, as its schedule and resources permit.

All curves on Weston's streets were measured on large scale town plans. Those exceeding minimum standards of curvature for the projected traffic flows are indicated graphically on Plate X-5 by a symbol \( \square \) for all streets classified as collectors, feeders and highways.

As with the deficiency of width, excess curvature is also a relative term; the number of sharp curves and the magnitude of their excess is indicative of the relative need for realignment. Clearly, an average of a few degrees on one curve would not justify drastic town action; however, an average of ten or fifteen degrees on each of several curves would show need for improvement. In this connection, examination of Plate X-5 indicates that among the streets needing substantial alignments are Lexington Street, Concord Road, Sudbury Road, Highland Street, Newton Street, Winter Street, and part of Glen Road.

c. Miscellaneous Factors

There are factors other than the width and alignment that determine the adequacy or inadequacy of a street system. Intersections in many cases may be quite blind or they may have an angle of less than 60 degrees. Streets may also include excessive slopes.

There are many instances of inadequate offsets and excessive length of dead-end roads that cause major inefficiencies in the circulation system.

Accidents are one indication of the breakdown of a circulation system. A study of police records in 1964 reveals a distinct pattern of accidents (as shown on Plate X-5).

(a) When the pattern is compared to the traffic flow diagram, a general relation of accidents to traffic volumes becomes apparent.
(b) It should also be noted that accidents seem to be related to congestion along travelled routes.

(c) Traffic controls are important as revealed by the decrease in the number of accidents at the interchange of Wellesley Street and South Avenue since the installment of traffic signals. However, the significant number of accidents at this interchange as well as at the School Street intersection with Route 20 indicates that traffic controls alone might not be the answer.

The clustering of accidents as shown on Plate X-5 particularly along the Routes 20, 36 and 117 indicates an urgent need that they be physically improved.

4. The Plan

The Weston Circulation Plan is composed of one north-south highway: Route 128, and four east-west highways: The Massachusetts Turnpike, Route 117, Route 20 and Route 30. Feeders and parkways are proposed to (1) accommodate traffic getting on and off the highways and (2) provide access between Weston and abutting towns and between various parts of Weston. The feeder-parkway system is composed of some existing streets (with appropriate improvements) as well as newly proposed streets.

The highway, feeder-parkway system divides the town into its various neighborhoods and helps to define the boundaries of these areas. The neighborhoods are then divided into smaller sections by means of the collector street and walkway systems, which provide vehicular and pedestrian access between abutting neighborhoods as well as within each neighborhood.

Plate X-6 shows the proposed circulation system for the Town. Several proposed relocations and new roads are shown in dotted patterns. The width of the patterns refer to the classifications of roads.

a. Highways

It is recommended that Route 117 be relocated as shown on Plate X-6 to join Route 128 at the Waltham interchange and Route 20 and Route 30 -- as well as Route 117 west of Merriam Street -- be improved to handle the expected increase in traffic volume. Specific improvements should include:

(1) redesign and reconstruct the intersection of Route 117 with Merriam and Lincoln Streets
abandoning the existing parking at the two separate locations. The railroad contribution would be in providing a waiting shed and in integrating it with the brook and the parking lot in a reasonable landscape.

F. EFFECTUATION TOOLS

The following is a summary or check-list of some of the available tools for carrying out the Circulation Plan:

(a) Use of the Official Map by adding to the map those proposed streets and highways of the circulation plan; new locations, alignment or abandonments, adopted by Town Meeting action, to reserve the needed land for the future.

(b) Subdivision controls can require the subdivider to construct streets, walkways and parking areas to the specifications of the community.

(c) Purchase and construction by the Town of streets with or without eminent domain.

(d) Grants-in-aid such as Chapters 80 and 90 of the General Laws. These programs can solve many of the present problem spots such as intersections, street extensions, improvement of pavement widths and repaving.

(e) State highway construction.

(f) Capital programming can plan and schedule improvements for a period of years ahead and can be very helpful in getting things accomplished systematically and in proper sequency.

(g) Traffic and engineering studies are essential to specific and difficult problems in any implementation program and must be prepared well in advance.

(h) Zoning can establish standards for off-street parking.

(i) Standards can be established as guides to define the basic elements of the proposed circulation system. (Further studies should supplement these to detail cross-sections, inter-sections, walkways and other circulation features.)

(j) Betterment assessments for improvements and walkways are accepted tools that make it easy to use in carrying out a Circulation Plan.

(k) Use fees such as are frequently charged for parking at meters or in lots can assist in a small way.

(l) Building setback lines on all existing ways provide for sight distances, future sidewalks and ultimate widening as required.
2. redesign Route 20 west of Highland Street with special care for its intersection with Old Boston Post Road and improved Love Lane.

3. redesign and reconstruct the rotary at the intersection of Park Road and Newton Avenue with Route 30, with special care for the latter's intersections with Ridgeway Road, Oak Street, Wellesley Avenue and Winter Street.

4. along all highways, reduce to a practical minimum the number of driveways and residential streets with access onto them by providing parallel service roads, separated from the highway by an adequate planting strip. Improvement of intersections should include installment of traffic signs and lights as deemed necessary.

b. Feeders

It is recommended that the following streets be designated as feeders and renamed avenues to increase their legibility and to emphasize their function:

1. North Avenue: redesign and reconstruct its intersection with proposed extension of Route 117, improve its alignment and bring it up to a desired width in the vicinity of Kendal Green and extend it to the south overbridging the railroad lines until it joins Route 20.

2. Concord Avenue: improve Concord Road between Old Boston Post Road and Merriam Street and extend it northerly until it joins Route 117. Redesign its intersection with Merriam Street by substituting for the latter a new intersection with Jericho Parkway.

3. Wellesley Avenue: improve Wellesley Street from Wellesley Town Line to Regis College and extend it northerly passing west of the elementary school campus through the cemetery until it joins Old Boston Post Road at the latter's intersection with Concord Avenue. Redesign intersection with Boston Post Road and its by-pass and design new intersection with proposed Newton Avenue.

4. Newton Avenue: improve Newton Street from its beginning at Route 30 northwesterly along the Pine Brook Country Club, extend it along northern boundaries of Weston Reservoir watershed, until it joins Wellesley Avenue. Design this intersection with proposed Center Avenue.
(5) Center Avenue: improve Ash Street and Wellesley Street north of its intersection with School Street, joining the Boston Post Road and extending in a northeasterly direction crossing over the railroad and joining Church Street to North Avenue. Redesign intersection with the Boston Post Road and its by-pass and Winsor Road.

(6) East Avenue: extend Driftwood Lane to join Wellesley Avenue; improve Driftwood Lane, Shady Hill Road and extend it into Norumbega Reservoir watershed and easterly through, and beyond, the Forest and Trail property until it joins Park Avenue.

(7) Park Avenue: rename Park Street to Park Avenue.

c. Parkways

It is recommended that the following streets be designated as parkways. Although serving the same function as feeders, trucking would not be allowed on them: Cart Path, parts of Cedar, Conant, Doublet Hills, Green Lane, Highland, Lexington, Winter; Cliff-Oak, Love Lane, Summer and Viles Streets.

d. Collector Streets

The streets in the above classification are intended to carry a greater or lesser amount of through traffic, either passing through town or moving from one part of town to another. Collector streets will mainly carry neighborhood traffic. The proposed collector streets are:

Ash Street  Meadowbrook Road
Bogle Street  Merriam Street
Bradyll Road  Newton Street
Cherry Brook Road  Radcliffe Road
Church Street  Ridgeway Road
Conant Road  Rolling Lane
Concord Road  Skating Pond Road
Drabbington Way  Sudbury Road
Glen Road  Warren Avenue
Highland Street  Westland Road
Kings Grant Road  Winter Street
Legion Road  Woodchester Drive

e. Residential Streets

All of the remaining streets in Weston are proposed to remain or to become residential street, serving abutting properties. A few would have minor extensions to provide better access to developable land.
E. PARKING

Curb parking has long been recognized as an inadequate means of meeting the parking needs of certain intensified land uses such as civic and shopping centers, business and industrial districts, educational and recreational sites, and transportation terminals. When provisions requiring off-street parking and loading facilities are included in a town's zoning by-law, they would bring about effective results. However, areas developed prior to such zoning requirements, usually lack adequate off-street parking. Provisions concerning parking requirements will be discussed in Chapter XIII - Zoning. Weston's shopping center and the Kendall Green commuter station are now considerably developed, and they would require -- in addition to zoning provisions -- some remedial town action.

There are only some 20 off-street parking spaces and 60 curb parking spaces in Weston's shopping district. Private areas behind the stores to the south of the center can provide for some 30 cars subject to good weather conditions. Expected future development of the center would call for doubling its floor space and providing between 600 and 1000 parking spaces. A scheme for the complete, physical development of the center is underway. Action to accomplish this will involve different land owners and tenants and these require full cooperation with each other as well as with the Town government.

Around Kendall Green commuting station, there are two parking lots, one is on the railroad property (Boston and Maine) adjacent to the station with a capacity of 50 cars, and the other, across Church Street on land owned by the Town, accommodates a maximum of 20 cars. Both lots are poorly constructed and need physical improvements. A survey, conducted during the 4 to 7 P.M. commuting hours (involving 8 trains), showed that only 35 cars parking in the first lot and 11 cars in the second -- a total of 46 cars or 65% of the overall capacity. Not all of the commuters park their cars all day: some are chauffeured to and from the station. Although these did not exceed 6 cars at any one train, they interrupted the flow of traffic for lack of the space necessary for their maneuvering.

