A MASTER PLAN
FOR
THE TOWNSHIP OF ROXBURY

PREPARED WITH THE
PLANNING BOARD
FOR
THE CITIZENS OF THE TOWNSHIP OF ROXBURY

by
SCOTT BAGBY and ROBERT CATLIN
CITY PLANNING CONSULTANTS
1958
TO THE CITIZENS OF ROXBURY TOWNSHIP:

WE TAKE PLEASURE IN SUBMITTING FOR YOUR APPROVAL THIS MASTER PLAN FOR THE FUTURE DEVELOPMENT OF ROXBURY. WE WISH TO THANK ALL THE PEOPLE WHO HAVE GIVEN THEIR TIME AND ENERGY SO FREELY IN ORDER TO CREATE THIS PLAN.

RESPECTFULLY SUBMITTED,

Scott Bagby  Robert Callin
TO THE CITIZENS OF ROXBURY TOWNSHIP

The Planning Board takes pleasure in submitting to you a comprehensive plan for the future development of Roxbury Township.

During the last eight years our community has almost doubled in population as a result of the decentralizing forces from the metropolitan area. This growth has brought increasing demands for municipal services, many of which were not necessary in past years. During the next twenty years our population will again double to approximately 20,000 persons. No longer can we think of Roxbury as the little town it once was, safely removed from the problems that confront communities in the metropolitan areas.

The Township Committee and the Planning Board recognize that uncontrolled growth can be disastrous to the financial health of a community. With the proper controls and by looking ahead and planning for the inevitable growth the community can be prepared to provide the necessary services and can guide the growth into areas where these services can be economically provided.

To achieve orderly growth, a well thought out plan for the future must be made and adopted. We have undertaken, with the aid of the Township Committee, the Board of Adjustment, the Recreation Commission, the Board of Education, and our Planning Consultants, Scott Ragby and Robert Catlin, the preparation of such a plan.

In submitting this plan to you, we request that you give every part of it careful consideration. We believe these proposals will result in a better community for the benefit of every citizen of Roxbury Township.

Respectfully submitted,

William Lawrence, Chairman
Roxbury Township Planning Board
The preparation of this report was financed in part through an urban planning grant from the Housing and Home Finance Agency, under the provisions of Section 701 of the Housing Act of 1954, as amended.
# INDEX

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY</td>
<td>6</td>
</tr>
<tr>
<td>THE SURROUNDING AREA</td>
<td>10</td>
</tr>
<tr>
<td>ROXBURY TODAY</td>
<td>14</td>
</tr>
<tr>
<td>Population-Growth</td>
<td>14</td>
</tr>
<tr>
<td>Land Use</td>
<td>18</td>
</tr>
<tr>
<td>Economic Base</td>
<td>22</td>
</tr>
<tr>
<td>Municipal Administration</td>
<td>25</td>
</tr>
<tr>
<td>ROXBURY TOMORROW</td>
<td>30</td>
</tr>
<tr>
<td>Zoning</td>
<td>31</td>
</tr>
<tr>
<td>Schools, Parks &amp; Recreation</td>
<td>35</td>
</tr>
<tr>
<td>Arterial Roads</td>
<td>43</td>
</tr>
<tr>
<td>Minor Streets</td>
<td>45</td>
</tr>
<tr>
<td>FINANCIAL PLANNING</td>
<td>49</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>53</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>56</td>
</tr>
</tbody>
</table>

# ILLUSTRATIONS

- Topography: 6
- Land Use in the Area: 11
- Zoning in the Area: 12
- Land Use Analysis: 17
- Land Use: 19
- Density Pattern: 20
- Tax Analysis: 23
- Service Areas: 28
- Proposed Zoning: 33
- Zoning Analysis: 34
- Enrollment Studies: 39
- Schools, Parks & Public Land: 40
- Metropolitan Location: 43
- Arterial Street Plan: 46
- Street Details: 47
- Master Plan: 48
- Financial Factors: 49
- 25 Year Program of Capital Improvements: 50
- 5 Year Program of Capital Improvements: 51
- Bonding Program: 52
- Basis for an Official Map: 62
INTRODUCTION

Community planning is perhaps the least understood function of local government. Yet, planning at the community level differs little from the personal planning done daily by the housewife, the family and the businessman. Every person is aware of the numerous factors that must be weighed against one another in making a decision to buy a new car, a house or even a decision such as new clothes for the children as school opening nears.

Differences of opinion as to what is good or bad for a family, a business or a community are usually attributable to a lack of all the necessary basic facts on which to base a decision. This difference leads to cross-purposes and separate goals among those concerned.

The fundamental purpose of this report is to afford common understanding by means of an explanation of the process of community planning and a detailed analysis of the factors influencing community development, then applying this process and analysis to Roxbury Township.

Of primary consideration in preparing a planning program for a community is an analysis of the factors affecting its development. Population increase, above any other development factor, is the greatest index of municipal growth and produces the most direct financial impact on the municipality. Population growth and distribution, therefore, become most important considerations in evaluating community needs and determining the amount and location of the primary municipal services, such as properly spaced school facilities, neighborhood recreation areas, police and fire protection and water and sewer facilities.

Increase in population accompanied by demands for services and facilities should not be a cause for alarm. Through practical and realistic planning it is possible to guide and control growth so that it can eventually become an asset rather than a liability to the municipality and a benefit to all present and future residents.

THE BASIC DENSITY PROBLEM

For example, let us assume that within an area of one-half a square mile or 320 acres there presently reside 400 families. The location of these 400 families within this 320 acres is such that these 400
families will demand and eventually receive certain munici-
pal facilities and services that urban-type densities require.
It is good planning and common sense to predetermine these
concentrations of population that will demand and need these
facilities and services and zone them accordingly, so that
each new family moving into the area will contribute to the
cost of providing these municipal services. This 320 acres
zoned for a minimum lot area requirements of 15,000 square
feet could easily accommodate a doubling of population, or
800 families. Simple reasoning indicates that 800 families
could be more economically served with eight miles of street
maintenance, eight miles of police protection, eight miles
of fire protection and eight miles of utilities and one 20
classroom elementary school than if there were two separate
320 acre groups each half built up and each demanding eight
miles of police protection, fire protection, utilities and
street maintenance, and one ten-classroom elementary school.

An urban service area, or density control zoning, prohibits
the "urban sprawl" problem that is today so prevalent in
many suburban municipalities throughout the metropolitan
area. It puts the prospective home purchaser on notice that
if he wishes to locate on a smaller urban-type density lot
there is a place so zoned within the municipality that per-
mits this. If he wishes to locate within the sparsely popu-
lated outlying sections of a municipality, then he must do
so at a density or lot size that will keep the municipal
cost of providing him with municipal services and facilities
at a minimum.

Population growth is inevitable and
more and better services will be required
whether a town plans or not. The basic
purpose of planning is to coordinate
public policy and the use of every tax
dollar to insure that better services at
lower cost will be received. With such
coordination it is possible to achieve maximum order and
minimum financial burden.

In preparing a Master Plan for a community, certain factors
should be continuously kept in mind if the goals set forth
in the plan are to be attained.

The plan must be flexible. Planning
should be a continuous process with
plans kept elastic so that they can
be adjusted with changing conditions or unforeseen developments.

Planning should be designed to accomplish the most good for the greatest number of people, not for a minority or for a few special interest groups.

The plan must be comprehensive in scope. Planning should recognize the development factors of adjacent municipalities in order to enhance sound area as well as local development.

The plan must be practical, giving due consideration to the ability of the municipality to finance the planning proposals. It will only be followed and carried out when it makes enough sense to enough people.

As a prerequisite to the preparation of a Master Plan, basic goals must be established by the community. Policy questions as to the type of town desired have to be answered. For example, an industrial town as opposed to one that is entirely residential, or a combination of either with rural-type development, has to be decided upon. It is generally recognized that in almost every instance any given municipality can find logical locations for all kinds of development.

This should not be construed to mean every town should have a zone for every type of use. Some municipalities have considered the advantages and disadvantages of non-residential uses and then designed their planning and zoning programs to encourage a strictly single family residential community by prohibiting any kind of business or industry. The policy-making people of these towns have felt that a quiet, suburban-type atmosphere is a desirable goal even if the taxes to support such a town will be higher than one with either business or industry. This is their choice. Once the goals are determined the planning program can be designed to achieve any realistic goals.
THE PLANNING PROCESS

Having determined the type of community that is to be encouraged, the next step is to analyze the past history of the municipality which gives an insight in understanding of present development patterns. Next all information must be gathered that is pertinent to the development of the community and the surrounding area. The third step is to study local and regional population trends and influence and establish a reasonable and conservative estimate of population for the next 20 to 30 year planning period based upon these trends, and existing land use and density patterns.

Once this population "Target" is established, the quantity of services and facilities this population target will require, such as the number of acres of park land, residential and business development, the number of classrooms and municipal services such as water and sewer facilities can be accurately determined. The next step is to decide where it will be most economical from the municipality's standpoint to locate further development in relation to the location of existing development and availability of services. The municipality can guide this growth through a comprehensive zoning plan as well as provide inducements to guide new growth to logical locations through its Service Area and Subdivision policies. The presence of water and sewer facilities, parks and schools are a major factor in determining the location of new development. It can then be determined where municipal services will be provided and how much service and protection will be needed when the population target is reached.

FINANCIAL PLANNING

The only unknown factor is whether the population target will be reached in the now estimated 20 to 30 year period, or sooner or later. Financial planning removes this unknown. By realistically planning the financing of the needs required by a given number of people in a 20 to 30 year time period, and establishing a reasonable and conservative stable tax charge to avoid fluctuations of taxes, and each year carefully reviewing the population growth and financial program, the exact time period becomes relatively unimportant. If growth is faster than originally expected, the financial program can be speeded up with increased ratables maintaining a stable tax charge. If growth is slower, some needs will not have to be met so soon and the
program can be slowed down.

In such a way Roxbury Township can insure its future with each of the inevitable changes resulting in a sounder, more livable and more economical community.
TOPOGRAPHY

areas with over 20% grade
submarginal areas

TOWNSHIP OF Roxbury
PASSEY COUNCIL

PREPARED BY SCOTT ROSE & ROBERT OTLIA CITY PLANNING CONSULTANTS, BEAVILE, NEW JERSEY
HISTORY

Roxbury Township is located 37 miles from New York City on the western boundary of Morris County. It covers 22 square miles of land, one-half lying across the Schooley Mountain Range, the other half in the level Succasunna Plains. It is bounded on the north by Lake Musconetcong and Lake Hopatcong and on the east by the Black River or North Branch of the Raritan River. The Succasunna Plain runs from northeast to southwest and was formed during the glacial period. It has an average elevation of 740 feet. On both sides of the plain the terrain rises rapidly to mountain plateaus with an average elevation of 1100 feet. This rise takes place in less than 1500 feet in several areas.

Roxbury Township was created on December 24, 1740 by an act of the State Legislature, becoming the fourth Township of Morris County. The present municipalities of Washington Township, Chester Township, Chester Borough, Mount Olive Township, Netcong Borough and Mount Arlington Borough were within its boundaries as well as parts of Stanhope and Hopatcong Boroughs. In 1753 all lands north of the Musconetcong River and Lake Hopatcong were made into Sussex County. For the next 36 years, through the Revolutionary War and until 1789, Roxbury remained unchanged. In 1789 Washington Township was set off as a separate municipality and ten years later Chester Township broke away. In 1890 Mount Arlington Borough was set off from the Township, making Roxbury as it is today. When the County Board of Freeholders voted on where to locate the county seat, a tie vote was cast between Morristown and Succasunna. The Chairman, a Succasunna resident, cast the tie breaking vote for Morristown.

The earliest inhabitants of the area were the Lenni Lenape Indians who lived around the lakes and on the Succasunna Plain near the Black River. Arrowheads, hatchets and utensils have been found in abundance in Succasunna which derives its name from the Indian word "Soqksoona" for "heavy stone" or iron ore. The Black River was originally the Black Stone River, again in reference to ore-bearing rock.

The first colonist settlements were in Drakesville, now called Ledgewood, at the head of the South Branch of the Raritan River and in Succasunna at the headwaters of the
Black River, North Branch of the Raritan. In 1713 the first land entry was made by Peter Gairbut and Francis Breck for 2500 acres, slightly less than 4 square miles. In 1716 John Reading acquired 877 acres on the north half of Budd Lake. In 1714 John Budd located on 1005 acres.

