



A Town Plan

West Newbury 1961

Prepared for the Planning Board
by Sonthoff & Thomas, Wayland, Mass.

MASTER PLAN
for
THE TOWN OF WEST NEWBURY

Prepared
by
SONTHOFF & THOMAS

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.

We wish to express our appreciation and gratitude to the many people whose cooperation and assistance assured the successful compilation of this report. The citizens of West Newbury are especially to be thanked for their active participation in the Planning Board survey. The extraordinary interest shown by the information survey committee in the welfare of their town is indeed commendable. The completion of such a survey on a volunteer basis is a truly rare occurrence. Without the results of this survey, the report would have been far less accurate or precise in planning for the best future for West Newbury.

Our thanks also to the many members of Town Boards and Committees, and to our staff, in particular:

Planning Board

Dr. Robert J. Murphy
Herbert H. Cornell
Howard F. Clark
Nancy B. Greenwood, Clerk
Charles C. Withers, Chairman

Other Town Officials who gave Special Assistance

Norman H. Hobson - Town Clerk
Richard Berkenbush - Fire Chief
Board of Assessors and Selectmen
Albert Elwell, Selectman
Library Trustees
School Committee and Superintendent of Schools
Conservation Committee
Merton J. Spencer, Surveyor of Highways
Water Commissioners

Volunteers who Conducted Survey
The Historical Society

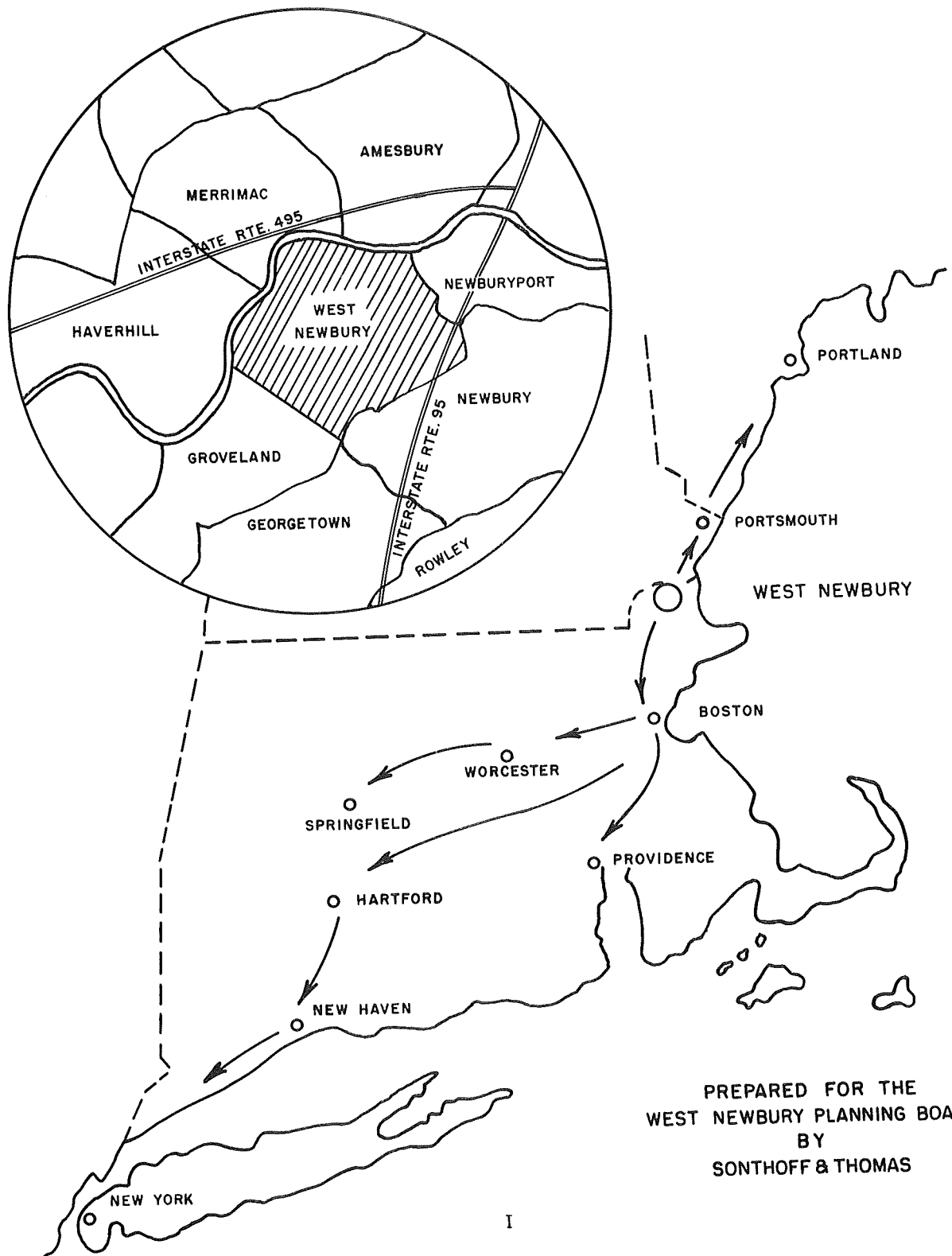
Planning Advisors and Staff

Edwin Witherby, Graphic Presentation
Lester Gaynor, Sanitary Engineer
Roger Stokey, Attorney at Law
Rita Burke, Project Secretary
Suzanne Reade, Project Editor
William Hastings, Draftsman
Charles R. Thomas, Engineer and Assistant Planner
David Morse, Architect
Herbert Sonthoff, Administration
Carol Thomas, Principal Planner

Cover picture: Courtesy of "The Christian Science Monitor", Gordon N. Converse, photographer

TABLE AND CHARTS		MAP LIST	
CHAPTER 1	Density and Growth (Region)	Region Sketch Map	I
CHAPTER 2	Growth of Area	Study Area	II
	West Newbury Growth	Present Population Distribution	III
	Density	Future Population Distribution	IV
	Number of Potential New Building Lots	Potential Neighborhood Map	V
	Potential Population		
	Population Projection		
CHAPTER 3	Newspaper Circulation	None	
	Telephone Calls		
	Essex County Economic Structure		
	Essex County Retail Sales		
	Wages-Lawrence/Haverhill Area		
CHAPTER 4	Tax Exempt Property	Base Map	VI
	Land Use Statistics	USGS	VII
	Table of Minimum Services	Land Availability	VIII
		Land Use	IX
		Future Land Use Plan	X
		Garden Apartment Sketch	XI
		Business Sketch	XII
		Intersection Sketch	XIII
		Industrial Sketch	XIV
CHAPTER 5	Traffic Volume	Existing Street Map	XV
	Street List	Proposed Street System	XVI
	Street Standards		
	Summary of Street Proposals		
CHAPTER 6	Water Department Statistics	Existing Water Service	XVII
		Proposed Water System	XVIII
CHAPTER 7	School Census	Pentucket Plans	XIX
	Projection	School Coverage	XX
	School Standards		
CHAPTER 8	Recreation Standards	Recreation Map	XXI
CHAPTER 9	Fire Department Statistics	Fire Coverage Map	XXII
	Police		
	Library Statistics		
CHAPTER 10	Summary	Master Plan Map	XXIII
		Zoning Map	XXIV
		Table of Planning Tools	XXV
APPENDIX	Fiscal Condition of Region 1959		
	Table of Vital Statistics		
	Employment and Business Enterprises 1947-1959		
	Classification of Land Coverage Type	Soil Map	XXVI
	Soil Survey of Essex County, Massachusetts		
	West Newbury School Statistics		

WEST NEWBURY REGION



PREPARED FOR THE
WEST NEWBURY PLANNING BOARD
BY
SONTHOFF & THOMAS

CHAPTER I

THE WEST NEWBURY REGION

WEST NEWBURY'S POSITION IN THE REGION

West Newbury is a delightful respite between industrial Haverhill and Newburyport. It has unspoiled rural charm and delightful farms which gradually are being abandoned. Therefore, it is an easy target for any developer who should decide that West Newbury is a desirable place to live for people employed in nearby centers.

Along with some of its neighbors, West Newbury can, in the years, ahead, serve as a green area, a conservation and open recreation area, a spot for relaxation and reflection. West Newbury can pursue this type of role without damaging its identity - a role which planners recognize as essential in view of the gradual urbanization surrounding the circumferential highways. (1)

Definition

Regions are defined in many ways, some as simple as "spaces occupied by things". However, for planning purposes we are seeking an effective group of municipalities, with strong social, economic and physical ties, as well as a common identity of objectives. Generally, a region centers around an urban center, but includes the rural areas where growth is anticipated as well as the urban areas. Occasionally, a town will be oriented to two centers, and for practical planning purposes, a decision must be made as to which center has the greater draw. This is the case with West Newbury.

Orientation

A study just completed by the Massachusetts Department of Commerce indicates that West Newbury has split orientation between Haverhill and Newburyport, but is part of neither region. Haverhill's region consists of Haverhill, Groveland, Georgetown, Boxford and Merrimac. Newburyport's region has, in addition to itself, Amesbury, Newbury, Rowley and Salisbury, according to the Department of Commerce. However, our study indicates that West Newbury is drawn more to Newburyport than Haverhill and is part of the Newburyport region, as indicated by the following table of factors.

(1) 495 will be just north of West Newbury

DESCRIPTION

Location, Terrain and Soil

The Town of West Newbury is located in the Merrimack River Basin in the northern part of Essex County, in northeastern Massachusetts. Like its neighbors, West Newbury is a beautiful town with many streams, ponds and small hills which are the result of glacial deposits. These hills create an irregular surface which adds to the beauty of the area. Some of West Newbury's close neighbors are in the coastal region and have land which gently slopes toward the ocean.

The area has in general an elevation below 200 feet above sea level, and has very little erosion. See Chapter 4 for further discussion of the land and soil.

Climate

The climate of the region is moderate. The region is split just about along West Newbury's western border. To the east of this line the average winter temperature is about 29 degrees. To the west it is a degree or two colder. Likewise, there is a line which bisects West Newbury in a north and south direction, to the east of which there are on the average between 40 and 45 inches of snow. To the west there are about five inches more.

The average annual precipitation in the northern part of the region is 41 inches, and in the southern part of the region an inch or two more. The average annual run-off for the entire region is approximately 23 inches.

Density and Growth

Community	Percent Population Increase 1950 - 1960	Density Per Square Mile 1950 - 1960	Average No. New Dwelling Units A Year 1950 - 1960
Amesbury	-1.8	858	16
Boxford	116.3	39	26
Georgetown	55.2	184	23
Groveland	40.2	263	20
Haverhill	-.7	1428	129
Ipswich	23.5	207	49
Merrimac	15.1	324	7
Newbury	26.6	83	29
Newburyport	-1.6	1700	43
North Andover	27.8	319	59
Rowley	56.9	93	12
Salisbury	16.7	171	12
Topsfield	136.3	110	33
West Newbury	14.9	125	6
Region Average	37.5	421.7	33
West Newbury ranks (of 14)	11th	10th	14th

POPULATION

There are more men than women in the region. The 1960 census breakdown by towns are not yet available, but in 1950, in Essex County, the population was distributed in age groups as follows:

Under 5	9.5% of the total population
5 - 14	16.2%
15 - 19	5.5%
20 - 64	57.3%
65 and over	11.5%
TOTAL	100.0%

More than half of the people own their own homes and well over 40 percent of the homes in the county are one-family units. Housing types vary greatly from fine, old, large colonials to new ranch homes, and, in some communities, the isolated trailer.

AGRICULTURE

The region is in an area of the state classified as the Eastern Dairy - Poultry - Fruit area. In addition there is some market gardening. "The average size of farms is only about 50 acres, and the amount of pasturage available is very small. The percentage of tillable land in farms is one of the highest in the State, while the value of farm land and buildings per farm is the highest. As in other eastern sections of the State, part-time farming here is wide-spread and accounts for a considerable amount of agriculture. The expenditures for fertilizers are very high as well as the expenditure for purchased feed." (1)

West Newbury and Newbury have the lowest percentages of farm areas in woodland in the region, below 25 percent. The majority of the towns have between 25 and 50 percent, and a few have over 50 percent.

The average growing season is approximately 170 days.

BUSINESS AND INDUSTRY

In economic matters, West Newbury's region may quite properly be considered as the northern part of Essex County. The southern part of the County is very closely integrated with, and some of it is part of, the Boston metropolitan area. The northern tier of towns has some commuters to Boston and makes some use of its medical and financial institutions. Likewise their businesses are serviced by the wholesale and distribution facilities of Boston.

(1) Progress Report, Massachusetts State Planning Board, 1936, p. 14.

3. Drainage and sewerage disposal.
4. Garbage and trash disposal.
5. Health facilities.
6. Schools.
7. State programs affecting the region.
8. Recreation.

Such a regional planning organization should not only formulate plans for regional programs for some of the items mentioned above, but also for industrial development and conservation.

Moreover, West Newbury should take the steps outlined in subsequent Chapters to help it retain its character and its role in the region.

West Newbury Growth⁽¹⁾

<u>Year</u>	<u>Population</u>
1900	1558
1910	1472
1920	1492
1930	1549
1940	1515
1950	1598
1955	1621
1960	1836

Net in - migration from 1940 to 1950 was 84, but by 1955 it had increased to a rate of 93 a decade.

Density

There are approximately 500 dwelling units in West Newbury at present, which, at an average of 3.7 persons per unit, would be a population of 1850 (actual 1960 census count was 1836). This is a density of 125 persons per square mile, an increase of 13 since 1900.

DENSITY-PERSONS / PER SQUARE MILE

	<u>U. S.</u>	<u>N. E.</u>	<u>MASS.</u>	<u>W. NEWBURY</u>
1900	25.6	90.2	349.0	112
1910	30.9	105.7	418.0	106
1920	35.5	119.4	479.2	107
1930	41.2	129.2	537.4	111
1940	44.2	133.5	545.9	109
1950	50.7	147.5	596.2	115
1960	(Omitted as size has increased)	156.5	619.5	125.2

% Increase

1900-1950	98	64	71	2.6
1900-1960	99	73	77	11.6

In contrast to other areas which have had great periods of growth in past decades, West Newbury's greatest growth has been in the decade just ending. This indicates that the town is attractive to commuters, who, in the day of two car families, can live further from their place of employment than in the past. For substantiation of this conclusion, see the results of a town-wide survey found in the Appendix.

(1) See also table of Vital Statistics in the Appendix

TABLE I
WEST NEWBURY CAPACITY STUDY
NUMBER OF POTENTIAL NEW RESIDENTIAL BUILDING LOTS

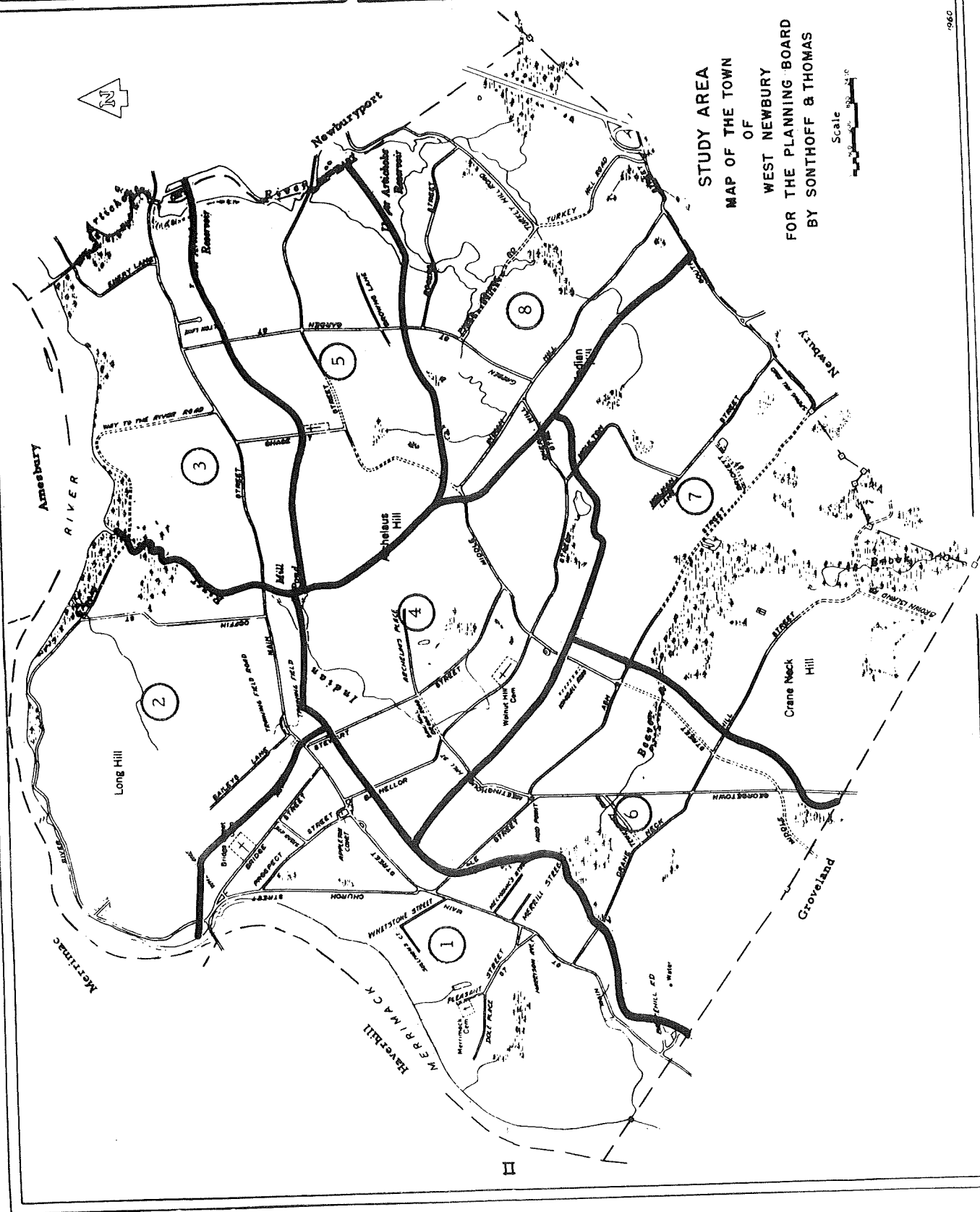
	New Building Lots on Suitable Land				New Building Lots on Unsuitable Land		Total
	Vac. Frontage Lots (1)	# of Suitable Interior Acres	# of New Interior Res. Lots (2)	New Building Lots	# of Unsuitable Vacant Acres	New Building Lots	New Building Lots (3)
Study Area 1							
RA	1	47.8	33.7	34.7	8.0	2.9	37.6
RB	18	511.5	767.3	785.3	151.2	114.9	900.2
Business	12	0	0	0	0	0	0
TOTAL	31	559.3	801.0	820.0	159.2	117.8	937.8
Study Area 2							
RB	13	624.8	937.2	950.2	148.6	111.5	1061.7
TOTAL	13	624.8	937.2	950.2	148.6	111.5	1061.7
Study Area 3							
RA	0	20.3	14.2	14.2	2.5	.8	15.0
RB	10	344.7	517.0	527.0	53.3	40.0	567.0
TOTAL	10	365.0	531.2	541.2	55.8	40.8	582.0
Study Area 4							
RA	138	96.8	67.8	205.8	111.3	39.0	244.8
RB	6	544.9	817.3	823.3	58.7	44.0	867.3
TOTAL	144	641.7	885.1	1029.1	170.0	83.0	1112.1
Study Area 5							
RA	93	471.1	329.8	422.8	5.6	1.9	424.7
RB	4	121.0	181.5	185.5	15.0	10.5	196.0
TOTAL	97	592.1	511.3	608.3	20.6	12.4	620.7
Study Area 6							
RA	241	557.5	390.3	631.3	178.7	62.5	693.8
RB	2	29.9	44.8	46.8	32.0	24.0	70.8
TOTAL	243	587.4	435.1	678.1	210.7	86.5	764.6
Study Area 7							
RA	181	745.5	521.9	702.9	416.3	145.7	848.6
Study Area 8							
RA	178	665.7	466.0	644.0	141.6	49.5	693.5
GRAND TOTAL	897	4781.5	5088.8	5973.8	1322.8	647.2	6621.0

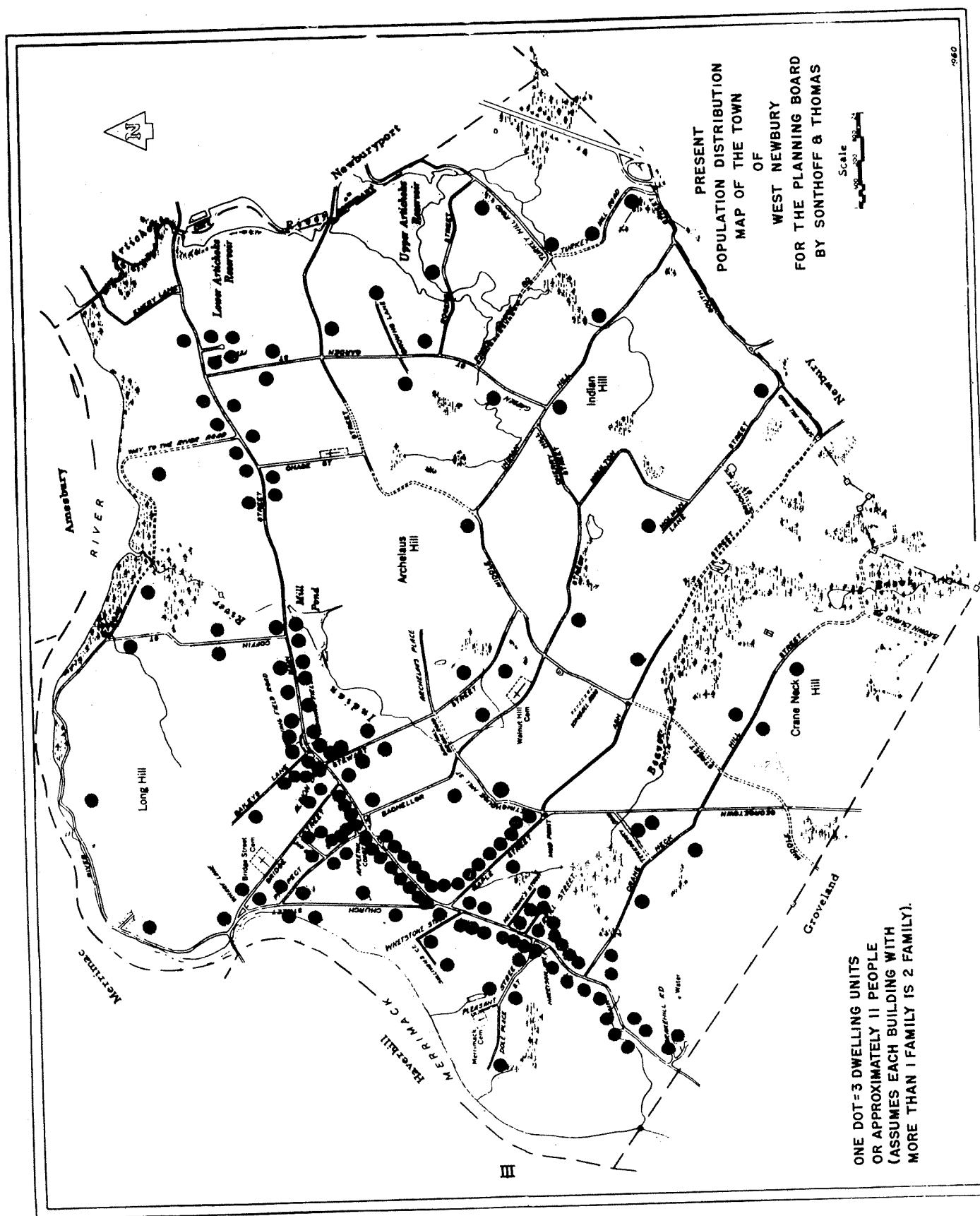
(1) Two tiers deep - (2) Number of acres times a capacity factor for permitted acreage: RA equals .7, RB equals 1.5 and Business zero potential lots per gross acre of suitable land (divided by 2 for unsuitable land), an adjustment on the scale of the Urban Land Institute found in Technical Bulletin #32. - (3) Same as Dwelling Units; one family dwellings only are assumed.

TABLE II
WEST NEWBURY CAPACITY STUDY:
POTENTIAL POPULATION

	Existing Dwelling Units	Total New Dwelling Units on Suitable Land	Probable Dwelling Units	Probable Population (Units x 3.7)	Total New Dwelling Units on Unsuitable Land	Total New Population on Unsuitable Land (Units x 3.7)	Possible Population
Study Area 1	243	820	1063	3933	117	433	4366
Study Area 2	78	950	1028	3804	111	411	4215
Study Area 3	45	541	586	2168	41	152	2320
Study Area 4	27	1029	1056	3907	83	307	4214
Study Area 5	15	608	623	2305	12	44	2349
Study Area 6	42	678	720	2664	86	318	2982
Study Area 7	18	702	720	2664	146	540	3204
Study Area 8	27	644	671	2483	49	181	2664
TOTAL	495	5972	6467	23928	645	2386	26,314

STUDY AREA
MAP OF THE TOWN
OF
WEST NEWBURY
FOR THE PLANNING BOARD
BY SINTHOFF & THOMAS





FUTURE

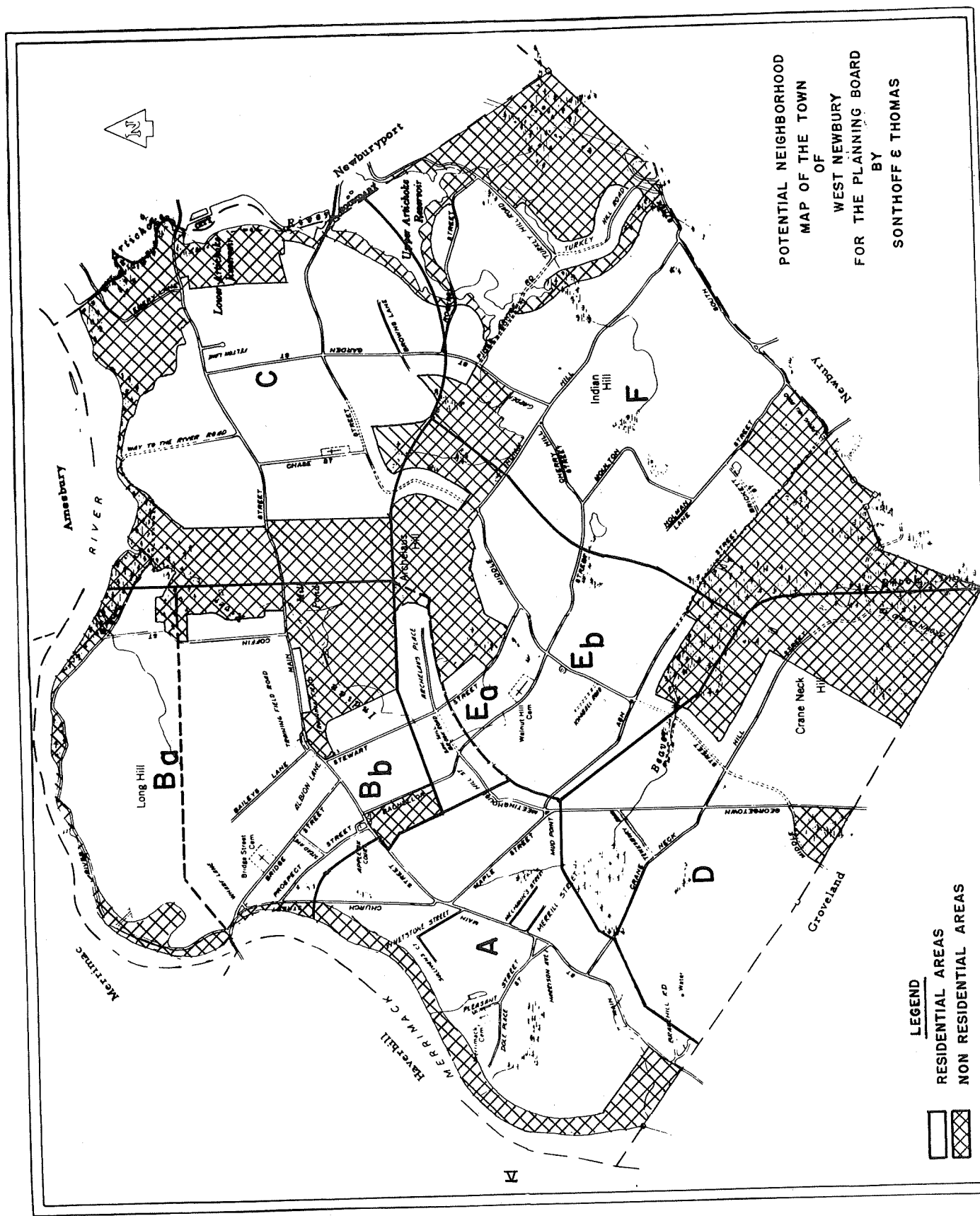
WEST NEWBURY

BY SINTHOFF & THOMAS

430 202 302 420



- = 3 EXISTING DWELLING UNITS
○ = 3 ADDITIONAL DWELLING UNITS -1980
◊ = 3 ADDITIONAL DWELLING UNITS -ULTIMATELY



Moreover, the population will probably subdivide as follows:

	1955			1980 (Approximate)		
	Male	Female	Total	Male	Female	Total
Under 5	75	74	149	115	110	225
5-14	148	164	312	270	255	525
15 - 19	45	51	96	100	100	200
20 - 65	429	428	857	575	575	1150
65 & Over	109	98	207	195	205	400
TOTAL	806	815	1621	1255	1245	2500

RECOMMENDATIONS

West Newbury should plan for the anticipated population growth by:

1. Acquiring the necessary lands for public uses, as recommended in subsequent chapters.
2. Building facilities in the order recommended in subsequent chapters⁽¹⁾.
3. Adopting regulations to assure and maintain the quality and character of the Town, as recommended in Chapter 4.