The number of future commuters would depend on the policies of the railroad and public agencies (Federal and State Governments and the MBTA) in continuing and improving commuting facilities as well as on the preference of Weston's residents to use these facilities.

This would make it difficult to give concrete estimates. In the face of such uncertainty it would be preferable to determine a strategy rather than a definite plan, i.e., to acquire adequate land around the station, part of which would properly accommodate existing parking and turning needs and the remainder would be conserved for expanding needs when sensed. The Town now owns an area of 0.6 acres west of the tracks and north of Church Street. It might be advisable that the Town acquire some 2 or 3 more adjoining acres and develop part of this site for a turning area and gradually part of it for parking spaces, ultimately.
XI. UTILITIES

The general subject of utilities includes a wide variety of services. Electricity, gas and telephone services are supplied to Weston by private companies with minimum community responsibility except for certain public controls pertaining to their use of public and private rights-of-way in the Town. Water, sewerage and drainage, on the other hand, are wholly municipal or regional responsibilities. Their demands, adequately met, are a prerequisite to the healthy development of any community. In Weston there is an awareness of such responsibility. Various studies have been recently delegated by the Town to various engineering firms to undertake thorough investigations of the problems and possible remedies of the water, sewerage and drainage systems, to draw plans for future expansions and to estimate the magnitude of any needed Town action. Such analysis is beyond the scope of a Master Plan Study which is "general" in nature. However, the following is a brief discussion of the various projections and proposals of the Master Plan that have relevant effects on these utilities studies and of the use of the studies to date in preparing this Plan.

A. WATER

1. Introduction

The purpose of this section is to review prior studies of the Town's water system, to relate those studies and their recommendations to this study and to reassess the future water needs for Weston. There are three significant factors which must be considered in assessing future water requirements: population growth, changes in water consumption per capita and land use changes.

2. Existing Conditions

Weston has had several studies made of its water system, the most recent of which was done by Metcalf and Eddy in 1962. This study included a complete analysis of the existing system, estimated future needs and designed the facilities necessary to service those needs. All pertinent data for this planning reappraisal is contained in the report.

3. Population Projections

The recommended expansion of the water system by Metcalf and Eddy is based on population projections prepared by Charles E. Downe in 1960. Table XI-1 compares the population projections used by Metcalf and Eddy with those of this 1965 Master Plan.
TABLE XI-1 POPULATION PROJECTIONS USED TO ESTABLISH WATER NEEDS

<table>
<thead>
<tr>
<th>Metcalf and Eddy Study</th>
<th>Master Plan (1965)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>1970</td>
<td>11,000</td>
</tr>
<tr>
<td>1980</td>
<td>13,000</td>
</tr>
<tr>
<td>2000</td>
<td>15,000</td>
</tr>
<tr>
<td>Ultimate Probable</td>
<td>18,000</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The projected populations of the Metcalf and Eddy Study and the Master Plan projections for residential populations are approximately the same for the years 1970 and 1980.

The residential-institutional population projection are found to be slightly greater than the projections in the water study. These differences are not critical as the recommended water system is based upon an ultimate probable population of 18,000 people which is slightly greater than the ultimate probable populations of the Master Plan.

This is primarily due to the fact that the 1960 planning projections were higher than the 1965 figures because of the reasons outlined in the population section of this report.

4. Per Capita Consumption

The Metcalf and Eddy study did allow for increased per capita consumption of water through 1980. This trend in residential water use is typical and will probably continue over a long period of time, although the current drought, requiring water bans, may produce a temporary slow-down in this upward trend.

5. Land Use Changes

The proposed future land use plan makes no drastic alterations of the existing land use pattern which would affect the proposed expansion of the water system as designed by Metcalf and Eddy.
6. **Recommendations**

This review indicates that there are no recommendations of this planning study which would require changing the basis of the Metcalf and Eddy report. Consequently, that report and its recommendations are deemed consistent with this study.

**B. SEWERAGE**

1. **Introduction**

The matter of waste disposal is becoming an increasingly important municipal problem. This is particularly true in suburban communities which are currently dependent on septic tanks and cesspools for sewage disposal.

2. **Existing Conditions**

Weston has no public sanitary sewerage system at the present time, though such a system in urban and suburban communities is the permanent, long-range answer to this matter. In Weston septic tanks and cesspools have been and are being used for the disposal of sewage for all residential areas. Despite this reliance on on-site facilities there have been no major sewerage problems associated with residential areas. With proper care, maintenance and periodic cleaning the on-site septic tanks are considered adequate to meet present and immediate future residential sewerage needs and conceivably could be continued for many years if the soils retain their permeability and new tanks are properly engineered and installed and old ones maintained.

The private institutions such as colleges, schools and golf courses in Weston have their own on-site treatment facilities which are reported to be adequate at this time.

The Town center, including the stores and municipal buildings, does have an immediate sewerage problem which is presently under review by Haley and Ward, Waltham, Mass. consulting engineers.

There is also an impending problem at the elementary school site, a short distance south of the Town center. The anticipated expansion of the elementary facilities here will require a new school. However, there is a general understanding that the site would not be approved by the Massachusetts Department of Public Health for further on-site sewage disposal facilities. This would necessitate a new elementary school at another site or the installation of a sewage disposal system to serve the entire school campus, eliminating all on-site facilities and, in effect, providing a permanent solution for the schools.
Because of the geographic relationship of the Town center and the elementary school campus, it would be possible, and therefore desirable, to investigate a single disposal system and treatment facility to serve both areas.

3. **Recommendations**

The proposed future land use plan for Weston does not alter the present residential densities. Under existing circumstances and for the foreseeable future this would not necessitate a public sewerage system for the residential portions of the Town. The plan does however make specific recommendations for the expansion of the Town center and the further concentration of elementary school buildings. Both point up the immediacy of providing a solution to the sewerage problem. There are three possible solutions:

1. install a small, independent sewage disposal facility within the Town,

2. tie directly into the M.D.C. system or

3. tie indirectly into the M.D.C. system through the City of Waltham.

Under all of the circumstances it is obviously recommended that the consulting engineers complete their study as soon as possible to ascertain the desirable course of Town action.

From a practical planning point of view and for reasons of economy and efficiency it is recommended that a small sewerage system be constructed to serve both the Town center and the elementary campus. The timing and degree of Town control of this alternative outweigh at this time a connection to the M.D.C. system despite the fact that this latter alternative is the long-range, permanent solution to this matter.

C. **DRAINAGE**

1. **Introduction**

The control of runoff water and the protection of watersheds and natural retention areas are important municipal responsibilities. Proper drainage control is necessary to protect the citizenry from floods and erosion, to prevent pollution of streams, to preserve water supply sources and ground water levels, and otherwise to guard the general public health from all possibilities of contamination and infection.
2. Existing Conditions

Over the years Weston has had no major town-wide drainage problem, though there have been and continue to be isolated and infrequent drainage problems primarily in and around the swamps which serve as natural retention areas. These areas have influenced the open or spacious character of Weston's growth along with the type of land use (zoning) controls and the acquisition of land for open space purposes.

The absence of a major drainage problem is due in large measure to these factors and indicates the extent to which low density development with minimum lot coverage can effectively eliminate or at least reduce the impact and magnitude of drainage problems.

Currently, the Town is having a complete drainage plan prepared by the firm of Haley and Ward, Waltham, Mass., consulting engineers. This plan is not complete although the firm has used parts of it over the past few years to assist the Town in meeting individual problems as they have arisen.

3. Recommendations

The proposed Master Plan does not suggest altering the present character of Weston or its general trend of growth. The Plan does recommend the retention of natural areas for drainage and flood protection purposes and the continuance of the existing zoning requirements -- both as aids in keeping the problem of drainage at a minimum and under reasonable control.

It is also recommended that the town-wide drainage plan be completed soon and that its use for solving isolated problems and reviewing drainage schemes within new subdivisions be continued. Any needed corrective measures pointed out by the drainage plan should become parts of the capital budget program and carried out seasonably within the financial limits established by the program. Preventive measures through the use of zoning are also possibilities to be discussed in the section on that subject.
XII. FUTURE LAND USE

A. INTRODUCTION

The plans discussed so far in Part Three of the Master Plan Report, and including Schools, Recreation-Conservation, Other Community Facilities, Circulation and Utilities, represent the primary concern and responsibilities of the community. The purpose of this Chapter on Future Land Use is to suggest to the community -- private individuals and institutions as well as the governmental bodies -- an outline for future development and redevelopment, by indicating specific areas for the different land uses: the various types of residences, commerce, business and industry and institutions. The Plan coordinates these with, and includes, the aforementioned proposals of the so-called public sector. All proposals, public and private, are, in fact, designed to be integrated and are in line with the overall policies of Part Two.

The Future Land Use Plan is therefore a working document for the Planning Board to guide it in making recommendations on all matters referred to it. Although it is not a legal document in the sense that a zoning map is (by virtue of its adoption by Town Meeting), it is nonetheless a public record and as such can be used by the Planning Board as a sound basis for its actions. On this proposition it might be adopted by the Planning Board to give it status with the understanding that it is not a detailed "blueprint", but it would be added to and modified from time to time by "amendments" prepared from subsequent studies and analysis.

The Future Land Use Plan is presented on Plate XII-1. Following is a narrative summary of its major elements and the rationale behind them.