In 1745 the Succasunna Presbyterian Church was organized. The Reverend Mr. Woodhull was paid five pounds annually, given use of a parsonage and free cut firewood. In 1750 the first dam was constructed at the end of two glacial lakes, raising the water level five feet and merging the lakes into Lake Hopatcong. The dam provided power for an iron forge on the property now used as the State Park. In 1754 William Throckmorton located lands near Succasunna and McCainville. McCainville later became Cainville and finally Kenvil.

During the Revolutionary War Roxbury became the center of extensive iron mining to supply the armed forces. Ore was carried in sacks on horseback to Elizabeth, 30 miles away, for smelting. After the defeat of General Burgoyne at Saratoga in 1777, the cannon from the Fort were brought to Succasunna for safe keeping and stored in the Presbyterian Church yard. The church was used as a hospital for war casualties throughout the war, as well as a dry place for ammunition storage. One of the cannon was subsequently melted down and used in the Liberty Bell.

The first school was opened in Succasunna prior to 1800 and the first Post Office was opened in Succasunna in 1808 with the official name, "SUCCASUNNY POST OFFICE". The 1810 Census showed a population of 1563 persons. Succasunna became widely known around 1818 for its one mile racing track on the site where the Methodist Episcopal Church is now located. However, a few years later, legislation was enacted which prohibited its use.

By 1820 George MacCulloch's dream of a Morris Canal was reaching completion and in 1831 the first barges began hauling coal from the Lehigh Valley of Pennsylvania to Newark. To fill the canal the old dam on Lake Hopatcong was raised to 12 feet and the lake of today was created. There was a system of 28 locks and 23 inclined planes on the canal and hills were crossed by putting the boats on flat cars and lifting them over the rise, sometimes as much as 100 feet.

In 1836 two public schools were opened. One in McCainville and the other in Drakeville in a Cooper's Shop. Two years
later a school house was built in Drakeville and in 1844 a Post Office was established.

The Succasunna Methodist Episcopal Church was built in 1850 and the census for that year was 2263 persons. In 1853 the Morris and Essex Railroad was completed to Hackettstown, marking the beginning of the end for the Morris Canal and bringing Roxbury within a days travel of New York.

The Lower Berkshire School was built in 1870 and the same year work began on construction of the Atlantic Powder Company on the Mary Wills tract. The Chester Railroad line was constructed to Succasunna and the D.L. and W. Railroad began construction of a 23 engine roundhouse in Port Morris. In 1871 the famous "coal trestle" was begun in Port Morris, a structure one-half mile long, thirty to forty feet high and four rows wide. It had a storage capacity of 170,000 tons of coal. This same year Chester Township was set off from Roxbury. By 1874 Atlantic Giant was producing over 1,000 tons of explosive a year. In 1872 five and one-half acres of land were added to the Presbyterian Church Cemetery and at the time it was said "this addition will meet the cemetery necessities for the next 200 years." A Post Office was established in McCainville in 1872. The Baptist Church was built in 1874 in Drakeville and church services for the Port Morris Methodist Episcopal were begun in the D. L. & W. Roundhouse machine shop. Two years later the Railroad Company built a chapel for worship.

By 1880 the population was 2139 and the following year the assessor's records showed the following statistics:

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<th>Description</th>
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<td>County Tax</td>
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<tr>
<td>Road Tax</td>
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Between 1890 and 1930 the resort fashion was in full swing. Fifty thousand people a summer reached Lake Hopatcong by way of the Jersey Central Railroad. Steamboats plied the lake waters and even came down the canal to Landing to pick up railroad passengers. By 1910 the census showed a total of 2,976 persons. The 1913 school system had 520 students and a budget of $15,699.27 a year. The war brought expansion to the powder companies and to the population. By 1930
3,870 persons lived in Roxbury. In 1932 the last excursion train ran to the lake. Even with the economic depression during the thirties and the end of the fabulous resorts, Roxbury grew to 4,455 persons by 1940, approaching its suburban residential aspects that are present today.
THE SURROUNDING AREA

Planning does not stop at community boundary lines. Every municipality is part of a larger and more complex area and is influenced by the trends and problems of that area. Often the solution to a problem depends on cooperation between several communities. The long range plan for each community must be compatible with its surrounding neighbors. Where it is possible and beneficial to a community, the zoning along the municipal boundaries should be consistent with the neighboring town. Where requirements of the adjoining community are considered harmful to internal development, notice of this fact should be brought to the attention of the community. Existing conditions of all adjoining municipalities must be carefully analyzed before sound planning proposals can be made.

The map entitled "Land Use in the Area" indicates the general development surrounding Roxbury Township. Most of this development is of a rural-farm nature with widely scattered residential structures along existing roads. Population concentrations occur to the northwest in the Netcong-Stanhope area, to the north in Hopatcong and Mount Arlington and to the east in Wharton and Mine Hill.

This map also indicates that there is little concentrated business development in the area. Small business districts may be found in Netcong and Wharton Boroughs, the remaining commercial development being scattered along the arterial traffic routes. The nearest concentrated business area is in Dover. Concentrated industrial development has occurred in Netcong and Wharton. However, scattered industries may be found in Mount Olive, Randolph, Mine Hill and Mount Arlington which may affect Roxbury much more than the concentrations mentioned.

Of the nine communities physically bounding Roxbury, only one, the Borough of Netcong has approached the saturation point of development. Netcong is located north of the Schooley Mountain plateau which to a large extent physically separates it from Roxbury. Traffic generated from Netcong is adequately carried by Route 46. The only possible growth pressure on Roxbury from Netcong may be to the south on
THOUGH URBAN PLANNING OR OUTSIDE INFLUENCE ON ROXBURY, SOME DECISION AGENCY UNDERTAKEN PERSONAL
MATTERS.

PREPARED BY SCOTT ROGAY & ROBERT BULTIN: CITY PLANNING CONSULTANTS DENVILLE, N.J.
Route 206 when the new interchange of Federal Route 101 is completed. A sewer and water problem presently exists in Netcong. A solution to this problem may entail joint planning of the communities in the area.

**HOPATCONG BOROUGH**

Hopatcong Borough is a rapidly developing community north of the Musconetcong River. The terrain is generally favorable for development and the completion of Federal Highway Route 101 should heavily influence development of this community. This should create a serious traffic problem for Roxbury on roads between Hopatcong and Route 101. The absence of zoning regulations in Hopatcong may also become of concern to Roxbury Township. There is also a lack of adequate commercial facilities.

**MOUNT ARLINGTON BOROUGH**

Development in Mount Arlington has been quite similar to that in northern Roxbury. The sewer problem is not acute but will need consideration in the future. The Federal Highway will have an interchange in Mount Arlington which will result in through traffic in both Mount Arlington and Roxbury. A serious problem for both communities is the narrow D. L. & W. underpass on Mount Arlington Boulevard that will be a few hundred feet from the proposed interchange. The Master Plan now being completed in Mount Arlington has been coordinated with the Roxbury Plan to recognize mutually planning and zoning problems.

**JEFFERSON TOWNSHIP**

Development in Jefferson Township has been relatively slow compared with the rest of Morris County. Scattered residential development has occurred adjoining Roxbury Township. However, continued development should not create any serious problems. Arterial traffic may be created in this area in the future.

**WHARTON BOROUGH**

Wharton Borough is physically separated from Roxbury by the ridge on the southeast side of the Succasunna Plain. Residential development is dense in nature and divided by an industrial area and a small business center. The land between Roxbury and the center is largely undeveloped due to mountainous terrain.
Mine Hill lies across the same ridge as Wharton Borough. Most development is residential and stretches from the top of the ridge to Dover. There is no centralized commercial area and industrial development is mainly in mining operations adjoining Roxbury Township. A high density residential development has occurred south of Route 46 adjacent to Roxbury that will require urban services in the future. Because of the ridge, the servicing of this area may necessitate a joint program of municipal service between Roxbury and Mine Hill.

Development of lands near Roxbury in Randolph has been scattered residential in character. Industrial development is on the rise and this trend will probably continue. Adequate control of industrial development in Randolph should be encouraged.

Chester Township has developed to a great extent in farms and scattered residences over rolling land. This area is considerably lower than Roxbury and development here will not create any foreseeable problems to Roxbury.

The small village of Flanders lies in Mount Olive and constitutes the only developed area near Roxbury in this section. The completion of an interchange in Route 206 may accelerate growth in Mount Olive.

The map entitled, "Zoning in the Area" shows how the lands in the abutting municipalities are zoned and the minimum residential lot sizes. Netcong Borough permits urban density residential development and has an undeveloped industrial zone bordering Roxbury in the northwest corner. Hopatcong Borough and Jefferson Township are presently unzoned and Mount Arlington Borough is amending its zoning ordinance to conform with its new Master Plan. The proposed lot sizes are very compatible with Roxbury's proposed zoning. The industrial zone shown will remain relatively unchanged but minimum lot sizes will be raised, in some places to over one acre. The entire
eastern side of Roxbury is abutted by industrially zoned lands with the exception of a small section of small lot zoning south of Route 46. Randolph Township has a zone requiring a minimum lot size of 25,000 square feet in the south which adjoins a one acre zone in Chester Township. Chester also has a two acre zone on the Roxbury boundary. Mount Olive is zoned for 20,000 square feet residential with the exception of Flanders which is zoned for 5,000 square feet.
eastern side of Roxbury is abutted by industrially zoned lands with the exception of a small section of small lot zoning south of Route 46. Randolph Township has a zone requiring a minimum lot size of 25,000 square feet in the south which adjoins a one acre zone in Chester Township. Chester also has a two acre zone on the Roxbury boundary. Mount Olive is zoned for 20,000 square feet residential with the exception of Flanders which is zoned for 5,000 square feet.
After the final division of Roxbury Township into Mount Arlington and Roxbury in 1890, growth has occurred at a steadily increasing rate. By 1900 the population was 2,185 persons. An average of seven new families a year moved into the community during the following ten years and the 1920 census showed a gain of 562 persons for a total of 2,976 persons. This was a 23.3 percent increase over the previous census.

A thirty percent increase occurred between 1920 and 1930 with 27 new families moving in yearly. This brought the population to 3,879 persons. Unlike most neighboring communities, the depression decade found Roxbury still growing at the rate of 17 families a year. This increase of 15 percent during an economic depression gave a hint of what would occur later in the midst of economic and metropolitan expansion. The 1940 census showed a population of 4,455.

Between 1940 and 1950, growth was occurring at a faster rate throughout Morris County, the average increase being 31 percent. During this period Roxbury had an average increase of 38 families a year. The federal census of 1950 showed a Township population of 5,707.

From 1950 to the end of 1957, the population of Roxbury had increased 90 percent to an estimated population of 10,847 persons. An average of 195 new dwelling units have been built or converted yearly during the past eight years. During the first ten months of 1958 permits for 149 new dwelling units had been issued. The population as of January 1959 should be around 11,339 persons, an increase of 98 percent over 1950. This is almost a doubling of population in the past eight years. Many communities in Morris County and the Northern New Jersey area have more than doubled their population during this period. Comparison of Roxbury's percent of population increase is shown as follows:
The population in Roxbury is concentrated in four separate areas, Port Morris, Ledgewood Landing, Lower Berkshire Valley and Kenvil-Succasunna. Ledgewood Landing and Kenvil-Succasunna can be considered major development areas and Kenvil-Succasunna is the central concentration area. Most of the growth in the past ten years has occurred in these two areas.

Eighty-five percent of the families in Roxbury live in single family homes, eleven percent live in two-family structures and four percent live in multi-family or multi-use structures. These residences are mainly of the middle to high middle income class with very few structures of the high or low income type present. The majority of these structures are in above average condition.

To predict the future growth of a community, certain factors and their probable effects should be carefully considered.

During the 1920's a large percentage of our nation's population was in the 20 to 30 year family forming age group. This resulted in a high birth rate and a demand for new homes and living space. Twenty-five years later, the babies born during this period have formed a new and larger family formation age group. The late forties and 1950's have witnessed the tremendous outward surge from the concentrated developed areas of our country caused primarily by this large family formation age group.
There is now evidence that this cycle has reached its peak as this group passes into the 30 to 40 year age group. Birth rates are beginning to level out as a smaller percentage of our population moves into the family formation age group.