In addition, the Town should take immediate steps to assure the residents that the expected population increase and increase in dwellings will be advantageous rather than detrimental to the community, and adopt recommendations in Chapters 4 and 10 for improving the subdivision regulations and zoning by-laws.

The master plan report is geared to these ends: sound, orderly development with proper protection of the Town.

(1) The rate of scheduled improvements can be accelerated if there should be development of a large tract in one year or unprecedented abandonment of farm land to residential use.

Telephone Calls 1958

<u>Destination</u>	<u>Number of Calls (daily average)</u>
Haverhill	80
Lawrence	7
Newburyport	200
	<u>287</u> TOTAL
Boston	10

(Average total daily calls 338)

These figures support the conclusion that the economy of West Newbury is closely tied to the economy of Newburyport, and that it has surprisingly little relation to the economy of the Greater Boston area, except indirectly, insofar as Newburyport's economic life is part of that area. The regional chapter also made note of this tie to Newburyport, which is substantiated by other minor economic indices⁽¹⁾. The Employment Office located in Newburyport serves West Newbury. The International Bankers Directory lists Newburyport as the banking center for West Newbury; the nearest limited access highway is on the Newburyport side. It is considered in the Newburyport Labor Market Area; on the other hand, the trading activities of West Newbury's residents indicate a strong commercial dependence on the Haverhill area⁽²⁾. These relationships in part influenced the population estimates of the preceding chapter.

TOWN FINANCES

According to a survey by the Massachusetts Department of Commerce⁽³⁾, West Newbury's per capita assessed valuation is below average compared with the average of other communities of approximately the same population. The same is true of the Town's per capita tax levy. The tax rate per \$1,000 of assessed valuation covers the complete cost of municipal services, with no additional county or school district levy, indicating a sound approach to financial management.

(1) Although the telephone exchange line roughly bisects West Newbury and more West Newbury residents are admitted to Haverhill hospitals than to Newburyport.

(2) See appendix, A Community Survey.

(3) Town of West Newbury Monograph #199, Massachusetts Department of Commerce. Revised May 1959.

These municipalities had an average per capita net debt of \$107.04, of which \$93.27 was used for general purposes and \$13.77 was spent for municipal services. (1)

Moreover, of twenty-seven communities in Essex County, West Newbury ranked twenty-second in assessed value per square mile, reflecting excessively low assessments and indicating a need for sound planning to upgrade the property values in Town(1). (See Chapter 10 for a discussion of a financial program to improve West Newbury's fiscal position.)

New Dwellings

The rate of construction of new homes in West Newbury has been slow and irregular for the past ten years, suggesting that the Town is in a most opportune and timely position to adopt a self-regulatory plan for its future growth. (See Chapter 4, General Land Use Plan.)

<u>Year</u>	<u>Number of Units</u>
1950	1
1951	5
1952	3
1953	5
1954	12
1955	6
1956	12
1957	9
1958	4
1959	14
1960 to August 15	3

THE REGION AS AN AREA OF ECONOMIC INFLUENCE

West Newbury is to some extent a "bedroom Town" for the surrounding industrial and commercial centers. One of the basic questions facing the citizens of West Newbury is whether the future development of their town should compete with the development of those centers in kind - i.e. emphasize commercial and industrial growth - or whether a basis of balance should be found, so that the economic health of the community would rest in part on the maintenance, development and full use of its natural resources and present character, as suggested in Chapter I.

In either case, the Town should pay close attention to the planning and development activities in its region. The day lies not too far ahead, as also mentioned in Chapter I, when West Newbury should play its part in a concerted regional planning effort, each section of the region developing to the fullest its particular economic resources.

(1) And, as indicated in Appendix, Table I, in this respect West Newbury's figure is the lowest of its neighbors.

ESSEX COUNTY, ESTIMATED RETAIL SALES 1958

<u>Goods and Services</u>	<u>Total Amounts (in \$1,000s)</u>
Food	\$174,912
Automotive (other than gas station)	85,246
General merchandise	64,539
Eating and drinking places	49,522
Apparel	48,680
Gas Station	43,291
Lumber, building, hardware	31,083
Drugs and allied products	21,762

The four most important types of business establishments in the County, in the order of importance, number of employees and annual payroll are:

Food Stores
Automotive Services and Supplies
Other Retail Stores
Eating and Drinking Places

Lawrence - Haverhill Wages

With the increasing ease of highway transportation and the rapid population growth of the region, West Newbury may expect an influx of new residents from the Lawrence - Haverhill area. To the extent that these will come from the non-professional groups, the wage structure of the two cities may be of significance for the economy of the Town.

The table below shows the June 1960 weekly and hourly earnings for selected job classifications (standard hours, regular straight-time pay) (1).

<u>Occupation</u>	<u>Average Weekly Earnings</u>
<u>Office</u>	
Clerks, accounting, class A (Men)	\$81.00
Billers, machine	61.50
Bookkeeping-machine operators, class B	54.50

(1) Preliminary Survey, U. S. Department of Labor, Bureau of Labor Statistics. July 21, 1960.

Occupation (Continued)Average Hourly EarningsCustodial and Material Movement

Janitors, porters, and cleaners (Men)	\$ 1.54
Janitors, porters, and cleaners (Women)	1.55
Laborers, material handling	1.83
Packers, shipping (Men)	1.93
Packers, shipping (Women)	1.31
Receiving clerks	1.93
Shipping clerks	1.91
Shipping and receiving clerks	1.90
Truckdrivers	2.17
Truckers, power (forklift)	2.10
Watchmen	1.64

Newburyport Employment Structure

West Newbury's close economic relations with Newburyport make the labor skills of the latter of more than passing interest. In 1959 the total estimated labor force (of the Newburyport area) was 14,900. It fell into the following categories(1):

<u>Industry</u>	<u>Number of Employees 1959</u>
Electrical	2,267
Self-employed and domestic help	2,000
Leather-related products	1,613
Government and railroads	1,280
Transportation, industrial, marine	580
Silversmiths	388
Apparel	236
Agriculture	180
Paper	46
Machinery, non-electric	42
Furniture	125
Leather manufacturing	33
Fabric, metals	31
Publishing	29
Plastics	108

GROWTH PREDICTIONS FOR THE REGION

In view of the industrial composition of the region, in particular of Essex County, it can be expected that the region will feel the impact of a considerable share of the expected industrial growth of New England. According to a recent study (2), employment in the New England machinery industry as a whole - the county's most important industry - is expected to grow by about 47 percent from 1954 to 1970, or about 2.5 percent per year.

(1) Editor and Publisher. Market Guide 1960. (2) Forecast of New England's Machinery Industry in 1970. Research Report Federal Reserve Bank of Boston. 1970 Projection No. 11.

CHAPTER 4

GENERAL LAND USE

PRESENT PATTERN

Description

West Newbury's 9500 acres are predominantly gently rolling terrain. Except for the nursery land, the 22 percent of the land in use clusters near or around Route 113.

The distribution of land uses is shown on the accompanying land use map. The number of acres in use and the quality of vacant land, by present zoning districts, appear on the Table following. In addition, the Table of Tax Exempt Property lists the ownership and use of the properties which are indicated on the map as public or semi-public.

TABLE OF TAX EXEMPT PROPERTY

TOWN

Town Hall*
Central School*
Library*
Fire Station*
Fire Station - Highway Garage
Old Fire Station (Hayden Brown)
Town Forest* - 18 acres
Town Forest - 12 acres
Whitman* - 31.5 acres
Water Dept. Bldg. & Mains*
Triangle bounded by Church St.,
Bridge St., Ferry Street
Town Dock
Gravel pit and woodland in Haverhill
Water Tower

REGION

Pentucket School District* - 19.506
acres

STATE

Crane Pond Wild Life*

U. S.

Post Office (rented)

CHURCH

Boyhaven-home and school
St. John Episcopal (All
Saints)-church & parsonage
First Cong. Religious
Society* - church
Second Cong. Religious So-
ciety*-church & parsonage
St. Ann's Catholic* - church
& parsonage

ORGANIZATION

American Legion (Charles L.
Carr Post)
Merrimac Girl Scout Camp
(rented)
West Newbury Historical
Society - 3/4 acres
Laurel Grange

CEMETERY

Bridge Street Cemetery
Old Cemetery off Crane Neck
Street
Chase Street Cemetery
Walnut Cemetery
Friends Buying Ground

City of Newburyport - Water

*Reported on Form 121, 1959 to Mass. Department Taxation & Corporations.

FACTORS AFFECTING USE

Terrain, cover, soil

The table above indicates that there are 2548 acres, approximately one-third of the vacant acres, which are swamp land (and would need to be drained for use), of excessive slope, (which makes building difficult) or in open semi-public use, which may be expected to be unavailable for building purposes. The remainder of the vacant land (over 4500 acres) may be considered readily buildable, although in some cases clearing would be required first. The land cover classification is found in the Appendix. Unfortunately no recent soil survey is available, but excerpts from a 1925 survey are also found in the Appendix.

Of the 984 acres of wetlands listed in the classification, "There are 3 wetland areas of low value to waterfowl and one area of moderate-to-high value. The 1,100 acre Beaver Brook marsh in West Newbury, Groveland, and Georgetown is represented by 250 acres of wetlands of low value to waterfowl in West Newbury. The 90 acre Scotland Road wetland in West Newbury, Newbury and Newburyport includes about 70 acres in West Newbury of low value to waterfowl. Another smaller wetland, about 38 acres in size, and considered to be of low value to waterfowl, lies in the area bounded by Main Street, Maple Street, and Crane Neck Road. The Indian River marsh, fronting on the Merrimack River, is an 80 acre high-to-moderate value wetland.

"Of the wetland areas listed, the Indian River marshes are the most important to waterfowl resources. There are about 50 acres of deep fresh marsh, and 30 acres of seasonally flooded flats and shrub swamp. Waterfowl use the area periodically, especially during migration flights. The Beaver Brook marsh, largely shrub-swamp and wooded-swamp, is primarily of importance to nesting wood ducks. There is potential for upgrading the Scotland Road marsh through development to create shallow impoundments. The Maple Street marsh also has a potential for improving its waterfowl value". (1)

Municipal Services

The buildable land, however, is not all provided with necessary municipal services. The maps in Chapters 6 and 9 indicate that many areas do not now have adequate fire coverage or municipal water. Many of these areas are in the present Residence B zone (20,000 square feet as a minimum per dwelling unit). The soil characteristics here are varying and do not permit sub-surface sewerage disposal on lots of this size. The remainder are in Residence A (40,000 square feet). That this size is not adequate, in view of services provided, is shown by the summary of minimum acceptable services in relation to lot size presented below.

(1) Letter to Sonthoff & Thomas, 24 February 1961, from Massachusetts Division of Fish and Wildlife.

Studies on municipal costs have indicated that a 20,000 square foot lot is not economical to service. Findings of the Urban Land Institute⁽¹⁾ indicate in all cases the capital costs for selected services (schools, streets, sewerage) are higher for 20,000 square foot lots than for those at 10,000, 30,000 or even 80,000, even though operating costs, including school transportation and protection, are the lowest at 20,000. When operating costs and amortization of capital improvements are computed per dwelling unit, 40,000 square feet proves the most economical average lot size for the town:

<u>Lot Size</u>	<u>Cost Per Dwelling Unit</u>
10,000 sq. ft.	\$ 541.69
20,000 sq. ft.	\$ 569.24
40,000 sq. ft.	\$ 516.09
80,000 sq. ft.	\$ 556.48
160,000 sq. ft.	\$ 647.99

However, consideration of the social aspects, municipal services available, the general type of town, land availability and especially soil conditions leads one to the practical recommendation of two basic lot sizes, one of 30,000 square feet, one of 60,000 square feet.

Cost Effect of Use

Other uses of land than residence have an effect on the municipal fiscal picture. Agriculture requires little town expenditure but business and industry can make substantial drains on the local treasury. Although industry increases jobs⁽²⁾, it has other less advantageous effects. Tentative conclusions advanced by the United States Department of Commerce⁽³⁾ follow:

(1) The Effects of Larger Lot Size on Residential Development, Technical Bulletin 32, Urban Land Institute, Washington, D. C. - 1958

(2) One hundred industrial jobs create seventy-four other jobs, (retail, construction, professional, etc.), bring 296 more people to town, add 112 households, 107 more cars registered and increase town retail sales and personal income. This increase may not be in the town where the jobs are located, but in the region as a whole.

(3) "What Will New Industry Mean to My Town?" Calef and Daoust, Area Development Division, U. S. Department of Commerce, 1955.

policy) or a tax levy of over one hundred dollars per person instead of the \$65 levy of the same year. Obviously every effort should be made to improve the quality of housing so that the maximum number are, or exceed, this break-even value.

LAND USE NEEDS

Residence

For residential purposes, West Newbury needs, in addition to the 700 acres now in use, sufficient buildable land to accommodate the estimated additional population. This is a minimum of 1700 more acres at approximately one acre per dwelling unit, or a total of 2400 acres in residential use.

West Newbury is now restricted to one and two-family houses, but there is a need for more types of dwelling. Today many people prefer single family homes, but some, especially the aged, are better in apartments or near other people. This should be achieved without increasing the desired density as determined by availability of services. There are many large homes in West Newbury, capable of conversion to house more families. But this must be controlled so as not to destroy the character or density of the town. Unneeded frontage land in public ownership should be made available for residential development.

Business

Off-street parking requirements and loading areas demand business districts which are not elongated or strung along a highway. West Newbury does not have a well designed business district, but has a run-down area on Route 113 with all parking and loading done on the highway⁽¹⁾. There is need of a well designed area of at least six acres (or 2% of the total area) for the ultimate population. This area should be protected from the intrusion of other uses. (Manufacturing is now permitted.)

Industry

Some industrial development may be desirable if it is accomplished in a manner to assure a good grade of industry and a location suitable for industry, but which does not divide neighborhoods. Since West Newbury is not a self-sufficient economic entity, the size of such a district is less dependent on need for the industry than it is on availability of land that suits industry more than it does West Newbury's other needs. Industrial mangement is seeking sites in communities which have healthy, aggressive

(1) In the Appendix it is noted that West Newbury residents shop elsewhere. In addition to specific areas mentioned there which residents now patronize, there is an undeveloped area zoned for neighborhood business in Rock's Village, Haverhill, across the river from West Newbury via Bridge Street.

8. Well-planned and well-developed conservation areas with natural plantings, wildlife, water areas, etc. greatly help our children in their studies of the physical world around them.

The shade and beauty of street trees and shade trees on residential lots help maintain a moderate temperature, reduce wind velocities, muffle traffic noises and purify air. Trees with a value of at least \$5.00 per square inch of trunk cross-section, 4 1/2 feet above the ground, should be properly maintained and pruned. In spite of their value they should not be located so as to create a hazard or so that low hanging branches interfere with utility wires or traffic. (See recommendations below and provisions in the subdivision regulations, Chapter 10.)

Agriculture⁽¹⁾

The land of West Newbury is characterized by ledge and areas of poor soil. It, therefore, lends itself to trees, nurseries and dairy farming, which use hay pastures. There is considerable demand for milk, since many milk plant operators are going out of state for milk. Likewise, boarding and breeding saddle horses, as well as operating stables, is an appropriate land use. Sheep could be raised profitably in fenced areas since they can graze the rough land better than heavier animals. The land is ideally suited for goats, but there is little market. Beef cattle are not likely to be profitable because grain cannot be raised in Essex County.

The poultry market in New England is unsettled, primarily because the poultry business is not automated here, but there is a market for pheasants for stocking programs.

In some isolated areas market gardening can be conducted, but on the whole, the soil is not good and is too poorly drained. Many old orchards are suitable sites for nurseries, as they provide sufficient but not excessive moisture. Orchards themselves are not too feasible because of the irregular growing season.

The Essex County Extension Services has assisted in plans for many areas of reforestation.

Town Center

West Newbury does not have a well defined center although there is the Training Field with the Town Hall opposite, the Library nearby and stately colonial homes along one side. A town Center is important not only as a focal point for town activity, but also as the major means of identification of the town character.

(1) For more detailed soil analyses, See "Soil Survey of Essex County, Massachusetts" in Appendix.

laboratories or fabricators) which are not large water users and which would not have a disposal problem. The desirability of such use is further assured by the requirements spelled out there for site approval, and the mandatory approval required by the State Department of Public Health for any use which disposes on a watershed.

The more densely populated area should be limited to the town center and proximity to existing town services, but all density requirements should be designed to ease the sewerage disposal situation. The area should be permitted a variety of residential types within the density requirement to accommodate the desires of residents.

There should be buffers for various neighborhood groups to provide cohesive, independent units which are sufficient in size, alone or in buffered combination, to support their own elementary schools and recreation area.

The present zoning requirements should be raised from 20,000 square feet per dwelling unit to 30,000 and from 40,000 square feet per dwelling unit to 60,000. (See Table of Standards and discussion of drainage in Chapter 6.) Service and soil conditions do not lend themselves to an enlarged 40,000 square feet area, but fortunately suggest figures near this most economical area.

Agriculture uses which are appropriate should be encouraged in the 60,000 square foot zone (Rural-Residence), for which zoning requirements (see Chapter 10) are designed to encourage nurseries, reforestation, dairy farming and other suitable allied uses.

RECOMMENDED ACTION

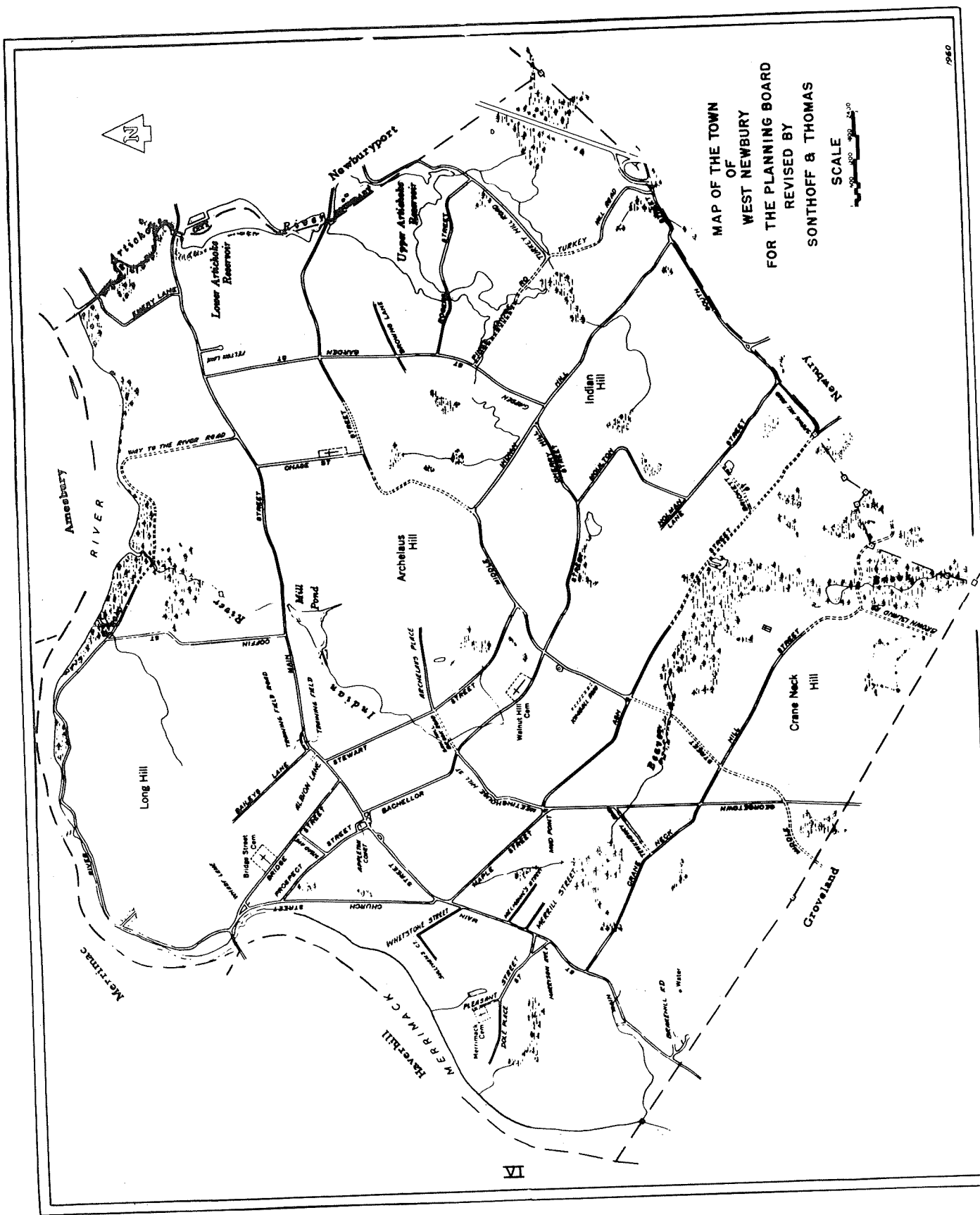
To achieve this proposed land use pattern, specific steps are recommended:

1. Land Acquisition

The town should move immediately to take the land necessary for all recommended public facilities (see subsequent chapters) and to acquire lands for conservation and recreation areas. For the latter purpose, one of the following methods should be employed: actual purchase by the town, purchase by the state, or purchase of development rights.

2. Historical Preservation

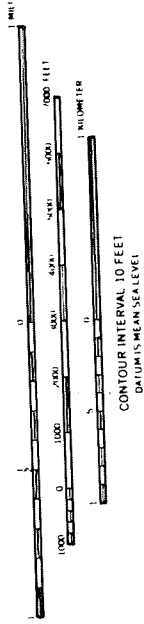
To preserve and protect buildings, sites, and districts of historic interest or of historical landmarks, towns are permitted to establish "Historic Districts" (Chapter 40C, G.L.). Prior to the establishment there must be a Historic District Study Committee, which shall investigate and report on the historic significance of the buildings, structures, features, sites or surroundings included in such proposed historic district as the committee may recommend. The Planning Board should immediately prepare an



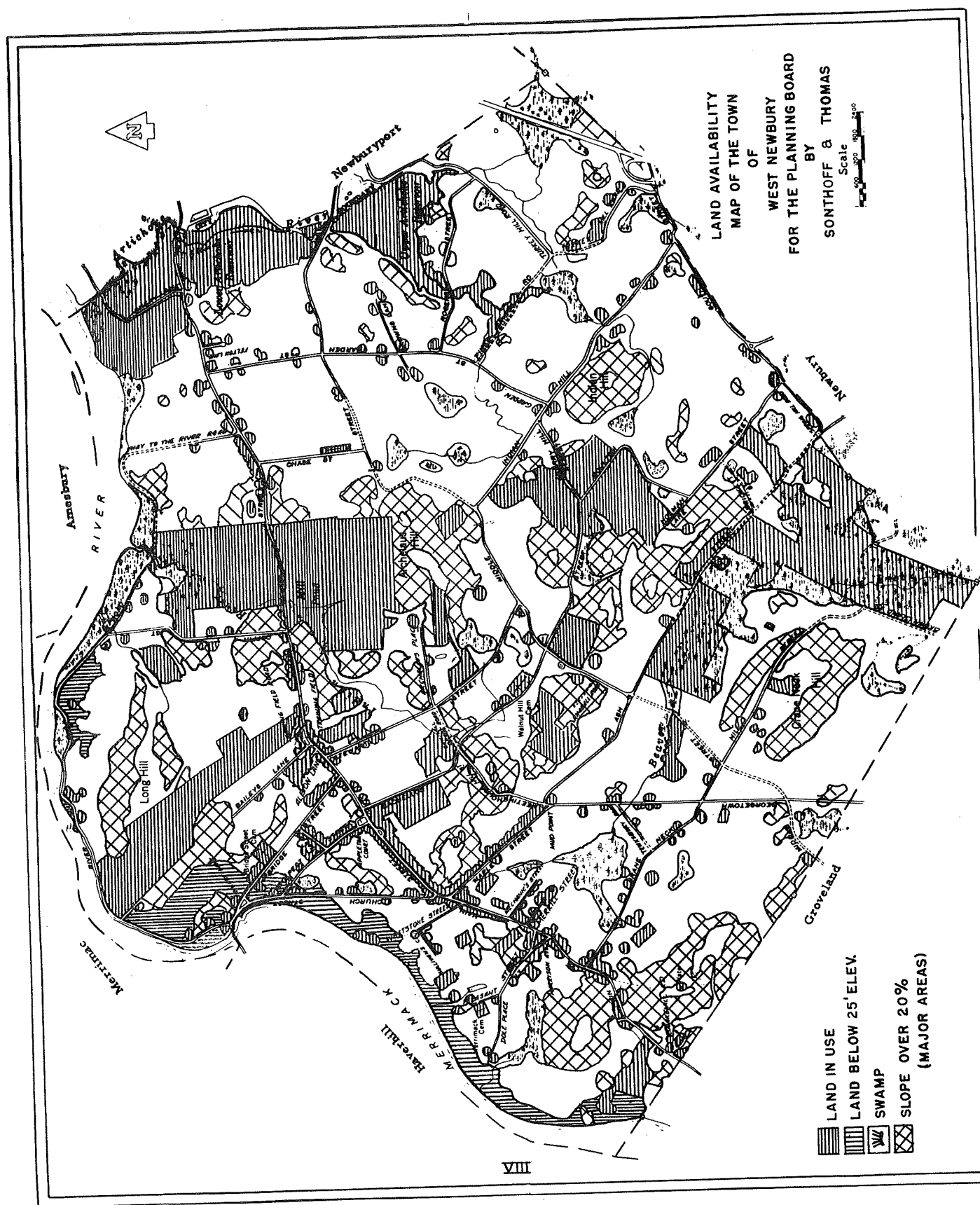
MAP OF THE
TOWN OF WEST NEWBURY
Massachusetts