B. RESIDENTIAL DEVELOPMENT

Three types of residential development are suggested for the future Weston, namely (1) medium density, multi-family areas ('high-rise' apartments), (2) medium density, multi-family areas ('walk-up' or 'garden' apartments), and (3) low density, single-family areas; distributed in eight residential neighborhoods around the 'civic-commercial' core.

1. Medium Density ('high-rise' apartments)

Elevator 'luxury' apartments are suggested only at the Massachusetts Turnpike/Route 128 intersection on two relatively small sites (about 50
acres each). These sites would have numerous advantages: excellent expressway access minimizing any traffic burden on local streets; attractive locations on high elevations overlooking the Stoney Brook Reservoir and the Charles River; and accessibility of golf courses and other recreational facilities in the area. All of these would work together to render such development desirable. This type of housing would provide 'luxury' accommodations for persons who have businesses or jobs in the immediate area and for those senior citizens, for example, who do not wish to own a home but want to live in Weston.

2. Medium Density ('walk-up' or 'garden apartments')

This type of residential development would offer social and economic benefits to the Town. Socially, it would (a) allow the continued residence in Weston of families whose children have grown up; (b) provide reasonable cost housing for Town employees and (c) provide interim or temporary housing for persons with new or short-range jobs in the area. Economically, the dollar investment per capita in apartment residences would probably be as high as in single-family homes while the municipal costs are usually considerably less.

The area suggested is about seventy acres at the intersection of Concord Road and Boston Post Road. This site has characteristics that recommend its use for such development, because:

(1) there is easy access to the Town center where the residents are quite likely to work,

(2) they establish a logical and visual boundary use and work as a buffer between single-family homes and the roadways since they are on the edge of the neighborhoods along the encircling high traffic roads, and

(3) the nature of their physical development will enhance the aesthetic value of the center of the Town by defining its visual limit and yet will not affect the feeling of openness in the Town because of the low percentage of land coverage of 'walk-up' or 'garden' apartments.

Both the high-rise and the garden apartments are not meant to, and would not in fact, drastically increase the density of population per gross acre in their respective areas. Their development would be controlled by special regulations incorporated within the Zoning By-law under a special section "Planned Residential Development".

Subject to approval by the Planning Board under the Subdivision Control Regulations, sites at least 10 acres in size, in single or con-
solidated ownership within the boundaries of these districts, would qualify for such development.

The development plan for the entire tract would be presented for consideration. The total number of proposed units would not exceed the number of lots which could be developed under the existing zoning requirements (say 1 acre/unit). All land within the tract not included in house lots, rights-of-way or utility easements would be set aside as common land and may be either deeded to the Town or covenanted (simultaneously upon the Planning Board approval) to be maintained as permanent "open space" in private or cooperative non-profit ownership. Such "open space" would have access from a public way and would include recreation-conservation and their appurtenant facilities, but would not exclude public or private underground services.

3. **Single Family**

No attempt was made to change existing developed areas to higher densities than presently exists, for the first prime goal of the Town is to preserve the semi-rural character of the Town. Secondly, the percentage of town already developed is so high that even if it was desired -- on a metropolitan level -- to change to a more intensive (and possibly more economic) use of land, the added benefits would not justify the extra costs involved for providing the services needed for such kind of development. Thirdly, the topographic characteristic of the Town lends itself suitable for the high-quality, large-lot size developments with a minimum of technical difficulties which might arise from soil conditions.

C. **RETAIL AND BUSINESS**

Although Weston does not play a strong commercial role on a metropolitan level, as was mentioned in the Regional Influence Report, it is possible, if it would so chose, to develop its community center as its population grows resulting in a higher purchasing power capable of supporting more stores.

Two types of business and retail development are proposed:

(1) a "community" shopping center and

(2) neighborhood convenience shopping centers.

Of primary importance to the entire Town (as will be discussed below) is the proposal to improve and redevelop the Town center utilizing its 20 acres. Two small neighborhood shopping centers are proposed -- one in the vicinity of the intersection of (a) Viles Street and North
Avenue, and the other near (b) Wellesley Street and proposed East Avenue -- to serve the every day needs of residents within a one-half to one-mile radius. The centrally located community shopping center would provide such service for the remainder of the Town.

1. The Town Center

The size of a shopping center depends upon the geographic limits of its trade area which is determined by such factors as (a) the time-distance travel from the center's site; (b) natural and man-made barriers (undeveloped land, parks, rivers, railroads or limited access highways) which psychologically interrupt the feeling of continuity; (c) competitive facilities and (d) the attitudes and habits of the shopping population.

The trade area of a community shopping center usually ranges from a one to three mile radius containing a population of between 15 and 30 thousand persons. The function of the community center (of 15 to 35 stores) is the sale of convenience goods and personal services (similar to a neighborhood center though with greater depth of merchandise) and the sale of shopping goods such as wearing apparel, appliances and soft goods, (see Table I-5 of the Regional Influences Chapter). It is obvious that the trade area changes for the various types of stores. The leading tenant is normally a variety store or small department store. The location is usually at the intersection of major roads (highways and feeders) and/or expressway, comprising some 10 to 30 acres and providing parking for some 1000 to 2000 cars.

It is beyond the scope of this study to determine precisely the existing and future size of the trade area of Weston's community shopping center. However, suffice it to mention that the present facilities are not meeting all the demands of the townspeople as evidenced in the already settled shopping pattern strongly dependent on both Waltham and Wellesley.

This could be attributed to various factors. The location of the shopping district is central since a circle of a 3-mile radius would almost cover all parts of the Town. With prevailing low densities, the existing population does not exceed 10,000 which is, most probably, insufficient to support a strong center. However, the ultimate development of the Town's land would bring the future population up to the vicinity of 18,000 persons with a potentially adequate purchasing power that, if successfully attracted to the center, would give the needed economic support for continuous and satisfactory operation.

The proposals concerning the provisions of new streets and the improvement of Weston's circulation system will increase the accessi-
bility of the Town's shopping center to all the residents of Weston. However, these improvements might so increase accessibility to competing centers in neighboring towns that Weston would have to increase and improve the amenities and convenience of its own center in order to retain Weston shoppers.

One of the most important of these improvements is the provision of adequate and convenient parking. Central business districts everywhere are suffering from lack of parking space which discourages would-be shoppers with the result that planned centers supplying this service drain off business. And Weston is no exception. At present there are about 40 angle and 20 parallel spaces in front of the stores along the Boston Post Road. There are some 20 off-street parking spaces in front of the northern stores and some areas on the south side of the center behind the shops where the shopper can park in good weather. In hunting for the scarce parking spaces, shoppers interrupt the flow of traffic on Boston Post Road with the inevitable result of congestion.

Nor is parking the only factor for once parked a customer would like an easy walk to a wide-range of various establishments, all located in a compact and aesthetically pleasing setting. The overall size of the present area in Weston Center cannot be expanded very much without either: (1) extending it westward along the Post Road into the residential section which is obviously undesirable or (2) intensifying the use of the area between the Post Road and the Route 20 by-pass for building or at least for parking.

The second alternative, from this Master Plan point of view, is preferable even though some additional cost would be entailed due to the necessity of providing access and to certain engineering foundation problems in the area. However, a combination of public funds and private capital would be sufficient to overcome this cost factor and to create a worthwhile shopping center of value to the Town and its citizens.

Development of this implies also the discouraging of unnecessary expansion of business outside the center proper: (1) to keep the center compact with feasible walking distances to all stores and (2) to increase the volume of business to a scale that will allow a return comparable to the value of land and the necessary high investment.

In addition to increasing its accessibility, its parking facilities, and the intensity of its use, the rejuvenation of Weston's center would still call for further action to improve its physical appearance for an attractive place of business has a correlation with the amount of
business transacted. Such action would involve cooperation among merchants, owners, Town government and public and semi-public institutions in designing, renovating and landscaping properties according to a total plan for the center which would guide its development into an architecturally-pleasing appearance and an attraction for all to make use of its services.

2. Neighborhood Centers

The trade area of the neighborhood convenience shopping centers is usually a half-mile to one-mile radius circle containing some 3000 to 15,000 persons. The convenience shopping center usually contains from 7 to 15 stores on a site ranging from 4 to 8 acres and providing for some 200 to 600 parking spaces. In Weston, with the prevailing low residential densities, ultimate development would only produce about 3,000 persons concentrated in a one-mile radius circle. The small population would most likely make it necessary to keep such centers to minimum dimensions -- a site of 5 acres accommodating 200 parking spaces and four stores, mainly a grocery and some smaller shops. Even when existing population does not warrant the immediate development of such centers, it is advised to select the sites now, rezone it for commercial use, permit a modest start and allow planned expansion.

D. WHOLESALE AND LIMITED BUSINESS AND INDUSTRY

As was mentioned in the Regional Influence Report, Weston is in a sector of the metropolitan area in which a large number of new suburban industrial and research facilities have been located. While there is a strong demand for industrial land in the communities near Route 128 -- Weston's attitude does not seem to favor new admissions and expansion of the Town's existing industrial operations. The general desirability of any non-residential development might be questionable; however, there are "negative" factors that might make it possible to support the argument for encouraging such development at certain locations within the Town.

The extension of the Massachusetts Turnpike to Boston and its extensive intersection with Route 128 have created some sites that will not be especially desirable for single family residential use because of the proximity of heavy traffic. On the other hand, their proximity to the exits of these two expressways provides extremely good accessibility and offers opportunities for high competitive uses with potentially high investments that could furnish the Town with additional tax base. Moreover, their nearness to the medium density 'high-rise'
apartment sites would result in a combination of uses which might well support limited business of a convenience nature to employees and residents alike.