However, the same cycle should begin again in the late 1970's when the babies born during the late forties and fifties move into the family formation age group resulting in even larger peak births than the late 1950's.
ROXBURY LAND USE ANALYSIS

October -- 1958

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* This figure does not include industrial structures owned by Hercules Powder Co.
**Land Use**

The Township consists of slightly less than 22 square miles or 14,054 acres. Development has been widely scattered in the past so that today some areas of the Township appear as virgin wilderness while other scattered sections give the appearance of fully developed urban neighborhoods.

Generally, residential development has occurred near Lakes Musconetcong and Hopatcong on the north and in the southeast section of Roxbury.

Industrial development is concentrated in the eastern central section and commercial development has occurred along State Highways 6 and 10 from their intersection east to Mine Hill and Randolph. The remainder of the Township is largely vacant land since development has been very widely scattered and is not dense enough to determine any pattern.

The "Land Use Analysis" table indicates that there are an estimated 3,436 families or approximately 11,339 persons living within the Township. Eighty-five percent of these people or 2,930 families live in single family residences. Twelve percent or 418 families live in two family or multiple residences and the remaining 88 families live in commercial, quasi-public or industrial structures.

Allowing three acre lots for existing dwellings that are on large acreage such as farms and classifying the rest of the acreage as vacant land, the amount of land presently developed and used for residential purposes is 1187 acres or 8.53 percent of the Township. There are 192 commercial structures on 189 acres of land comprising 1.34 percent of the Township. There are 46 industrial structures exclusive of the Hercules Powder Company buildings. These 46 structures, combined with Hercules, occupy 1170 acres of land or 8.33 percent of the Township. Industry other than Hercules occupies only 299 acres or only two percent of the Township. The greater part of this two percent is occupied by four industries; Allen Wood Mines, North Jersey Quarry, Universal Pipe Company and Houdaille Construction Company.

The largest single land use classification is vacant land, which comprises 9,234.31 acres or 65.71 percent of the Township. Eleven percent of this land is considered
undevelopable leaving 7618.07 acres or 54.21 percent of the Township as vacant developable land.

Public lands occupy 9.84 percent of the Township, or 1383 acres. Of this large amount, over 1062 acres are in State owned property and a large portion of the remainder is owned by either the Borough of Netcong or quasi-public organizations such as churches, schools, etc.

The amount of tax foreclosed and tax lien lands in the Township is very small. The largest grouping of these lands lies in the Kings Highway area and are not consolidated. Recent land sales in this area indicate that further foreclosing is unlikely. Streets and railroads comprise 879 acres in Roxbury or a little over six percent of the total area.

The "Land Use" map indicates that the direction of development has been south from the Succasunna-Kenvil area along Eyeland and Hillside Avenues where developable level land is available. It is interesting to note that the rolling plateau land between Emmans Road and Netcong is good developable land and is still largely vacant. Careful zoning and planning consideration of this area should be made.

Three major problems appear from the "Land Use Analysis" and the "Land Use Map". The first of these is the inadequate amount of expansion room available for industrial growth. New, planned, industrial areas must be created on good desirable lands. The land should be in large enough parcels to be attractive to industrial developers and the area should be so located as to be compatible to the surrounding land uses. Only in this way can Roxbury become attractive for new industrial growth.

The second problem is the lack of a centralized commercial area for shopping. Highway commercial development is often satisfactory for a rural community, supporting itself both from highway traffic and the lightly populated area. As the community develops, more diversified shopping facilities are needed than that which highway commercial development usually provides.

The third major problem is the excess of good developable land in the western half of the Township. If this land is
allowed to develop at a high density before the vacant land nearer the center of the Township does, the municipal cost to provide this area with municipal facilities and services will be exorbitant. Community growth in the proper locations at the right density can become an asset to a municipality. On the other hand growth in the wrong location at the wrong density can become a municipal liability.

The map entitled "Density Pattern" was prepared to show the lot area per family of each residentially developed property in the Township. This map indicates that small lot development under 15,000 square feet per family has occurred in the older sections of the Township, Port Morris, Ledgewood, Kenvil and Succasunna and in the Lake Hopatcong resort area. However, lot sizes up to one acre per family are prevalent in these same areas.

Density patterns of between 15,000 and 40,000 square feet per family show on the map in Lower Berkshire Valley, Landing and southern Succasunna. There are a number of lots throughout the Township with a density of one to three acres per family, particularly in the western half. There is also a large amount of land that is either vacant or has a density of more than three acres per family.

Density studies indicate that small lot urban development would be logical in Port Morris, Shore Hills, Ledgewood, Kenvil and central Succasunna. A medium density type of development would be logical in Landing, Lower Berkshire Valley and southern Succasunna and low density acreage development should be encouraged in the western half and the northeastern section of the Township.

Sound and reasonable zoning of a community cannot be determined without recognizing the existing land use and the residential density. Existing densities are an important factor in determining proposed lot size requirements and the zone district boundary lines of any zoning plan.

The field inspection of Roxbury Township made during December, 1957 found no evidence of blighted or substandard residential areas. The majority of residential structures were in above average condition. This is largely due to the fact that
approximately 50 percent of all structures were built during the last 10 to 15 year period. Older housing is found in the original small communities making up the Township. Though structures in these communities are substantially older than the Township average, only 36 scattered dwellings were found to have substandard living conditions and 188 were found to be in need of repairs. These structures are only 7.4 percent of the total in Roxbury. In addition, 20 dilapidated abandoned structures were found scattered through the Township. Very few of the substandard houses were in the resort area along the lake.

The thirty-six substandard dwellings are not located in any one area, nor are the 188 dwellings needing repairs. For this reason, there is no area of the Township that may be considered blighted. However, there are areas where conservation of existing structures will be necessary to avoid a decline in values and living conditions.

Port Morris has 37 dwellings in need of repairs and seven dwellings that are substandard. High density, old age of structures and the proximity of the D.L.& W. switch yards are contributing factors to the decline of this neighborhood. High density development with individual sewer and water systems has caused a contamination problem which is also contributing in making the area less desirable.

The decline of this section can be somewhat checked by strict enforcement of existing codes and ordinances. Adopting a Housing Code to insure minimum living standards in existing structures would also help to keep Port Morris from becoming a run down area. The sewer and water problem which exists in various sections of Roxbury is most acute in Port Morris and immediate consideration should be given to remedy this situation.

The Kenvil - Succasunna area has many scattered structures in need of repair. These buildings, together with the large amount of traffic on minor residential streets, will affect this area more and more in the future. The traffic diversions outlined under the traffic study plus a general repair program would go a long way toward halting any decline and would result in increased property values throughout Kenvil and Succasunna.
While the remaining scattered substandard or run-down structures in the Township are not located so as to seriously threaten the values of surrounding properties, their numbers should be diminished by the above mentioned program of code enforcement, adopting a Housing Code and a clean up repair program. Such a program is much more economical than a slum clearance program in the future.

Economic Base

An urban community differs from a rural community by having a large percentage of the population engaged in work other than farming or providing services for agricultural work. As a town becomes completely urban, its livelihood depends increasingly on the non-agricultural aspect of employment. The success or failure of an industry or a large commercial establishment which employs large numbers of the citizens of a community can influence the economic stability of the entire community.

Roxbury developed due to excellent farm lands and mining. The urban segment of the population rose and fell with the mining operations carried on in the area. As the ore mining era drew to an end, the manufacture of powder became the major source of urban employment.

The urban character of Roxbury has steadily increased and today only a small portion of the population is still engaged in agricultural work. A large number of residents deal in services of various kinds, mainly of a commercial nature.

Due to the automobile, few suburban communities have all of their population working within the community. This has a healthy effect in that the personal welfare of the majority of residents does not suffer with the collapse of a community industry. However, a municipality must still depend on tax revenue from industries, commercial establishments and residences within its boundaries. It is important, therefore, to every town to have a diversified industrial and commercial base so that the failure of one establishment does not mean the bankruptcy of the town.

TAX STRUCTURE

Approximately 65.71 percent of the land in Roxbury is vacant or used for farming purposes, and this land pays 7.41 percent of the tax burden. Industrial and commercial
TAX ANALYSIS

how the land is used

vacant, farm 65.71%
residential 11.95%
industry, rail, commercial 22.34%

where the tax dollar comes from

school 61%
county 12%
municipal 27%

how the tax dollar is spent

residential 55.5%
industry, rail, commercial 37.1%
vacant, farm 7.4%

note: approximately half of the total revenue from industry, rail and commercial is from the Hercules Powder Company.

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH THE URBAN PLANNING GRANT FROM THE HUD DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. UNDER THE PROVISIONS OF SECTION 106 OF THE HOUSING ACT OF 1954, AS AMENDED.

PREPARED BY SCOTT DADDY & ROBERT CATLIN * CITY PLANNING CONSULTANTS DEERFIELD N.J
development uses 11.9 percent of the land in the community and pays 37.13 percent of the taxes. Public institutions and facilities use 13.81 percent of the land and, of course, pay no taxes. Residential development occupies 8.53 percent of the land and contributes 55.46 percent of the taxes.

If the percent of the Township taxes each category pays is divided by the percent of the Township area each category uses, a tax area ratio (T.A.R.) is determined. For example, the residential T.A.R. would be 55.46 divided by 8.53 or 6.5, and the industrial and commercial T.A.R. would be 37.13 divided by 11.9 or 3.1. In other words, an average acre of industrial use property in Roxbury is presently paying less than one-half the taxes of an average acre of residential use property. The immediate conclusion, then, might be that from a tax revenue standpoint the Township should encourage residential development instead of industrial or business development. However, there are two further factors to be considered before such a conclusion should be made.

The bulk of land in the commercial-industrial category is used by Hercules Powder Company. Much of this land is vacant due to the nature of operations there which necessitate large open areas between buildings. If this land were used for industry of a different type, the T.A.R. ratio could easily double or triple. For example, it is quite conceivable that another type of industrial operation with the same assessed valuation as the Hercules assessment could locate on half the area presently used by Hercules. This would result in a T.A.R. of approximately 6.2 instead of 3.1.

A second factor is that of municipal service costs. There is little doubt that industrial development will result in additional municipal facilities and services such as police protection, fire protection, street maintenance, etc. There is also little doubt that residential development will have nearly the same resultant effect with one exception; that of school costs. The school cost factor more than compensates for the lower industrial-commercial T.A.R. in Roxbury.

At the present time the industrial assessment in Roxbury is approximately 21 percent of the total assessment, and almost 80 percent of this industrial assessment is on the Hercules Powder Company. Approximately 17 percent of the total tax revenue in Roxbury is therefore paid by Hercules. It is
apparent that further expansion and diversity of the industrial base is desirable in Roxbury. To bring more industry into the Township, it is necessary to set aside tracts of land that are attractive to industry for initial development, that have enough area for future expansion, that do not allow residential encroachment and that are served by good rail and highway facilities. Such areas exist in Roxbury and are proposed for this use.
Municipal Administration

During the preparation of a Master Development Plan an analysis must be made of the existing and proposed codes and ordinances that will guide and control development toward the goals set forth. Conflicting codes must be repealed or amended, other codes will have to be strengthened. Because the most carefully drawn code is only as effective as its enforcement, an analysis of the enforcement ability of the administrative staff must also be reviewed.

A municipality has three broad powers enabling it to regulate and plan its development. These powers deal with zoning which regulates the use of land and structures; subdivision regulations governing the division and improvement of land; and the Official Map, which designates and reserves land for street and drainage rights-of-way and parks or playgrounds. The zoning and subdivision regulations are analyzed in a later section of this report and the adoption of the proposed amendments will give Roxbury the protection and safeguards it needs.

After the Planning Board adopts a Master Development Plan the Governing Body should adopt an Official Map based upon the Master Plan. With these three powers, Roxbury will be able to guide its future development economically and logically.

Roxbury Township regulates the construction of new structures through a Building Ordinance. This code provides adequate regulations for all phases of construction with the exception of plumbing. There is no control over existing structures in the Township except for the Fire Prevention Code, though Roxbury has an ordinance calling for the demolition of structures unfit for habitation.