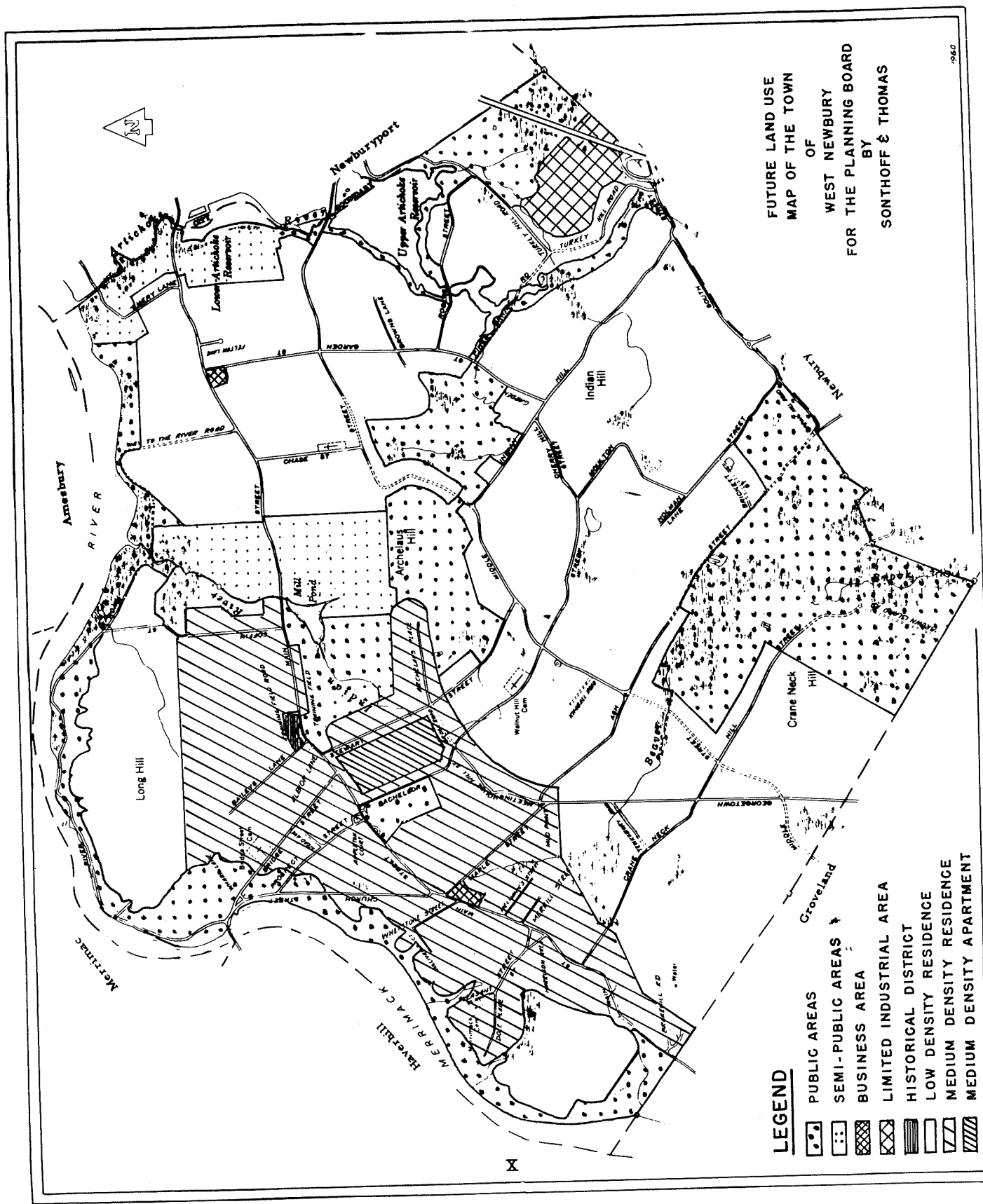


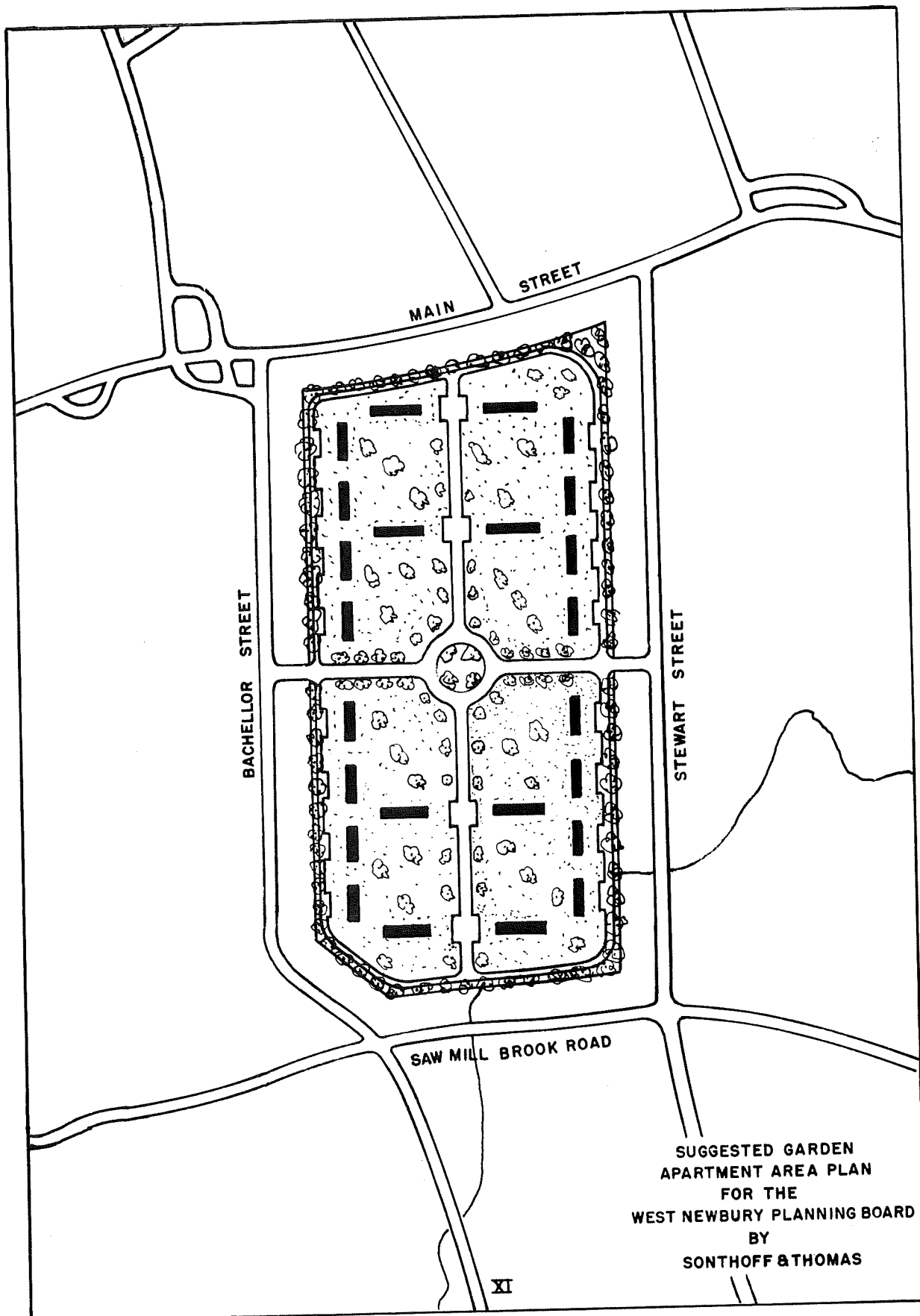
Prepared for
The West Newbury Planning Board
by
SONTHOFF AND THOMAS
Planning and Research Consultants



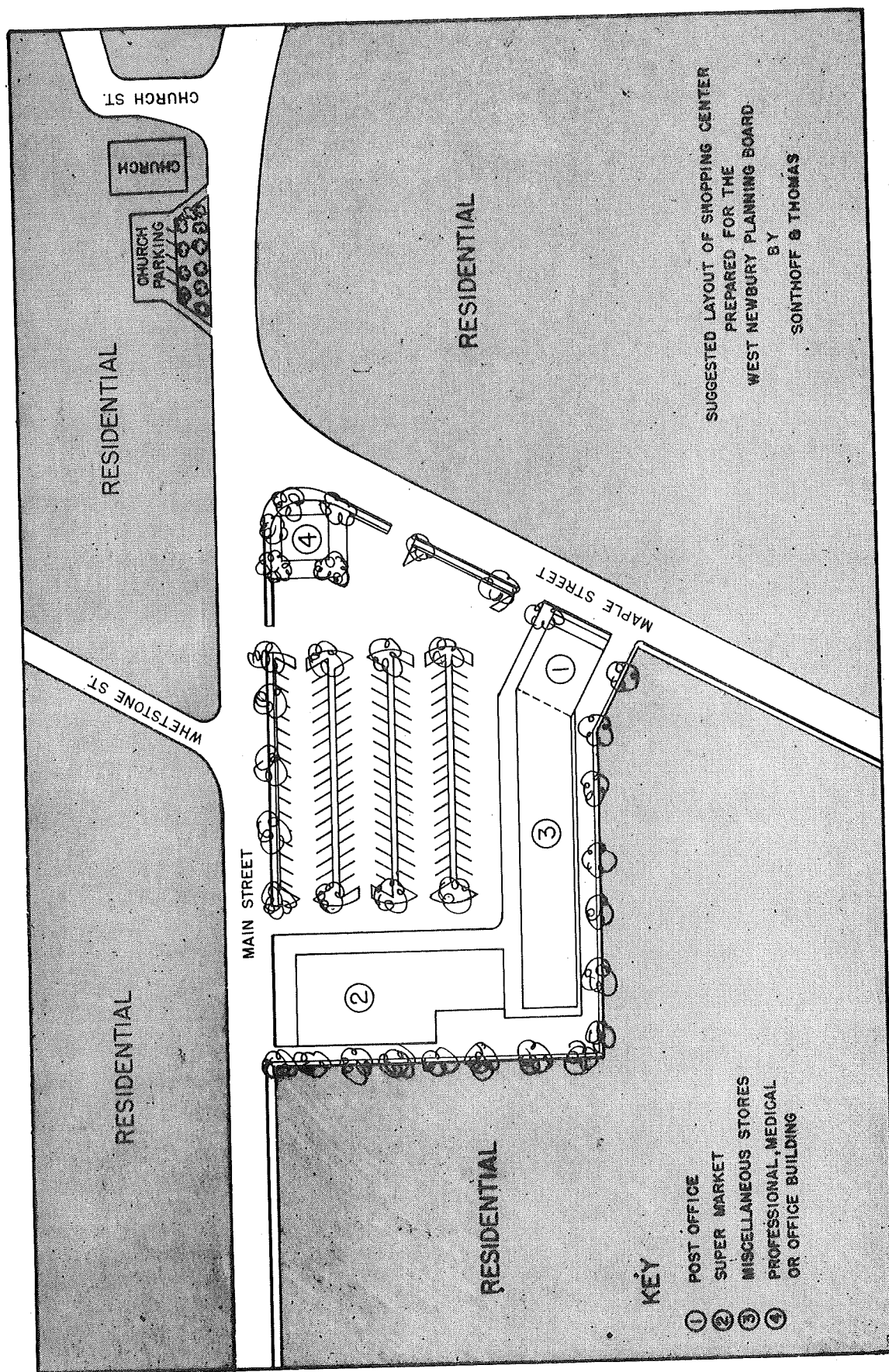
Original Base Map
Department of Interior
Geological Survey

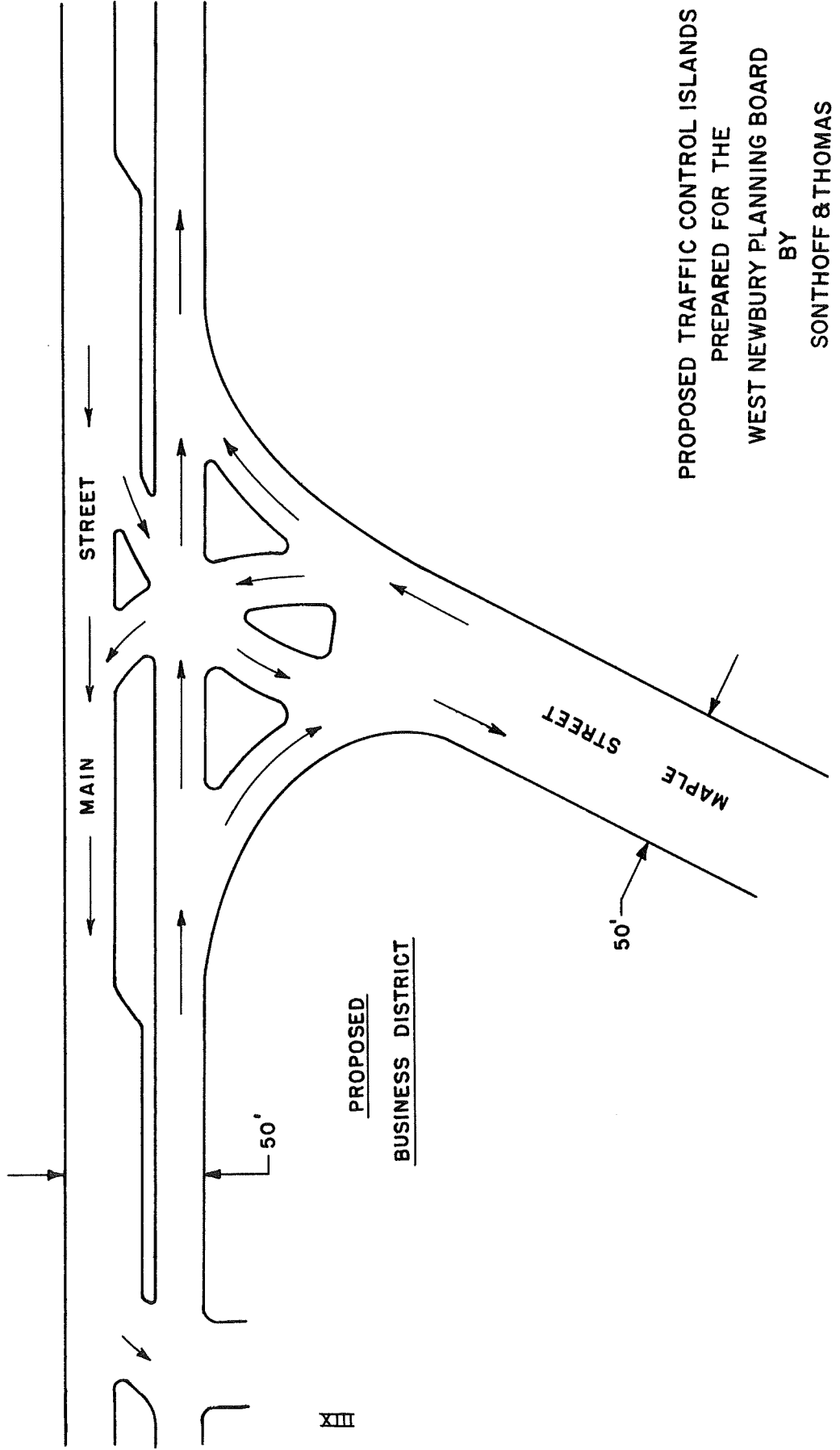




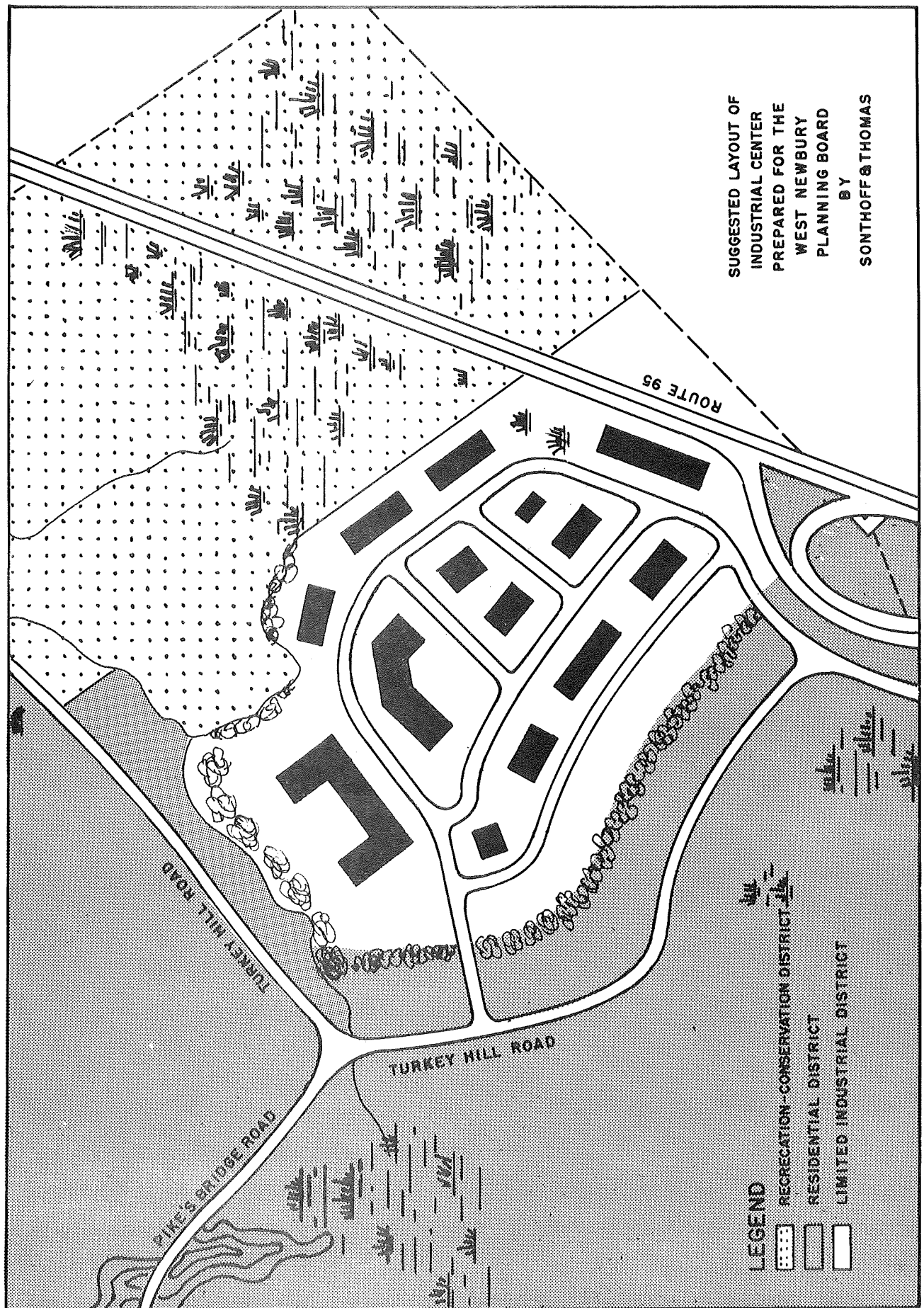


SUGGESTED GARDEN
APARTMENT AREA PLAN
FOR THE
WEST NEWBURY PLANNING BOARD
BY
SONTHOFF & THOMAS





PROPOSED TRAFFIC CONTROL ISLANDS
PREPARED FOR THE
WEST NEWBURY PLANNING BOARD
BY
SONTHOFF & THOMAS



SUGGESTED LAYOUT OF
INDUSTRIAL CENTER
PREPARED FOR THE
WEST NEWBURY
PLANNING BOARD
BY
SONTHOFF & THOMAS

Provision should be made to assure agriculture uses which will not be a detriment to surrounding properties, and to encourage those uses which can prosper.

5. Strengthen Other Regulations and Functions of the Planning Board and Various Town Agencies

Sand and gravel regulations should be adopted which would augment the zoning requirements by detailing procedure and criteria for restoring land to useable and attractive condition.

Trailer and camp regulations should be adopted which would augment the zoning rules. This is particularly important in a town with the resources of West Newbury for vacation homes and camping.

Regulations for the control of sewage disposal should be adopted to prevent seepage and contamination of well water.

A building code, including electrical and plumbing code, should be adopted to assure safely constructed buildings. West Newbury has no building code at present.

A fire prevention code should be adopted for the safety of the community. This is extremely important in a town with as much wooded land and as many wooden structures as West Newbury.

Training in administering these regulations, applying their criteria, and in carrying out its other functions, would enable the Planning Board to expedite its service to builders and to increase land use and land values. (See Chapter 10.)

The Planning Board should perform the functions of a Recreation Commission (see Chapter 8).

A soil survey should be undertaken by the Planning Board through arrangements with the Soil Conservation Service. The results of such a survey and the use to which they can be put are described in Chapter 10.

A Tree Census should be conducted by the Tree Warden to assist in the proper maintenance of trees.

For other steps which must be initiated by the Planning Board and for a program for the Planning Board to undertake them and execute this General Land Use Plan, see Chapter 10.

The residents, our major concern, can make relatively few trips within town quickly except on Main Street or between two places on one or two fairly straight roads. Among the awkward trips to make:

1. From the Route 95 area, Indian Hill or Cherry Hill to the Town Hall or the Regional school.
2. From Spring Hill Road to the Town Center.
3. From the western part of town to Route 95.
4. From the Fire Stations to the land north of South Street.
5. From the area east of Garden Street to the Crane Neck area.

There are danger spots too. For example, Bailey's Lane is a relatively long street with only one point of access. Should it be blocked, emergency equipment could not enter to service the buildings. A similar problem exists on Mechanic's Street, Brown's Lane, Dole Place and potentially on Kimball Road.

Long Range Planning must rectify these deficiencies and give access to new Route 495.

Surface and Width

There are at present 32.34 miles of paved streets and 7.48 miles of dirt streets. The latter, in most cases, contribute to the scenic country atmosphere of the town, but in a few instances, also, cause irregular traffic patterns.

Town records are deficient in regard to streets. The date of takings, right-of-way widths, and lengths accepted are almost completely lacking. Articles in the Town Warrant for town action in street matters have not contained adequate descriptions. This information is essential prior to initiating a street improvement program, and might well influence the practicality of certain improvements and maintenance. A table follows containing such street data as is available from the assessors, the Essex County Engineer and the Commonwealth of Massachusetts Department of Public Works. An examination of plans on file in County and State offices, of old town records of Newbury and West Newbury, as well as of deeds filed would help complete the listing so necessary to a street improvement program. See Recommendations below.

TRAFFIC VOLUME

Counts taken by the Massachusetts Department of Public Works indicate that on the dates specified daily traffic volume on local roads was as follows:

STREET LIST* (Continued)

Street Name	Right-of-way in Feet	Recorded Pavement Width in Feet	Miles Pavement Length		Miles Total Length	Present Street Classification
			Bitumi-nous	Dirt		
Dole's Place	-	-	.32	-	.32	Minor
Emery Lane	-	-	.40	.12	.52	Secondary
Felton Lane	50	-	.11	-	.11	Minor
Ferry Lane (also known as Wharf Lane)	-	-	.04	-	.04	Minor
Garden Street	50	20	1.72	-	1.72	Secondary
Georgetown Road	50-55 ⁽¹⁾	20	1.45	-	1.45	Major
Harrison Avenue	-	-	.13	-	.13	Minor
Holman's Lane	-	-	.23	-	.23	Minor
Indian Hill Street	47 +	-	1.73	-	1.73	Secondary
Kimball Road	50	18	-	.35	.35	Minor
Main Street	-	-	-	-	-	Major
Maple Street	55-65	20	.63	-	.63	Major
Mechanic's Street Meeting House Hill Street	-	-	.24	-	.24	Minor
Merrill Street	-	-	.59	.24	.83	Secondary
Middle Street	-	-	.16	-	.16	Minor
Moulton Street	-	-	2.48	2.06	4.54	Secondary
Pikes Bridge Road	-	-	1.83	-	1.83	Secondary
Pleasant Street	-	-	-	.66	.66	Minor
Prospect Street	-	-	.58	-	.58	Secondary
River Street	-	-	.55	-	.55	Secondary
Rogers Street	-	-	2.57	.70	3.27	Minor
Saw Mill Brook Rd.	-	-	.95	-	.95	Minor
South Street	45 or over	18	.89	-	.89	Minor
Spring Hill Road	-	-	.06	.24	.30	Minor
Steed Avenue	66	18	.17	-	.17	Secondary
Stewart Street	-	-	1.27	-	1.27	Secondary
Sullivan's Court	-	-	.15	-	.15	Minor
Tewksbury Road	-	-	.16	.14	.30	Minor
Traning Field Rd.	-	-	.10	-	.10	Minor
Turkey Hill Road	-	18	1.61	-	1.61	Secondary
Way to River Road	-	-	.20	.42	.62	Secondary
Whetstone Street	-	-	.27	.04	.31	Secondary
Worth's Lane	-	-	.12	-	.12	Minor

* See footnote bottom of page 38.

(1) Groveland line to Maple Street

1961

STREET STANDARDS FOR A RURAL-RESIDENTIAL COMMUNITY (1)

	<u>Minor Streets</u>	<u>Secondary Streets</u>	<u>Major Streets</u>
Right-of-way Width	40 feet	50 feet	60 feet
Pavement Width	26 feet	30 feet	36 feet
Centerline Radii (Minimum)	150 feet	250 feet	350 feet
Centerline Grade Maximum	9%	9%	5%
Centerline Grade Minimum	.5%	.5%	.5%
Curves	150 feet tangent separate reverse curves		
Curbs	On curves, at intersections and where grades exceed 5%		Entire Length
Sidewalk Required	None when lots more than an acre	One side only when lots more than an acre	Both sides
Width	4 feet	4 feet	5 feet
Grass Strip	3 ft. each side	6 ft. each side	7 ft. each side

GENERAL

Centerline off-sets: 150 feet or more

Block Size: 600 to 1200 feet

Curb Radius at intersection: 30 feet

Intersection: Not less than 60 degrees

Levelling Area: At intersection (75 feet from point of intersection with a
maximum grade of 3%)

Cul-De-Sac Length: 500 feet

Driveway, Width: 8 feet minimum

Location: not within 55 feet of intersection

Radius: 3 feet minimum

(1) Based on: Standards of Federal Housing Authority and National
Committee for Traffic Safety.

RECOMMENDATIONS

It is recommended that:

1. Street Standards be adopted, as follows:

Street Classi- fication	Average Daily Volume of Traffic	Minimum Right-of- way Width	Minimum Centerline Curve Radius	Maxi- mum Grade	Pavement Width	
					Business and Industrial Districts	Residential Recreation Rural District
Major	Over 1500 vehicles	60	350 feet	5%	40	36
Second- ary	400-1500 vehicles	50	250 feet	9%	36	30
Minor	Less than 400 vehicles	40	150 feet	9%	32	26

These standards are incorporated in the proposed subdivision regulations (see Chapter 10), and will thus pertain to all streets constructed within a subdivision. In addition, they should be adhered to by the Town in all cases of original construction or rebuilding. In all cases streets should be designed with safety the primary consideration and the secondary consideration the preservation of the attractive rural character of the community.

2. A program of street improvement be initiated. Unless otherwise indicated funds for this purpose are allocated in the Capital Budget, at an annual expenditure of \$25,000. The following steps should be taken in the following order:
 - a. With the aid of the State Department of Public Works (Chapters 90 and 81), all major and secondary streets⁽¹⁾ should be brought to standard pavement and right-of-way width (36 and 60 feet respectively) and all curves in excess of standard should be removed. At the time of improvement poor drainage conditions should be improved, in accord with the State policy. Order of priority is as follows:

(1) Unless the street is not listed for such improvement on the Summary of Proposals found at the end of this Chapter.

Merrill to Mechanic's Street
Brown's Lane East to Middle Street and Brown's
Lane West to Middle Street.