The area north of Route 20, next to the Broken Stone Company and south of the Town Dump, provides a site with an already high accessibility next to the Route 128 - Route 20 intersection. Added to the high volume of traffic is the physical nearness to an existing industrial operation. Rezoning the area for residences and rendering the industrial use non-conforming would not bring the industrial operation to an end. However, rezoning for limited industrial business use might prove practical by inviting a highly competitive use that can invade and succeed the already existing use. Moreover, the incentive of putting the land to such development could have the incidental side effect of providing the recommended feeder street as part of the development and with no extra cost to the Town.

E. SOME HIGHLIGHTS ON THE PUBLIC DEVELOPMENTS

It is desirable at this stage to highlight some of the concepts behind the proposals for community facilities and circulation and show how these are integrated within the Future Land Use Plan discussed above and how, in turn, they influence each other. The Future Land Use Plan can be generally described as composed of eight residential neighborhoods. Other uses such as shopping and civic buildings, wholesale, industry and schools are grouped individually to form clusters that could provide their particular services effectively and also be served efficiently. The circulation systems simply tie some of these together or isolate some, when deemed desirable, thus serving and at the same time enhancing the identity of each neighborhood or cluster.

The school plan is composed of two 100-acre campuses, one elementary and the other secondary. The concentration of similar facilities permits optimum use of grounds and buildings.

Recreation includes playgrounds that are distributed on a neighborhood basis combined with neighborhood parks and containing special active recreation facilities such as tennis. Two playfields are proposed: one in the secondary school campus to serve the southern portion of Town and the other along the North Avenue to serve the northern portion. Swimming is included within the elementary school campus and could be later provided within the playfields. The MDC course and two private clubs offer golfing facilities. The community park system is composed of two existing and one proposed site to be fully developed. A continuous strip or "greenbelt" of open areas has been lo-
cated, incorporating existing and proposed public and semi-public lands.

Large tracts of land left in their natural state do exist now to protect and encourage wildlife, to retain the natural and scenic beauty of the community, and to provide watersheds for water resources. Extensions to the two major forests that are owned now by the Town have been proposed. Buffer areas are suggested in cases where it is necessary to screen unpleasant developments or to heighten psychologically the physical separation of developments possessing different character.

The circulation system has been designed to serve the proposed Future Land Use Plan. Both have been compared and adjusted until a desirable balance between the two have been achieved. The circulation plan in fact is one of the tools that could be used to implement the Future Land Use Plan. Designed according to function and projected needs, the local circulation system is integrated within the regional system while providing as much as possible the separation between through and local traffic. It is designed to keep residential areas and other major activity areas (school campuses, shopping) from being penetrated with hazardous, unnecessary traffic. When the entire circulation plan is accomplished, each of Weston's neighborhoods will have heavy traffic restricted to its periphery, and thus will be a safe, quiet pedestrian unit where residential property values can continue on a high level or even increase. The greenbelt system supplements the circulation system providing for separations between pedestrian and vehicular movements.
part four
Implementation
XIII. REVIEW OF THE ZONING BY-LAW

A. INTRODUCTION

The importance of zoning lies in two salient characteristics: its legal status makes it effective in implementing the future land use plan and in so doing it is one of the principal available tools by which a community can determine its future form and function.

The basic difference between a future land use plan and a zoning map is that the latter adopted by the community, translates in concrete legal terms the objectives, ideas, and concepts outlined in the former. If these objectives, concepts and ideas are developed through public opinion and understanding, and are accepted and adopted by the community, the mechanical process of translating them to a zoning map and into a by-law generally constitutes little problem.

B. APPRAISAL OF THE EXISTING ZONING BY-LAW

In the process of reviewing and analyzing the existing Zoning By-law, it was obvious that the By-law and its map had served the Town well and had, in reality, created the general character of the Town as it is known today. From this point of view and the goals and objectives of this Study, there are very few major substantive changes which might be recommended.

C. SUGGESTED ZONING BY-LAW CHANGES

1. Codification

The present form and organization of the text of the By-law is relatively straightforward, but it could be rearranged and codified for easier use and cross-reference purposes. Such a codification would result in a grouping of the present paragraphs into six basic sections which are listed as follows:

   Section 1: General (clauses concerning authority, purposes, non-conformity and definitions that apply all over the Town and are more general in content than the other sections)

   Section 2: Zoning Districts (statement of the number and type of districts and reference to the zoning map)

   Section 3: Use Regulations (general and by districts)

   Section 4: Dimensional Requirements (general and by districts)
Section 5: Special Regulations (provisions that pertain to all districts but which are more specific in content than section 1 above)

Section 6: Administration

2. Citation of Enabling Legislation

There is no citation of the Zoning Enabling Legislation in the By-law. Normally this is done and it is suggested that an "authority" reference be included as follows:

"This zoning by-law is adopted in accordance with the provisions of General Laws, Chapter 40A."

3. Schedule of Use Regulations

As a minimum procedure it is recommended that consideration be given to the arrangement and reorganization of the use regulations in a tabular form as follows:

<table>
<thead>
<tr>
<th>List of Uses</th>
<th>Residence Districts</th>
<th>Business Districts</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A  B  C  D</td>
<td>A  B  C  Industrial District</td>
<td></td>
</tr>
<tr>
<td>. . . . . .</td>
<td>Yes  Yes  Yes  Yes</td>
<td>Yes  Yes  SP</td>
<td>SP</td>
</tr>
<tr>
<td>. . . . . .</td>
<td>SP    SP    SP    SP</td>
<td>SP    SP    No</td>
<td>No</td>
</tr>
<tr>
<td>. . . . . .</td>
<td>No    No    No    No</td>
<td>SP    No    No</td>
<td>No</td>
</tr>
</tbody>
</table>

Yes = Permitted
SP = Special permit by Board of Appeals
No = Prohibited

The advantage of putting use regulations in a tabular form is that the table is clearer and heightens the intentional differences between the various uses and the various districts.

It would also be advisable to consider expansion of this section to include provision for additional zoning concepts such as 'performance standards', 'flood plain', and 'cluster zoning'. These are briefly reviewed and their applicability to Weston is examined in the following Section "C".
4. **Schedule of Dimensional Requirements**

It is recommended that consideration be given to the arrangement and reorganization of the dimensional requirements, to introduce controls in non-residential districts, and to include possible modifications -- all in a tabular form as follows:

**SCHEDULE OF DIMENSIONAL REGULATIONS**

<table>
<thead>
<tr>
<th>District</th>
<th>Minimum Lot Size (in sq.ft.)</th>
<th>Minimum Frontage (in feet)</th>
<th>Minimum Yard Dimensions (in feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence A</td>
<td></td>
<td></td>
<td>Front Side Rear</td>
</tr>
<tr>
<td>Residence B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SCHEDULE OF DIMENSIONAL REGULATIONS (continued)**

<table>
<thead>
<tr>
<th>District</th>
<th>Maximum Lot Coverage (in %)</th>
<th>Maximum Building Height Stories Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. **Provision of Special Regulations**

It is recommended that consideration be given to the introduction of special regulations concerning off-street parking and loading, living space, signs and site plan approval (see below Section "C")

6. **Expansion of the Section of Administration**

The section which deals with the Board of Appeals falls logically into three parts: (1) Establishment, (2) Procedures, and (3) Powers. Most important for inclusion in the local By-law, is a careful enumeration and description of the powers of the Board of Appeals, because it is here, if anywhere, that the administration of zoning must be exceptionally strong and must uphold sound zoning principles. The three kinds of actions under the jurisdiction of the Board are: (a) appeals from decisions of the administrative officer, (b) special permits for exceptions, and (c) variances. All these should be
mentioned even at a sacrifice of length, because a full treatment of the subject will clarify the purpose and limits of responsibility of the Board and help both Town officials and any person in understanding and realizing their rights under the law. It would be desirable to include the language of the Zoning Enabling Act at this point so no misunderstanding of the appeal authority and procedure can result.

D. NEW ZONING CONCEPTS APPLICABLE TO WESTON

In addition to the foregoing there follows a review of some new zoning concepts and their possible applicability to Weston.

1. Cluster Development

Cluster development is a physical scheme for the arrangement of dwelling units and open spaces. It provides for the grouping of dwelling units around a central area. Each grouping or cluster is connected to a road and separated from other clusters or adjoining development by an open space which can be used in common by the immediate residents or the community as a whole. This scheme differs from existing land development practices. A traditional subdivision is composed of a series of parallel streets containing equal size lots, on which houses of similar design, orientation, and density are developed.

The traditional scheme usually involves the total development of all land in contrast to cluster development in which only a portion of the land is developed to obtain as many lots (dwelling units) under certain conditions and circumstances. The basic objectives of cluster development are to provide a more esthetically-pleasing and economic solution for residential land development.

The following design features are generally included: clusters of homes separated from each other by open spaces, siting of structures with respect to natural terrain and orientation of homes both to a common service area and undeveloped open space.

The economic objectives of cluster development are to reduce development costs associated with streets, utilities and group recreational facilities and to minimize maintenance costs of individual lots.
There are two questions concerning the legality of cluster development: first, is whether a community can control cluster development and second, is the problem of ownership of the open space in the development.