Several areas in Roxbury contain relatively old structures, and although they are not in blighted condition, conservation steps must be taken soon to improve them in order to avoid blight in the future. A Housing Code should be adopted in Roxbury setting forth minimum housing conditions such as adequate cooking and toilet facilities, repair of dilapidated interiors and exteriors, and other conditions affecting the health and welfare of the inhabitants.
HEALTH AND SANITATION

The Sanitary Code of Roxbury was adopted more than 30 years ago and is presently being revised because of its lack of modern standards. A part time Health Inspector enforces the existing code as well as the Individual Sewage Disposal System Code and State codes. A modern Plumbing Code is needed by the Township with more exacting standards than those required in the Building Code. Such a section could be adopted with the proposed Housing Code.

STREET DEVELOPMENT AND IMPROVEMENTS

Roxbury controls the development of streets through construction specifications, the Subdivision Ordinance and the Street Acceptance Ordinance. These regulations are adequate but the adoption of an Official Map could make their administration clearer. As Roxbury begins providing more municipal services such as sewers, sidewalks and other urban requirements, policy of property assessments must be formulated.

FIRE PREVENTION CODE

Roxbury Township has recently adopted the new Fire Prevention Code of the National Board of Fire Underwriters. This code, together with the Building Code and the proposed Housing Code will give the residents of the Township adequate legal protection and controls over hazardous building conditions.

ADMINISTRATION

The codes and ordinances adopted by Roxbury Township are enforced by the offices of the Police Chief, the Health Inspector and the Building Inspector. The office of Chief of Police is a full time position, while the Health and Building Inspector Offices are part time. During the past few years this arrangement has made adequate enforcement of the many regulatory ordinances adopted in the Township difficult. The Office of Building Inspector should be made a full time position. The Building Inspector will be responsible for enforcing the Building Code, the Zoning Ordinance and the Housing Code. This position will require making inspections on all new construction, alterations or conversions, issuing building permits and occupancy permits, inspecting existing structures and creating a program of inspection and investigating violations of these codes. This task cannot be handled effectively by a part time employee.
The Roxbury Police Department provides 24 hour police protection in the Township. It consists of 10 full time policemen and 15 special policemen. The force has two patrol cars equipped with dispatching radios and operates through the Morris County Dispatching Service. Headquarters is located in the Municipal Building, affording easy access to all sectors of the Township.

Fire protection is provided by a municipally owned volunteer organization, the Roxbury Chemical Company. There are three fire houses with seven fire vehicles and one 1917 truck used for exhibitions. Company 1 is located at the Municipal Building in Succasunna, Company 2 is located in Port Morris and Company 3 is located in Lower Berkshire Valley. Two of the vehicles are over twenty years old and their replacement will have to be considered in the future. Each Company has one ambulance for emergencies. The Hercules Powder Company operates its own fire organization but uses no vehicles, as the entire plant is provided with a water system and hoses. The 24 hour switchboard operator at the plant is used to sound the Township alarm for all fires in the Township.

Water is furnished in Roxbury Township by individual wells and two private water companies. The Shore Hills Water Company serves the Shore Hills development and a part of the Landing business area. The Roxbury Water Company serves portions of Kenvil and Succasunna. There is no piped water supply for Port Morris, Ledgewood or Landing. These three areas will have to be served in the future because of the high density pattern and are included in the service areas discussed later.

At the present time there are only individual sanitary sewer facilities in the Township. As the small lot zones develop more fully, this system will become inadequate. A Federally financed sewer survey has been undertaken recently which will show the feasibility and cost estimates of a municipal sewer system.

The engineering consultants making the sewer survey have advanced the following preliminary estimates. They find that to serve Roxbury at its present rate of development a sewer plant costing approximately $900,000 will be necessary.
It is expected that the Federal Government will help finance 50 percent of this cost in the future, leaving a cost of $450,000 to the Township for the plant alone. To install sewer lines throughout the Township serving Port Morris, Landing, Shore Hills, Berkshire Valley, Kenvil and Succasunna will cost an estimated $5,000,000. It should be pointed out that these figures would develop a system that would include a considerable portion of the Township which is not included in the service area outlined in this report. High density, small lot development should be served with public sewer and water facilities. Because of close proximity of the dwellings, individual sanitary and water facilities inevitably lead to a problem of contamination. This problem is also becoming aggravated with the increasing water consumption rate in the American family.

If the Zoning Ordinance proposed in this report is adopted, the possibility of small lot development scattered throughout the Township will be minimized. The plate entitled "Service Areas" shows those areas of the Township that should be planned and zoned as "Primary Service Areas" and Secondary Service Areas." The primary service areas should eventually provide full urban services such as public water, sewers, schools within walking distance, etc. The secondary service areas will only provide some of these full urban services.

Garbage disposal is handled on a private contractor basis in the Township. The dump for refuse is located off Mountain Road in Ledgewood. This dump is operated as a sanitary land fill program. Inspections are made by the Health Inspector to insure proper procedure. Due to the large amount of land owned by the contractor and its location, this site will be able to satisfy the needs of the Township for years to come.

Roxbury has four municipally owned buildings. These are the new municipal building, the old municipal building, the Port Morris Fire House and the new Lower Berkshire Fire House opened in late 1958. The new municipal building located on Route 10 in Succasunna houses a fire house, police headquarters, a court room, a meeting room and the municipal office. The old building across Main Street is used for Civil Defense Headquarters and a meeting hall. These buildings now meet the needs of the Township. A municipal library will be needed in the
future. As the plateau lands around Mooney Road and Mountain Road develop in the future, a new fire house should be provided near the intersection of these roads to serve the area.
Based on the existing land use analysis, density and proposed zoning studies, it is estimated that Roxbury will grow during the next 20 to 30 years to a population of 20,000 persons. For planning purposes, this establishes a target population for which the planning program will be designed. Perhaps this target will not be reached in 30 years, or perhaps it will be reached in 15 years. The planning program is designed to determine the proper location and services for a given number of people. If the planning program is properly carried out, the unknown factor of just how soon the population target will be reached can be removed by gearing our capital improvement program to the rate of growth, speeding it up if growth is faster than anticipated, or slowing it down if growth is not as fast as anticipated. In this way the Planning Board can keep abreast of new development and the exact time the Township reaches the target population becomes relatively unimportant.

Once a Population Target has been estimated, known quantities of community service needs can be established, but the cost of these needs can not be determined until we know where this population will be located. It is obvious from the land use studies that the 7707 acres of vacant usable land could accommodate a population of 77,000 persons, and that Roxbury cannot afford to extend city-type services to all parts of this large area without unreasonable financial burden. The amount of land needed for growth to the Target Population figure in locations which can be most economically served is shown on the Service Area Plate. It is estimated that the primary service area can be served with sewers for a Township cost of $2,000,000 as compared to the $6,000,000 necessary to serve a larger area of the Township as outlined earlier. The time of public sewer construction can also be delayed by the installation of public water facilities in Port Morris in the near future at an estimated cost of $50,000. Setting the sewer construction date back as far as possible will become necessary in view of the large amount of school construction which will be necessary in the immediate future.

The importance of the firm establishment of a Service Area cannot be over-emphasized. It is only within such a framework that any accurate plans for future services can be prepared. Since future lot sizes will be
determined in relation to this map, the subdivision regulations which are a vital planning tool are geared to the fact that small lots need more improvements than large lots. A sliding scale of improvement requirements offers practical inducements to subdividers by decreasing development costs as lot sizes increase. Through Service Area and Zoning policies a sound, economically operated Roxbury can be planned for.

**Zoning**

The Roxbury Township Zoning Ordinance was adopted October 29, 1946 and has had numerous amendments. It divides the Township into three residential zones, a commercial zone and an industrial zone.

**PRESENT ZONING**

The "A" Zone is a single family residential zone along Kenvil Avenue. It has a minimum lot area requirement of 30,000 square feet measured within 200 feet of the street right-of-way. The "B" Zone is designed for two-family residential use, with a minimum lot area requirement of 15,000 square feet per family. The "E" Zone is a resort zone for single family residences in the northern section of the Township, with minimum requirements of 7,500 square feet per family and minimum lot width of 50 feet. Dwellings in these residential areas are not permitted to cover more than 25 percent of the lot.

One major problem of the existing residential zoning is the "B" Residential Two Family Zone. This zone covers 60 percent of the Township and originally permitted two family dwellings on 7,500 square foot lots. It is presently amended to require 30,000 square feet per lot. By permitting two family development on a 30,000 square foot lot, the effective density of this zone is 15,000 square feet per family, a density too high for an undeveloped community the size of Roxbury. This zone contains areas that are vacant farm land, and densely built-up areas alike and is responsible for the scattered high density subdivision development that has threatened the economy of the Township.

A second problem is that many public or quasi-public uses are permitted in the residential zones without any standards set forth to protect the existing residential development.
One further problem is the large amount of Resort Zone in the northern section of the Township. Adequate sanitation facilities around the lake have become a problem during the past few years and encouragement of further high density development on the remaining vacant land acreage will aggravate an already serious situation.

The Business Zone is designed for retail sales and services, wholesale, warehousing, office building and specified light industrial purposes, as well as all uses permitted in the residential zones. A maximum building height of four stories is permitted on a minimum lot size of 15,000 square feet with a minimum frontage of 100 feet. The maximum building area allowed is 85 percent of the lot with a 15 foot setback and seven foot side yards.

The Township has been strip zoned for commercial along the major highways and no concentrated area for commercial development has been provided. There has also been no breakdown of commercial zones. Neighborhood business districts presently permit theatres, warehouses and other uses not compatible with neighborhood needs.

The Industrial Zone has no minimum yard or area regulations except that the maximum building area allowed is 90 percent of the lot area. Various objectionable uses are listed as prohibited, as well as residential dwellings. The Industrial Zone lacks a comprehensive pattern in the Township, consisting of unconnected districts which do not allow for future industrial expansion. The relationship between existing residential and industrial areas is not conducive to logical development patterns and is often detrimental to both uses.

The proposed zoning map on the accompanying plate shows eight different zone districts. There are four residential zones, three business zones and one industrial zone. The proposed R-1 Zone is for single family use and requires a minimum lot size of 40,250 square feet, slightly less than one acre. This zone is located in the western part of the Township and in the extreme northeastern section. At the present time the majority of existing development in these areas are built on lots that would meet the requirements of the proposed R-1 Zone.
Very often people misconstrue the main objective of large lot zoning. Its primary function is not that of encouraging large, expensive estate-type homes or that of discouraging growth in general. Large lot zoning is designed to guide the growth of the municipality which wants to locate on small urban lots into areas that can be most economically served by the Township. Persons wishing to locate outside these service areas must do so at a density or lot size that will minimize the costs to the municipality in providing these homes with municipal services. Scattered small lot development in the areas proposed as R-1 Zones would create exorbitant service cost problems.

The R-2 Zone is proposed as a single family residence zone with a minimum lot size of 25,000 square feet, slightly more than one-half an acre. The proposed zoning map shows an R-2 Zone in Succasunna, one near Landing and one in Lower Berkshire Valley. Existing development in the Succasunna and Lower Berkshire areas is compatible with the proposed density. The area around Landing proposed for R-2 Zone is largely undeveloped. With the present sewage problem around the lake areas, smaller lot size development of this land would hasten the need for sewer facilities and would enlarge the area to be sewered to an uneconomical size. Faced with the same problem, Mount Arlington is studying a proposal to raise their minimum residential lot area requirements adjacent to Roxbury to 25,000 square feet. The proposed R-2 Zone would make the zoning of the two municipalities the same.

The R-3 Zone proposed is for one family residential use with a minimum density of 15,000 square feet per family. The proposed zoning map shows this zone in central Kenvil and Succasunna where municipal services can be much more economically provided. This density is compatible with existing development patterns in the area.

The proposed R-4 Zone is designed for one family residential use with a minimum density of 7,500 square feet per family. The proposed zoning map shows the areas zoned for this density in Port Morris, Landing and Kenvil. The existing density within these areas make it unrealistic to increase the lot size requirements much above the 7,500 square feet proposed.

The B-1 Zone is a neighborhood business zone designed primarily for retail sales and services for the neighborhood
# Zoning Analysis

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in which it is located. The proposed zoning map shows B-1 Zones in Port Morris, Landing, Shore Hills, Lower Berkshire Valley and Succasunna. This zone would require a front yard setback of 30 feet and a limit of two stories for each structure.