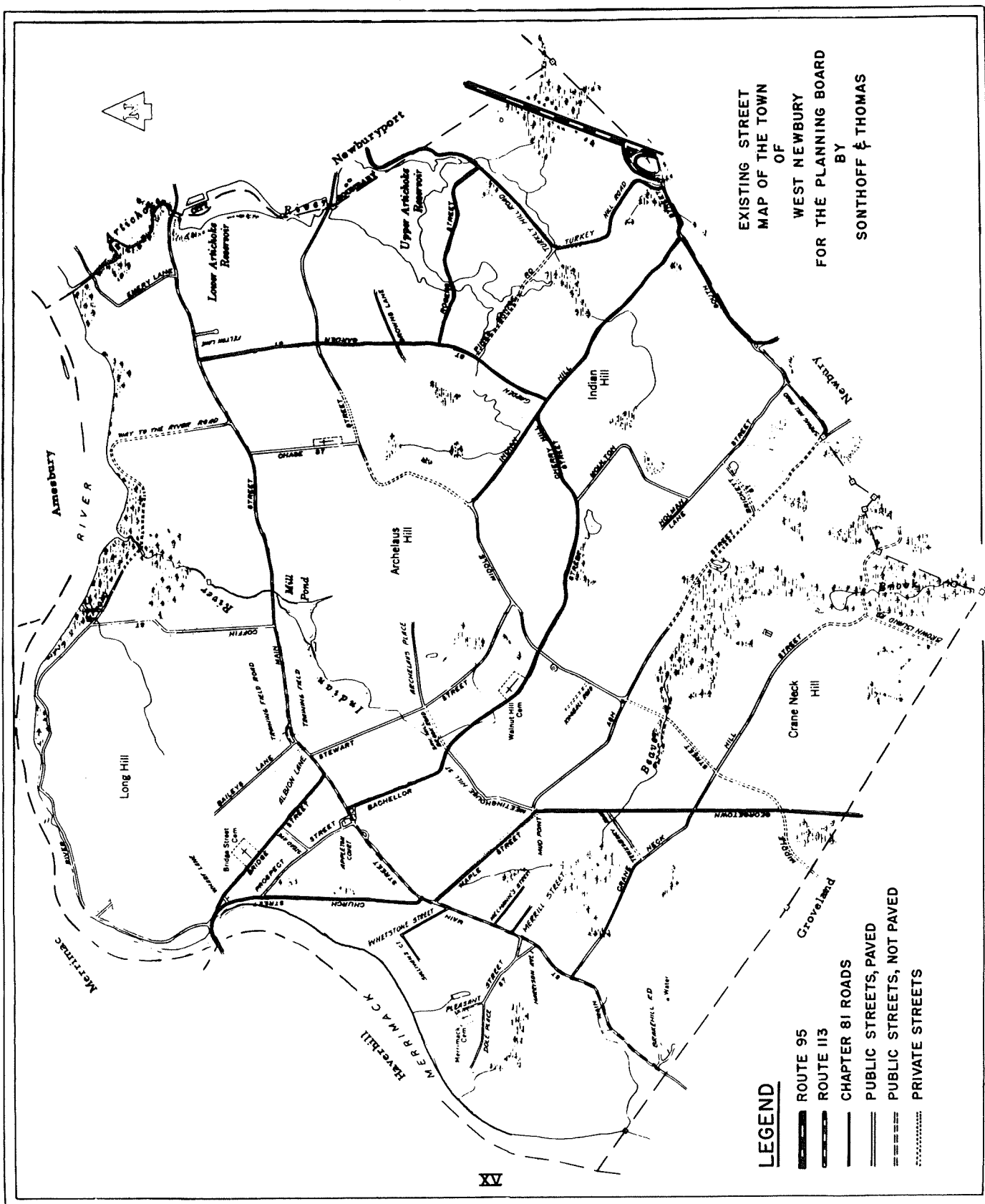
2. New construction for an improved local traffic pattern:
Kimball Road to Meetinghouse Hill Street (privately
financed extension).
Traffic Control Islands at Main Street and Maple
Street
Garden Street to Cherry Hill Street
Garden Street to Moulton Street.

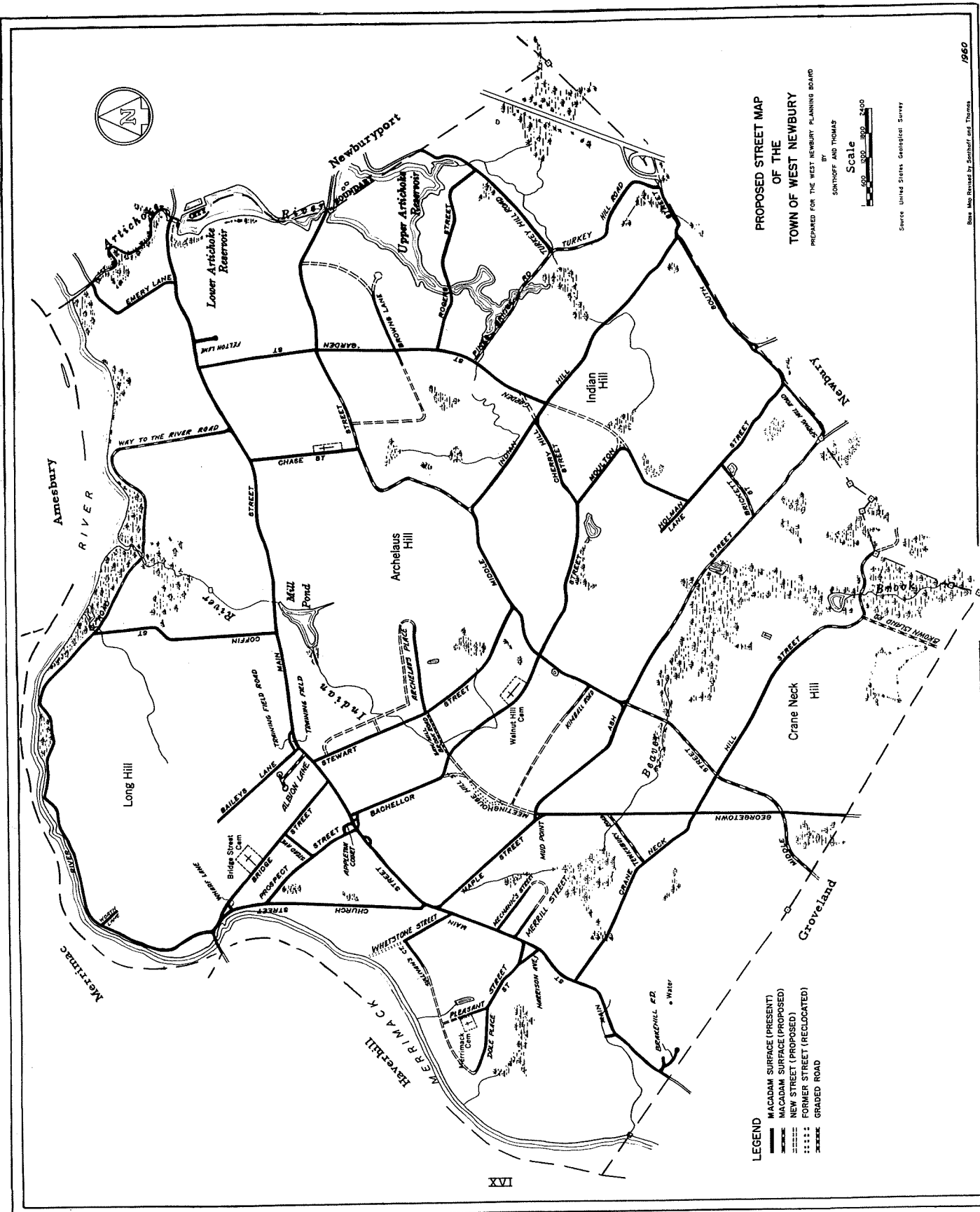
3. New streets to serve new town facilities:
New connection - Bachelor Street and Meeting-
house Hill Street
Archelaus Place loop to Stewart Street.

4. Street to serve the proposed Industrial District
(privately financed construction).

3. Minor improvements to be made as follows:

- a. Provide an additional access to the Pentucket School (see Chapter 7 - not included in the Capital Budget, since this is considered an item of School District outlay).
- b. Install an alarm controlled blinker light at the new fire station (see Chapter 9).
- c. Paint street signs with fluorescent paint. They should be of standard size and style as adopted by the Selectmen. Direction signs should be installed at additional inter-
sections so that the stranger in town can find his way to Routes 110, 495, 95 and to the town center.
- d. Establish off-street parking areas at the business district (see sketch, Chapter 4), at the industrial sites (see proposed zoning changes) and at places of public assembly. In Chapter 9 parking facilities are included in recommendations for municipal facilities. The churches, which all lack parking, should be urged to acquire off-street parking. There is vacant land to the rear and side of the Episcopal Church, to the rear of the First Congregational Church and the Second Congregational Church. Parking for the Catholic Church is indicated on the sketch (Chapter 4). The Planning Board should suggest to the church organizations that they provide parking areas as soon as possible and that prior to construction they submit to the Planning Board the proposed design indicating accesses.





SUMMARY OF STREET PROPOSALS

<u>Street Name</u>	<u>Proposed Classification</u>	<u>Recommendations within Planning Period</u>
Albion Lane	Minor	No recommendation
Archelaus Place	Secondary	Loop back to Main Street
Appleton Court	Minor	No recommendation
Ash Street	Secondary	Bring to Standard
Bachelor Street	Major	Bring to Standard
Bailey's Lane	Secondary	Loop to Bridge Street
Brakehill Road	Minor	No recommendation
Brickett Street	Minor	No recommendation
Bridge Street	Secondary	Bring to Standard
Brown Island Road	Minor	No recommendation
Brown's Lane	Minor	Continue to Middle Street- both Directions
Chase Street	Secondary	Bring to Standard
Cherry Hill Street	Major	Bring to Standard
Church Street	Major	Bring to Standard
Coffin Street	Secondary	No recommendation
Crane Neck Street	Major	No recommendation
Dole's Place	Minor	Loop to Sullivan's Court
Emery Lane	Secondary	Bring to Standard
Felton Lane	Minor	No recommendation
Ferry Lane (also known as Wharf Lane)	Minor	No recommendation
Garden Street	Major	Bring to Standard - new connection to connect to Cherry Hill Street and to Moulton.
Georgetown Road	Major	Bring to Standard
Harrison Avenue	Secondary	Bring to Standard
Holman's Lane	Minor	No recommendation
Indian Hill Street	Major	Bring to Standard
Kimball Road	Secondary	Bring to Standard, extend to Mud Point
Main Street	Major	Bring to Standard - 1st priority
Maple Street	Major	No recommendation
Mechanic's Street	Minor	Loop to Merrill Street
Meetinghouse Hill Street	Secondary	Realign and bring to Standard

CHAPTER 6

UTILITIES

WATER

Present Conditions

Water of good quality is provided to the town by the Water Commissioners who service meters, make installations and make arrangements for the water supply, currently a purchase arrangement with Groveland ⁽¹⁾. The table below indicates the steady increase during the last decade both in the number of dwellings serviced and also in the number of hydrants. There remain about one hundred homes which are not receiving town water.

Water Department Statistics

<u>Year</u>	<u>No. of Meters</u>	<u>No. of Hydrants</u>	<u>Miles of Mains</u>	<u>No. Gals. Purchased from Groveland</u>
1950	316	55	9.9	16,404,925
1951 No Records			
1952	347	58	10.1	17,452,095
1953	352	58	10.1	15,607,950
1954	357	59	10.1	20,678,300
1955	361	59	10.1	21,114,100
1956	365	59	10.1	22,367,400
1957	381	64	11.0 est.	24,648,800
1958	395	65	11.5 est.	19,959,000
1959	402	66	11.5 est.	22,363,000
1960	410	66	11.5 est.	27,555,100

The steady increase in the number of meters reflects increased use of the town-supplied water. Today the average home with running water uses fifty to sixty gallons a day per person: five gallons to wash from a sink, twenty to fill a bathtub, five each minute a shower runs, four to five to flush a toilet and twenty-five to thirty for a load of laundry.

The population of Groveland, and the consequent demand for water, may likewise be expected to increase, and thus the purchase arrangement may be somewhat precarious⁽²⁾. The Town has foresightedly recognized this

(1) The Water Department office is in a brick building in good repair on Route 113 near the town line between West Newbury and Groveland. The building is also the booster pumping station.

(2) At the present time the purchase arrangement is probably satisfactory to Groveland, since it is extremely profitable at the high charge of \$180 per million gallons.

In 1955 the committee expanded on the earlier proposal as follows:

- "1. That the sum of \$2,500 be appropriated for the purpose of test and exploratory wells to be used for the establishment of a site and location of a new water supply for the Town of West Newbury.
2. That a gravel packed well installation be purchased by the Town.
3. That the existing tie-in with Groveland be retained as an emergency measure.
4. That all future water extensions be made as follows:

"The principal cost of each extension shall be paid by those people receiving the benefit of said extension. The people benefiting shall pay or share the payment of a maximum total of 10% per annum of the principal cost of the extension and the Town shall pay the interest. The takers will not be charged for water up to and including the minimum allowable gallonage during the period they are paying their share of the 10%. However, a taker will be charged for gallonage over this minimum at the going rate.

"Under this plan no new extensions shall be undertaken until the petitioner(s) has entered into a written agreement with the Town of West Newbury.

- "5. That a projected 20-year master plan be initiated for all water extensions in conjunction with a master planning prospectus of the entire Town and that deviation from such a plan shall not be allowed unless proven to be for the future best interests of the Town. "(2)

In addition to the general problem of water supply and service covered by the Test Well Committee, specific problems exist:

1. Water is supplied by one straight line entering town. Should there be a break in it, the town could be deprived of water.
2. A possible industrial area is not served with water (see Chapter 4).
3. The geographic center of town, a potential site of town services, is not served with water.

(2) In 1955 the Test and Exploratory Wells Committee reported that Whitman and Howard Inc., Engineers will guarantee 175 gallons per minute from the Artichoke site.

- d. A connection from the Garden Street main with Cherry Hill Street and Bachelor Street to Main Street is indicated on the Proposed Water Service Map. This would provide water for what is considered prime residential land and would make possible, when needed, extensions for a proposed school site (see Chapter 7) and for the proposed industrial area (see Chapter 4).
4. That a professional engineer be engaged to prepare any plans which the town submits to the State Department of Public Health.
5. That pipes be replaced as needed and that all new pipes installed be of sufficient size, preferably eight inches minimum.
6. That further extensions be considered to reduce dependence on the water holes now used for fire fighting purposes. These are frequently frozen during the period when they are needed most. The proposals above would eliminate the need for three of the twenty now in use. Potential extensions indicated on the Proposed Water Service Map would reduce the required number to the two indicated. The Fire Department should keep these open year round (see Chapter 9).
7. That payment for extensions be made in accord with the recommendation above of the Test and Exploratory Well Committee. See Chapter 10, Capital Budget, for further discussion of water costs.

DRAINAGE

Present Conditions

In general, the drainage system in West Newbury is good, and its neighbor, Newbury, is also well drained. The culvert system, where built, is excellent. The culverts are of a sufficient size, well constructed, have head walls and are in good repair. The only real problem area is along Route 113 where the road is not drained properly by modern standards and where a number of home owners find it necessary to use sump pumps to drain their basements. (See Chapter 5 for additional discussion of street drainage.)

The Dam on the Artichoke River has never been topped by flood. If it were topped, no damage downstream would result. However, there are some areas along the Merrimack River where flooding can result from high tide back-up.

Since the time of the serious floods of the 1930's, the Corps of Engineers has completed the Edward MacDowell, Blackwater and Franklin Falls flood control dams on tributaries of the Merrimack River in New Hampshire.

No formal permit system for cesspools or septic tanks exists, although the Board of Health indicates a strong preference for leaching fields and septic tanks. The Board does not require a plan but when it feels it necessary, it requires percolation tests paid for by the user. The Board inspects the unit before it is covered.

RECOMMENDATIONS

That the Board of Health institute a formal permit system for septic tanks, requiring percolation tests in all instances and compliance with the standards of the State Department of Public Health, and requiring a plan prepared by a registered professional engineer. Such a system will assure proper sanitary conditions and will provide adequate records of location. Cesspools should not be permitted because of soil conditions.

That the Board of Health and the Planning Board suggest that builders locate the system on the street side of the house, particularly on or near Route 113, so that in the event that a public system ever does exist, house plumbing will not need to be reversed. Frontage requirements in the revised zoning by-law have been prepared in part on this basis.

GARBAGE AND REFUSE

Present Conditions

The disposal of waste material is in part covered by a town by-law:

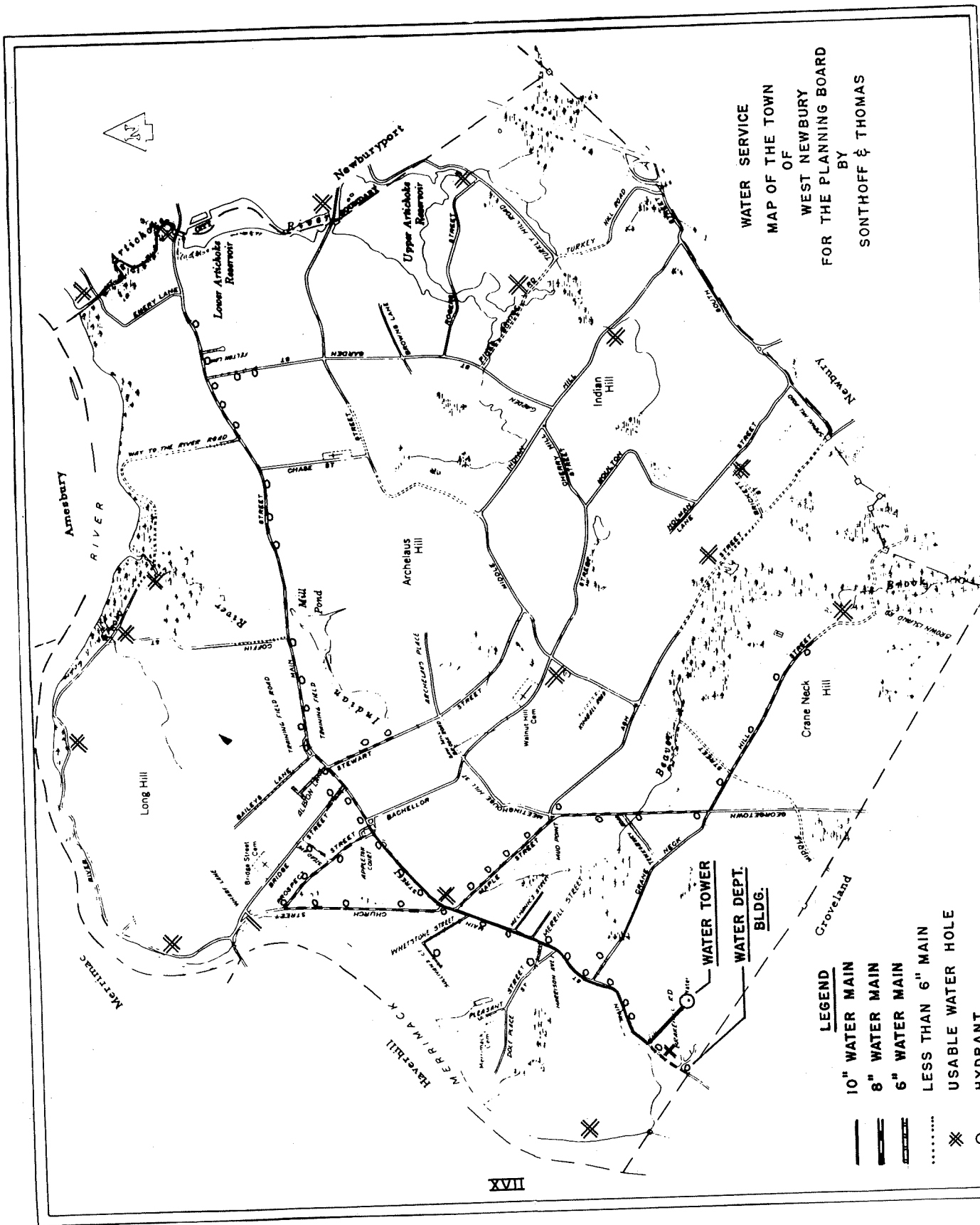
"No person shall place or cause to be placed or deposit upon any street, sidewalk or other public place in the town, merchandise, ashes, shavings, house dirt, filth, offal, rubbish, or any other materials which shall in any way obstruct or disfigure the same, nor suffer his wood or coal to remain unnecessarily on any street or sidewalk. No place shall be understood to be designated as a public dumping place, unless indicated by a conspicuous sign".

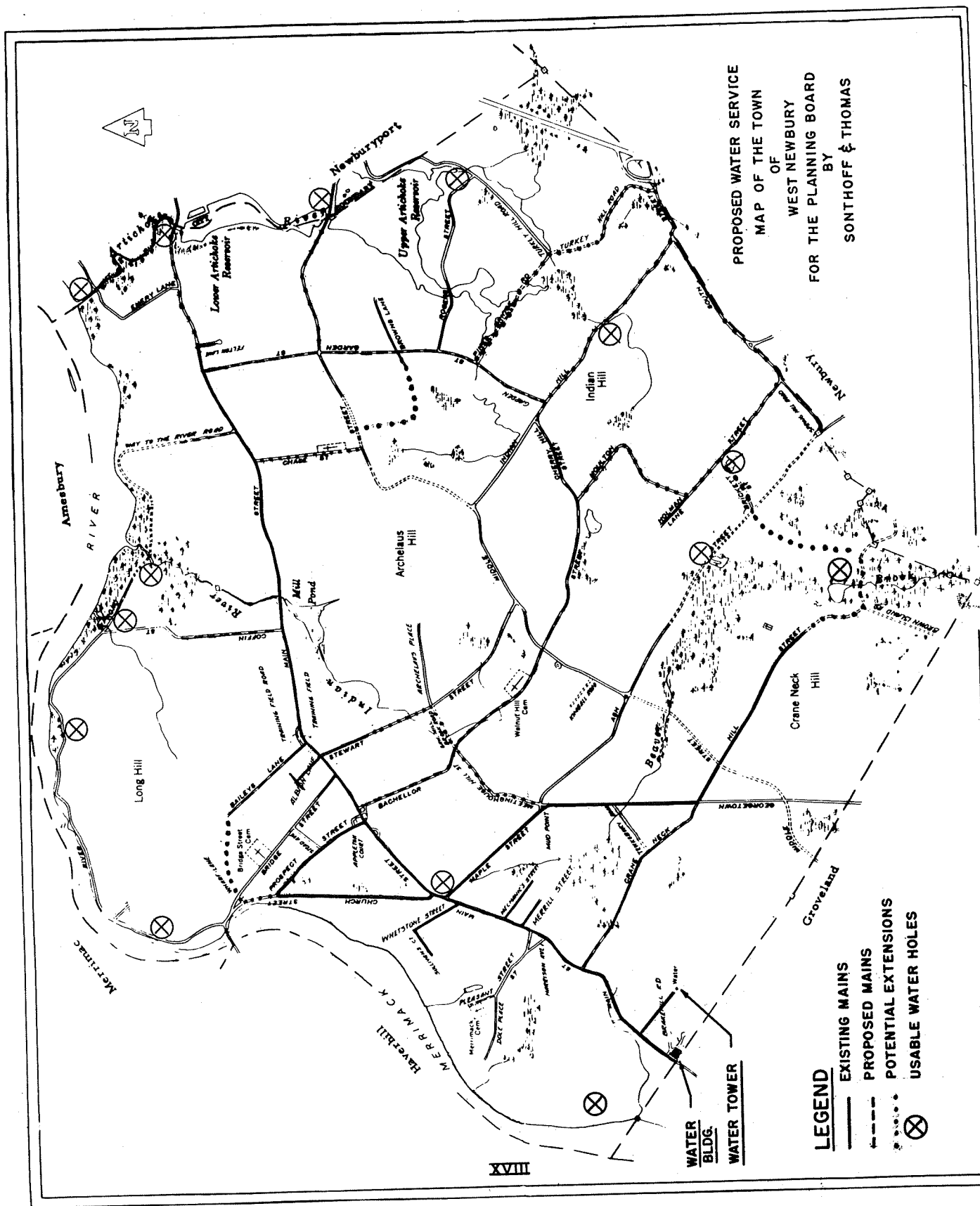
The town leases one such dump now in the southwestern part of town, west of Georgetown Road and south of Middle Street. It is an unfenced area, which is unattractive and not screened from view from the street. Although people are requested not to dump garbage here, dumping garbage is not prohibited. It abuts a swamp area, so that seepage and dispersal of dumped materials occurs.

No trash or garbage pick-up service is provided, although private service is available at a nominal sum.

RECOMMENDATIONS

Conditions at the dump should be improved by providing a small well on the site to reduce the fire danger, and an attendant to assure neat and clean conditions. Fencing or screening should be provided to improve the view





CHAPTER 7

SCHOOLS

SCHOOL PLANT

Central School

The Central School is the only public elementary school in West Newbury. In 1960 it housed 223 pupils in grades one through six in ten rooms, including the library and teachers' room. This frame building was built on a slight promontory on Main Street in 1910. Attempts have been made to modernize the plant and to keep it in good repair. In 1950 the roof was repaired and insulated; in 1960 there was a new oil burner conversion; a cafeteria has been installed in the basement; a dishwasher has been added; an automatic fire alarm system was installed, and there is an audio-visual room.

Among the deficiencies of the school are:

1. No auditorium
2. No gym or playroom
3. Antiquated toilet facilities
4. No parking area
5. No hot top yard or developed playground (hot top drive around building)
6. No outdoor nature area for the teacher of Conservation and Nature Lore
7. Crowded classrooms (see Table of School Statistics below)
8. No room for expanding school population (see projections below), although in 1938 an architect's study indicated that a two room addition could be added on the east
9. Water in the basement (a sump pump has been installed)
10. Inadequate site (see Table of Standards below)
11. Poor unsafe, unattractive, unsanitary location of cafeteria
12. Paint.

Regional School

West Newbury is a member of the Pentucket School District along with Groveland and Merrimac, which provides a facility located in West Newbury to serve the pupils of grades seven through twelve from those towns. Less than one fourth of the students are from West Newbury. The school is an attractive modern brick building. A sketch of the site plan follows.

Projection

The school enrollment can be expected to increase both from in-migration and from the birth rate. As was pointed out in the section on population, a large development in a given year could cause unexpected expansion in enrollment at that time (1). Since this cannot be foreseen or pin-pointed for a specific year, an annual projection of school population is not given, but an estimate for the 1980's shows:

	<u>From 5 to 7</u>	<u>From 7 to 12</u>	<u>From 12 to 17</u>	<u>Total</u>
Boys	54	135	156	345
Girls	46	132	152	330
TOTAL	<u>100</u>	<u>267</u>	<u>308</u>	<u>675</u>

This projection indicates an increase of one-third in the elementary school population and more than a two-thirds increase in West Newbury population in the regional school (2).

SCHOOL STANDARDS

Elementary (Grades 1-6)

<u>Desirable Enrollment</u>	<u>Maximum Distance to Walk</u>	<u>Minimum Acreage Requirements</u>
175 with 7 full time teachers, 10 preferably	1/2 mile ⁽³⁾	5 acres plus 1 acre for each 100 pupils (3) (4) of ultimate enrollment
300 with 12 full time teachers ⁽⁴⁾ but 350 - 400 or more for most economical operation		

(1) In a town the size of West Newbury the effect of one development is greater, percentage-wise, and in impact on municipal services, than in a larger community which can more readily absorb growth.

(2) This has been considered in computing West Newbury's regional school contribution in the Capital Budget (Chapter 10).

(3) Recommended Standard American Public Health Association.

(4) Recommended Standard National Education Association.

continued use of but one elementary school ⁽¹⁾. Site I has the advantage of having more pupils projected within one-half mile walking distance and has the advantage of potentially better integration with the recreation conservation plan. Site 2 has the advantage of being further from the power lines ⁽²⁾.

3. Plans should be prepared during 1962 and construction begun in late 1962 or early 1963 so that the new plant will be ready for the fall term of 1963. The school should be designed for 375-400 children, but can be erected in such a manner that it will house 240 immediately (10 classrooms of 24 each or 8 classrooms of 30 each), with an addition planned in 1970 for six classrooms for about 150 more pupils. Careful planning and design might allow an equal addition if it should be required in the years after 1980.

The building should have the usual classroom and accessory facilities as well as an auditorium, a cafeteria - gymnasium room, adequate outdoor play space, an adequate parking area, and a room for meetings of the School Committee and the School Building Committee.

4. The present Central School should become a Community Center as indicated in Chapters 8 and 9.
5. The development rights on the additional site (shown on the school map) should be purchased by the town as soon as possible so that this site, or an equal site in the same area selected by the School Building Committee, will be available, if needed, in the years following 1980. See discussion of Capital Budget, Chapter 10, for methods of financing construction.