Communities have been accused of forcing developers to dedicate land for public purposes which was ruled illegal. In cluster development this is not the case as there is a voluntary exchange of open area and not a forced demand. Courts in the last several years have ruled strongly in favor of cluster zoning as there is a public purpose in the conservation of open space especially in association with urban sprawl. Most states including Massachusetts have enabling legislation with stated purposes which allow local communities to formulate and control cluster development. Cluster provisions in zoning by-laws give the developer the choice of using the clustering principle or not, but he must obviously comply with all other zoning provisions.

The second question relates to the tenure and maintenance of the open space. There are three basic methods to establish the ownership and maintenance of open space. First, the land can be deeded to the local government. Second, a government district which has the power to lay assessments on the residents can be established. Third, a non-profit corporation of homeowners can be formed. This last method has been found to be the most successful control of tenure and maintenance.

One or more of these methods may be used or combined especially in instances where the open space in the development is connected to public open spaces.

Before the preparation of a cluster zoning provision, a survey might be taken to determine the location and amount of land which would lend itself to cluster development and to determine the practicability of spending time and effort in getting a cluster provision adopted. Regardless of such a survey, the addition of a cluster provision to the by-law could be made without changing the zoning map, since the provision would be applicable to any selected number of the existing zones. The cluster provision would be an optional type of development available to a developer and subject to certain approvals by the local government.

The effectiveness of cluster development depends upon the requirements of the cluster provision, the degree of modification of lot sizes and related dimensions and the design of individual homes. In certain existing zones where the lot sizes are small and there is an absence of varied topography and natural features worthy of retention, then cluster development may not be an improvement over the traditional type of development.
In these terms and the results of this study cluster development would have limited application in Weston. The current lot size requirements and the design of subdivisions do make it possible to preserve some open space and natural features of the terrain. Furthermore, with no public sewer, the provision of on-site sewage disposal on smaller lots would require careful engineering for each subdivision and its respective soil conditions.

2. **Flood Plain District**

Flood plain zoning is authorized under Chapter 40A, Section 2 of the General Laws of Massachusetts which states:

"... a zoning ordinance or by-law may provide that lands deemed subject to seasonal or periodic flooding shall not be used for residence or other purposes in such a manner as to endanger the health and safety of the occupants thereof."

Flood plain zoning affords a community the maximum protection of health, safety and welfare of its occupants and protection to flood storage basins by restricting any uses which would be dangerous or hazardous to their occupants and which would lessen its effectiveness. In addition, an important secondary benefit of flood plain zoning is the preservation of natural low-lying areas for conservation.

The boundaries of a flood plain district are established in the following manner. A specific elevation is set as a boundary line for the district, below which construction, filling and certain other specified uses are either not permitted or are restricted, subject to approval by the Board of Appeals in conjunction with various other boards. This elevation may vary throughout the town, or may be established as a single elevation, depending upon the topography, the slope of the river or stream involved and the character of the soils. It can be established from an analysis of floods of record, hydrological studies of rainfall and runoff and the probable frequency of various-sized floods.

A flood plain district may have application in the northwest section of the Town in the area of the Town Forest and the lands to the south of it, subject to an analysis of the specific applicability of this form of zoning to lands near and in the SuAsCo watershed and in other isolated areas of the Town, otherwise flood plain zoning would appear to have a minimal use in Weston.
3. **Performance Standards**

The purpose of performance standards is to prohibit the use of land or buildings in zoning districts which in any manner may create any dangerous, injurious, noxious or otherwise objectionable fire, explosion, radioactive or other hazards; noise or vibration; smoke, dust or other forms of air pollution; electrical or other disturbances; glare, liquid or solid refuse or wastes; conditions conducive to the breeding of rodents or insects; or other substance, condition or element in a manner or in an amount as to affect adversely the surrounding area.

The testing of the performances in such by-law can be measured either at point of emission or any point beyond emission. The following is a list of suggested categories that could be incorporated in such standard.

A. Fire and Explosion Hazards

B. Radio Activity or Electrical Disturbances

C. Smoke

D. Air Pollution

E. Liquid or Solid Wastes

F. Vibration

G. Noise

H. Odors

I. Glare

It is thought that performance standards would prove beneficial in the regulation of such commercial and industrial uses as the Town of Weston now has and might approve in the future.

4. **Site Plan Approval**

The objective of a site plan approval section in a zoning by-law is to promote the orderly development of a community, the stability of land values and investments and the general welfare, and to govern and control the specific site development of selected uses within certain districts so they will harmonize with the uses and development on adjoining sites or land.
The foregoing objectives can usually be achieved by requiring the submission of site plans for new construction and alteration and expansion of existing structures in business, industrial or other districts. Generally, site plans are requested for special or complex uses or "one-of-a-kind" use in a community. Site plans submitted should show among other things, all existing and proposed buildings and structures, parking spaces, driveways and driveway openings, service areas, facilities for sewerage, drainage and refuse disposal and all proposed landscaping features. Site plan approval is a relatively new concept. There is no specific reference to it in the Zoning Enabling Act the same as there is no specific reference to other zoning concepts or specific applications of zoning controls.

The approval authority is assigned either to the Board of Selectmen or to the Board of Appeals, both of whom have administrative responsibilities under the Enabling Act. The Board of Selectmen as the enforcing authority of the zoning by-law have this approval "right". The Board of Appeals likewise can exercise approval under the special permit for an exception authority if so assigned by the zoning by-law.

The Planning Board can not "act" on site plans since it has only advisory powers, but in many instances referral of site plans to the Planning Board is provided for prior to action on the plans by the Board of Selectmen or the Board of Appeals. Such a procedure gives the Planning Board an opportunity to comment on site plans in relation to the Board's planning program and activities.

Site plan provisions have been approved for communities by the Attorney Generals' office as being consistent with the State law, but no definitive case testing a site plan provisions has been presented to the courts for interpretation and decision.

Such a provision was proposed in an amendment to the Zoning By-law requested by the Planning Board in attempting to create a new Office/Research District, but the concept was not deemed legally valid by the Town Counsel and was omitted by the Board in its presentation to the Town Meeting.

The extensive and successful use of the site plan idea by numerous communities suggests repeating the recommendation for future consideration.
5. **Off-Street Parking and Loading**

While the Town should take action to correct the existing situation concerning parking in areas with intensive land use such as the Town Center, it is advisable that regulations concerning this subject be incorporated in the Zoning By-law to prevent any deterioration or deficiency that might result from further developments. These regulations comprise a statement of desired standards or the numbers of parking spaces -- each parking space is 300 to 400 sq. ft. -- required for the land use in relation to the numbers of users (employees, students, occupants, beds and families,) or to floor space(net or gross areas for offices, schools, industrial plants, houses). They also restrict authorization or extension of uses subject to the provision of these parking requirements. These are normally scheduled in a tabular form.

6. **Signs**

The concept of zoning "to promote health, safety, convenience, morals and welfare" of the citizens has been upheld to include matters or uses accessory to primary uses. Therefore, regulations to govern signs and incidentally "to improve the Town" by controlling the appearance of its neighborhoods or streets are incorporated within Zoning By-laws. The provisions concerning signs -- whether on or off premises -- regulate their number, location, size, height, lighting and other characteristics in relation to the number of uses they merchandise or services which they advertise or announce. These could be scheduled in tabular form or in text form depending upon the extent of the provisions.

It is not intended that all the suggested changes and the new zoning concepts be undertaken or introduced to the existing by-laws immediately and simultaneously. However, the absence of some of these is detrimental to the orderly and healthy development of the Town. During the course of this study and considered a part of this zoning review a memorandum was prepared and submitted to the Planning Board, upon its request, concerning the following:

1. adding a new office business district,
2. specifying all permitted uses in business districts and those requiring the special permit of the Board of Appeals and
3. introducing the concept of site plan approval.

The action of the 1965 Town Meeting regarding these was not favorable. However, it is felt that these concepts as well as the regulations concerning off-street parking and signs, are sound and efforts to obtain voter approval are justified.
XIV. REVIEW OF THE SUBDIVISION REGULATIONS

A. INTRODUCTION

The function of the subdivision regulations is largely to govern the establishment of new development involving new streets for access in a municipality and the adequacy of other municipal services to serve the developments, and thereby assure that public interest is acknowledged in the carrying out of private construction activities. Good subdivision control helps to carry out many of the policies of the Master Plan: by maintaining a high level of housing and local services, conforming with the circulation proposals, and coordinating private and public development.

B. PROCEDURE

Initially, a complete set of Subdivision Regulations, prepared in considerable detail, was submitted to the Planning Board for review and comment. This set contained many provisions not in the Board's current regulations and was purposely submitted to suggest reasonable optimum requirements for possible amendment consistent with Town policies and experience and this Master Plan report.

This set was thoroughly reviewed with the Town Engineer at the direction of the Board. The comments in paragraph C below are, in part, the result of that review. In addition, the Subdivision Regulations adopted by the Town of Weston in 1959 have been thoroughly examined.

C. COMMENTS ON THE EXISTING REGULATIONS

The findings of the procedure indicated that some changes would be necessary to conform the existing Regulations to the Master Plan recommendations contained in this report and thereby permit effectuation of the Plan proposals. Others seemed appropriate to raise the standards of subdivision design and construction. The organization of the existing Regulations is, in general, acceptable although it needs some codification and possibly two new sections, one on Required Improvements and one on Administration.

The following are the major changes and proposed additions that were found important to amplify and up-date the existing regulations, referenced to the appropriate article and section.
Article I. GENERAL

1.2 Compliance with Zoning By-law

Although not a legally-authorized requirement, there might be included as a separate statement that a subdivision plan should be in harmony and in accordance with the Master Plan. This gives emphasis to the desirability of integrating as far as possible any definitive plan with the town-wide plan.