The B-2 Zone is a highway business district. The proposed zoning map shows this zone located along State Highways 46 and 10. The front yard setback is proposed at 40 feet and the maximum height of two stories.

The B-3 Zone is a planned shopping district designed to meet the needs for diversified retail business that will not be met by highway commercial establishments. The intersection of Routes 46 and 10 as well as the two new inter-changes from FAI 101 will give excellent access to this largely undeveloped area proposed for this use as shown. Site plan approval by the Planning Board will be required before construction is allowed to insure the best possible development of the entire area.

The Industrial Zone District runs rather continuously along the Black River in conjunction with the industrial zones of Mine Hill and Randolph Township. The largest industrial zone is between Kenwil and the new FAI 101. This area includes all of Hercules Powder Company. A new industrial zone is proposed north of Ledgewood-Mount Arlington Road to the new highway. It joins with the industrial zone in Mount Arlington making the boundary zoning in both municipalities the same. The industrial zone in Succasunna has been extended north to the steep cliffs that form the mountain plateau. This cliff will act as a natural barrier for changing land uses. This zone will be served and located on the proposed improved Emman Road and the Central Railroad of New Jersey. This zone will require 100 feet minimum yards with attractive landscaping, and must have all plot plans submitted to the Planning Board for approval.

A comparison of the proposed zoning ordinance with the existing ordinance is shown on the table entitled, "Zoning Analysis." The total amount of commercial zoning has been decreased by about one-half, due to eliminating the strip zoning of Route 206 and parts of Route 46 and Route 10. Corresponding increases may be noted in the residential and industrial districts.

A theoretical "number of families" comparison can be made, assuming 75 percent of each zone were developed according
to its density requirements. Under the existing ordinance approximately 24,925 families could theoretically live in Roxbury. The proposed ordinance would allow a theoretical development of 15,465 families. It should be pointed out the larger number permitted under the existing ordinance is primarily due to the permission of 2 family units on the same lot size of 30,000 square feet as a single family unit.

The Proposed Zoning Ordinance is one of the tools which will insure community development in an economical and logical direction. The proposals in this Master Development Plan are based upon future development of the type proposed by the Zoning Ordinance and in the designated locations. If the features of the proposed ordinance are not carried out, serious consideration should be given to the problems that in all probability will result in the overall development picture.

**Schools, Parks and Recreation**

In 1956 the State Bureau of Recreation made a survey for Roxbury which pointed out the inadequacy of park and recreation facilities in the Township. A twelve point program was proposed to remedy the situation. In February of 1957 the Roxbury Recreation Commission was established and was given Township funds to create a recreation program. At this time there was less than two acres of municipally owned land used for recreation purposes other than school property. During 1957 the Commission used its funds to study the problem and substantially increased the recreation facilities in the Township by using school and private property, especially during the summer months.

During the summer of 1958 the Township acquired two large park sites, the Kiwanis Park of thirty acres and the Mountain Road Park of 30.6 acres. These two sites, together with the New Jersey State Park on Lake Hopatcong are a good beginning for a sound recreation program for the residents of Roxbury Township.

One of the factors necessary to encourage good property values and sound community development is the existence of neighborhood park and playground facilities. In the last ten years communities throughout the country have been developing the neighborhood school...
as a combined school and park, as the most economical way to provide both of these necessary services. These school-parks become the recreation center of the neighborhoods. They eliminate the need of providing both park and school in two different locations, which would remove two pieces of property from the tax rolls. They are generally located near the concentration of population of the neighborhoods. Such a system provides for the use of school facilities after school hours and during the summer months for recreation and community activities. Both the Board of Education and the Recreation Commission benefit from the program. Normally the Board of Education is relieved of the cost of developing the school property and of maintaining the grounds when used by the Recreation Commission. On the other hand, the Recreation Commission has at its disposal lands well located to provide the maximum recreation facilities at a minimum cost to the taxpayer.

It is recommended that the Township inaugurate such a school-park program.

PROPOSALS

Roxbury should develop its school plans with adequate site area to enable utilization of the area as school-parks. It is suggested that at least ten acres plus one acre for every 100 students for elementary schools and twenty five acres plus one acre for every 100 students for high and junior high sites be provided. Detailed discussion of these sites will follow in the school study proposals.

In addition to the school-parks two areas have need of neighborhood park facilities. A site is suggested for the present 271 families located east of the D. L. & W. Railroad near Route 46 and Mine Hill. Since this neighborhood also includes residents of Mine Hill, at least four acres should be provided. Vacant land in this area is becoming scarce. It might be possible to acquire and to develop the Roxbury Water Company land as a park by acquiring two adjacent residential properties and giving the company exclusive water rights to the property. Such an arrangement would relieve the water company of a tax burden and the Township could receive the land at a minimal cost. There are also lands available both north and south of Route 46 that could be purchased and developed for park and swimming purposes.

The map entitled "Schools, Parks and Public Lands' shows a proposed neighborhood park in Port Morris between Washington Street and Lake Musconetcong. The present school site
cannot be enlarged to a great enough extent to become adequate for neighborhood recreational purposes. The proposed park site is located on marginal but usable lands that are not too satisfactory for residential purposes due to the sewage and water problem that exists in this area. Also shown on the map are State lands between Center Street and Lake Musco-netcong. Although this land could be developed by the Township for swimming purposes, it is not of an adequate size or shape for neighborhood recreational purposes and is located inconveniently for general Township use.

The State should be encouraged by the Township to further develop the beach on Lake Hopatcong. This land is ideal for general park development and should not be restricted to being used as a swimming beach.

Ever increasing school enrollments has been the greatest problem plaguing almost every municipality in the Metropolitan Area during the past ten years. It is vitally important to every community to take a thorough look at what has happened and what can be expected to happen to school enrollments. In this manner the future school needs of the community can be met on time and at the least possible cost.

The Board of Education presently owns six schools located on four different sites totalling approximately 64 acres. They also own an undeveloped site near Corn Hollow Road containing 15 acres.

The Port Morris Elementary School was built in 1926 and contains eight classrooms presently being used for grades Kindergarten through six. This school is located on slightly more than one acre of land with inadequate playground facilities. The building lacks indoor recreation space and adequate assembly space.

Lafayette Elementary School in Lower Berkshire is located on a four acre site and contains two classrooms plus a basement room presently used as a classroom. The school accommodates grades Kindergarten through third with more than one grade per classroom. There are no indoor facilities for assembly or recreation. Outdoor facilities have been jointly developed by the Board of Education and the Recreation Commission.
The Succasunna site of approximately 44 acres contains three school buildings. Sixteen acres are undeveloped. The Franklin Elementary School is a new school handling grades Kindergarten through second in fifteen classrooms. Designed as a K-3 school, it was completed in the fall of 1957 and is already operating at capacity enrollment on a K-2 basis. The Lincoln School was built in 1918 with an addition in 1927 and was originally constructed as a high school. It has 21 classrooms, an auditorium seating 500, a gymnasium and a cafeteria. At the present time the Succasunna site is used for recreation by both elementary and high school students without adequate provisions for separation of the different age groups.

The Roxbury High School was built in 1939 as a receiving school for grades nine through twelve. It takes students from Hopatcong Borough, Chester, Mount Olive, Mount Arlington, and Jefferson Township and a part of Randolph Township. In 1952 an addition was constructed to handle only Roxbury students of grades seven and eight. In 1953 it was decided to eventually use the high school for Roxbury and Mount Arlington students only and all other receiving districts were notified that after the 1956 school year ninth grade students would not be enrolled. At the present time grades nine through twelve are operating on a double session schedule. It is quite probable that grades seven and eight will also be on double session in the near future. The school was designed for 750 students with an emergency capacity of approximately 900. During the 1957-58 school year the total enrollment was approximately 1050 Roxbury students plus 324 receiving students for a total of 1374 students. Assembly facilities are non-existent and the need is presently being met in the 500 seat auditorium in the Lincoln School.

To determine the number of students that will be enrolled in the schools in the future, many variable factors which affect school enrollments must be considered. Population growth, birth rates, age distributions, availability of vacant land and zoning must all be carefully analyzed. If the proposed zoning is adopted this will determine where the built-up development will occur and if the other Master Plan proposals are carried out, school enrollments can be rather accurately estimated.
The population of Roxbury has more than doubled since 1946 having a very decided impact on the school system. However, even if this growth had not taken place there would still be a critical school problem at the present time. Many communities throughout the country that have not grown much during the past ten years are also having to face the same problem of increasing school enrollments. This is due to the large number of babies born in the country during the 1920 decade. Between 1890 and 1910 the United States grew at the fastest rate in its history. This growth was very much in evidence in New Jersey where between 1900 and 1910 the state population increased almost 35 percent. The increase in the number of babies born during the twenties as a result of this growth produced the largest family forming group ever witnessed in this country 20 to 30 years later. The children of this group began entering the school systems during the late forties and early fifties and are now moving up through the system. There is some evidence that the peak in births began to level off nationally, during 1957. This levelling off is due to fewer babies born during the depression than in the twenties and this depression baby group is now in the family forming age group. The peak births of 1957 will enter the schools five years later, resulting in a peak kindergarten enrollment in 1962. When this group is in the third grade our elementary K-6 system will have its peak enrollment which will be about 1965 or 1966. By about 1972 this group will cause a peak high school enrollment. The children born during the depression which are now in the baby producing age group will result in fewer births during the next few years and will generally cause a levelling off in enrollments until the cycle begins again. During the 1980's our school systems will again undergo an enrollment increase larger than the one now taking place. A general understanding of this cycle should be carefully considered prior to the adoption of any long range school building program.

New residential growth usually results in more school children and pre-school children per family than exist on the average within the community. This is primarily due to the younger couples moving in and buying or building new homes in the community, while many of the older residents in the community have already sent their children through the school system. This
situation is reflected in the pupil per family ratios. This ratio in Roxbury is presently 0.427 K-6 children per family. School surveys in other Morris County communities indicate that new growth has had an average that is approximately .193 children per family higher than the Roxbury Township ratio. Therefore, the overall ratio in the Township will increase with new growth until the depression babies group moves into the cycle.

Based on the expected population growth in Roxbury which in turn is predicated upon zoning proposals being adopted, and the increasing pupil per family ratio, it has been estimated that the K-6 elementary enrollment will increase from its 1327 pupils during 1957 to 2100 by 1966. Even though the pupil per family ratio may drop after 1966, there will be a very small annual increase in enrollments due to the growth factor compensating the above mentioned ratio drop. There were 704 students in grades 7-12 from Roxbury families in 1957. This enrollment will increase to 1925 students by 1972.

During the 1958-59 school year, Roxbury will still be receiving some high school students from neighboring communities. After 1958 only students from Mount Arlington will be attending the high school in Roxbury.

It has been estimated that the high school enrollment in Mount Arlington will increase but not quite as rapidly due to growth capacity of the Borough. It is not within the province of this report to make detailed enrollment analyses for Mount Arlington as many variables such as zoning, land use analysis, density studies and Master Plan proposals must first be carefully determined. However, preliminary studies of the generalized land use, existing zoning and school enrollments indicate that it is reasonable to expect Mount Arlington's 9-12 enrollment to increase from the present 40 students to approximately 125 students. Some consideration to the Mount Arlington situation has to be made in proposing any school program for Roxbury. These 125 students in grades 9-12, added to Roxbury's 1925 students in grades 7-12 will give a total of 2050 students to provide facilities for by 1972.

It is recommended that to meet the long range school-park program Roxbury PROPOSALS should eventually go into a junior-senior high school program and act as a receiving junior senior high school for Mount Arlington only.
PROPOSED PROGRAM

1. Port Morris School  K-3
2. Landing School    K-6
3. Lafayette School  K-3
4. Roxbury Junior High 7-9
5. Lincoln School  4-6
6. Franklin School  K-3
7. Roxbury High School 10-12
8. Secaucus School K-6

SCHOOLS, PARKS & PUBLIC LAND

- State of New Jersey
- Borough of Kintong
- Existing township parks
- Proposed township parks
- Existing school lands
- Proposed school parks
- Existing public blgs
- Proposed public blgs
- Proposed state acquisitions

TOWNSHIP OF Roxbury

Prepared by Scott Hagau & Robert Catlin - City Planning Consultants - Belleville, New Jersey
To meet the junior-senior high school peak enrollment of over 2000 students by 1972, a new high school for either grades 7-9 or 10-12 should be constructed. Because of the existing and future concentration of population as shown on the Existing Use of Land map and the proposed density pattern, it is suggested that a 35 to 50 acre tract be acquired as soon as possible in the area bounded by Hillside Avenue, State Route 10, Eyeland Avenue and Condit Street. Because of the size and shape of the Succasunna site and the fact that there are two elementary buildings presently located there, it appears to be more feasible to plan on constructing the new building as a 10-12 high school building. This building will need 44 classrooms to meet the 1972 enrollment.