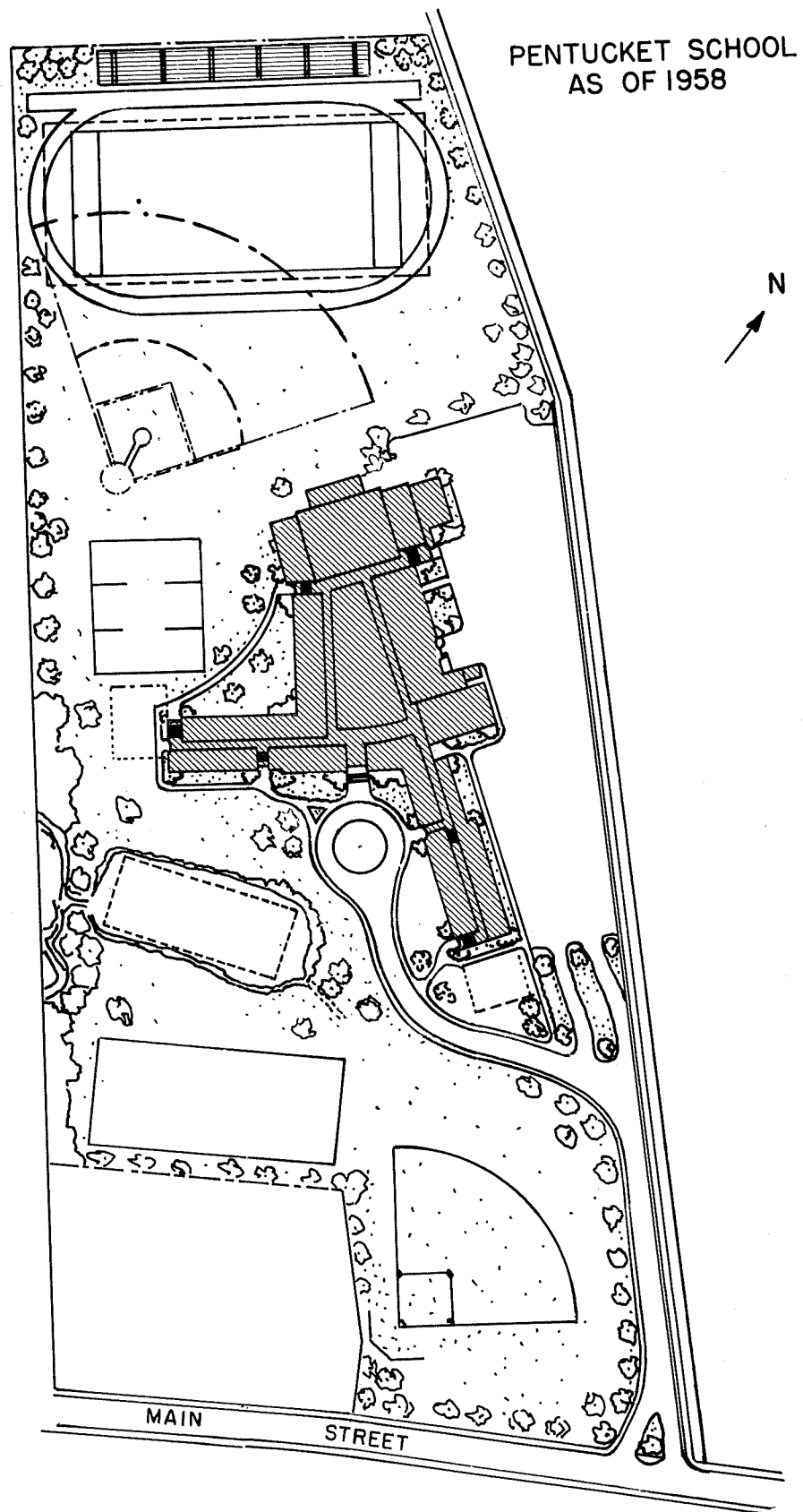
Secondary School

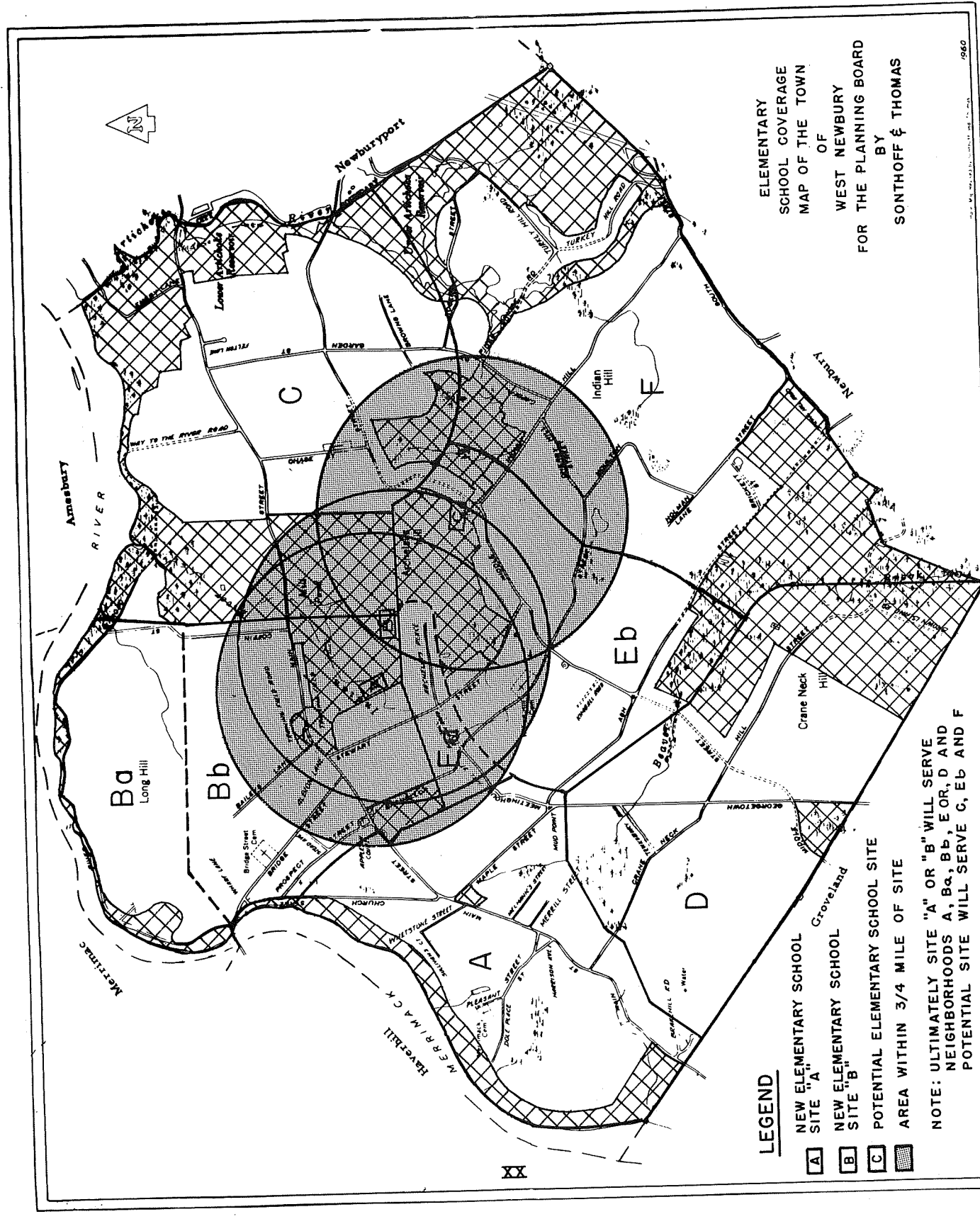
The Pentucket School has just a few defects. West Newbury's representative should urge the Pentucket School District to rectify the errors by:

1. Building another lane to the entrance road, separated from the present paved area by a grass strip, to remove the potential danger of a blocked road in time of emergency.
2. Taking additional land to the west of the site to permit immediate expansion of the plant and of athletic facilities when needed.

(1) An additional site is also indicated on the map which would permit two schools to serve the various neighborhoods adequately. This duplication of plant and administrative staff seems unneeded for the foreseeable future (see projections above).

(2) Construction of access roads to this site would be more difficult than to site I, however.





ELEMENTARY
SCHOOL COVERAGE
MAP OF THE TOWN
OF
WEST NEWBURY
FOR THE PLANNING BOARD
BY
SONTHOFF & THOMAS

LEGEND

- A NEW ELEMENTARY SCHOOL SITE "A"
- B NEW ELEMENTARY SCHOOL SITE "B"
- C NEW ELEMENTARY SCHOOL SITE "C"
- D POTENTIAL ELEMENTARY SCHOOL SITE
- E POTENTIAL ELEMENTARY SCHOOL SITE
- F POTENTIAL ELEMENTARY SCHOOL SITE
- G AREA WITHIN 3/4 MILE OF SITE

NOTE: ULTIMATELY SITE "A" OR "B" WILL SERVE NEIGHBORHOODS A, Ba, Bb, E, OR, D AND F. POTENTIAL SITE WILL SERVE C, Eb AND F.

CHAPTER 8

RECREATION

EXISTING CONDITIONS

West Newbury is a beautiful community with rolling terrain, lovely water areas, and numerous attractive sites (see Chapter 4), but has few facilities designed for the appreciation or use of these natural endowments.

Regional Facilities

The town is within easy driving distance of the coastal areas and beaches of Maine, New Hampshire and Massachusetts. The latter has a master plan for beach development, and when it is carried to completion, West Newbury residents can enjoy the improved beach areas for salt water swimming. The town is close (about two hours driving time) to the ski areas of New Hampshire, and, when conditions permit, there is skiing in nearby Andover, Amesbury, Rowley and Hamilton.

The most rapidly growing sport in the country is boating. Nearby Newburyport provides a harbor, but the Merrimack River has few developed facilities. A planned study (by the Army Engineers) of the feasibility of a protected inland waterway for small craft from the Annisquam to the Merrimack River awaits an appropriation.

Hunting is a sport which is becoming difficult to pursue. New England has a scarcity of hunting lands, although at least five percent of the people have licenses. Commercial shooting preserves are prohibited in Massachusetts. There are no private sportsmen's clubs operating in the town at present, although there are some in other communities that do permit hunting.

West Newbury, by being closed to hunting, except on written permission of the landowners, is stricter in its regulations than many other Massachusetts towns. It must be recalled that no hunting by rifle is allowed in Massachusetts, only hunting by shotgun and bow and arrow. In general, the deer population in New England is growing, as is popular interest in hunting and related outdoor activities. The pheasant stocking program of the state provides the sportsmen of Massachusetts with ample opportunities for upland hunting. West Newbury at this point does not avail itself of the income possibilities that exist in these respects.

Fishing is another important sport. There are no state stocked waters in West Newbury, but trout are stocked in a number of waters in the region: Massachusetts Brook, Powow River, Sandy Brook, and Bailey's Pond in

STANDARDS

Table of Standards

RECREATION REQUIREMENTS FOR A SMALL TOWN

<u>Type</u>	<u>Size</u>	<u>Features</u>
Park	100 acres or more	Swimming, Boating, Picnicking, Skating, Sledding, Hiking, Day Camping, Field Sports, Nature Activities
Play- field	20 acres	Field Sports, Court Games, Swimming, Track, Archery, Picnic Area
Play- ground	5 acres (or 1 acre for each 800 present and estimated population)	Preschool Corner (area for mothers to sit), Apparatus Area for older children, Open Space for informal play, Wading Pool, Field for Softball, etc., Craft Area
Indoor Rec- reation	one building	Social Room, Playroom, Lounge, Game Room, Arts and Crafts Workshop, Kitchen or Snack Bar, Swimming Pool plus a gym- nasium and Auditorium which may be located in the school

To meet these requirements for West Newbury's ultimate population of 8000 persons, there should be ten acres of playground (there are now none except at the Regional School) twenty acres of playfield (there are about twenty undeveloped acres included in the Whitman property) and one hundred acres of park land (there are none).

Miscellaneous Features

The recreation facilities enumerated on the Table should be augmented, particularly in a community of West Newbury's character, by nature trails, a bird sanctuary, a nature museum, a golf course, a rifle range, a marina and, if there is sufficient interest, an area for model cars and model planes.

Both indoor and outdoor facilities should be designed with consideration for the recreation needs of all age groups, including the aged, since they are becoming an increasingly large segment of the population (see Chapter 2).

RECOMMENDATIONS

To increase the recreation value from West Newbury's natural assets the following steps are recommended:

Recreation Commission

Under the authority of Chapter 45 of the General Laws, the Town should establish a Recreation Commission, composed of one member of the Planning Board, one member of the Park Commissioners, one member of the School Committee and two members-at-large. The commission may conduct and promote recreation, play, sport and physical education, for which admission may or may not be charged, on such land and in such buildings, as are owned or leased by it or assigned it by the town, and may construct buildings on land owned or leased by it and may provide equipment for said purposes.

The activities of the commission should be in accord with the plans of the Planning Board, and should be directed toward coordination with the School Committee. Professional assistance should be acquired to design facilities for proper and maximum use.

Conservation and Open Space Areas

The Division of Fisheries & Game owns about 300 acres of land in West Newbury in the vicinity of Crane Neck Road and Ash Street. This is mostly wet-land and woodland. Public access is possible from both Ash Street and Forest Street. Hunting, hiking, bird watching and other forms of outdoor recreation are permitted.

In addition there are other areas, indicated on the Recreation map, suitable for these purposes and for other large scale outdoor uses, such as golf courses (when the population and demand require) and day camps, a bird sanctuary at the mouth of the Indian River and a park adjacent to the town forest.

Reservation of these areas has the dual advantage of providing open areas for needed conservation purposes and of assuring residential development in an orderly neighborhood pattern (at the same time that the need for public services in these areas is minimized). Therefore, in the proposed zoning changes, these areas are included in a new "Conservation-Recreation District".

Town Forests

The Town Forest Committee, as required by the Town Forest Act, should be activated and an energetic conscientious program of forest development and management undertaken. An extension of the Town Forest, in accord with

Court and Lawn Game Areas

Standards indicate a need for areas for tennis, volleyball, croquet, badminton, outdoor basketball and shuffleboard. These should be laid out on the combined Whitman Property - Central School property and lighted for evening use.

Field Games

Areas are required for adults and boys and girls to participate in field games such as football, softball, hardball, field hockey and soccer. These can likewise be provided on the Whitman - Central School Property. They, too, should be lighted and provision should be made for spectators. Field areas designed for small children should be provided at the new elementary school, so that younger children do not interfere with adult games or get in the way of balls.

Young Children's Area

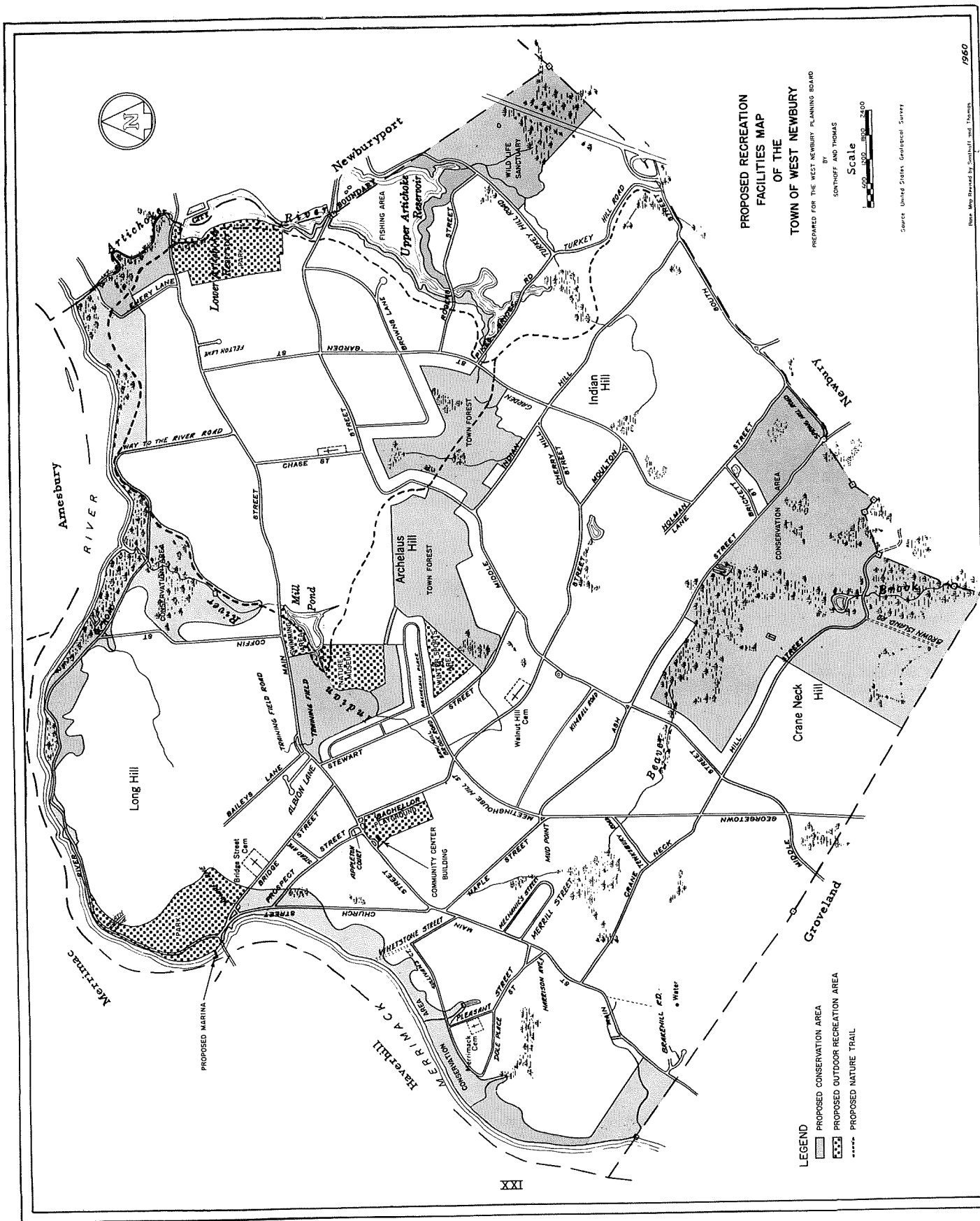
The new elementary school should have an apparatus area for slides, swings, seesaws, jungle gyms and similar equipment, a grassed play area for informal games and the field areas mentioned above.

Miscellaneous Facilities

Marina

The Division of Fisheries and Game report previously quoted states that the accessibility of the Merrimack River to the public could be improved by the establishment of an adequate boat-launching site with suitable car facilities. The Recreation Commission mentioned above should cooperate with the state officials in development of a site and, specifically, should seek funds from the Recreation Boating Fund ⁽¹⁾. A possible marina development is indicated on the accompanying sketch.

(1) Monies from this commonwealth fund are available for, among other things, conducting programs of boating safety education; the construction of access to water areas, including land, parking areas, roads, launching ramps and docks; the reimbursement to cities and towns, so far as possible, for such projects as are indicated, provided the plans for such construction or programs have been approved in advance by the director.



"Should the Artichoke Reservoirs ever be opened to public fishing, the Division would conduct a detailed biological and chemical analysis of the water. Future fisheries management would then be based on such an analysis. The Quabbin Reservoir, the water supply for the Metropolitan Boston area, and Watuppa Pond, the water supply for the City of New Bedford, are examples of reservoirs which have recently been opened to fishing by the public".

Swimming

The Recreation Commission should conduct a supervised swimming program. The Mill Pond is an ideal location, adjacent to the Town Center and other recreation uses. An arrangement should be completed with the "Boyhaven" administration for use of the west side of the pond.

For method of financing these improvements see Chapter 10, Capital Budget.

1. The building be painted.
2. Parking areas be provided in the rear of the building with drives of adequate width provided on each side of the present building.
3. Landscaping be accomplished with the assistance or advice of local nurseries, and screening be planted to protect adjacent residences.
4. The interior be redecorated and remodelled as described below.
5. Storage cabinets and bookcases be installed in the existing offices to provide more orderly offices and to increase useable space.
6. Storage be removed from the second floor, so that it can be re-partitioned to provide office space for the Planning Board and space to be shared by some of the committees existing or proposed by this report (i. e., conservation commission, Historical District Study Committee). It is proposed that the School Building Committee and the School Committee be provided a room at the proposed elementary school (see Chapter 7), the Water Commissioners continue to meet at the Water Department Building, the Library Trustees at the Library, the Engineers of the Fire Department at the new Fire Station Building, along with the Highway Superintendent, the Park Commissioner, Tree Warden and Moth Superintendent and Shade Tree Committee.
7. When the office of Treasurer and Town Collector is no longer filled by the Town Clerk, a separate office will be required. It is proposed that the present Police office be made available for this purpose and that the basement be remodelled and waterproofed for police purposes (see below).
8. The auditorium in this building, which will receive decreasing use when the new elementary school is completed and the Community Building prepared for use, be prepared for multiple use. It is recommended that the rear portion of it be fitted with movable partitions, so that it can be used as a hearing room. The permanent walls of this section can be fitted with storage cabinets for the Board of Appeals and the Finance Committee. The room can be restored to auditorium size for town meetings and other large functions. In the future, if additional offices are required, the entire auditorium can be devoted to offices. Town meetings can then be held in the new elementary school. Should attendance exceed its capacity, which is not probable until the population approaches four thousand, arrangements should be made with the Pentucket Regional School District to use the school auditorium.

Fire Department Statistics

<u>Year</u>	<u>No. of Calls</u>	<u>No. of Bldg. Fires</u>	<u>No. of Grass Fires</u>	<u>No. of Chimney Fires</u>	<u>Feet of Hose</u>	
					<u>2 1/2"</u>	<u>1 1/2"</u>
1950	35	5	8	11	4600	1000
1951	20	2	5	8	4600	1000
1952	20	-	10	3	4600	1000
1953	25	1	13	3	4600	1000
1954	36	5	12	5	4600	1100
1955	48	4	17	6	4600	1100
1956	37	2	13	1	4600	1100
1957	55	4	11 (+ 9 brush)	5	4600	1100
1958	21	3	4	2	4600	1100
1959	49	5	19	3	4600	1100
1960	21	6	6	2	4600	1100

Equipment

Main Station

Ford 1956 - 600 gallon pumper, 28 foot extension ladder and roof ladder

Chevrolet 1938 - 250 gallon pumper, 36 foot extension ladder and roof ladder

GMC 1954 - panel rescue truck

Garden Street Station

Seagraves 1947 - 600 gallon pumper, 35 foot utility ladder and roof ladder

Ford 1948 - tank truck - 200 gallon pumper, 26 foot extension ladder

NOTE: The policy is to replace each piece of equipment when it is twenty years old, and to replace hose annually. There is no equipment fund. The men maintain the equipment as far as possible.

Coverage

The two stations in use provide excellent service within standard for the northern part of town, but, as the accompanying map indicates, much of the southern part of the town is more than three miles by existing street from the existing stations. Moreover, Ash Street is partly unplowed, which in winter complicates the problem of providing protection to its southern end.

The problem of adequate coverage is also increased by the water situation. Pressure is good, (although occasionally at Crane Neck and Boyhaven it is

2. A blinker light be provided in front of the new station which will automatically go on red when engines are leaving the station.
3. Zoning recommendations found in Chapter 10 and street recommendations in Chapter 5 be adopted to minimize construction in areas beyond the limits of adequate fire coverage.

It is further recommended that:

1. An equipment fund be established to replace equipment and hose (see Capital Budget).
2. The present volunteer system gradually be augmented, first, by a rotating system of men sleeping at the stations (each man once every two weeks). This would cost approximately \$7500 annually, and is figured in the Capital Budget. The town should also add one paid man a year until it has at least five, one at each station (2 shifts), one to cover days off and vacations. Volunteers could be paid to cover additional week-end days, as needed. The men should do their own maintenance and custodial work.
3. The alarm system be improved by relocating it in the fire station as soon as full-time personnel is obtained, or in the police station, by arrangement with the police chief, for joint communications.
4. The Fire Prevention Code discussed in Chapter 10 should be prepared and adopted. In addition, sprinklers or an automatic alarm system should be required in buildings in the proposed industrial district and in buildings of assembly.
5. Coverage to all areas not in open use be increased by adopting street proposals found in Chapter 5, such as the access roads to the proposed industrial district, in order to bring additional areas within three miles of a station.

POLICE STATION

The police station is one room, already described, on the first floor of the town hall. It is small, necessarily cluttered, with no defined desk, no lock-up space, no waiting room.

This is hardly sufficient space to handle the rapidly increasing number of cases - from 187 in 1950 to 561 in 1959.

There is an attractive center entrance opposite the check-out desk. From this desk the Librarian can supervise the large children's room to the right and the stacks to the left. Back of the desk is the office and the lavatories. Other features of the library are a fireplace in the children's room, a GAR room, a large collection of civil war books, a book slot, a record library and, in the well lighted basement, a magazine section, shelves for books, an outside door and a boiler room.

The library is currently used for meetings by the GAR, Friends of the Library, the Red Cross, and the Great Books Discussion Group. There is a children's program and a summer reading program. Extra services include a Bookmobile, provided by the Regional Library Center with Headquarters in North Reading, which makes a monthly visit to the Central School. The Librarian utilizes the Massachusetts Division of Library Extension.

Circulation has been increasing consistently, discounting a 1957 drop.

Library Statistics

<u>Year</u>	<u>No. of Volumes</u>	<u>Circulation</u>
1950	Between 8000 and 10,000	6853
1951		6041
1952		6176
1953		6908
1954		8482
1955		9497
1956	8635	10,352
1957	9013	8347
1958	9009	12,544
1959		14,735
1960	9799	16,315

The first floor of the library is bulging at the seams as the result of this increased use and the number of volumes. The basement is not used to capacity because there is a water problem. If this problem can be solved, there is sufficient area for expansion here. If not, there is space to the rear of the building for expansion.

RECOMMENDATIONS

The present facilities can be used to even greater advantage if the children's room is moved from the first floor to the basement. The first floor space can then be used for a general reading room containing catalogues, (1)

(1) As use of the library increases with the increased population of the town, continued location of catalogues in the hall would be awkward and cause congestion.

could purchase one of the homes adjacent to the center, when in the course of events one comes on the market. The health center could also be located in the Community Center, which seems the most logical place. A limited amount of money is included in the Capital Budget to establish such a center and for continuation of expanded service.

Pumping Station - See Chapter 6

Highway Garage

There is a new highway garage in the rear of the new fire station. There is space here to store equipment on the first floor, and for the Surveyor of Highways to have an office and additional storage space on the second floor. The town does not maintain an inventory of equipment, but there are the following items of highway equipment:⁽¹⁾

- 1 1953 Ford F750 Dump Truck
- 1 1957 Ford F750 Dump Truck
- 3 271A Baker One Way Snow Plow
- 1 Old type rebuilt 10 foot reversible Baker Snow Plow
- 1 5 ton 1937 Cleveland Crawler Snow Plow

A very limited assortment of short and long handled shovels, chains, barrier horses, temporary signs and snow plow repair parts.

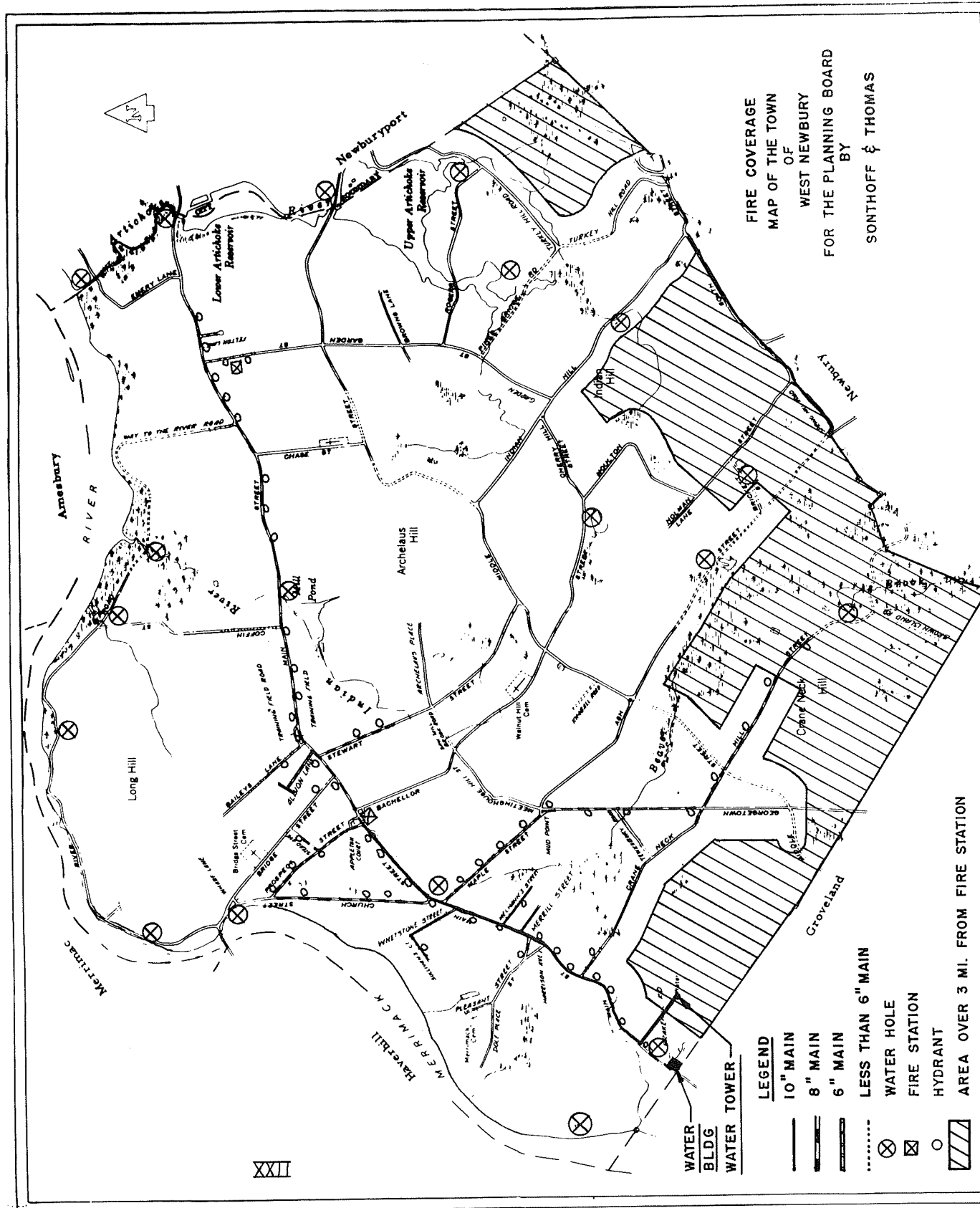
RECOMMENDATIONS

It is recommended that the second floor be finished to provide small offices for the Park Commissioners, the Tree Warden and Moth Superintendent, the Town Forest Committee and Shade Tree Committee.