1.7 Submission of Plans and Applications

**add:** The applicant shall file by delivery or registered mail a notice with the Town Clerk stating the date of submission for such approval and accompanied by a copy of the completed application and shall file two copies of said plan with the Board of Health within 48 hours of submission.

1.8 Preparation of Plans

**delete:** Plans not requiring approval under the subdivision control law and preliminary plans of subdivision submitted to the Board need not be prepared by a person registered as a land surveyor or engineer in Massachusetts.

Article III. SUBDIVISION PLANS: Definitive Subdivision Plans

3.12 Content of Definitive Subdivision Plans

**add:**

( ) Zoning classification of the area.

( ) Areas of lots with lot numbers and areas of other adjoining land of applicant not included in the subdivision.

( ) In certain cases upon request by the Planning Board subsurface conditions within the subdivision as determined by on-site tests to ascertain the location and character of subsurface soil, rock and ground water conditions. Location and results of all tests required to be on separate sheets.

( ) Before approval of a plan the Board may require it to show parks, playgrounds, recreation areas, or other open spaces to serve the future residents of the subdivision and adjacent areas, if they are without such facilities, and by appropriate endorsement require that no building may be erected on such site for three years.
Article IV. DESIGN STANDARDS, STREET, SLOPES, FOOTPATHS, EASEMENTS AND STREET SIGNS, ETC.

4.0 General

**add:** In case access to a subdivision crosses land in another municipality, the Board may require certification, from appropriate authorities, that such access is in accordance with the subdivision requirements of such municipality and that a legally adequate performance bond has been duly posted or that such access is adequately improved to handle prospective traffic.

In case a tract is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged so as to allow the logical and economic extension of streets, utility easements, drainage ways, and public areas into such parcels.

4.3 Radii of Street

**add:** Property lines at right-of-way intersections shall be cut back to provide for a curve radius on the roadway of not less than 35 feet except where the angle of intersection varies more than ten degrees from a right angle in which case the radii of the curve connecting the acute angle may be less and the opposite radius must be correspondingly greater.

Article V. CONSTRUCTION OF STREETS, FOOTPATHS, DRAINS AND MONUMENTS

5.3 Removal of Material from Streets

**add:** All trees within 5 feet of the edge of the travelled way shall be removed.

5.8 Drains, Catch Basins, etc.

**add:** The responsibility for adequate drainage shall rest with the developer. This shall include connection with existing drainage facilities provided by the Town.

Where property adjacent to the subdivision and within the same watershed is not subdivided, provision shall be made for proper projection of the drainage system by continuing appropriate drains and easements to the exterior boundaries of the subdivision at such size and grade as will allow for such projection. Drainage rights which are appropriate, sufficient
and necessary to handle drainage from the subdivision and adjacent areas shall be secured for the Town.

5.12 Open Space Access and Maintenance

add: Any open space park or playground shall provide at least 50 feet of continuous frontage on a street, and pedestrian ways will normally be required to provide access from each of the surrounding streets, if any, to which the open space, park or playground has no frontage. Further, such parks and/or playgrounds may be required to have maintenance provided for by covenants and agreements acceptable to the Board, until public acquisition by the community.

Two new articles might be established within the regulations as outlined below. These two articles would consolidate and organize certain sections now in the existing regulations and would add a few new items as generally covered in the complete set of regulations initially furnished the Board.

Article VI. REQUIRED IMPROVEMENTS

6.1 Basic Requirements

6.2 Improvement Specification Regarding:

roadways—minimum widths and depths
storm and surface drainage
survey of improvements as installed
maintenance of roadways
fire alarm system
planting strips
retaining walls
curbs and berms
final cleanup

sidewalks
water mains
sewers
utilities
street trees
street signs
street lights
guard rails
monuments

6.3 Installation of Improvements

clearing and grubbing of right-of-way
sub-grade of roadway
installation of utilities
penetration of gravel base plane
fire alarm installations
street trees and planting
street signs and monuments
planting strips
final clean-up

gravel base
curb installation
binder course
finish course
berms
sidewalks
street lights
maintenance
Article VII. ADMINISTRATION

7.1 Authority
7.2 Variation
7.3 Reference
7.4 Inspection
7.5 Validity of Regulations
7.6 Amendments
XV. OFFICIAL MAP

A. INTRODUCTION

1. Definition

The Official Map of a town is one showing the public ways and parks therein as theretofore laid out and established by law and the private ways then existing and used in common by more than two owners. (G.L. Chapter 41, Section 81-E).

2. Purpose

The Official Map is established to conserve and promote the public health, safety and general welfare. Its purpose also is to establish officially, once and for all, the location and extent of the public and private streets in the Town in order that the Town's responsibilities for the maintenance and upkeep of streets are clearly defined.

B. LEGALITIES

1. Authority

The preparation and adoption of an Official Map is provided for in Chapter 41, Sections 81-E through 81-J inclusive, of the General Laws of the Commonwealth of Massachusetts. Upon the adoption of such a map, and upon any change or addition provided, the Town Clerk shall file with the appropriate Registry of Deeds a certificate of such action and a copy of such map as adopted or as changed or added to.

2. Adoption

An Official Map is prepared under the direction of the Planning Board and is adopted by action of the Town Meeting. There is no requirement for a public hearing by the Planning Board or otherwise prior to action by the Town Meeting. Once adopted, the Town Clerk files a copy of the map and a certificate of the Town's action with the County Registry of Deeds and the Official Map becomes a legally-binding document for the community.

3. Amendment

An Official Map may be changed or added to from time to time in the following manner:
a. All ways shown on plans approved by the Planning Board under the Subdivision Control Law and the local regulations automatically become parts of the Official Map. Even though these ways become parts of the map, they are private ways and will not become public until the existing procedure of a hearing, laying out and recommendation by the Board of Selectmen and acceptance by the Town Meeting are completed.

b. The Town Meeting through its normal procedures may change or add to the map by placing on it:

(1) existing or proposed locations, not previously mapped, of new or widened public ways and new or enlarged parks and

(2) proposed discontinuances in whole or in part of existing or mapped public ways and parks.

In this instance, a public hearing shall be held by the Board of Selectmen and at least ten days notice shall be given through advertisement and by mailing a copy of the advertisement to owners of affected abutting property.

c. Upon final action by the proper authorities in laying out, altering, relocating, discontinuing, enlarging or closing a public way or a public park, the lines and notations showing such improvement, discontinuances or closing, as so established or affected, shall, without further action by the Town Meeting, be made a part of the Official Map of the Town.

d. Any way on the map, other than a public way, may be modified or removed from the map by the Planning Board in accordance with the same procedure for a new subdivision as provided in the Subdivision Control Law and the local regulations.

4. Enforcement

An Official Map has simple and direct enforcement procedures as enumerated below:

a. No public water supply or sewer or other municipal utility or improvement shall be constructed in any public or private way elsewhere than in a subdivision approved under the Subdivision Control Law, unless such way has been placed on or made part of an Official Map.

b. No building permit for the erection of any building may be issued unless a way giving access to the lot upon which the proposed building is to stand is in a subdivision approved under the Subdivision Control
Law or is on the Official Map. (The right of appeal to the Board of Appeals in the case of a building permit is provided).

c. No person shall open a way for public use except as provided in the Subdivision Control Law unless the way is shown on the Official Map.

There are protective features in the Official Map procedure for persons whose property may be injured by the adoption or amendment of an Official Map. Such persons may recover any damages so caused under Chapter 79 of the General Laws. This also applies in the instance where exterior lines of a town way are established and property is damaged as the result of that action.

C. THE OFFICIAL MAP AS A TOOL OF IMPLEMENTING THE MASTER PLAN

Based on the police power as zoning is, the Official Map can become a valuable aid to a community in carrying out its Master Plan and its objectives.

Projects outlined in the Master Plan, such as proposed new major streets and highways, proposed street widenings, relocations or abandonments and proposed new parks or enlargements or discontinuances of existing parks, may be detailed in a precise and accurate manner and placed on the Official Map.

The Official Map will then permit the community to set aside locations for future streets or for widened and improved existing streets, by prohibiting the construction of any buildings or structures within the locations of these streets. There are obvious savings to the community in this procedure — as far as land acquisition costs are concerned — though a more significant feature is the ultimate benefits to the neighborhood and the community as the result of improved circulation and traffic conditions and a more efficient street system.

In a similar manner the Official Map can help to implement the park recreation-open space plans by reserving land for these purposes at strategic and appropriate locations through the community. Such locations would include natural scenic and geographic spots, waterways and river channels, marshes, forested areas and other lands suitable for parks for future use. Possible savings in land acquisition through early reservation would assure as well the long-range benefits of parks and open space in preserving such land for the enjoyment and use of all.

Although the Official Map is usually applied only to proposed major streets and parks, a strong case can be made for its application in undeveloped or
partially developed areas, to proposed minor streets, playgrounds, neighborhood parks, school sites and drainage ways. However, it is questionable whether some of these uses would be permitted under the Chapter 41 G. L. authority without an amendment to the State statute.

Because of its simple and direct enforcement procedures (as mentioned above), the Official Map can become an effective instrument in controlling development and growth along the guide lines suggested by the Master Plan. Its advantage as an implementation tool over Zoning and Subdivision is that mapping will overcome the problems of disjointed land ownership and permit integrated development.