It is recommended that construction be started on this building by no later than 1960 or 1961. It could be built in two stages as needed, with the second stage being constructed about 1966. The present high school could be used as a 7-9 junior high school and would adequately meet the anticipated enrollment without any further classroom additions. A further advantage in using the present high school as a junior high would be that by removing the three higher grades from the Succasunna site the remaining children would be more similar in age characteristics.

To meet the elementary enrollment of 1966 a total of 77 classrooms will have to be provided by the public school system. It is expected that the St. Teresa parish will provide school facilities in the distant future, beginning with several grades and building additional rooms from time to time. For the purposes of this report it has been assumed that this construction will take place between 1963 and 1972 and will finally become a 10 room K-6 elementary school for Roxbury students only. It is suggested that the Lafayette Schoolpark in Lower Berkshire have one classroom added. This could remain a neighborhood school taking children from grades K-3. Because of the isolated location of this neighborhood and its proximity to the surrounding state owned land along with the low density zoning presently existing and also proposed, this area should not develop as rapidly as other areas of the Township.

The Port Morris School site should be enlarged by purchasing the two buildings adjoining the school property on the west and the vacant property across Palmer Street. Palmer Street could then be vacated and the property could be joined into one piece of usable land. Although the resulting property
will not be large, it will approach a minimum site needed for a neighborhood K-3 school. It is also proposed that two of the classrooms be converted into an indoor recreation and assembly space, leaving six classrooms to handle the K-3 students in this area.

A critical shortage of classrooms still exists in Succasunna. The Franklin School was designed to allow for a six room addition at an estimated cost of slightly more than $100,000. This addition should be constructed prior to the 1960 school year.

It is proposed that a new 13 classroom K-6 elementary school-park be developed at Landing to receive 4-6 grade students from Port Morris and Lower Berkshire in addition to serving as a neighborhood K-6 school for Landing. It is recommended that this site be located as near the intersection of Shippen-port Road and Mount Arlington Boulevard as topography will allow. It would be within walking distance of most residential development in Shore Hills and yet be accessible to Port Morris students. This school should be constructed in 1960.

Prior to the 1965 school year, 13 additional rooms will be required in the Succasunna area.

The Board of Education presently owns a site on Corn Hollow Road. Due to the probable future population density in a more easterly direction which will result from zoning proposals it is suggested that the Corn Hollow site be sold and a new site near Condit Street be acquired as shown. A ten room K-6 elementary school should be constructed here. This building will be the last major construction necessary to handle the expected elementary enrollments until the mid 1980's. Though the 1980 cycle is far in the future, it is necessary to recognize the problem today before any long range program is undertaken.

There is a long range need for a school-park near Mooney Road and Mountain Road as shown. This land should be purchased in the near future and held as park land until the need for a school is evident. Eventually this elementary school could serve the entire one acre zone after it develops.

The proposals and figures mentioned above are conservative estimates of the actual needs of Roxbury when it reaches a population of approximately 20,500 persons. Regardless of how fast or slow the Township grows in the future, the needs
outlined will be necessary when this population is reached. Therefore, if the program of expansion is geared to the population increase the proposed schedule of construction can be slowed down or speeded up as the growth exceeds or falls behind the projected population expectancy. The result of this method will be to remove most of the guess-work for new school needs.

Arterial Roads

Three major highways of the Northern New Jersey area pass through Roxbury Township. Federal Route 46 connects the New York area with Pennsylvania and the western part of the State. State Highway 10 collects traffic from Essex and Morris Counties and joins with Route 46 in the center of Roxbury. Federal Route 206 runs in a north-south direction and serves central and northern New Jersey. It lies along the western boundary of Roxbury and intersects Route 46 in Netcong Borough.

Construction has begun on the new Federal Assistance Interstate Route 101 which will connect New York with eastern Pennsylvania. This limited access highway will pass through Roxbury and Mount Arlington, bringing these communities within 45 minutes travel time of New York City. Because of its location, much of the resort traffic leaves the highways in Roxbury bound for the lakes. An interlacing system of local and County Roads feed this traffic to its many destinations. The State Highway Department plans to construct three interchanges in the Roxbury area within a distance of three and one-half miles. The first interchange will serve central Roxbury and the Mount Arlington resort area. The second will serve the Hopatcong resort area and take traffic from Routes 46 and 10. The third will serve western Roxbury, Netcong, the Budd Lake resort area and Mount Olive.

There are seven County Roads in Roxbury which form most of the Township's arterial street system. Only two of these run in an east-west direction. County Road 31, or Center Street, runs from Route 46 through Netcong Borough, Port Morris and Landing. County Road 17 connects Succasunna and Morristown, passing through Mount Freedom.

The other five County Roads run in a north-south direction. Route 42, Kenvil Avenue and Berkshire Valley Road, connects the Kenvil-Succasunna area with Wharton and the Picatinny Arsenal.
Route 15 carries traffic from Route 46 north to Mount Arlington and the Upper Lake Hopatcong area from the Ledgewood traffic circle. Road 16 connects Landing with Mount Arlington and Road 43 connects Landing with Hopatcong Borough. In the southern section of Roxbury, Road 25, Hillsdale Avenue, connects Succasunna with Flanders and Washington Township.

The only other arterial road in Roxbury is Berkshire Valley Road above Dewey Avenue, which carries traffic to and from the Picatinny Arsenal and the northern end of Lake Hopatcong.

The State and Federal highways in Roxbury, with one exception, are in good physical condition and are capable of carrying foreseeable future demands. The exception is Route 46 between Dover and Ledgewood Circle. Daily traffic counts recorded by the State Highway Department in 1953, 1954 and 1956 showed all highways in the area carrying increasing traffic volumes as growth in the area occurred. However, this section of Route 46 has carried a constant volume of approximately 14,000 cars a day since 1953, indicating that it is carrying near maximum traffic capacity and that it is inadequate for present and future demands. Recently some work has been done between the Roxbury Township line and Dover, however, the highway is still inadequate from Ledgewood Circle to Mine Hill.

The traffic counts indicate that over a third of the traffic volume in the eastern section of the Township did not pass through the western section of the Township. Much of this traffic is moving into the Lake regions primarily north of the State east-west highways.

Between Mine Hill and Berkshire Valley Road, the average daily traffic count on Route 46 is approximately 14,300 cars a day. Immediately west of the intersection of Berkshire Valley Road and Route 46 the volume drops to 13,400 cars a day, a difference of 900, leaving or entering the highway at this point. County traffic counts of Berkshire Valley Road indicate that well over 1200 cars use this road daily which indicates that at least 300 cars a day cross Route 46 into Kenvil.

West of the intersection of Hercules Road and Route 46 the volume of traffic on the highway increases to 14,000 cars.
and then decreases by 600 cars after passing Ledgewood-Mount Arlington Road intersection. At the traffic circle the combined volume of Route 10 and Route 46 in 20,500 cars a day. This is equivalent to about 1 car every 4 seconds, around the clock. At Ledgewood-Landing Road the highway volume west of the intersection drops by 6200 cars, almost a third of the highway traffic, indicating, a northern destination at this intersection.

The traffic volume on Route 10 at the Randolph Township line is approximately 10,400 cars a day. This volume decreases to 10,000 by the time it reaches Hillside Avenue. After crossing Hillside the volume decreases 1400 cars a day, indicating the heavy traffic load on Hillside Avenue.

The remaining arterial roads in the Township are discontinuous, twisting and narrow. Built to serve a rural population before the time of automobiles, these roads and the system they make up are becoming inadequate and will not be capable of carrying future traffic demands. Serious consideration will have to be given to this in any planning done by the Township. The majority of streets in the arterial system are County roads.

**Minor Streets**

All the recent subdivisions in Roxbury have been designed to prohibit or discourage through traffic. With only two exceptions, all minor streets are located or designed to discourage any use other than that of serving individual properties.

Because of a lack of adequate arterial routes through the Township, several older residential streets have had to carry heavy traffic loads, which has proven detrimental to the adjacent residences. Continued arterial use of these streets in their present condition will have an adverse affect on the residential property values in the abutting neighborhoods. Two minor streets used for through traffic are Kenvil Avenue and southern Dell Avenue. By providing adequate arterial routes through the Township and then physically discouraging the use of these streets as through traffic streets, the abutting residential property values can be maintained.

There are many ways to subdivide a given piece of property. Before the Planning Board approves any subdivision where new streets are involved, the following questions should be answered in the affirmative:
1. Does the proposed street design discourage through traffic, permit maximum utilization of the property in question, conform to the Zoning Ordinance, and permit ease of access to emergency vehicles if any street becomes blocked?

2. Is the design of the streets such that it will not adversely affect the balance of the property in question, or the surrounding property which may be developed at some future time?

All of the following proposals will not be carried out in the immediate future. Many of them can be delayed, however all will be necessary to meet future conditions. When the County decides to repave and widen Hillside Avenue such a plan enables the Township to suggest that Emmans Road be improved to handle the arterial load instead.

The "Arterial Street Plan" shows those streets that should be designed to carry arterial traffic through the Township. All roads shown as arterial are at the present, or should be in the future, County, State or Federal roads. The current County road plan indicates that all County roads shall have a right-of-way of 66 feet and a 44 foot pavement. It is proposed that all collector streets have a 60 foot right-of-way with a 36 foot pavement and that all minor streets have a 50 foot right-of-way with a sliding scale of pavement requirements in direct relationship to the size of lots which would vary from 20 feet in the acre zones to 30 in the smallest lot residential zones.

There are numerous changes in the County road network proposed on the arterial street map. Of immediate concern is the F. A. I. 101 interchange on Howard Boulevard in Mount Arlington. The Mount Arlington Master Plan proposal to widen and straighten Howard Boulevard, together with traffic demand from the new interchange south to Randolph, Chester and Mount Olive Townships, will necessitate a satisfactory route through Roxbury. Emmans Road is in a location to meet this need and still by-pass the residential areas of Roxbury. It is proposed that this road be taken over by the County, widened, straightened and connected to Ledgewood-
Mount Arlington Road as shown. In return the Township could assume responsibility for Hillside Avenue as a collector street. When this takes place, the intersection of Hillside and Emmans Road should be changed as shown to discourage arterial use of Hillside and Eyeland Avenue. The interchange on Howard Boulevard is only a short distance from a narrow one-lane bridge that carries traffic under the D. L. & W. tracks. This dangerous situation should be remedied as soon as possible to eliminate a bottleneck that will be aggravated when F.A.I. 101 is opened.

Once the Emmans Road improvement is accomplished, consideration should be given to the three street diversions shown in the Kenvil-Succasunna area. The arterial traffic movement now using Berkshire Valley Road will use F.A.I. 101, entering at the Route 15 interchange and leaving at the Howard Boulevard interchange. Thus Berkshire Valley Road will become a collector instead of an arterial street with the aid of the street diversions on Kenvil Avenue and Hercules Road. These are shown on the plate entitled "Street Details."

Once the Lower Berkshire Valley develops residentially a connection between Berkshire Valley Road and Howard Boulevard should be constructed to eliminate any possible arterial traffic demand through Kenvil. At this time, Berkshire Valley Road should be turned over to the County for the final connection between Washington Borough and Passaic County.

When the second F.A.I. 101 interchange is completed on Ledgewood-Landing Road the new County road shown should be constructed. This proposed road is in the bed of the Morris Canal. A new bridge under the D.L. & W. will have to be constructed. This road will underpass the business district at Landing to the benefit of the merchants and residents of the area. Mount Arlington Boulevard should be extended to join with this new road, thus eliminating the serious traffic congestion now present. Adequate business center exists and entrances should be planned for the convenience of shoppers and to promote the prosperity of the center. This four lane road should handle all future Hopatcong bound interchange traffic. It is also recommended that Dell Avenue be used exclusively as an industrial collector street after the street separation and extension shown is completed.