It is further recommended that the outside area be marked for parking for employees and visitors and an area for outside parking of equipment and supplies be screened from the street and the Historical Society.

An equipment fund should be established, so that the town does not have excessive expenditures for equipment in any given year. (See Capital Budget.)

(1) Verified by Surveyor of Highways, December 1960.



FIRE COVERAGE
MAP OF THE TOWN
OF
WEST NEWBURY
FOR THE PLANNING BOARD
BY
SONTHOFF & THOMAS

- LEGEND
- 10" MAIN
 - 8" MAIN
 - 6" MAIN
 - LESS THAN 6" MAIN
 - WATER HOLE
 - FIRE STATION
 - HYDRANT
 - AREA OVER 3 MI. FROM FIRE STATION

CHAPTER 10

PLANNING BOARD PROGRAM

The success or failure of a planning program is the direct responsibility of the Planning Board, which the townspeople must always recognize as being composed of impartial citizens whose first regard is for the good of the town. To command this kind of respect, the Planning Board must not only continually demonstrate this impartiality, but must also serve as the prime initiator and coordinator in the town's future planning.

The Planning Board is not concerned with the internal operating procedures of the other town boards, nor is it concerned with the operating function of government, except where it has an effect on long-range physical plans. However, the Board is concerned with the degree to which the various boards and commissions cooperate to execute the plans and further the aims of the community. It is also concerned that the actions of the various boards be initiated in logical financial order and on priorities based on town-wide considerations. For these reasons, annual joint meetings of the Planning Board with other boards should consider financial needs for capital improvements, construction priorities, and the manner in which the boards shall work together. In addition, as suggested in Chapter 7 in regard to schools, the Board should advise departments of anticipated growth which will affect plans and general operations in a given department.

The Board can also assist in coordinating the programs of various existing or recommended town agencies to prevent duplication of effort and to enable them to use their resources to maximum advantage. For example, the Conservation Commission, Town Forest Committee and Shade Tree Committee may have programs which are similar in some respects.

Implementation of the program will be easiest if the Board takes immediate steps to insure that the town residents are aware of the activities of the Board, the need for planning, and the proposed program being pursued. This will necessitate having each member of the Board be fully conversant with each phase of the program, so that he may have complete confidence in explaining its provisions to his fellow citizens.⁽¹⁾ However, the entire burden is not the Planning Board's. The town officials and voters must assume their responsibility and support the following programs:

(1) An outline of Planning Board procedures, an information program and steps the board should take to initiate town action were included in a memorandum from Sonthoff & Thomas to the Board, dated 5 August 1961.

"In making soil surveys, soil scientists determine the characteristics of soils by both field and laboratory studies. They determine the thickness of the soil, its texture, structure, color, and acidity or alkalinity. They also study other characteristics, especially those having to do with the behavior and potential productivity of the soil as a whole, such as slope of the soil surface, significant losses by erosion, stoniness, salt accumulations, and evidences of imperfect drainage or flooding. From a study of these many characteristics the soils are classified and named. Each kind is indicated by an appropriate symbol on the map and in legends.

"From these observations, supplemented in some instances by laboratory studies, they estimate permeability of the soil, erosion hazard, and other qualities important to the use of each kind of soil." (1)

The results of the survey, the map, descriptions and interpretations serve to make soil science and technology available to the users of land, whether they be farmers, engineers, housing developers, contractors, or planners. They are also used by those who deal in land, the real estate agent and tax assessor.

Some proposals of the master plan will also require additional study before action can be taken. For example, a building code will require careful study and drafting. Town Departments may request that the Board study specific problems. Developments of the future, such as the construction of Route 495, may cause problems which require study. Subdivision plans will necessitate careful examination, not only for their own design but for their effect on the community.

Planning Board Program

To perform its job well, maintain studies of present and future problems, as well as keeping its plans revised as necessary, it is suggested that the Board retain a consultant who will:

Assist in development of a yearly program for the board.

Provide planning materials for Board members to assist them in keeping abreast of new developments.

Conduct or supervise needed studies.

(1) "Soil Surveys Furnish Basic Data For All Land Uses" by Roy D. Hockensmith "Soil Conservation", U. S. Government Printing Office, Washington, D. C., December 1960.

All of these districts are designed to prevent building where flooding may be expected or drainage is very poor, to restrict land uses in areas where the soil is very poor, and to provide suitable areas for legitimate land uses.

2. The increase in residential lot size to be consistent with the soil conditions and the level of municipal services which the town is capable of providing.
3. The limitation of unsightly or unpleasant influences by provisions such as the one for screening of outdoor storage.
4. The specific inclusion of many uses typical of a rural pastoral community, but with sufficient control to assure their attractiveness and compatibility with other surrounding uses.

The adoption of the zoning revisions is one of the most important steps in the execution of the master plan. Therefore, town groups must join the Planning Board to assure immediate adoption of this protective regulation.

Subdivision Regulations

Subdivision control is a tool of planning which provides considerable planning insurance to a town like West Newbury which has a great deal of raw land. Regulations to control subdivision of land ⁽¹⁾ are adopted by the Planning Board, as required by State statute, to establish procedural requirements for subdivision, design specifications, and improvement requirements. In this manner, the Planning Board can review all new subdivision plans and can insist that the streets be coordinated with the Town Master Plan, and that the subdivision, if a large one, will be an integrated unit. Best of all, the Town is protected against costly street, drainage or utility projects, because the subdivider himself must provide the essential streets and utilities to town standards, and the buyer is protected against an unscrupulous builder who promises streets and utilities and subsequently defaults.

The West Newbury Planning Board has wisely adopted subdivision regulations which have to date afforded the Town a measure of protection. However, there are some protective features which were not included in these regulations. Therefore, revisions have been prepared. The full text of the revised regulations is found in the Appendix.

(1) Division of land into two or more lots in such a manner as to require provision for a new street.

(The suggestion made by the Chairman of the Board of Assessors should be followed here. The Town should be divided in thirds, one-third reassessed each year for three years. Upon completion of the reassessment, the new values should be then entered on the tax books. In the simplified capital budget presented here, an estimated increase in value was added each year for three years. The figures for 1962 and 1963 should, in preparation of a detailed capital budget, be revised in line with this suggestion.)

By following this procedure, West Newbury can provide the required services, maintain a tax rate in the seventy dollar range, and pay a total tax comparable to the state average. Since taking these steps is imperative, it is assumed, for capital budget purposes, that these steps will be taken.

- a. The effect of these four steps would be an increase in revenue of about \$43.00 per capita, which would approximate the state average, or a total of \$80,000 annually. This additional revenue, added to the amount now expended for debt service and capital expenditures, would enable the town to undertake a systematic capital program, and, ultimately, to further reduce the tax rate.

The scope of this report is such that only a simplified capital budget is included (see Appendix). A complete and detailed capital budget study should be undertaken immediately.

- b. This would involve, among other matters, an examination of departmental income, operation, capital needs and projections, a refinement of cost estimates for capital expenditure, and a debt schedule.

While this study is underway, however, the town should take the steps noted above to obtain a proper and adequate tax base, and should start the capital program as outlined in this report and shown in the capital budget. The capital program would include:

- A. Annual appropriations for:
 - 1. Street improvements.
 - 2. Water extensions.
 - 3. Test well program.
 - 4. Equipment: highway, fire, police, etc.
- B. 1962 appropriations for dump improvement, school site, School Building Committee, street construction and drainage improvement.
- C. 1963 appropriations for street construction, elementary school construction, extension of the town forest.

House Trailer Regulation

The present zoning prohibits permanent use of trailers for living purposes or for business. This control is in part pertaining to the location of the structure, but in the most part pertaining to the type of structure. More properly, the regulation of the use of this type of construction should be incorporated in Building Codes, Fire Prevention Codes and Fitness of Housing Codes. The proposed zoning continues control of trailers and further regulates the location of any structure, including trailers, used for living purposes. However, regulations beyond those of location, which more properly belong in the other codes, should be incorporated in them.

Sewage Disposal Regulations

As recommended in Chapter 7, the Board of Health should have more effective regulations relative to locating and installing septic tanks. The Planning Board should assist the Board of Health in promulgating these regulations insisting on, as a minimum, compliance with the most recent regulations suggested by the Massachusetts Department of Public Health.

Miscellaneous Regulations

The Planning Board should prepare, or help in preparing, and submit to the town the following additional regulations to assure maintenance of construction standards and of the clean, attractive, rural character of the town.

Housing Fitness Code

The examination of structures in West Newbury conducted in connection with the Land Use Survey (Chapter 4) disclosed no concentration of houses which were considered sufficiently substandard to present the condition of "slum". However, there were a few homes in disrepair and lacking proper facilities, such as plumbing or electricity. These houses present a situation of blight or potential blight for the areas in which they are located, as well as a hazard for the occupants. The Planning Board, with the cooperation of the Board of Health, should urge the town meeting to adopt the "Minimum Standards of Fitness for Human Habitation" of the Massachusetts Department of Public Health. These standards apply to all dwellings and govern such features as plumbing, including mandatory piped water, storage of garbage and rubbish, light, ventilation, heating, egress, maintenance, and minimum space requirements. Once adopted, the regulations should be sternly enforced.

The requirements of this code will necessitate some home improvement on the part of some owners. These properties are too scattered to be considered together as an Urban Renewal Area, in which owners are entitled to mortgage assistance under Section 220 of the National Housing Act. However, the Planning Board might suggest to the assessors that the improvements not be assessed for five years after completion, to encourage compliance. The Board can also explain its program to the local banks, noting

Houses, Continued -

Enoch-Noyes House, 127 Main Street, where the
first combs in America were made
Chase-Thurlow House, Moulton Street near Cherry
Hill
James Smith House, Crane Neck Hill, 1709
Bailey House, about 164 Main Street, early 1700's
Lawrence Bailey House, Middle Street
Robert Forsyth House, about 618 Main Street
Capt. Jonathan Greenleaf House, 796 Main Street, 1732
Robert Brown House, an original grant

Town Landings -

Foot of Way to the River
Foot of Pleasant Street (past Merrimack Cemetery)
Foot of Whetstone Street - Opposite Ferry Lane, along
Church Street, one time Steamboat landing

Land Marks -

Old Cemetery, Crane Neck Hill Road
Friends' Burying Ground, Turkey Hill Road
Town Pound.

The Planning Board should cooperate with the recommended committee and with the Historical Society to see that these sites all have historical markers and to make every effort that those in need of restoration are restored and that all have proper maintenance and landscaping to assure ultimate appreciation.

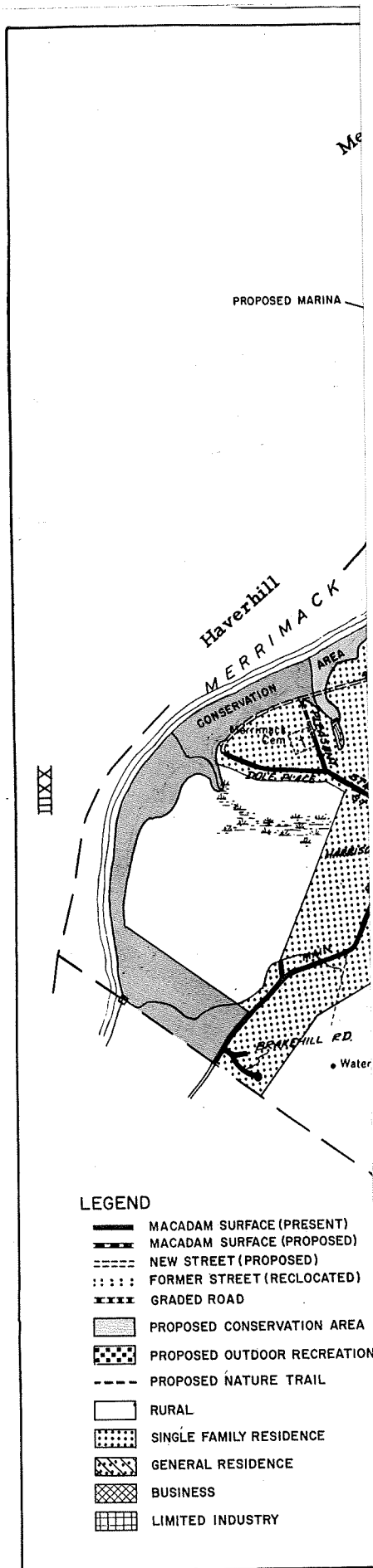
Industrial Development Commission

As indicated in Chapter 4, the only area suitable for industry includes land with a drainage problem. The Town, as the results of the survey indicate, is divided on the matter of desiring industry to be located in West Newbury.⁽¹⁾ Therefore, every effort should be made to restrict industry to this area, which is divided from the remainder of town, and to acquire unobjectionable industry which will not increase the drainage problem. An Industrial Development Commission can be established to seek only this type of industry. The zoning revisions prohibit industry which will be detrimental.

Shade Tree Committee

A Shade Tree Committee, to include a member of the Planning Board and the Tree Warden, should be appointed. This committee should, among other things, conduct a tree census, noting especially trees that need attention

(1) The survey returns were: 95 in favor of more business or industry, 151 desiring no change (see Appendix).



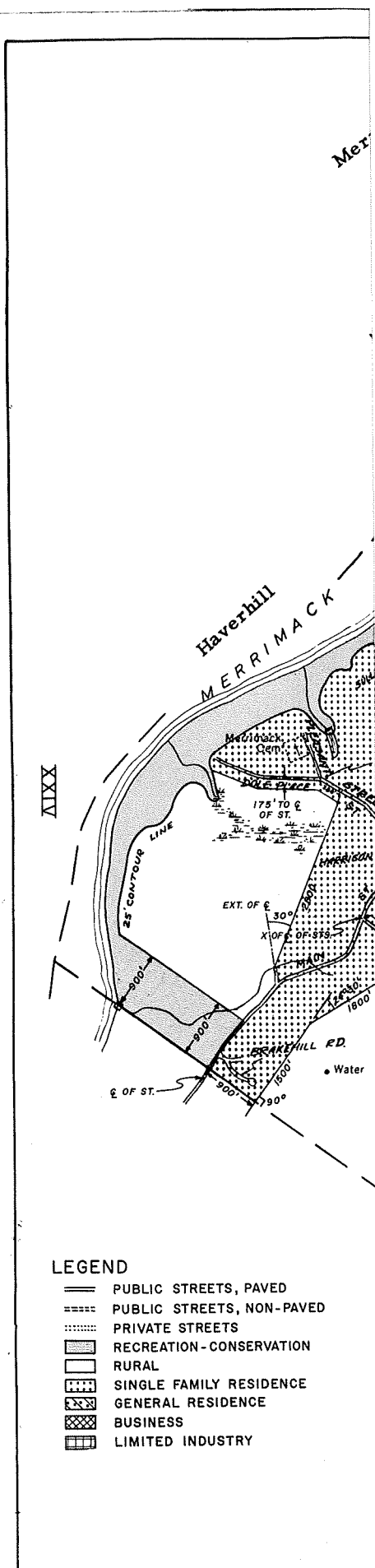


TABLE OF PLANNING TOOLS

<u>Type</u>	<u>West New- bury Has</u>	<u>Status</u>
AGENCIES		
Planning Board	Yes	Active
Conservation Commission	Yes	Program Recommended
Recreation Committee	Yes	Program Recommended
Historic District Study Committee	No	Recommended
Shade Tree Committee	No	Consider
Town Forest Committee	Yes	Inactive - Recommended Reactivation
PROGRAM		
Regional Planning	No	Recommended
Detailed Capital Budget	No	Recommended
Neighborhood Conservation Program	No	Recommended
Soil Conservation Study	No	Recommended
REGULATION		
Zoning Regulations	Yes	Revision Suggested
Subdivision Regulations	Yes	Revision Suggested
Sand and Gravel Regu- lations	Yes	Expansion Suggested
Air Pollution Regulations	No	Recommended
Rest Home, Day Camp and Trailer Regulations	Some in zoning	Expansion Recommended
House Trailer Regulations		
Sewerage Disposal Regu- lations	No	Recommended
Housing Fitness Code	No	Recommended
Fire Prevention Code	No	Recommended
Building Code	No	Recommended

SUMMARY

In an era of rapid expansion by cities, towns and villages, West Newbury occupies an almost unique position. It is a charming pastoral community. It presents an idyllic picture of broad expanses of fields and hills amid the rapid urbanization extending from Portland, Maine to Richmond, Virginia. West Newbury as a town is a breather in the broadening belt of urban, suburban and industrial development. As such, it has a dual responsibility: one to its citizens and another to the people of the Commonwealth.

West Newbury citizens rightly hope that the fundamentally rural New England character of their town can be preserved in a contemporary civilization. They are fortunate that their Planning Board became aware of this problem in time that effective action can be taken.

In a period when places of work or play are a matter of time, rather than distance, any town located on or near major or circumferential highways has the option of becoming a factory site or an area of repose. It is the hope of the planners that West Newbury will recognize that many communities already have industrial tracts, but that few are blessed with unspoiled open spaces, and that the town will conserve much of its land and greenery for the benefit of all. This is both a civic and a moral responsibility.

Fortunately, West Newbury is in a better financial position than its citizens appreciate. The present high tax rate, which would seem to make any more improvements or expenditures impossible, is largely an artificial bugbear. More realistic assessments at percentages comparable to those used in other towns would produce needed revenue equitably. A comparison of local taxes paid by West Newbury residents to those paid by residents of similar communities on houses of similar value, would show that actual taxes paid in West Newbury are very low. Therefore, a slight increase in the per capita tax paid would not be unreasonable or unjust, and should be expected.

The overall fiscal picture of West Newbury is certainly sound enough to justify the financing of the proposed improvements set forth in the Master Plan. These improvements are neither excessive nor extravagant. They are in fact necessary. It remains for the townspeople to understand their unusual and inadequate tax structure, and to set about rectifying its shortcomings, in order to produce the base for future expenditures.

The Master Plan program summarized here has tried to consider all aspects of West Newbury's problems, resources and future development. The recommendations presented in the Plan are based on fact, on sound financial planning and on recognized planning principles. Some of the program needs to be initiated immediately. Other portions are suggestions for the future so that the town does not develop in a haphazard manner and gradually lose its identity. No plan can cover every eventuality, but this one has tried to foresee the most likely or probable ones, and to present logical and reasonable solutions to present and future problems.

SUMMARY, cont.

Fourth, there must be some remodelling, construction and refurbishing. A new elementary school will be needed by 1963, with an addition by 1970. New water lines and hydrants are essential. Some streets should be paved, and the Town Hall needs painting and remodelling inside. The old center school (after a new school is opened) could be remodelled as a much-needed recreational facility. There are many other facilities which can also be utilized, improved or built as time dictates and the need arises. The most urgent of these projects are:

1. An elementary school.
2. Fire loops.
3. Reconditioning of the Town Hall.
4. Marina.

The coordinated thinking which produced the Master Plan can be most graphically seen in the accompanying Master Plan Map. Recreation plans and areas are combined or adjacent to school sites; the proposed historic district is designed to enhance a refurbished town center; and all proposed land acquisitions are designed to increase or enhance present town properties. In addition, a proposed new industrial zone is located where it will not detract from residential areas, but where it is convenient to major access highways. The business zone along Route 113 has been consolidated on the south side of the highway to reduce traffic hazards and, in the long run, produce a more attractive and more efficient business center.

None of these projects will come to any fruition, of course, without the wholehearted cooperation of all the townspeople. They have already demonstrated their ability to tackle large projects in their handling of the Planning Board survey. It is the hope, now, that the Master Plan proposals will stir the people of West Newbury to greater heights and enthusiasm in the pleasant task of creating what could be an ideal town. Surely such an ideal is worth working for!

APPENDIX
TO
WEST NEWBURY, MASSACHUSETTS

MASTER PLAN REPORT

Tables
Land Cover
Community Survey
Proposed Zoning Regulations
Proposed Subdivision Regulations⁽¹⁾

(1) Accompanying Data Sheets are found in Land Bulletin #3, Federal Housing Administration Boston, Massachusetts, 1957, as amended, on file with the Planning Board.

FISCAL CONDITION OF REGION
1959

Community	Valuation Per Capita	Debt Per Capita	Tax Rate	Tax Levy Per Capita
Amesbury *	2168	27.17	35.00	76.48
Boxford (1958)	2362	80.71	73.00	161.36
Georgetown (1958)	1310	99.25	70.00	105.47
Groveland (1958)	1750	146.42	60.00	105.69
Haverhill	1670	115.39	65.00	109.48
Ipswich	1655	206.12	74.00	123.18
Herrinac	1740	79.20	57.00	99.48
Newbury	1672	83.30	64.00	107.77
Newburyport	1920	60.69	46.50	89.77
North Andover	2217	211.38	54.00	120.37
Rowley	1550	276.54	86.00	134.01
Salisbury	1827	68.08	82.00	150.54
Topsfield	2896	177.09	63.00	183.17
West Newbury	1059	18.07	100.00	106.85
Region Average	1705	117.81	64.50	119.57
West Newbury ranks	14	14	1	9

* Revaluation in 1959

CLASSIFICATION OF LAND COVER TYPE

(Compiled as a project of the Wildlife Research Unit, 1953)

Number of Acres									
Hardwood (at least 80% of standing)					Softwood (at least 80% of standing)				
Height	Good Stocking	Fair Stocking	Poor Stocking		Good Stocking	Fair Stocking	Poor Stocking		
1 - 20 ft.	752	-	-		40	12	-		
21 - 40 ft.	668	344	48		144	24	12		
41 - 60 ft.	452	168	8		-	-	-		
uneven	72	-	-		4	-	-		
Total	1944	512	56		188	36	12		
Mixture with Hardwood Predominating					Mixture with Softwood Predominating				
Height	Good Stocking	Fair Stocking	Poor Stocking		Good Stocking	Fair Stocking	Poor Stocking		
1-20 ft.	556	4	-		100	-	-		
21-40 ft.	216	52	16		60	40	-		
41-60 ft.	16	28	-		36	-	-		
uneven	72	-	-		48	-	-		
Total	860	84	16		244	40	-		
Forest Types Growing Back in Abandoned Fields					Mixture with Softwood Predominating				
Hardwood					Mixture With Hardwood Predominating				
21 - 40 ft.	124		104				16		
41 - 60 ft.	40		20				-		
Total	164		124				16		

Forest Land 4296

(1)
EMPLOYMENT AND BUSINESS ENTERPRISES 1947 - 1959

	1947		1950	
	# of Employees	# of Firms	# of Employees	# of Firms
Total Retail Food Stores	6	3	8	3
Other	19	9	39	10
Total Employment	25	12	47	13
	1954		1957	
	# of Employees	# of Firms	# of Employees	# of Firms
Total Retail Food Stores	8	3	3	3
Other	30	13	31	14
Total Employment	38	16	34	17
	1959			
	# of Employees	# of Firms		
Total Retail Food Stores	3	3		
Other	27	13		
Total Employment	30	16		

(1) As tabulated by the Massachusetts Division of Employment Security

OPEN LANDS

Type	Number of Acres
Agricultural land intensively farmed	696
Agricultural land interspersed with small forested areas, wet land, abandoned land, etc.	2316
Abandoned orchard	332
Abandoned field, reverting to forest (1)	560
Total	3904

WET LANDS

Type	
Fresh water meadows	212
Shallow fresh water marsh	56
Deep fresh water marsh	64
Shrub swamp	136
Fresh open water	516
Total	984

RECAPITULATION	Acres	%	State %
Forest Land	4296	45.2	64.7
Open Land	3904	41.0	19.8
Wet Land	984	10.3	6.9
Urban Land	328	3.5	8.6
Total	9512	100.0	100.0

(1) Interesting to foresters and wildlife biologists.

Likes

The answers to the question "What do you like most about West Newbury?" as well as to the further questions whose results are recorded below, were necessarily phrased differently by each respondent, although the substance of the answers was often similar. In summarizing these answers, we have tried as conscientiously as possible to "slot" each answer under the most appropriate category. It should be realized that the figures which follow are not cumulative; usually a respondent had more than one answer to give. Rather, the figures reflect the intensity of public feeling concerning the respective item. The small number of "no answer" answers and the apparent unanimity on the major "likes" is impressive and encourages thinking along particular lines, as detailed elsewhere, about the Town's future.

No answer	34
"Country atmosphere, country living"	201
"Nice, quiet, clean small rural town with friendly people"	152
Good location	17
Good schools	14
"Not commercialized, no business and industry, no trailer parks, no crowded developments"	7
Good zoning laws	7
Good town services (road, snow, fire)	5
Low insurance rates	3

Dislikes

The most impressive and encouraging result of this particular part of the survey is perhaps the total number of "no answer" and "no dislikes" answers. This reinforces the conclusions of the planning consultants that the basic objective of sound planning for West Newbury should be to retain and protect, with due improvements, the present overall character of the Town. These answers recorded here and in the remainder of this chapter point to the need of an effective public information program on the part of all town agencies.

Answers received to this question may be summarized as follows:

No answers	102
No dislikes	50
Utility rates too high	5
Tax rate too high	69
Poor traffic and road conditions (speeding, ineffective policing, snow removal, sidewalks, street lights, parking, central congestion)	25
"Small town atmosphere"	24
Poor school facilities, management, educational methods	14
Poor town appearance (Town center, Town Hall, junk removal, "junk in back yard")	9
Lack of planning	3
Too many restrictions	2
Lot sizes (too large or too small)	2
Objectable housing developments	2
Inadequate town services and facilities (road service, police, schools, Town Hall, Sewerage, garbage removal, etc.)	95

Town Needs

The answer to the question "What does West Newbury need most?" were numerous and often quite detailed. The following is a fair summary and condensation.

More business and industry	95
More and/or improved indoor and outdoor recreational and community facilities	70
Lower taxes	37
Better public transportation facilities	31
Trash and garbage collection	26
Improve and extend the water supply system	25
Sewage disposal system	18
Better town government and town management	18
Broader tax base and additional sources of revenue	13
Better elementary educational facilities (including better educational standards)	12
Shopping Center	11
Better parking facilities	10
Better police and fire protection	10
New housing	10
Conservation measures ("quiet town")	9
Reassessment	8
Sidewalks	8
Advance planning	5

Town Needs cont.

Better medical facilities	4
Natural gas lines	4
"More interested citizens"	4
Better municipal facilities, including	
Town Hall	3
Street Lights	3
More Zoning	3
Large lots	3
Small lots	2
Building code	2
More farms	1
Lower zoning requirements	1
Change Pentucket pay system to "per student" basis	1

The Future

The answers to the question "What kind of town do you want West Newbury to be in 1980?" again reveal a considerable degree of consensus. They are summarized below:

No answer	42
"Stay the same"	151
"Retain rural, residential character"	62
"Controlled growth in same character"	13
"Rural town with more population, small industry, no slum areas or cheap housing developments"	9
No housing developments	7
Improved education, more stores, more housing	2
More small business	27
Moderate increase of business and small industry	20
Better educational facilities	14
Become a city	1

In considering the results of this survey, we must recognize that many of the answers are conflicting and in some cases self-contradictory. This is to be expected. We all want to have our cake and eat it too. The importance of this survey rests in the fact that, in addition to yielding certain basic data, it indicates a trend of community opinion, and in many instances, considerable unanimity, on matters which invite early action and long-range planning on part of those in public office.