D. EXISTING CONDITIONS

The Town of Weston has an official map, having adopted it by vote of the Town Meeting at its Annual Meeting on March 25, 1946. The article in the warrant and the vote of the meeting were recorded in the 1946 Town Report as follows:

Article 11. To see if the Town, pursuant to Section 81C of Chapter 41 of the General Laws, will adopt a certain official map prepared under the direction of the Planning Board.

Voted: That the Town under General Laws, Chapter 41, Section 81C, hereby adopts as its official map a map prepared under the direction of the Planning Board, dated March 1946 and entitled "Official Map, Town of Weston, Mass."

The map has been continuously filed in the Town Engineer's Office and maintained and up-dated from time to time by the Town Engineer. Since its adoption, there have been only one or two instances of additions because of errors in its initial delineation. All other additions of new streets or ways have been the result of approvals by the Planning Board under the Subdivision Control Law and the regulations which the Board has adopted pursuant thereto.

E. RECOMMENDATIONS

The Town has not used the Official Map as completely as the law permits. It has not been used to record any proposed streets or projected parks and playgrounds as land use reservations for desirable future needs. This is particularly true of streets where these facilities normally cut across a number of properties, yet not all of the properties might be developed during any one period of time so that a good street or circulation system can be effectuated.
The parks and playground situation is somewhat better since numerous lots have been donated, acquired or set aside for open space or various recreational purposes.

It is therefore recommended that greater use be made of the Official Map and its powers in implementing the recommendations of this Report. This is emphasized, particularly, with respect to the Circulation Plan and its proposals. Such improvements can be planned early in the development of neighborhoods, land can be reserved and construction can take place when the project is needed and funds can be anticipated through the capital budgeting process and program.
XVI. CAPITAL BUDGET PROGRAM

A. INTRODUCTION

The capital budget process is one of the important tools in the financial planning and effective administration of municipal government, yet it is one which is not widely understood or used. It is principally a part of the planning function, but also has its roots deep in the fiscal administration of a community.

Today with rising costs, heavy capital requirements and increasing tax rates, financial planning through the use of capital budget programming is one of the most positive and constructive ways by which a community can minimize its expenditures, maintain its credit rating, work toward a "stable" tax rate, maximize tax dollar returns, establish a balance between pay-as-you-go and borrowing and get needed improvement projects completed.

The capital budget process is a combined planning-financial operation and provides many of the practical answers for the successful carrying out of a community planning program. Although it requires considerable information and background material for a thorough study, the process itself is not necessarily complex or highly technical. It simply requires a good knowledge of planning principles and municipal finance.

The capital budget program should be considered part of the total budgeting operation, primarily that part providing for the non-recurring expenses of the community. The other equally important part is, of course, the operating budget which provides for all the recurring expenses of the daily municipal services supplied by local government.

A capital budget program is basically a process of good municipal government and administration in tying together the physical needs of the community with its ability to pay for them.

Specifically, it is a list of all needed community physical improvements arranged into a schedule in order of need and spread over a period of years so that the total costs of the projects could be comfortably and conveniently paid for. The program considers the development of the community as a whole. It is essentially advisory in character, recommending a reasonable course of action to the responsible, decision-making authority of the community.

B. RELATION TO THE MASTER PLAN

The Capital Budget Program has a specific relationship to the Master Plan -- to establish an order of priority for the proposed projects so that they may be
completed within a reasonable period of time without placing an undue burden on the tax resources of the community. In this manner, the development of needed public facilities and services is accomplished in harmony with the Plan. The principal processes for guiding the use and development of private property are zoning and building controls, subdivision regulations, and measures for the protection of mapped streets.

C. EXISTING CONDITIONS

The Town of Weston has been practicing capital budget programming to a limited degree since 1958 by virtue of the fact that the Board of Selectmen and the Finance Committee have been outlining a three-year program of capital needs each year at budget time. This has served to alert the community to specific projects and their financial aspects. However, this procedure has not been as complete or thorough as it could be nor has it been as detailed, financially, as is possible. Trends in town-wide operating costs on a performance or per capita basis have not been prepared so as to provide the basis for a rigorous appraisal of the fiscal implications of capital projects, although annual concern has been expressed for the continuing rise in the costs of local government.

D. FINANCIAL BACKGROUND

As an introduction to this procedure some essential fiscal data have been assembled to indicate the type of information required and the manner of its use to effectuate and document a program.

1. Assessed Valuations

Any community's fiscal analysis must be predicated on its assessed valuations as a major tax resource—especially in Massachusetts where the property tax plays such a dominant role in financing local government.

Since the Town of Weston undertook a reassessment during 1962 and 1963, the past trends are difficult to project. The overall picture for the period 1955 to 1964 is shown in Plate XVI-1 and in Table IV-4 of the Economic Base Report. Prior to reassessment the Town had a relatively constant annual increment averaging $1,500,000. Under present levels this might be assumed to continue at a $4,000,000 annual rate. This would produce $120,000 of "new" money at a tax rate of $30 to help offset the continually rising costs of government. Most of the valuation growth has been in buildings, since land assessments have increased relatively slowly.

2. Gross and Net Amounts to be Raised

A study of the "gross and net amounts to be raised" reveals the trends in the overall costs of local government and the responsibility of the tax levy
(rate) in meeting these costs. Both of these figures appear in the annual Recapitulation Sheet used by the Assessor's in computing the yearly tax rate.

The gross amount represents the total cost of "running" the Town and includes all budget and special appropriations approved by the Town Meeting and all State and County charges assessed to the Town as shown on the so-called annual cherry sheet. The actual figures are shown on Plate XVI-2 for the years 1955 to 1964 and the projections for the period 1965 to 1971 inclusive. The trend has been steadily increasing except for the year 1960 to 1961 when the growth was negligible. During this period the gross amount grew from about $1,362,088 in 1955 to $3,504,361 in 1964.

Plate XVI-2 also shows the ratio of the net amount to be raised to the gross amount to be raised. This figure indicates the extent to which the property tax assumes the responsibility of financing local governmental costs. For the ten-year period 1955-1964 the ratio has shown an increase generally from the low sixties up to the high sixties. This means that two-thirds of the local costs are now borne by the tax levy. Obviously, the reassessment had no significant effect on these amounts or the ratio since the net amount is a function of cost and has to be raised by the levy which is merely the combination of an assessment and a rate.

The fluctuation of the ratio from year to year in a small community like Weston will continue to occur because of large single expenditures occasionally and because of income "windfalls" once in awhile. Nevertheless, the ratio is an indicator and shows, as in most communities, the gradual increase in the reliance upon the property tax over the past ten years.

3. Tax Rate

The tax rate for Weston has seen considerable fluctuation since 1955, as shown on Plate XVI-3, due in large measure to the recent reassessment and to the increasing costs of local government without a concurrent matching increase in estimated receipts and available funds or in "new" assessments. Despite the decided drop in the rate from 1962 to 1964, there was no "net" decrease, since the 1965 rate will exceed 1964 indicating an upward trend on the "reassessed" base. This general situation was evident from the prior reference to the ratio of the net to the gross amount to be raised.

4. Debt Analysis

An analysis of the debt structure has been made and the two accompanying charts Plates XVI-4 and XVI-5 show respectively the outstanding debt and the schedule of amortization and interest payments on all bonds issued prior to 1965. The impact of future bond issues would be added to these two charts year by year. The principal and interest payments automatically become part of the annual operating budget.
TAX RATE

Approximate adjustment to 1964 base

DOLLARS

1955

60
65
70

70
60
50
40
30
20
10
0
BONDED INDEBTEDNESS

For Bonds Issued Prior to 1965
The actual debt is a relatively small percentage of the assessed valuation, approximately 3%, and although the principal and interest payments exceed 10% of the gross amount to be raised, they are not a heavy burden to assume in relationship to all other municipal costs. As new debt is assumed, the pertinent additions can be made to the tabulations and the plates.

5. **Summary**

This brief fiscal analysis simply points up a procedure or technique which can be followed in the capital budget programming operation. It can be refined in many ways and to many degrees, depending upon the extent desired by the community and its officials and the time and resources available to accomplish the job through volunteer personnel or town employees.

To be workable such an analysis needs to be maintained annually and all tabulations and graphic material need to be added to so revisions in trends and projections can be made as required.

E. **CAPITAL PROJECTS SCHEDULE**

A capital budget program also contains a complete listing of all capital projects with all the pertinent data necessary to ascertain a sound priority schedule of those projects over a six-year period and beyond. The listing would include those projects submitted by town agencies and departments and many of the proposals contained within this Master Plan Report. It would be the responsibility of the programming operation to assemble the data, prepare the listing and assign the priorities. Such a schedule is outside the scope of work of this study, though most of the important projects are mentioned to a greater or lesser degree somewhere in this Report.

The schedule would be predicated upon the relative need of one project to another and upon their financial impact as determined by the fiscal analysis, its projection and the schedule itself.

F. **RECOMMENDATIONS**

It is the recommendation of this brief appraisal that the Town establish a formal capital budget programming procedure to be an annual operation resulting in a six-year program for submission to the Town Meeting as an integral part of the total annual budget. To inaugurate such a procedure a set of instructions, a time schedule and appropriate forms are included as an appendix to this chapter for immediate use in formulating a 1966-1971 Capital Budget Program for the Town.
It is further recommended that the procedure be followed through as a joint effort of the Board of Selectmen, the Finance Committee and the Planning Board until a determination is made as to the most desirable permanent manner of carrying out the program.
CAPITAL BUDGET PROGRAM 1966-1971

PLANNING BOARD, WESTON, MASS.