Carrying out the proposals shown on the Arterial Street Plan will result in 3.4 less miles of arterial streets than exist at the present time. This will be of direct benefit to the County and to the Township indirectly by reducing the main-
tenance costs. The Township will benefit from the plan by having arterial traffic movements around the residential areas instead of through them. The results will be a decrease in maintenance costs on Township streets, a decrease in Township policing costs, and most importantly the maintenance of property values that over a period of years could easily depreciate due to the unnecessary through traffic movement.

The plate entitled "Master Plan" shows on one map most of those recommendations made in the various sections of this report. It is a composite of those recommendations dealing with arterial streets, schools, parks and public lands and the various zone districts. Also shown is a suggested municipal boundary line change between Mount Arlington and Roxbury. Much of this land is presently owned by the State. The advantage to Roxbury would be one from a municipal service standpoint. The area is far removed from any other existing and future developed section of the Township. Physically it is more logically a part of Mount Arlington than Roxbury and both municipalities should benefit from such a change over a long period of time.

It is recommended that the Planning Board adopt the habit of referring to this map at their meetings. Prior to the approval of any subdivision by the Board this map should be referred to to determine if the property in question is affected by any master plan proposal. The effect of adopting this map and other maps embodied in this report is explained in detail in the appendix.
## Financial Factors

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### Township Budget

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<td>21,956.25</td>
<td>41,318.75</td>
<td>41,031.25</td>
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<td>47,177.29</td>
<td>55,202.22</td>
<td>55,843.54</td>
<td>66,815.48</td>
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<td>Sch. Tax Income</td>
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<td>Other Income</td>
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<td>526,925.00</td>
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<td>721,940.00</td>
<td>890,140.00</td>
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**Note:** The table above represents financial data for the years 1952 to 1958, including net valuation, adjusted valuation, tax rates, and budget information for townships, schools, and counties. The data includes a breakdown of income sources and expenses for each category, with a focus on tax rates and budget allocations. The last row provides a 3-year average for certain financial metrics.
FINANCIAL PLANNING

Financial planning is an essential part of a Master Plan program. During the next 20 to 30 years the needs outlined in this report will have to be met, regardless of whether we plan to meet them or not. By planning, the community is able to avoid emergency expenditures which cause a widely fluctuating tax rate and the higher overall cost of a project resulting from emergency action. By recognizing these needs before they arise, the community can prepare to meet them. This will result in considerable savings to the municipality and the taxpayers.

To be practical, the Master Plan must take into consideration the ability of the municipality to carry out, over a period of years, the various proposals without producing unreasonable financial burdens and at the same time to maintain a stable tax rate. This factor is especially important regarding Roxbury's desire to attract large investment capital in the form of industrial and commercial development. By their nature, these establishments cannot operate where a tax rate can easily double in a short period of time. If this situation exists in a community, development of this type will not come in.

To accomplish a stable rate for taxes and still meet the needs that will occur, a long range look at these needs must be taken and then a priority list drawn up, distinguishing between those that will be needed within 5, 10 or 20 years. Then a study of the financial position and capability of the Township as it exists today must be made. The tax structure of Roxbury for the last seven years is shown on the accompanying table. Of special note is the fact that while the population has increased by approximately 72 percent, during these seven years the tax rate has increased by 81 percent. This has been the normal situation in most suburban metropolitan communities. An analysis of the Roxbury tax rate shows that the school share of the tax rate has increased 70 percent while the municipal tax rate has increased 163 percent.

After the analysis of the financial background and capabilities of the Township, the next step is to prepare a long range capital budget to cover the needs outlined in the Master Plan.
<table>
<thead>
<tr>
<th>Project</th>
<th>First Priority</th>
<th>Second Priority</th>
<th>Third Priority</th>
<th>Township Costs</th>
<th>School Costs</th>
<th>Total Costs</th>
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<td>2,200</td>
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<td>-</td>
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<td>70</td>
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<tr>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>650</td>
<td>650</td>
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<td>Franklin Addition</td>
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<td>-</td>
<td>-</td>
<td>110</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Condit School</td>
<td>-</td>
<td>650</td>
<td>-</td>
<td>650</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>Condit Site</td>
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<td>-</td>
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<td>15</td>
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</tr>
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<td>-</td>
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<tr>
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</tr>
<tr>
<td>Street Widenings</td>
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<td>120</td>
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<td>2,780</td>
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<tr>
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<tr>
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<td>2,320</td>
<td>1,770</td>
<td>-</td>
<td>6,570</td>
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</tr>
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</table>
Many of the proposals outlined in this report are urgently needed now or will be in the next five years, particularly the school needs. Other proposals will be necessary but could be delayed until more urgent matters are taken care of and still other proposals are for services or improvements which will be necessary when the population of the Township nears 20,000 persons. Reviewing the proposals in this manner, the priority list of capital improvements on the accompanying plate was prepared. Round number estimates of the cost of improvements and their relative time of occurrence are shown. The exact cost of any one item can only be determined after detailed appraisals and engineering studies have been made.

After this study is made, it is evident that growth to a population of 20,000 persons will require large expenditures of public funds. However, this amount is a small percentage of the total amount of money which will be invested in Roxbury. If growth occurs as predicted, 2725 new homes could easily require private capital investment of $56,000,000. These homes will create a need and market for the industrial and commercial development that will come. This need will be met by more private capital invested in Roxbury. A conservative estimate of total private investment would be $75,000,000. If assessed and taxed at the present rates, this investment will bring an additional tax revenue of at least $1,600,000 a year.

The first priority capital improvements shown on the "25 Year Capital Improvement" plate will be needed in the next five years. With these items and cost estimates a five year capital budget can be drawn up. This budget should be worked out each year, with the long range program as a guide. Detailed estimates should be included for the first two of the five years. As this is done year after year, new costs, new valuations and new development factors can be reviewed and considered. In this way a flexible program can be established showing what can be expected in the next five years. If growth slows down, expenditures can be set back one or two years. Likewise if growth speeds up or unexpected investment takes place in the Township, some items can be moved up and accomplished sooner. The important factor here is that a
FIVE YEAR PROGRAM OF CAPITAL IMPROVEMENTS

<table>
<thead>
<tr>
<th></th>
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<td>-</td>
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<tr>
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<td>-</td>
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<td>-</td>
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<tr>
<td>Franklin Addition</td>
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<td>-</td>
<td>110,000</td>
</tr>
<tr>
<td>Port Morris Water</td>
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<td>50,000</td>
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<tr>
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<td>15,000</td>
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<tr>
<td>Port Morris Park</td>
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<td>10,000</td>
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<td>-</td>
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</tr>
<tr>
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<td>2,420,000</td>
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<tr>
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<td>-</td>
<td>2,480,000</td>
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stable level of tax money for capital needs can be planned now and adjusted to the rate of growth.

The plate entitled "Bonding Program" indicates four existing public bond issues. The Township issue for the Municipal Building will be paid by 1966, the high school by 1968, the high school addition by 1971 and the Franklin School by 1977. The total outstanding debt of $700,000 is 71.4 percent of the 1958 debt limit permitted by law.

This plate shows the debt service program that will be necessary to meet all of the proposals outlined in this report. All bond issues have been computed at three percent interest rates. All Township bonds are 20 year issues and all school bonds are for 30 years. The Sewer Facilities issue is for a 40 year period.

The accumulated bond issues seem impressive in comparison to the outstanding issues. It is stressed again that these items will be necessary, regardless of whether we plan or not. These estimates are smaller than they will be if unplanned growth continues in Roxbury.

The first bonds are for $190,000 to be issued in 1959, for the Franklin School addition, acquisition of a high school site and the Landing Elementary site. The second issue for $580,000 should be used to construct the Landing Elementary School, enlarge the Port Morris School yard, add one room to the Lafayette School and acquisition of the Condit Street site. A Township bond issue of $60,000 for public water in Port Morris and acquisition of the Port Morris site should be issued at the same time. The fourth issue of $1,500,000 will be to construct one half of the proposed new high school. In issuing this bond, Roxbury will exceed its legal debt limit by approximately 13 percent of its average assessed valuation. The fifth bond issue of $660,000 will construct the Condit Elementary School and convert two Port Morris classrooms. The sixth issue of $700,000 will complete the High School building to handle its 1972 enrollments. A seventh issue of 40 year Township bonds will construct the sewer plant and the sewer lines for Kenvil, Succasunna and Landing for $1,090,000. The eighth issue of $270,000 for Township purposes will allow capital improvements on streets, sidewalks and other items which will have been put back until
the school program is completed. The ninth and final issue of $648,000 will complete the sewer lines to Shore Hills, Port Morris and the two pumping stations that will be required.

Two lines are indicated on the "Bonding Program" plate. These are the "estimated tax rate charge" for the bonding program with and without state aid.

The proposed program will increase the total tax rate by $1.60, a figure that can be maintained throughout the program. This stable tax charge mentioned earlier in this report will be of benefit to Roxbury.

It is important to remember that recognizing the needs of a community and planning for them does not create the needs. The financial section of this report outlines these needs, their approximate costs and establishes a program to meet them, showing the effect they will have on the tax structure and the per capita cost to the Township.
CONCLUSION

A master plan for the development of a community is compilation of facts, ideas, decisions and proposals which must be taken from paper and made into reality. To do this requires the understanding and acceptance of the plan by the citizens and the officials of the community. During the last twelve months the Township Committee, the Planning Board, the Board of Adjustment, the Board of Education and the Recreation Commission have met together, discussing the facts presented in this report and making decisions as to future policies and the future development of Roxbury. The result of these decisions are the integrated proposals in this report. A master plan must be comprehensive. Each part of the plan depends on every other part. It is important that the residents of the community understand and accept the basic ideas of the entire plan and that the officials who will see that the plan is carried out carefully consider the affect that a change in any one part of the plan will have upon other parts.

After the Master Plan Report has been presented to the public so that they may have an opportunity to examine it and understand it, the Planning Board should conduct a series of public hearings to explain the proposals set forth. After these hearings the master plan and any changes brought about from the hearings may be adopted by the Planning Board by resolution. No action by the Governing Body of the municipality is necessary for its adoption or amendment. As it is a flexible guide, it should be kept up-to-date by the Planning Board to meet future changes. Once adopted by the Planning Board, the proposals of the master plan relating to parks, streets and drainage rights-of-way reserve the lands designated for their specific purposes within certain time limitations. Streets and drainage rights-of-way shown on the master plan or on the official map may be reserved indefinitely if they are necessary for the future health, safety or general welfare of the community.

Each year it is the responsibility of the Planning Board to prepare a five-year capital improvement budget and submit it to the Township Committee and the Board of Education for their consideration. While making this budget, the population estimate of the past year should be noted and compared
with the population estimate of the master plan in order to ascertain whether the proposed program should be slowed or accelerated. They should also examine the affects of any new conditions on the plan at this time.

The Zoning Ordinance and Subdivision Ordinance are the two most useful tools used to accomplish a master plan and are the keystones of the entire plan. After the Planning Board has adopted the master plan, it should recommend to the Township Committee that the Zoning pattern and subdivision proposals of the plan be adopted. Should the committee concur with the recommendations, it may adopt them after the required public hearing. Before the ordinance is enacted into law, it must be referred back to the Planning Board so that any proposed amendments may be reviewed and reported on by the Board.

Because the Zoning Ordinance is a major part of the Master Plan, the Board of Adjustment must have a thorough understanding of the principles, purposes and intents of the plan, so that they can best serve the desires of the Township.

The Board of Adjustment is a quasi-judicial body with four broad powers. They are:

1. Where an applicant feels that a building permit or zoning certificate has been denied improperly by the Zoning Officer, he may appeal this decision to the Board of Adjustment which may override the decision of the Building Inspector, if they feel there has been an error of judgment.

2. They may grant exceptions to the zoning ordinance provided standards and procedures regulating these exceptions are also set forth in the zoning ordinance.