West Newbury Planning Board

February 1961

WEST NEWBURY COMMUNITY SURVEY

Note to interviewer: Please explain to everyone whom you interview that the purpose of the questions below is to help the Town plan for its best development in the light of the needs of its citizens. The survey has no other purpose. No names should be recorded unless the person interviewed expressly requests it.

Please remember that those who answer your questions are doing the Town a favor.

1. Number of persons in household _____
2. How long have you lived in West Newbury? _____ years
3. Place of work _____
(or of other occupation, such as study)
4. Means of commuting: car _____
carpool _____
bus (from) _____
train (from) _____
5. Where do you do most of your shopping for:
 food _____
 other household goods _____
 professional services _____
 entertainment _____
 recreation _____
6. What does West Newbury need most? _____
7. What do you like least about West Newbury? _____
8. What do you like most about West Newbury? _____
9. What kind of Town do you want West Newbury to be in 1980? _____
10. Comments: _____

(Use other side for answers requiring more space. Number answers according to questions)

SOMTHOFF AND THOMAS, Community Planning

SUMMARY

Essex County lies in the northeastern part of Massachusetts and comprises 497 square miles or 317,080 acres.

Physiographically the county presents a low, severely dissected plateau with a subdued surface, marked by the Merrimack River trough, across its northern end and with broad terrace-filled valleys on the eastern side. The northern shore is low, with extensive tidal marshes and a ridge of sand along the shore. The south shore is stony, with many headlands and deep indentations. Most of the area is well drained. Run-off is slight, owing to the absorptive capacity of the soils and underlying materials. The low overflow land along streams, muck and peat areas, and the tidal marsh along the shore constitute the poorly drained lands. The elevations of the upland range from 300 or 400 feet in the northwestern and northcentral parts of the county to 200 feet in the central part and 100 feet in the eastern part. The terraces are from 50 to 100 feet above sea level.

The population in 1920 was 422,156, of which only 3.9 per cent was classed as rural. Lynn, Lawrence, Haverhill, and Salem are the largest cities. The cities of the southern part of the county and the industrial cities and towns of Merrimack Valley are the most thickly populated districts. Boston and the other cities and towns of this region furnish the principal markets.

The climate is humid. The agriculture of the county consists of general farming, carried on in conjunction with dairying, market gardening, orcharding, or poultry raising and often embracing all of these activities. Hay (timothy, redtop, and clover) and wild hay, corn (silage, sweet, and grain) oats, potatoes, and vegetables are the principal crops; rye, millet, wheat, buck-wheat, beans, and alfalfa are minor crops. A large acreage is in pasture. Farming methods are those in general use on New England farms. The buildings and equipment are adequate for the type of farming followed.

Most of the fertilizer used consists of high-grade materials used by the market gardeners.

Most of the farms are operated by owners, a few are rented, and some of the estates and dairies are operated by managers.

The well-drained soils in a virgin state have an accumulation of leaf litter and mold on the surface, a dark-brown topsoil, and variable subsoils and substrata, depending upon the composition of the glacial drift from which the soils are derived. The subsoils are generally yellowish-brown or some shade of yellow, becoming paler and less influenced by weathering with increasing depth.

The unweathered or partly weathered parent material generally occurs at a depth of about 2 feet. There is no accumulation of heavy material near the bottom of the weathered zone. The heavy subsoils and substrata are those composed of material that was heavy when it was deposited.

Essex County lies in the glaciated region in which there are deposits of comparatively thin layers of till over the bedrock of most of the upland, with thicker deposits of drumline in small areas, and outwash material deposited in the preglacial valleys, lakes, and the adjoining ocean in hummocky forms of kames and eskers or in broad level terraces. The bedrock, which has influenced the distribution of the soils to some extent, consists of granite, diorite, and volcanic complex, with belts of schist and banded gneiss, and basins of sandstone, slate, phyllite, and conglomerate. Over large areas of the bedrock the parent material is little influenced by material carried from a distance; however, there is a noticeable drag over of material from the softer rocks of the northern part of the county onto the harder rocks to the south.

The soil series developed on the upland till are the Gloucester, Coloma, Charlton, Brookfield, Woodbridge, Essex, Hollis, Hinsdale, Sutton and Whitman. The soils on the kames and eskers are members of the Hinckley and Wenham series. On the terraces are the Merrimack, Palmyra, and Orono soils. The first-bottom overflow land is mapped in the Ondawa series; muck and peat are composed entirely or mostly of organic matter. Meadow and tidal marsh are wet lands of unclassified materials. Coastal beaches include the beaches and loose wind-blown sands associated with them. Rough stony land includes stony nonagricultural land, and made land consists of artificial excavations and fills.

The fine sandy loam and loam soils are used most extensively for agriculture. Some of the stony soils are in pasture, but most of them, together with rough stony land, are in second-growth forest and sprouts. Meadow and tidal marsh are used to some extent for mowing. Muck and peat are largely in their native state and are not utilized for farming. The soils of the drumline are best suited to grass and orcharding, and the terrace lands, especially Merrimack fine sandy loam, are the best soils for market gardening.

SOILS

The soils of the well-drained uplands of Essex County are predominantly and distinctly brown in color. In undisturbed wooded areas the surface material consists of a layer of leaf litter and leaf mold, 1 or 2 inches thick, composed mostly of mixed hardwood and conifer leaves in various stages of decomposition. Beneath this covering of organic matter the topmost mineral soil is very dark-brown loose friable material rich in organic matter and 2 or 3 inches thick. The second layer of mineral soil

which is 3 or 4 inches thick, is dark-brown loose friable material in which the humus content decreases downward. Below this the material is lighter brown or yellowish brown in color and very little or no heavier than the surface layers in texture. This layer continues downward to a depth ranging from 18 to 30 inches, where the parent material is reached.

In a few small areas in Essex County, where vegetation, condition of moisture and temperature, and composition of parent material were favorable, soils characteristic of the more northern regions, called podsol soils, have been developed.

These soils, as they occur in undisturbed areas in Essex County, have a surface covering, from one-half to 1 or more inches thick, of leaf mold commonly finely divided in the lower part. The topmost layer of mineral soil is gray or nearly white in color and varies in thickness from a thin film to an inch or more, but in most places is from one-fourth to one-half inch thick. This rests on a dark-brown or rust-brown layer which continues down several inches before it grades into the subsoil. To a depth of a few inches in the subsoil the material is mostly deep yellowish brown or some shade of yellow, becoming paler with depth. The podsol profile, while noted in the county, is present only in such small areas and is so faintly developed that the soils have all been classed with the brown soils. The unweathered parent materials or substrata of the Essex County soils are generally some shade of gray, depending on the composition of the rock from which they are derived. Most of the soils become lighter in texture with depth, but many become heavier and more compact in the substratum. These variations in the substrata probably are not a result of weathering or soil development but are owing rather to characteristics inherent in the parent material.

In few places has weathering been effective to a depth of more than 2 feet, little very fine material has formed, and consequently there is no zone of accumulation of fine material, as in soils farther south. Oxidation is not so pronounced nor surface leaching so great as in the soils of the South. The carbonates present in the original material are being removed, in contrast to the conditions in the soils of the arid and semiarid regions. The soils are prevailingly acid, and even where derived from highly calcareous material the surface soil is acid and the subsoil neutral. Only in the substratum are the carbonates retained in sufficient quantity to give an alkaline reaction.

Poor drainage and aeration have brought about the formation of dark surface soils and gray or mottled yellow and brown subsoils, in places. Some mottling caused by a mixing of varicolored material is not true soil mottling. Other differences of color are caused by filled-in cracks and root forms. Some soils, particularly on the drumline, contain strata, locally called hardpan, which consist of compact material of the original glacial drift. This is not a true hardpan in that it does not prevent the movement of water.

Since in this region the soil-forming processes have been operating on the parent glacial material for only a comparatively short time, the material having been deposited geologically a short time ago, they have not effected any profound changes in this material. The differentiation of soils has been based largely, therefore, on the composition of the parent material and the processes of its accumulation. The county lies in the glacial region, where the surface material has been reworked, transported, and left as a deposit by the receding glacier, or laden with glacial material. The region before glaciation has been reduced to low relief with broad stream valleys. The broad physiographic relief is essentially the same today as it was in preglacial times.

In most places the glacial material from which the soils are derived. that is, the dominant material in a given locality, is made up of material of the same mineralogical composition as the underlying rock. However, the ice movement from northwest to southeast across the area did, to some extent, drag material from its source onto the rocks to the south and southeast, but much of the material shows evidence that it has not been transported very far.

The distribution of the basal rock formation ⁽¹⁾ is briefly as follows:

In the northwest corner of the county a small area of Ayer granite bordered on the south by a strip of gneiss and schist of undetermined age give rise to a region fairly smooth with few rock outcrops and boulders. Just to the south of this lies a fairly broad belt of sedimentary rocks, the Merrimack quartzite, composed of sandstone, slate, phyllite, and conglomerate, which passes through the county east and west, passing out to the north before reaching the eastern edge. This is a belt of soft sedimentary rocks which was reduced to a lower level than the surrounding region before the glacial epoch. It contains the trough of Merrimack River. This material was ground fine by the glacier, and much of it was transported some distance, where it forms the drumlin hills in this region and to the south and east of it. The Andover granite lies south of this belt in the western part of the county. Much of this formation is covered by glacial drift and by terrace deposits. It is a coarse-grained hard rock and forms considerable stony soil. A narrow delta-shaped area of banded gneiss and rust-brown schist comes between the Andover granite and the Salem diorite, which gives rise to rust-brown soils. The Salem diorite covers the vast central part of the county

1. Emerson, B. K., Geology of Mass. and Rhode Island, U. S. Geol. Survey Bul. 597, p. 289 illus. 1917

SOILS cont.

Meadow is a term applied to low, poorly drained first-bottom lands that have no definite texture. The surface soil is dark brown or black and is mucky in places. The subsoil is gray mottled with brown and yellow, and the substratum is light-gray material which is usually sandy.

Muck consists of black, well-decomposed organic matter mixed with some mineral soil material, grading into brown or dark-brown partly decomposed organic matter which rests, at a depth ranging from 18 inches to 6 feet, on a sandy substratum. Muck is usually found along small streams and in shallow lakes.

Peat consists of brown, fibrous, partly decomposed organic matter. It occurs mostly in filled-in lakes.

The term tidal marsh applies to the low, marshy flats along the shores which are covered at high tide and exposed at low tide. The material ranges from fibrous mucky peat to heavy silty material, gray in color and mottled with brown, having the consistency of mud and filled with grass roots.

Coastal beach includes the beach proper and the loose whitish or gray wind-blown sands which lie back of the beach.

Rough stony land includes all land too stony or steep for profitable farming.

Made land includes all areas artificially built up.

Essex County contains a rather large area of land that is comparatively free from stone and a considerable total area that is entirely free from it. Although the total area of rough stony land in this county is large, the stony soils are much less extensive than in the other counties of eastern Massachusetts. The soils of the upland best suited to general farming, dairying, and orcharding are the fine sandy loams and loams of Gloucester, Woodbridge, and Coloma series; the fine sandy loams of the Brookfield, Hollis, and Essex series; and the loams of the Charlton and Sutton series. The soils of the terraces and bottoms best suited to market gardening and farming are the fine sandy loams, sandy loam, and loam of the Merrimac series, loam of the Palmyra, and fine sandy loam of the Orono series, and Ondawa very fine sandy loam in the first bottoms. The Whitman, Hinckley, and Wenham soils, the coarser members of the Merrimac series, and Orono silt loam have low agricultural value and are little used for farming; however, they have potential value and will be used as the demand becomes greater. Muck, peat, meadow, and tidal marsh are little used except for wild grass. These soils are of potential value only, as they must be adequately drained before they can be used successfully for agriculture. The stony types of the upland soils can be utilized to a certain extent for crops and orcharding but are best suited to pasture. Most of the rough stony land should be left in forest.

(In the following pages of this report the soils of Essex County are described in detail and their agricultural importance is discussed; the accompanying soil map shows their distribution, and Table T gives their acreage and proportionate extent.)

MAJOR SOIL TYPES FOUND IN WEST NEWBURY

Gloucester Very Stony Loam (GV)

Gloucester very stony loam is extensive but is well distributed over the area south of Merrimack River. It occurs in fairly large areas in the western part of the towns of Newbury, Groveland, Georgetown, Andover, Peabody, Rockport, and Gloucester. It is not important agriculturally, being little used for farming. In some of the pastures sweetfern, sumac, and gray birch, and in places cedar, are abundant. The forest consists of oak, chestnut, birch, and scattered white pine, with a thick underbrush of huckleberries and associated shrubs. Several orchards on this land were being cultivated with some success in spite of the rocks.

Hinckley Loamy Sand (HS)

Hinckley loamy sand in wooded areas has a surface layer, 1 inch thick, of dark-brown or almost black loamy sand containing considerable leaf mold. This is underlain by yellowish-brown fairly loose loamy sand. Below this is pale-yellow sand, which grades, at a depth ranging from 24 to 30 inches, into gray coarse sand. The substratum consists of bedded sand with, in places, some gravel. In other places it is unstratified coarse sand. The substratum in all places is loose and incoherent. Little or no stone is found on this soil.

Hinckley loamy sand is derived from outwash glacial material composed of debris from granite and other crystalline rocks, which has been piled into kames along the valley floor. The relief, although hummocky, is decidedly smoother than that of the other Hinckley soils. The soil is found in small scattered areas in nearly all parts of the county. Drainage is internal and owing to the coarse texture and looseness of the substratum, is excessive.

Hinckley loamy sand is not important. only about 20 per cent of it is cleared and used for farming. The wooded areas support a tree growth of scrub oak, gray and brown birch, pitch pine and a scattering of oak, chestnut and white pine. The cleared areas include many abandoned fields that have grown up in broom sedge and birch sprouts. A small acreage is devoted to pasture, a much smaller area is in mowing, and there are a few small patches of market-garden and other crops. The yields are low even in good seasons, and there are failures in dry years. The soil

furnishes indifferent grazing. Mowings are thin. Little attention is given to farming the land that is planted.

This land is not desirable for farming and unless located where it is wanted for building locations it is held at a very low price. It brings from \$25 to \$100 an acre, depending on location.

Hinckley loamy sand is droughty, acid, deficient in organic matter, and has a low producing power. It should not be used for general farming. However, where farming is attempted, organic matter should be incorporated by turning under vetch and rye, if manure is not available. Complete fertilizers should be used with all crops. This land, where well located and properly handled, could be used for light market-garden crops, small fruits, and briar berries. The more broken areas should be left in forest or reset in white pine.

Hollis Fine Sandy Loam (HF)

Practically all of this soil is cleared and used for agriculture. On the small wooded areas are patches of oak, birch, and pitch pine. A fairly large acreage is in mowing, a smaller area is in pasture, and the remainder is in tilled crops. Sweet corn and field corn for silage and grain, oats, rye, clover, potatoes, and vegetables are grown. Dairying and market gardening are the leading types of agriculture.

Crop yields are fairly good, comparing well with those obtained on the loam soils of the county. Hay yields from 1 to 2 tons to the acre, corn from 30 to 50 bushels, and silage 10 or 12 tons. More manure and fertilizer are used than on most of the upland soils, with the result that the yields are good.

This land is fairly free from stone and can be easily cultivated. It is well suited to the growing of berry, brier, and small-fruit crops. This land is strongly acid and lime should be applied at the rate of 500 to 1,000 pounds or even as much as 1 ton to the acre where clover or market-garden crops are to be grown. Fertilizer to suit the character of the crop grown should be used with truck crops.

This soil can best be utilized for pasture and forestry.

Woodbridge Loam (WO)

This is one of the best farming lands in the county. It can be used for general farming, dairying, and orcharding, and for market-gardening to some extent. Most of it is acid, needing 1 ton or more of lime to the acre every four or five years, especially where clover, other legumes, or market-garden crops are to be grown. With the use of lime and manure little other fertilizer need be used, except where the land is heavily cropped with vegetables. The tops of the drumlins make excellent sites for market-garden plots and for raising general farm crops. The drumlin "hoses" and some hillsides offer good orchard sites. The hillsides furnish good pasture and remain green during all but excessively dry seasons. For this reason, this is the best soil in the county for dairying and livestock raising.

This stony soil can best be utilized for pasture. When the brush is kept down it furnishes excellent grazing, making it valuable for stock raising or dairying.

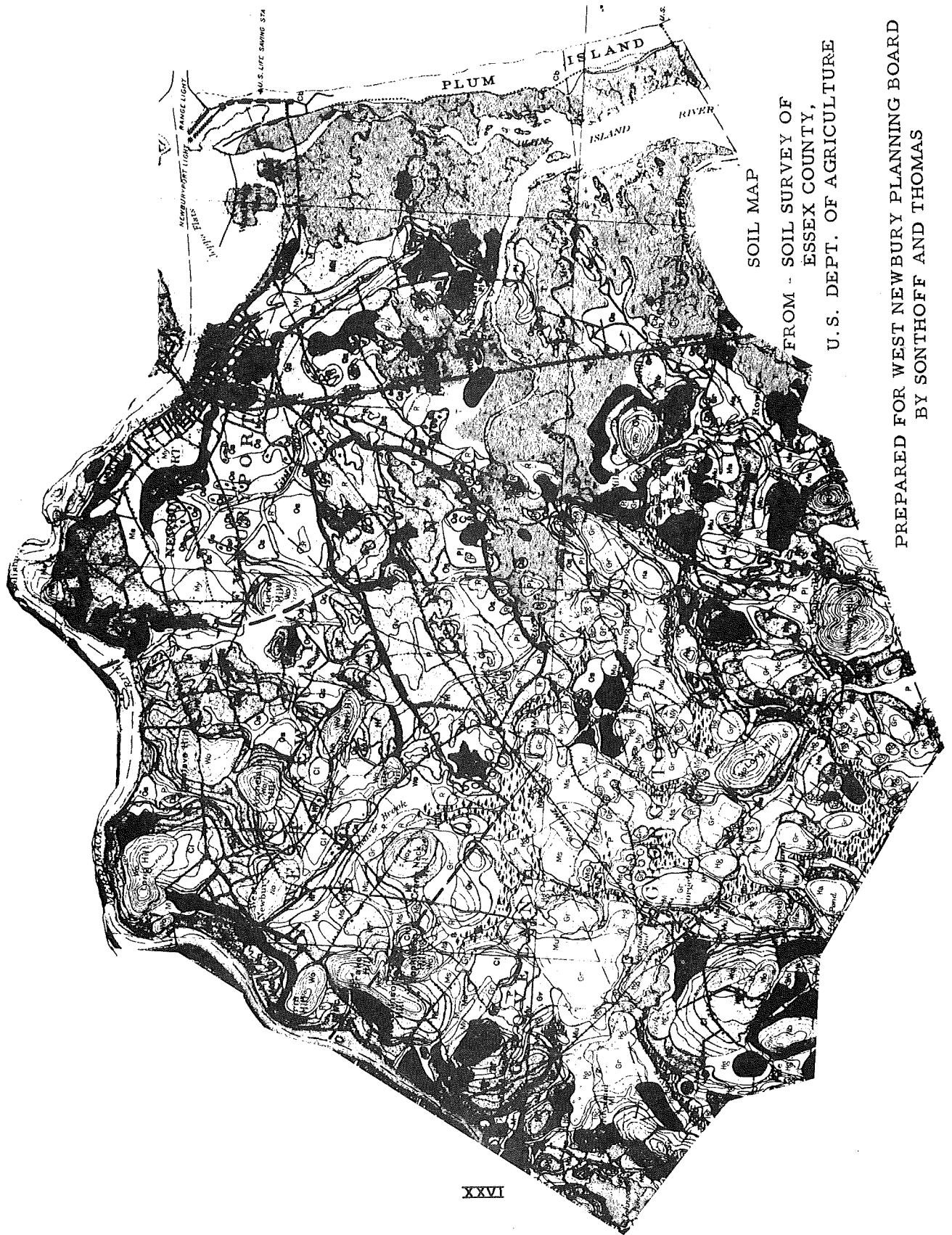
Merrimac Loamy Sand (MC)

The surface soil of Merrimac loamy sand in forest consists of a layer, 1 or 1½ inches thick, of dark-brown or almost black loamy fine sand or loamy sand mixed with organic matter, grading below into brown or light-brown loamy fine sand or loamy sand, 4 or 5 inches thick. In cleared areas the top-soil is dark-brown mellow loamy sand grading in color to pale yellowish-brown mellow loamy sand grading in color to pale yellowish-brown and containing some gravel below a depth of 12 or 15 inches. The subsoil, at a depth of about 24 inches, merges into the substratum which consists of gray medium or coarse textured loose sand and some gravel. In places there is little or no gravel to a depth of 3 feet and comparatively small amounts below. The deep substratum in most places is loose, incoherent, stratified sand and gravel. In places near the coast there is a layer, several inches thick, of whitish wind-blown sand on the surface. In the northern part of the county are a number of areas in which the topsoil is loamy coarse sand rather than loamy sand.

Merrimac loamy sand occurs on terraces. The parent material is outwash from glacial drift deposited along the valley floors or in shallow glacial lakes. It is composed mainly of granitic material. The surface is fairly level, with occasional low swells. Drainage is internal and, owing to the porosity of the substratum, the soil is inclined to be droughty. The soil occurs principally in the northern part of the county on broad terraces. The largest areas are in the towns of Salisbury, where the land occurs as an extensive sand plain, and of Andover.

Merrimac loamy sand is an extensive soil but is not important agriculturally. Approximately 75 per cent of it is covered by a second growth of scrub oak, gray birch, chestnut, and white pine. The cleared areas contain many abandoned and fallow fields grown up in broom sedge and cinquefoil. Pastures contain much sweetfern, blueberries, and birch sprouts. The cultivated area is in mowing, with small patches of corn, oats, rye, and vegetables. Sweet corn, asparagus, and squash are grown for market more than other vegetables. A number of poultry farms are located on this land.

Yields on this land are low, except where it is highly fertilized or when



A SIMPLIFIED CAPITAL BUDGET
(See Discussion in Chapter 10)

A detailed budget should be prepared for the town under the auspices of the Planning Board and the Finance Committee. However, a brief analysis of the financial picture is presented here to indicate the feasibility of plans developed for the future of West Newbury. This projection of town finances is based on a few general tenets and assumptions.

1. A capital outlay budget is based on an estimate of future needs and conditions to assist the Town Planning Board and Administration in financing community facilities. It is generally a schedule of major projects to be executed in the next six year period. In addition, a tentative date beyond this period may be assigned other planned projects.
2. A capital outlay is an expenditure for equipment or construction which can be used repeatedly, and whose life exceeds one year (i.e., a desk, typewriter, pipe or road, but not paper, pencils or food).
3. Capital outlays should be financed, insofar as possible, from income rather than bonded debt to relieve the town of costly financing charges. However, the proposed elementary school should be bonded and built with state aid because sufficient funds are not on hand.
4. Cost estimates are based on the present value of the dollar.
5. The estimates should be reviewed on the basis of a detailed budget, and then revised annually to keep abreast with changes in assessed values, income, dollar values, costs, emphasis in town needs, and changes in state and national aid policies.
6. Outlays are based on master plan recommendations.
7. Receipt estimates are intended to be conservative. However, receipts to accrue from added value of new construction are included as well as increased value from systematic re-evaluation. Field analysis has indicated unassessed properties in town. Moreover, a more realistic assessment policy of fifty per cent of market value has been assumed. This makes the tax rate a more desirable one for comparison purposes. No extra monies are included for changes in federal or state policies, such as additional aid for school construction, which would further improve West Newbury's financial condition, but such receipts are assumed to remain at least in the same ratio to population, and as a minimum, at the present level.

The simplified capital budget presented here has assumed the full value of reassessed properties would be added to the tax role in the year reassessed. See Chapter 10 for a discussion of the more equitable suggestion that all the new value be added at the end of the three years reassessment period. If this is the policy adopted, the projections of the following pages will need to be changed accordingly, and capital outlays postponed until their additional monies from this reassessment are collected.

8. All estimates are to the nearest hundred.
9. No interest accruing on balances which remain in capital funds is estimated.
10. Betterment assessment policies of 50 percent of the cost to be borne by abutters (25 percent each side of the street) are assumed for water and for improvements for streets that are not Chapter 81 or 90 streets, and which are included in Item 13, below.
11. Land acquisition costs are an estimate based on current values and assumed acreage. The town could put the areas involved on an official map to protect itself against rising values. The town could secure development rights and defer purchase until the late 1960's in lieu of the lowered tax rate assumed then.
12. Kindergartens are not considered as an item of operating expense in the next six years.
13. Certain funds will be appropriated annually to be expended by the selectmen and the department heads as follows:
 - Street improvements (includes all town-financed improvements included in Chapter 5) -- \$25,000
 - Street signs -- \$1,000
 - Water extensions (includes extensions proposed in Chapter 6) --\$10,000
 - Test well committee --- \$5,000
 - Equipment (i.e., hose, fire apparatus, police, office and highway equipment) --- \$15,000
14. Operating costs are estimated to increase as little as \$10,000 more to \$50,000 over the budget period.

TABLE II
Schedule of Recommended Capital Outlay⁽¹⁾

Year	Recommendation	Amount In Dollars	Method of Financing	Net Cost To town In Dollars	Report Reference
Annual	Water Extension	10,000	Betterment	5,000	Ch. 6
	Test will committee	5,000	Appropriation	5,000	Ch. 6
	Street Improvements	25,000	Betterment, Ch. 81,90	12,500	Ch. 5
	Equipment	15,000	Appropriation	15,000	Ch. 9
	Street Signs	1,000	Appropriation	1,000	Ch. 5
1962	Archilaus Place Const.	10,000 ⁽²⁾	} Appropriation & Betterment	10,000	Ch. 5
	113 Drainage	10,000 ⁽²⁾		10,000	
	Dump Improvement	5,000	Appropriation	5,000	Ch. 9
	School Site & Bldg. Comm.	10,000	Appropriation	10,000	
	Debt Payments	25,000		25,000	Ch. 7
1963	Circles & St. Inters.	10,000	Betterment & Appropriation	5,000	Ch. 5
	Elem. School Const.	600,000	State aid	Incl. in Debt pyt.	Ch. 7
	Extend Town Forest	15,000	Conservation	Town cost labor	Ch. 8
	Debt Payment	75,000	Appropriation		
1964	Fire Loops	30,000	Betterment & Appropriation	15,000	Ch. 5
	Second School Site	5,000	Appropriation	5,000	Ch. 7
	Acq. Conserv. & Park Land	20,000	Open Land Aid	10,000	Ch. 8
	Develop Playground	5,000	Appropriation	5,000	Ch. 8
	Debt Payments	75,000	Appropriation	75,000	Ch. 8
1965	Community Center	20,000	Appropriation	20,000	Ch. 9
	Garden St. Ext.	20,000	Appropriation	20,000	Ch. 5
	Develop Park	5,000	Appropriation	5,000	Ch. 8
	Marina	-	State		Ch. 8
	Develop Misc. Rec. Facilities	5,000	Appropriation	5,000	Ch. 8
	Debt Payments	75,000	Appropriation	75,000	
1966	Recondition Town Hall	20,000	Appropriation	20,000	Ch. 9
	Relocate Fire Alarm	15,000	Appropriation	15,000	Ch. 9
	Improve Garden St. Fire Sta.	5,000	Appropriation	5,000	Ch. 9
	Library Improvement	15,000	Appropriation	15,000	Ch. 9
	Debt Payment	75,000	Appropriation	75,000	
1967	Est. Sidewalk Fund	5,000	Appropriation	5,000	Ch. 5
	Est. Drainage Fund	5,000	Appropriation	5,000	Ch. 5
	Police Garage	5,000	Appropriation	5,000	Ch. 9
	Highway Garage	15,000	Appropriation	15,000	Ch. 9
	Debt Payment	75,000	Appropriation	75,000	
	Accrue	20,000	Appropriation	20,000	
Sub- sequent	Health Center	25,000	Gift or Appropriation	-	
	Housing for Elderly	-	-	-	

(1) Exclusive of Regional School Outlay

(2) Plus Betterment Assessment, as needed, a share of street improvement.

Note: In years not used, Capital Outlay fund can accrue.