INSTRUCTIONS

A. INTRODUCTION:

Since 1958 the Board of Selectmen, Finance Committee and Planning Board have cooperated generally in preparing a three-year capital budget analysis. A summary report, including general overall observations, has been incorporated in the warrant report to the Annual Town Meeting. These observations have been based on certain trends of growth of the Town without formulating a longer-range six-year projection or preparing a separate capital budget program and report.

The Planning Board with the agreement of the Selectmen and Finance Committee is continuing the analysis this year and is hopeful of making it a far more thorough and complete document than in the past. For this reason steps are being taken now to obtain the necessary information as early as possible—in accordance with the schedule contained in these instructions. Project data, particularly detailed statements of need and firm cost estimates, are essential to accomplish the job and submit sound and authoritative recommendations.

B. BACKGROUND:

The capital budget programming procedure permits the town to have at budget time and the annual town meeting a better concept and longer-range picture of its future capital needs, their estimated costs, and the town's projected ability to pay for them in relation to the expenses of continuing services provided by town government operations.

The changing patterns and growth of a town bring with them many problems not the least of which is the need for new, expanded and improved services and for new public improvements requiring sizeable capital outlays. The degree to which this need is to be satisfied—both in terms of the quality and the quantity of services and projects—is a town decision which is made by its citizens and which is ultimately reflected in the total tax bill of the town.

The Capital Budget Program is designed to give general direction and guidance in determining the relative needs of the Town and welds together the future planning of the Town with a sound schedule of continuous capital expenditures consistent with the Town's financial resources.
Therefore, this program is being undertaken by the Planning Board as a continuous assignment to assist the citizenry in looking at the future of the town and evaluating its needs. The cooperation of all town departments, agencies and committees is essential to make this program effective, meaningful and complete.

C. OBJECTIVES:

Three principal objectives of a capital budget program may be stated as follows:

1. To anticipate and schedule capital improvements over a period of years according to priority of need and consistent with the town's fiscal procedures and ability to pay.

2. To forecast necessary borrowings and their probable impact on the operating budget and tax rate of the town as a stimulant to good growth and as a stabilizing influence on present investments.

3. To build and maintain the town through a sound capital program as a residential community properly balanced with business, industrial and civic uses to serve the needs of its people.

D. CHARACTERISTICS:

A capital improvement program may be described in many ways, but fundamentally has the following primary characteristics:

1. Gives factual information and an authoritative study as a basis for the decision-making process of town government, without unduly comming the town or its officials.

2. Covers a six-year period which is considered reasonable for accurate, long-range forecasting and programming.

3. Includes all capital improvement needs to be arranged in order of relative priority based on financial structure of town and comprehensive planning activities.

4. Allows annual revision for flexibility in adjusting for changes in project needs, financial conditions and community attitudes and desires.

E. DEFINITION - CAPITAL PROJECT:

A capital improvement project is a physical betterment or item of equipment having a substantial, useful life and the total cost of which exceeds $5,000.
Specifically, a capital project would be

(1) an expenditure, financed in whole or in part by town funds, for the construction, reconstruction, replacement, major repair, extension or other improvements of a public building, highway, sidewalk, storm drain, sewerage installation, bridge, playground, parks or like public works, or for a facility, structure or utility appurtenant to any of them.

(2) an expenditure, similarly financed, for the purchase of land, an item of equipment, buildings or structures.

F. INFORMATION REQUIRED FOR EACH PROJECT:

In order to prepare a complete program with meaning and substance, it is necessary to obtain information for each project that may be proposed for the next fiscal year (1966) and that may be anticipated in at least the next five years (1967-1971). Two forms are provided on which pertinent information can be recorded.

FORM A - Proposed Project Report

This form is for recording all the pertinent and detailed information for each capital project submitted by a town department or agency. Descriptions and reasons should be complete, but as brief as possible. All data and cost estimates for projects to be scheduled in the earlier years of the program should obviously be more complete and accurate than those scheduled for the latter part of the six-year program or beyond.

FORM B - Schedule of Proposed Projects

This form is for recording the projected expenditures for all projects scheduled according to the estimated relative need of the project in each individual department or agency over the six years of the program or in later schedule if beyond that immediate period. This permits each town department or agency an opportunity to express an opinion as to the relative importance of the projects submitted for inclusion in the program.

Additional copies of Forms A and B are available as required in the Town Engineers Office.

Please note that each project is to be submitted on a separate Form A, 4 copies each. However, all projects for each department or agency can be tabulated on one sheet of Form B, therefore requiring, in total, less Forms B than Forms A. Four copies of Form B are nevertheless needed.
G. PROJECT REVIEW:

In the analysis of the projects and their recommended scheduling in the program, considerations of priority will be based upon the facts presented by each department and agency; upon the relationship of the project to other projects, and to the Planning Board's planning program and studies; and upon the indicated financial ability of the town to undertake projects over the first six years of the program.

H. TIME SCHEDULE:

It is proposed to follow the schedule outlined below, so the program will be available in printed form in the Warrant for the 1966 Annual Town Meeting.

May 1, 1965       Mailing of introductory letter, instructions, forms and time schedule to department heads, officials, committee chairman and town spending agencies.

October 1, 1965   Deadline date for submission of capital budget requests.

October 1, 1965 to December 31, 1965   Review of capital requests by Planning Board and Finance Committee.


February 15, 1966   Printing deadline of capital budget report.

March 2, 1966       Annual Town Meeting.

Please return completed forms no later than October 1, 1965. Cooperation in submitting them earlier will facilitate their review and the preparation of the report.

Kindly refer all questions to the Chairman of the Planning Board.
PROPOSED PROJECT REPORT — Form A

1. Title and description:

2. Location:

3. Need for project (explain fully):

4. Status of project and plans:

5. Estimated useful life:

6. Estimated cost:
   a. Plans
   b. Acquisition of land
   c. Site development
   d. Construction (and inspection)
   e. Equipment
   f. ___________________________________________ $

   Total _________________________________________ $

7. Proposed method of financing (by amounts):  Tax rate ______ bond issue ______
   betterment ______ state aid ______

8. Will project be revenue-producing? yes ( ) no ( )

   If yes, estimate of annual revenue is ____________________________

9. Estimated annual cost (or saving) of operation and maintenance:
   a. Salaries and wages ________________________________
   b. Expenses ______________________________________

   Explain any additional personnel required:

10. Will project remove taxable property from list? yes ( ) no ( )

    Land ___________________________________________
    Buildings _______________________________________

11. Relation to other projects or a long-range program:

12. Remarks:

Use Additional Sheets If Necessary
CAPITAL BUDGET PROGRAM 196 - 19

PLANNING BOARD,

SCHEDULE OF PROPOSED PROJECTS — FORM B

Prepare copies. Submit copies to Planning Board and retain 1 copy for your use.

<table>
<thead>
<tr>
<th>Project</th>
<th>Estimated Total Cost</th>
<th>Suggested Schedule of Project Costs by Years</th>
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"PROSPECTUS"

There is considerable temptation, at the end of over a year of hard work preparing this report and turning the Master Plan over to the Town agencies and the voters, to consider planning finished. However, this is far from being the case. For one reason, planning is a continuous process; a master plan needs to be used and maintained and kept up-to-date. Secondly, effectuating the Plan requires a multitude of public and private programs, policies and actions. Ideally, every public agency—local and regional—and every civic organization—neighborhood, town-wide and regional, with responsibility or influence in the Town—should become involved in implementing the Plan.

The central role of carrying out the Plan must fall to the municipality through its various agencies. Essential municipal actions can be divided into three broad categories; (1) adopting policies, (2) initiating programs, and (3) enacting regulations. The first major municipal action should be the adoption of the Plan by the Planning Board as its official guide and by as many other Town agencies as feasible. It is particularly important that the public works agencies adopt policies consistent with the Future Land Use Plan. Many municipal programs should be initiated to implement the Plan once appropriate policies have been adopted. Such programs should include street and highway improvement, acquisition of conservation easements, acquisition of various public lands and improvement of major streams.

The enactment of implementing regulations should begin with a modification of the Zoning Map and By-law and extend to a revamping of subdivision, building, health and traffic regulations and the adoption of a formal capital budget program and procedure.

The Plan is a relatively straightforward simple statement; a school here, convenience shops there, a major street from here to there and other improvements properly located. However, the difference between an area on a map designated as a neighborhood of single family houses and a "living", active neighborhood of homes for families is a great many conferences, meetings, discussions and actions by individuals and groups.

The Master Plan presents an overall analysis of a community and develops proposals with broad strokes. It is not intended and it cannot foresee answers to all the specific problems which will confront the Town in the course of its growth. But, it does create an awareness of the far-reaching and interlocking effects of its constituent parts, providing a procedural example of how to use the planning process: assessing the community's problems and potentialities and clarifying its goals and
objectives upon which policies can be established to achieve a desirable future development. However, this procedure brings to the surface the need for continuing planning studies to maintain, at all times, current data needed for solutions to planning problems. To mention a few, these would include socio-economic characteristics of the population, housing capacities, soil capabilities, traffic counts, water drainage and sewerage needs. Attitude surveys should be designed and taken to prepare standards, to evaluate the impact, the pace and the size of certain projects and to determine their priorities and criticality to the community. These should start immediately and would probably call for other studies in the near future.