3. They may grant a variance to the zoning ordinance where there is a physical, not financial, hardship involved.

4. They may recommend to the Governing Body that a "use variance" be granted. It should be emphasized that under this fourth power, the Board of Adjustment
itself does not have the authority to grant this use variance but only to recommend to the Township Committee that the Township Committee grant this use variance. It should be kept in mind that the Board of Adjustment is a quasi-judicial body and not a legislative or administrative group.

Every resident and every property owner will benefit if this plan is carried out. Everyone will be faced with higher taxes for a lower standard of services if this plan is not carried out.

A BETTER ROXBURY BENEFITS ALL

The basic principles are sound yet simple. Roxbury has full information as to its present conditions and the factors leading up to that stage. A reasonable Population Target for a reasonable time period establishes a foundation for detailed planning. The planning program and the financing required to meet basic needs at the lowest possible cost is presented for public discussion. Capital Budget planning can be geared to exact future rates of growth.

The health, well being and financial soundness of Roxbury rests on its citizens and their support of the proposals of this plan designed to help shape the inevitable changes so that each change results in a constantly improving Township.
APPENDIX

BASIS FOR AN OFFICIAL MAP

The Official Map is a control over community development which is available to New Jersey municipalities under the New Jersey Official Map and Building Permit Act of 1953. Although in the past it has been used by relatively few communities, the official map is nevertheless an important tool which a municipality can have at its disposal to insure desirable community development.

The Official Map and Building Permit Act defines the official map as "a map adopted by ordinance of the Governing Body showing the location and width of streets and drainage rights-of-way, and the location and extent of public parks and playgrounds, whether existing or proposed." This act further states that the official map shall be deemed "conclusive" with respect to the location and extent of the above items.

The official map is often confused with the "adopted Master Plan." In order to understand the function of the official map it is necessary to describe the functions of both the official map and master plan and spell out the differences between them.

The New Jersey Municipal Planning Enabling Act of 1953 establishes the scope and purpose of the Master Plan as follows:

Preparation and Adoption (R.S. 40:55-1.10): The Planning Board may prepare, and after public hearing adopt, and from time to time amend, a master plan for the physical development of the municipality which generally shall comprise land use, circulation, and a report presenting the objectives, assumptions, standards and principals which are embodied in the various interlocking portions of the master plan. The master plan shall be a composite of the one or more mapped and written proposals recommending the physical development of the municipality which the planning board shall have adopted either as a whole
APPENDIX:

THE USE OF THE MASTER PLAN
AND THE OFFICIAL MAP

THE MASTER PLAN ............... 56
THE OFFICIAL MAP ............... 60
or severally after public hearing. Such master plan may include proposals for various stages in the future development of the municipality.

**Scope of Master Plan (R.S.40:55-1.11):** In scope the master plan may cover proposals for:

(a) the use of land and buildings - residential, commercial, industrial, mining, agricultural, park and other like matters; (b) services - water supply, utilities, sewerage, and other like matters; (c) transportation - streets, parking, public transit, freight facilities, airports, and other like matters; (d) housing - residential standards, slum clearance and redevelopment, and other like matters; (e) conservation - water, forest, soil, flood control, and other like matters; (f) public and semi-public facilities - civic center, schools, libraries, parks, playgrounds, fire houses, police structures, hospitals, and other like matters; (g) the distribution and density of population; (h) other elements of municipal growth and development.

**Purpose of Master Plan (R.S.40:55-1.12):** In the preparation of the master plan the planning board shall give due consideration to the probable ability of the municipality to carry out, over a period of years, the various public or quasi-public projects embraced in the plan without the imposition of unreasonable financial burdens.

In such preparation, the planning board shall cause to be made careful and comprehensive surveys and studies of present conditions and the prospects for future growth of the municipality. The master plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the municipality and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity and general welfare, as well as efficiency and economy in the process of development and the maintenance of property values perviously established. To such end, the master plan shall also include adequate provision for traffic and recreation, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of good civic design and arrangements, the wise
and efficient expenditure of public funds, and adequate provision for public utilities and other public requirements.

Effect of Adoption of Master Plan or a Portion Thereof. (R.S.40:55-1.13): Whenever the planning board after public hearing shall have adopted any portion of the master plan, the governing body or other public agency having jurisdiction over the subject matter, before taking action necessitating the expenditure of any public funds, incidental to the location, character, or extent of one or more projects thereof, shall refer action involving such specific project or projects to the planning board for review and recommendation, and shall not act thereon without such recommendation or until forty-five days after such reference have elapsed without such recommendation. This requirement shall apply to action by a housing, parking, highway or other authority, redevelopment agency, school board, or other similar public agency federal, state, county or municipal.

The governing body may by ordinance provide for the reference of any other matter or class of matters to the planning board before final action thereon by any municipal public body or municipal officer having final authority thereon, with or without the provision that final action thereon shall not be taken until the planning board has submitted its report, or until a specified period of time has elapsed without such report having been made.

Whenever the planning board, pursuant to this act shall have made a recommendation to another body, such recommendation may be overridden only by a majority of the full membership of such other body. Where the body which shall have overridden a recommendation of the planning board is a municipal body or agency, the action of such body shall not become final until the governing body of the municipality shall, by majority vote, approve its action in overriding the recommendation of the planning board.

The planning board shall have full power and authority to make such investigations, maps and
In respect to the above discussion, it is evident that the Master Plan is concerned with making recommendations on all phases of community development including all local governmental agencies as well as the municipality. More specifically with respect to new subdivision the Master Plan grants special powers to the municipality in controlling community development. The following section of the Planning Act applies in this case:

Condition for Approving Plats, Master Plan Proposals to be Complied With, etc. (R.S.40:55-1.20): "Where the planning board after hearing has adopted portions of the master plan with proposals regarding the street system within the proposed subdivision, the board may require that the street shown conform in design and in width to the proposals shown on the master plan. No street of a width greater than fifty feet within the right-of-way lines may be required unless said street already has been shown in greater width on the official map.

If portions of the master plan contain proposals for drainage rights-of-way, schools, parks, or playgrounds within the proposed subdivision or in its vicinity, or if standards for the allocation of portions of subdivisions for drainage rights-of-way, school sites, park and playground purposes have been adopted, before approving subdivisions the planning board may further require that such drainage rights-of-way, school sites, parks or playgrounds be shown in locations and of sizes suitable to their intended uses. The governing body or the planning board shall be permitted to reserve the location and extent of school sites, public parks and playgrounds shown on the master plan or any part thereof for a period of one year after the approval of the final plat or within such further time as agreed to by the applying party. Unless during such one-year period or extension thereof the municipality shall have entered into a contract to purchase of institute condemnation proceedings according to law, for said school site, park or playground, the subdivider shall not be bound by
the proposals for such areas shown on the master plan. This provision shall not apply to the streets and roads or drainage rights-of-way required for final approval of any plat and deemed essential to the public welfare.

By this section the municipality may require the subdivider to reserve school, park, or playground land for a period of one year, in effect giving the governing body an opportunity to arrange for the purchase of the land for public use or to otherwise work out the necessary adjustments with the subdivider so that the master plan and subdivision will be in harmony. It will be noted in the last sentence that the municipality is not required to pay for land for streets or for drainage right-of-way deemed essential to the development of the land in the subdivision.

The "official map" confers two basic powers on the municipality. The first of these with regard to subdivisions is essentially the same as conferred under the "adopted master plan." The "official map" control is limited to specific items - streets, drainage rights-of-way, parks and playgrounds - and can be concerned with specific dimensions and location. (It will be noted that school sites cannot be controlled through the "official map" as they can through the "master plan"). The section of the Official Map and Building Permit Act (1953) reads as follows:

**Official Map (R.S.40:55-1.32):** The governing body may, by ordinance after a public hearing, establish an official map of the municipality or of any part or parts thereof.

The official map shall be deemed conclusive with respect to the location and width of streets and drainage rights-of-way, and the location and extent of public parks and playgrounds shown thereon, whether such streets, drainage rights-of-way, parks or playgrounds are improved or unimproved. Upon the application for approval of a plat, the municipality may reserve for future public use the location and extent of public parks and playgrounds shown on the official map, or any part thereof and within the area of said plat for a period of one year.
after the approval of the final plat or within such further time as agreed to by the applying party. Unless within such one year time or extension thereof the municipality shall have entered into a contract to purchase, or instituted condemnation proceedings, for said park or playground according to law, such applying party shall not be bound to observe the reservation of such public parks or playgrounds. During such period of one year or any extension thereof the applicant for the plat approval, and his assigns and successors in interest, may use the area so reserved for any purpose other than the location of buildings or improvements thereon, except as provided in section nine (40:55-1.38) of this act.

The second function of the "official map" is concerned with preventing buildings from being erected in the bed of a mapped street or drainage right-of-way. This power is not conferred on a municipality through the adoption of a master plan. The specific section of the act is as follows:

Permit in Bed of Mapped Street or Drainage Right-Of-Way, etc. Forbidden: (R.S.40:55-1.38): For the purpose of preserving the integrity of the official map of a municipality, no permit shall be issued for any building in the bed of any street or drainage right-of-way shown on the official map, or on a plat filed pursuant to the Municipal Planning Act (1953) before adoption of the official map, except as herein provided. Whenever one or more parcels of land upon which is located the bed of such a mapped street or drainage right-of-way, or any park or playground location reserved pursuant to section three (40:55-1.32) hereof, cannot yield a reasonable return to the owner unless a building permit be granted, the board of adjustment in any municipality which has established such a board may, in a specific case by the vote of a majority of its members, grant a permit for a building in the bed of such mapped street or drainage right-of-way or within such reserved location of a public park or playground, which will as little as practicable increase the cost of opening such street, or tend to cause a
minimum change of the official map, and the board shall impose reasonable requirements as condition of granting the permit so as to promote the health, morals, safety and general welfare of the public and shall inure to the benefit of the municipality. In any municipality in which there is no board of adjustment the governing body shall have the same powers and be subject to the same restrictions as provided in this section.

The "official map" act then in effect provides for the opportunity to work out adjustments so that land needed for public use will be reserved and individual projects or subdivisions will be in harmony with the plan for future development.

In order to provide the controls necessary to properly guide the development of a community it is felt that both an "adopted master plan" and an "official map" are desirable. The basic difference between the "official map" and the "adopted master plan" is that the official map is concerned with specific items, (streets, drainage rights-of-way, parks and playgrounds) whereas the master plan is concerned with all phases of community development. However, the official map confers on the municipality the special power, not afforded by the master plan, of preventing the erection of a building in the bed of any street or drainage right-of-way shown on said map for an indefinite period and for a period of one year in the case of parks and playgrounds. The official map also provides specific controls over specific pieces of property. Whereas the master plan may be general in character, the official map deals with exact locations and dimensions. It is, therefore, a means of carrying out the master plan.

It is expected that specific projects- arterial streets, street extensions, drainage runs, playgrounds and additions, etc. will be detailed from time to time and included on the official map as such detailing is completed. In the open areas of many communities it may not be desirable to try to tie an arterial street down to a specific location since several alternate lines or locations are available. In such cases the arterial street would show up as a general line on the master plan and detailing and inclusion on the official map would occur when a basis for a specific location has been established.
Basis for an Official Map

Note: The dimensions and locations shown here are intended only as a guide for the preparation and adoption of an official map. Final dimensions and locations must be determined by engineering surveys or such element(s) placed on the map and given official status.

- Existing streets - proposed ROW widening figures in feet.
- Proposed streets - new ROW figures in feet.
- Parks.

Township of Roxbury
Morris County, N.J.

Prepared by Scott Hurley & Robert Cutlip - City Planning Consultants - Desville, New Jersey
The official map must be an engineered document with detailed measurable dimensions, and as such must be produced and certified by a licensed land surveyor or engineer. The municipal engineer in reviewing the engineering aspects of new subdivisions and in performing the other engineering functions for the municipality, will be in a position to establish the specific locations of the various items and record them on the official map for adoption by the governing body.

A map which is made part of the Master Plan Report has been designated as a "Basis for an Official Map", and along with the master plan should be a starting point in the preparation of the map for adoption. The dimensions shown are intended to be suggestions only, although on street rights-of-way it is felt that the figures shown are desirable objectives. Not shown on this map are drainage rights-of-way. In this case the Township Engineer should carefully prepare a drainage plan for the Township determining the extent and location of all existing and proposed drainage rights-of-way necessary to carry out the drainage program.
THE ROXBURY TOWNSHIP

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