WEST NEWBURY

Suggested Zoning By-Law

Contents

SECTION I	Purposes
SECTION II	Definitions
SECTION III	Districts
	A. Establishment
	B. Location of Districts
	C. Location of Boundaries of Districts
SECTION IV	Continuance of Existing Uses
SECTION V	New Construction and Uses
SECTION VI	Use Regulations
	A. Recreation-Conservation District
	B. Rural District
	C. Single Family Residence District
	D. General Residence District
	E. Business District
	F. Limited Industrial District
SECTION VII	Development of Sites & Location of Buildings & Structures
	A. Height Regulations
	B. Area, Frontage and Yard Requirements
	C. Accessory Buildings
	D. Off-Street Parking & Loading Areas
	1. Requirements
	2. Design
	E. Signs
	F. Site Plan Approval
	G. Earth Removal
SECTION VIII	Administration
	A. Building Permits
	B. Occupancy Permits
	C. Violations & Penalty
SECTION IX	Board of Appeals
SECTION X	Amendment
SECTION XI	Validity
SECTION XII	Effective Date

Prepared by:
SOMTHOFF & THOMAS

Proposed Zoning By-Law for the Town of West Newbury

SECTION I

Purposes

In accordance with provisions of Chapter 40A of the General Laws of the Commonwealth of Massachusetts the purposes of this Zoning By-Law are to promote the health, safety convenience, morals and welfare of the inhabitants of the Town of West Newbury; it is further designed among other purposes to lessen congestion in the streets; to conserve health; to secure safety from fire, panic, and other dangers; to provide adequate light and air; to prevent over-crowding of land, to avoid undue concentration of population; to facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements; to conserve the most appropriate use of land throughout the town; and to preserve and increase its amenities.

SECTION II

Definitions

In this By-Law, the following terms, phrases, and words, unless a contrary meaning is acquired by the context, shall have the following meanings:

A. Accessory Building or Use:

A use, or detached building, which is subordinate to the main use, or building, and located on the same lot with the main building or use, the use of which is customarily incidental to that of the main building or to the use of the land. Where a substantial part of a wall of an accessory building is a part of the wall of a main building, or where an accessory building is attached to the main building, such accessory building shall be counted as part of the main building.

B. Boarding or Rooming House:

A building or premises, other than a Hotel, Inn, Motel or Lodging house where meals are regularly served by prearrangement for compensation, not open to transient guests; in contradistinction to hotels, restaurants and tourist homes, open to transients.

C. Buildings:

A building includes a structure.

D. Building, Front of:

The wall of a building most nearly parallel with and adjacent to the front of the lot on which it is situated.

E. Building Inspector:

Building Inspector shall mean the Board of Selectmen acting as Building Inspector until such time as the Board appoints a Building Inspector.

F. Dwelling:

Any building, or part thereof, containing accommodations for continuous or permanent habitation for one or more persons, but not including trailers, however mounted, or commercial accommodations for transient occupancy.

G. Garage, Private:

Covered space for the housing of motor vehicles, not for rent, repair or storage.

H. Home Occupation:

Occupations such as dressmaking, preserving or home cooking, including a professional occupation of a resident of the premises, but not including a beauty parlor, barber shop, convalescent or nursing home, tourist home, massage parlor or similar establishment offering services to the general public.

I. Hotel, Inn, Motel or Lodging House:

A building, or portion thereof, or a group of buildings, on a single lot, intended to be used for the more or less temporary occupancy of more than three (3) individuals who are lodged, with or without meals, and in which major provision for cooking is not in the individual rooms or suites.

J. Loading Space, Off-Street:

An off-street space or berth, on the same lot with a building, for the temporary parking of vehicles while loading or unloading merchandise or material, and which has access to a street, alley or other appropriate means of ingress and egress.

K. Lot:

A single tract of land under one ownership. Whenever such a parcel is divided on a plan filed with the Essex County Registry of Deeds, the term "lot" as used in this by-law shall mean a lot as shown on such a plan. Otherwise, a lot shall refer to a single parcel as shown on the plot plan accompanying application for a building permit.

L. Lot, Corner:

A lot abutting on two (2) or more streets at their intersection.

M. Lot, Frontage:

The frontage of a lot shall be considered to be that boundary of the lot which abuts on a street. In the case of a corner lot, the lot shall be considered to front on all bounding streets.

N. Sign:

Any words, lettering, parts of letters, figures, numerals, phrases, sentences, emblems, devices, designs, trade names or trade marks by which anything is made known, such as are used to designate an individual, a firm, an association, a corporation, a profession, a business, or a commodity or product, which are visible from a public street or right-of-way and used to attract attention.

O. Story:

That portion of a building included between the surface of any floor and the surface of the next floor above it, or, if there be no floor above it, then the space between such floor and the ceiling next above it. Any portion of a story exceeding fourteen (14) feet in height shall be considered as an additional story for each fourteen (14) feet or fraction thereof. One-half (1/2) story means any story or space situated wholly or partly in the roof, so designed, arranged, or built to be used for storage or habitation.

P. Street Line:

The dividing line between a street and a lot and, in the case of a public way, the street line established by the public authority laying out the way upon which the lot abuts.

Q. Trailer or Mobile Home:

A residence, house car, camp car, or any portable or movable vehicle on wheels, skids, or rollers, not structurally anchored to a foundation, propelled by an attached vehicle or other propelling apparatus, which is used, or may be used, for residential, commercial, hauling or storage purposes.

R. Trailer Camp:

Any premises used, or intended to be used, for parking two (2) or more trailers.

S. Yard:

An open space, other than a court, on the same lot with a building or group of buildings, which open space lies between the building or group of buildings and a lot line, and is unoccupied and unobstructed from the ground upward.

- a. Picnic areas, provided that there are adequate provisions for disposal of waste products and for parking.
- b. Restaurants, provided that their use is in connection with a permitted use and that adequate parking areas are provided, and further provided that any such building be located subject to the same conditions as apply to farm buildings.
- c. Country club, airports or landing fields, provided that any buildings in connection therewith are located subject to the same conditions as apply to farm buildings.
- d. Any use determined to be of similar character to the permitted uses of this district and to the intent of this district, said determination to be made by the Board of Appeals following petition of the land owner or owners.

B. Rural District:

The Rural District is intended as a district for typical rural uses with which single family homes are compatible.

1. Uses Permitted:

- a. Uses a, b and c permitted in a Recreation-Conservation District, Paragraph A1, subject to the same restrictions.
 - b. Single family detached dwellings.
 - c. Boarding house or rooming house for not more than four (4) persons, provided that the house is also occupied as a private residence.
 - d. Public schools, museums, playgrounds, churches or parish houses.
 - e. Fields, pastures, woodlots, greenhouses and farms as permitted in the Conservation-Recreation District, except that piggeries, or milk farms shall not be located in this district.
 - f. Keeping of pets and animals for use of the residents of premises.
 - g. Display and sale or offering for sale by the owner or resident of the land of farm produce, provided that the major portion of the produce is raised within the town, and provided that no stand for such sale is located within twenty-five (25) feet of a street side line, and provision is made for off-street parking in accord with Section 7d.
 - h. Professional office or customary home occupation, such as the office of a doctor or dentist and such as the work of a dress-maker provided that:
 - (1) The profession or customary home occupation is conducted by a resident of the premises.
 - (2) The use is clearly incidental to and secondary to the use as a residence.
 - (3) Not more than one person, other than residents of the premises is regularly employed in connection with such use.
 - (4) No noise, vibration, smoke, dust, odors, heat, glare, unsightliness is produced which is discernible from other property.
 - (5) There is no public display of goods or wares, and no signs except as permitted in Section VII E.
 - (6) There is no exterior storage of material or equipment and no exterior evidence of a nonresidential use of the premises, except signs as permitted in Section VII E.
 - (7) There is adequate off-street parking for any employee or visitors in connection with such use.
 - i. Accessory uses, including such normal accessory uses as private garages, for no more than four automobiles, storage sheds, cabanas for swimming pools, summer houses and a structure approved by Civil Defense Authorities and designed for use by the inhabitants, employees or customers of the property to which it is accessory and used for a shelter from natural disaster or war.
2. The Board of Appeals may issue a special permit for the following uses as provided in Section IX.
- a. Private schools, including dance and music studios, provided adequate parking areas are provided.
 - b. Veterinary hospitals, commercial stables and kennels, raising or breeding animals, for sale, and boarding animals.
 - c. Cemeteries, hospitals, sanitariums or other medical institutions, including non-profit research laboratories, nursing homes or charitable institutions.
 - d. Telephone exchange buildings, radio stations, and other utility structures, provided there are no service yards.
 - e. Buildings to house generators, boilers or similar equipment used in connection with greenhouses or farms.
 - f. Conversion of a one-family dwelling, existing at the time of this by-law was originally adopted, 1953, into a two-family dwelling, provided that the exterior appearance is not altered and that there be sufficient floor and ground area above the minimum requirements as provided in Section VII B.
 - g. Any use determined to be of similar character to the permitted uses of this district, said determination to be made by the Board of Appeals following petition of the land owner or owners.

C. Single-Family Residence District:

The Single-Family Residence District is intended as a district primarily of single family homes.

1. Uses Permitted:

- a. Uses b and c permitted in a Recreation-Conservation District Paragraph A1 and uses b - 1 permitted in a Rural District, Paragraph B1.
- 2. The Board of Appeals may issue special permits for the following uses as provided in Section IX:
 - a. Funeral homes.
 - b. Conversion of a one-family dwelling existing at the time this by-law was originally adopted, into a two-family dwelling, provided that the exterior appearance is not altered and that there be sufficient floor and ground area above the minimum requirement, as provided in Section VII B.
 - c. Any use determined to be of similar character to the permitted uses of this district and to the intent of this district, said determination to be made by the Board of Appeals.

D. General Residence District:

The intent of this district is to provide an area in the town where people can live who prefer not to live in a rural or semi-rural atmosphere, or who prefer not to live in a sparsely populated area, and to provide this area in such a manner and location that the character of the town will not be destroyed, and that the soil conditions can accommodate the permitted density.

1. Permitted Uses:

- a. Use b, h and i permitted in a Rural District Paragraph B1.
- b. Boarding or rooming house.
- 2. The Board of Appeals may issue special permits for the following uses provided in Section IX and for structures to contain more than one dwelling, provided that:
 - a. Each dwelling unit shall have three exposures.
 - b. Each dwelling unit shall have two separate exits.
 - c. A site plan prepared in accordance with the provisions of Section VII F below, has been submitted to and been approved by the Board of Appeals.

E. Business District:

The Business District is intended to provide goods and services for the inhabitants of the town, in contradistinction to goods and services for the businesses or commercial enterprises.

1. Uses Permitted, subject to site plan approval as provided in Section VII F:

- a. Retail store or service establishment, the principal activity of which shall be the offering of goods or services at retail within the building, for supply of the normal shopping needs of, and for consumption by, the residents of the town.
- b. Business or professional offices or banks.
- c. Restaurants or other places for serving food within the structure.
- d. Parking areas or garages for use of employees, customers, or visitors, subject to design standards in Section VII.
- e. Accessory buildings and uses.
- f. Signs as provided in Section VII E.

2. The Board of Appeals may issue special permits for the following uses as provided in Section IX. In addition to site plan approval in accord with Section VII F, the following uses require Board of Appeals approval, which shall be based on satisfaction that said use will not create a nuisance by virtue of noise, odor, smoke, vibration, traffic generated or unsightliness.

- a. Hotels, motels or lodging houses.
- b. Gasoline service stations, garages and repair shops provided that:
 - (1) Repairs shall be limited to minor repairs and adjustments unless conducted in a building.
 - (2) There shall be no storage of motor vehicles, appliances and equipment on the premises other than those in process of repair or awaiting delivery.
- c. Salesrooms for automobiles, bicycles, boats, farm implements and similar equipment, provided there is no outside display.
- d. Passenger depots and terminals.
- e. Theaters, halls, bowling alleys, skating rinks, clubs and other places of amusement or assembly.

I	II	III	IV	V	VI	VII	VIII
District	Minimum Lot Area in Square Feet	Minimum Lot Frontage In Feet	Minimum Front Yard In Feet (2)	Minimum Side Yard In Feet (3)	Minimum Rear Yard In Feet	Maximum Building Coverage of Land Including Accessory Buildings	Floor Area Per Dwelling In Square Feet (4)
Recreation Conservation	-	-	100	100	100	10%	
Rural	60,000	200	50	40	40	25%	First Unit 720 ± 600 for each additional unit
Single-Family Residence	30,000	150	30	25	30	20%	720 ± 600 for each additional unit
General Residence	30,000 feet in tracts of more than 30,000 dwelling units may be grouped together or built in one structure providing that the total land area equals 30,000 sq. ft. times the number of dwelling units.	150 ± 50 each additional dwelling unit	25	30	30	25%	600 for each unit
Business Limited Industrial	-	-	50 100	50 100	50 100	30% 30%	- -

- (1) Except that a lot on a turning radius shall have a minimum of eighty (80) feet of street frontage and shall have a distance measured from side lot line to side lot line through the center of the building equal to the required frontage for the District in which it is located.
- (2) Provided that any residential front yard need only be the average of the depths of the front yards on the abutting lots, considering the front yards of abutting vacant lots as having the minimum permitted.
- (3) Except that in the case of lot having frontage on two streets, the frontage requirements apply to the side of the structure on street frontage as well as to the front.
- (4) Except that the Board of Appeals may issue a permit for temporary occupancy of a building having less than the required area for an initial period of not more than two years, which may be renewed by the Board for successive periods of not more than one year each.

except that two (2) or more businesses may jointly provide the required spaces on one (1) or more of their lots. The number of spaces in any such joint facilities shall at least equal the total number required under the provisions of this Section for their individual uses.

- b. All open off-street parking and loading areas, permitted and/or required, which are located within or adjacent to a Residence District, Rural or Recreation-Conservation District (whether on the side or rear), except for parking for single family dwellings and home occupations, shall be screened from all adjoining lots in said district by either:

- (1) A strip of four (4) feet wide, densely planted with shrubs or trees, or plants, or
- (2) A solid wall or fence not less than four (4) feet nor more than six (6) feet in height.

- c. Required off-street parking and loading spaces shall not hereafter be reduced, nor shall one be counted as or substituted for the other.

- d. Required off-street parking and loading spaces shall have adequate vehicular access to the street, which, along with the areas, must be approved on a site plan in the case of business or industrial uses, see Section VII F.

- e. Except in the case of parking spaces provided for dwellings, off-street parking and loading areas shall be paved to specifications prepared by the Selectmen with the advice of the Planning Board.

- f. Except in the case of parking spaces provided for dwellings, off-street parking and loading areas used after sundown shall be illuminated, with illumination so arranged as not to shine on abutting properties or on streets.

E. Signs

1. Non-illuminated signs are permitted in all districts subject to restrictions of sub-paragraph 3 as follows:

- a. One (1) sign for identification, announcement of professional or home occupations or announcement of membership of an occupant of a dwelling, or announcement of use of any other property not exceeding three square feet in area.

- b. One (1) sign pertaining to the rent, lease or sale of land or building on which the sign is located not exceeding twelve (12) square feet in area, except that if the tract of land has more frontage than would be required for a dwelling, it may have one (1) such sign on each increment of required frontage, or, in the case of a corner lot, one (1) such sign for each street, or in the case of Recreation-Conservation, Rural, Business and Limited Industrial Districts, one (1) such sign for each three hundred (300) feet of frontage.

2. In Business and Limited Industrial Districts additional signs are permitted as follows:

- a. An announcement sign advertising goods and services available on the premises or the name of the occupant, attached to the facade of the building, not exceeding thirty-six (36) square feet unless approved with the site plan (see Section VII F).
- b. An identification sign for a business development or industrial park of a size and location approved with the site plan (see Section VII F).

F. Site Plan Approval

For the purposes of assuring proper drainage, safe access, administering provisions of this by-law in regard to parking and loading areas, signs, screening and to assure adequate consideration for abutting land owners, a site plan shall be submitted for the following:

1. All the uses except dwellings of Recreation-Conservation, Rural, Single Family Residence or General Residence Districts, for which off-street parking areas are mandatory.
2. All structures, off-street parking and loading areas permitted in Business or Limited Industrial Districts.

The site plan shall be prepared by a professional architect, landscape architect, planner or registered professional engineer and shall be submitted in triplicate to the clerk of selectmen who shall give the applicant a dated receipt. The plan shall indicate all property boundaries, use and ownership of adjacent land and location of buildings thereon within five hundred (500) feet of the property lines, all existing and proposed structures, within the property lines, driveways, driveway openings, parking and loading spaces, service areas and all facilities for screening, lighting, signs, sewage, refuse and other waste disposal, drainage and landscaping.

The Selectmen shall within three (3) days submit one copy of the site plan to the Planning Board and one copy to the Board of Health and shall within thirty (30) days meet with them to consider the plan, which, if it complies with the purposes and specifications of this by-law, can be approved with or without conditions; if it does not comply with the purposes and specifications of this by-law, it can be disapproved or approved with conditions which will bring about compliance. The applicant shall be notified within sixty (60) days from the date of submission of the plan of action taken, or approval will

be assumed. A building permit shall not be issued in a case requiring site plan approval unless such approval has been obtained,

G. Earth Removal

The removal of earth, including soil, loam, sand, gravel, clay, stone, rock or other sub-surface products, except water, from land in the Town of West Newbury is prohibited except as follows:

1. When entirely incidental to or in connection with the construction of a building, pool or street for which a permit has been granted or for which a site plan or subdivision plan has been approved.
2. When a permit for such removal is granted by the Board of Appeals after a public hearing has been held. Said permit shall require as a condition that no loam shall be removed from town and that after completion of the operations, the land shall be left in a condition no less valuable for development and use than it was before the commencement of operations. Further, each applicant shall file with the Board a map or plan, prepared at the expense of the applicant, showing the existing contours of the land and the contours as they are proposed after the completion of the operations. Such map or plan shall be accurately drawn on tracing cloth, the contour interval being two (2) feet, and shall contain complete information to make the physical characteristics clear.

The Planning Board shall file a report with the Board of Appeals.

A permit granted for the removal of sand, gravel, stone, quarried stone or loam shall state the time within which work is to be carried on and finished, the extent of the operations to be permitted, temporary and permanent drainage, and the predetermined grade to which the land shall be brought at the completion of the operations and the amount of top soil to be replaced over cuts.

SECTION VIII

Administration

The provisions of this by-law shall be administered and enforced by the Selectmen acting as Building Inspector or by a Building Inspector appointed by the Selectmen.

A. Building Permits

1. No permit shall be granted for the construction, alteration, relocation or use of any building, structure or premises in violation of any provision of this by-law. Whenever any permit or license is refused because of some provision of this by-law, the reason therefore shall be clearly stated in writing.
2. An application for a Building Permit for a new or altered use of land or of a structure, or for construction, alteration, reconstruction or relocation of a building shall be accompanied by two (2) copies of a plot plan showing the site and shape of the lot, the names of the owners of record, the exact location of existing streets and buildings or structures and of proposed buildings, structures or additions thereto. The Building Inspector shall send one copy of the plot plan to the Planning Board.

B. Occupancy Permits

No building hereafter erected, altered or relocated shall be used, and no change shall be made of the use of any building or of any parcel of land, unless an occupancy permit signed by the Inspector of Buildings has been granted to the owner or occupant of such land or building. Such permit shall not be granted unless the proposed use of the land or building and all necessary uses comply in all respects with this by-law, and no use shall be made of such land or building except the use or uses authorized by such occupancy permit.

C. Violations and Penalties

Violations shall be determined by the Building Inspector by an investigation of the fact and inspection of the premises, after which he shall give notice thereof in writing to the owner or to his duly authorized agent and to the occupant of the premises, and shall order that any use of any premises contrary to the provisions of the by-law shall immediately cease. Each day of violation after such written notice will be considered a separate offense. If, after such notice, the premises continue to be used in a manner contrary to the provisions of this by-law, or if any such owner or occupant shall fail to obey any lawful order of the Inspector of Buildings in respect to any violation or use contrary to the provisions of this by-law, the Inspector of Buildings, with the approval of the Board of Selectmen, may, and if required by them, shall institute appropriate legal proceedings to enforce the provisions of this by-law or to restrain by injunction any violation thereof, or both, and shall do all further acts: revoke the permit for occupancy, punish by fine up to ten (10) dollars for each offense, institute and take any and all such action as may be necessary to enforce the provisions of this by-law.

SECTION IX

Board of Appeals

A. Members

A Board of Appeals is hereby established in accordance with Section 14 of Chapter 40A of the General Laws, as amended. Said Board shall consist of three members, each appointed by the Board of Selectmen for a term of three years, provided that only one term shall expire each year; there shall be two Associate Members, each appointed by the Board of

SUBDIVISION. "Subdivision" shall mean the division of a tract of land into two or more lots and shall include re-subdivision, and, when appropriate to the context, shall relate to the process of subdivision or the land or territory subdivided; provided, however, that the division of a tract of land into two or more lots shall not be deemed to constitute a subdivision within the meaning of the subdivision control law, if at the time when it is made, every lot within the tract so divided has frontage on (a) a public way, or (b) a way shown on a plan theretofore approved in accordance with the subdivision control law, or (c) a way in existence when the subdivision control law became effective in the town in which the land lies, having, in the opinion of the planning board, sufficient width, suitable grades and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for the installation of municipal services to serve or served thereby, and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon. Such frontage shall be of at least such distance as is then required by zoning or other by-law, if any, of said town for erection of a building on such lot.

Conveyances or other instruments adding to, taking away from, or changing the size and shape of, lots in such a manner as not to leave any lot so affected without the frontage above set forth, or the division of a tract of land on which two or more buildings were standing when the subdivision control law went into effect in the town in which the land lies into separate lots on each of which one of such building remains standing, shall not constitute a subdivision."

Section 81-L of Chapter 41, G.L.)

B. Plan Believed Not to Require Approval

Any person who wishes to cause to be recorded in the Registry of Deeds or to be filed with the Land Court a plan of land and who believes that his plan does not require approval under Subdivision Control Law may submit his plan and application Form A (see Appendix) to the Planning Board accompanied by the necessary evidence to show that the plan does not require approval. Said person shall file, by delivery or registered mail, a notice with the Town Clerk stating the date of submission for such determination accompanied by a copy of said application. If the notice is given by delivery, the Town Clerk shall, if requested, give a written receipt therefor.

If the Planning Board determines that the plan does not require approval, it shall without a public hearing and without unnecessary delay endorse on the plan the words "Approval under the Subdivision Control Law not required".

The Planning Board may add to such endorsement a statement of the reason approval is not required. The plan will be returned to the applicant, and the Planning Board shall notify the Town Clerk of its action.

If the Planning Board determines that the plan does require approval under the Subdivision Control Law, it will so inform in writing the applicant and return the plan. The Planning Board will also notify in writing the Town Clerk of its action.

If the Planning Board fails to act upon a plan submitted under this section within fourteen days after its submission, it shall be deemed to have determined that approval under the Subdivision Control Law is not required.

C. Approved Plan Required

No person shall make a subdivision within the meaning of the Subdivision Control Law of any land within the Town, or proceed with the improvement of sale of lots in a subdivision, or the construction of ways, or preparation therefor or the installation of utilities and municipal services thereon, unless and until a Definitive Plan of such subdivision has been submitted and approved by the Planning Board as hereinafter provided.

SECTION III. PROCEDURE FOR THE SUBMISSION AND APPROVAL OF PLANS

A. Preliminary Plan

1. General

A Preliminary Plan of a subdivision may be submitted by the subdivider to the Planning Board and to the Board of Health for discussion and tentative approval, modification or disapproval by each board. The submission of such a Preliminary Plan, which is not a binding commitment, will enable the subdivider, the Planning Board, the Board of Health, other municipal agencies and owners of property abutting the subdivision to discuss and clarify the problems of such subdivision before a Definitive Plan is prepared. Therefore, it is strongly recommended that a Preliminary Plan be filed in each case. A properly executed application Form B (see Appendix) shall be filed with the Preliminary Plan submitted to the Planning Board.

The applicant shall file by delivery or registered mail a notice with the Town Clerk stating the date of submission for such tentative approval of a Preliminary Plan and accompanied by a copy of the completed application (Form B).

2. Contents

The Preliminary Plan shall be drawn on tracing paper with a pencil at a suitable scale, preferably forty, (40) feet to the inch, and six (6) prints or it shall be filed with the Planning Board. The Plan shall be designated as a "Preliminary Plan" and to form a clear basis for discussion of the problems of the subdivision and for preparation of the Definitive Plan, the plan shall contain all the information designated in Section III B-2 a-e, g, and the following:

- Major features of the land such as existing walls, fences, buildings, large trees, wooded areas, rock ridges, out-croppings, ditches, swamps, streams, and other water bodies.
- Topography at five (5) foot contour intervals, and in red line the highest high water mark of the last five (5) years. There shall also be indicated the contour line four (4) feet above said high water mark.
- Proposed system of drainage including any existing mains, culverts or drains, and, in a general manner, adjacent natural waterways.
- Proposed location of sidewalks, street lights, street trees, curbs, gutters, water mains, underground conduits, connection to existing

water supply, drainage easements, bridges or culverts and utility poles.

- Approximate boundary lines of proposed lots, with approximate areas and dimensions. During discussion of the Preliminary Plan the complete information required for the Definitive Plan (Section III B-2 Contents) and the financial arrangements (Section III B-3 Performance Guarantee) will be developed.
- Where the preliminary plan covers only a part of the subdividers entire holding, a sketch of the prospective street system of the unsubmitted part shall be furnished so that the submitted part shall be furnished so that the submitted street system can be considered in connection with the possible future development.
- Proposed major earth removals or change in contours.

3. Tentative approval

The Planning Board with the advice of the Board of Health may give such Preliminary Plan tentative approval, with or without modification or suggestion. Such tentative approval does not constitute approval of the subdivision but facilitates the procedures for preparing and securing final approval of the Definitive Plan.

B. Definitive Plan

1. General

Any person who submits a Definitive Plan of a subdivision to the Planning Board for approval shall file with the Board the following:

- An original drawing of the Definitive Plan and eight (8) contact prints thereof, dark line on white background. The original drawing will be returned after approval or disapproval.
- A properly executed application Form C (see Appendix).
- A deposit of twenty-five dollars (\$25.00) plus five dollars (\$5.00) for each forty thousand (40,000) square feet of land or portion thereof in a Residence A zoning district and for each twenty thousand (20,000) square feet of land or portion thereof in a Residence B zoning district.

The applicant shall file by delivery or registered mail a notice with the Town Clerk stating the date of submission for such approval and accompanied by a copy of the completed application (Form C).

2. Contents

The Definitive Plan shall be prepared by a professional engineer or land surveyor registered in Massachusetts and shall be clearly and legibly drawn in black India ink upon tracing cloth. The plan shall be at a scale of one (1) inch equals forty (40) feet or such other scale as the Planning Board may accept to show details clearly and adequately. Sheet sizes shall not exceed twenty-four (24") x thirty-six (36") inches with one-half (1/2") inch border, except on the left side where the border shall be two and one-quarter (2 1/4") inches. If multiple sheets are used, they shall be accompanied by an index sheet showing the entire subdivision. The Definitive Plan shall contain the following information:

- Subdivision name, boundaries, north point, date and scale.
- Name and address of record owner, applicant, subdivider and engineer or surveyor.
- Names of all abutters as they appear in the most recent tax list.
- Lines of existing and proposed streets, ways, lots, easements, and public or common areas within the subdivision. (The proposed names of proposed streets shall be shown in pencil until they have been approved by the Planning Board.)
- Sufficient data to determine the location, direction and length of every street and way line, lot line and boundary line, and to establish these lines on the ground.
- Location of all permanent monuments properly identified as to whether existing or proposed.
- Location, names and present widths of streets bounding, approaching, or within reasonable proximity of the subdivision.
- Indication of purpose of easements.
- Suitable space to record the action of the Planning Board and the signatures of the members of the Planning Board (or officially authorized person).
- Existing profiles on the exterior lines and proposed profile on the center-line of proposed streets at a horizontal scale of one inch (1") equals forty (40') feet and vertical scale of one inch (1") equals four (4') feet, or such other scales acceptable to the Town datum.

(Items k through n, may be submitted on the same sheet as the Definitive Plan or on separate sheets.)

- Existing and proposed topography as required in Section III A, 2b above.
- Proposed layout of storm drainage, water supply, hydrants, and sewage disposal systems, and dimensions of gutters.
- Location and species of proposed street trees and trees to be retained with trunks over three (3) inches in diameter, measured six (6) inches above the finished ground level, located within twenty (20) feet of the street right-of-way line of existing or proposed streets.
- Location of proposed street lights and sidewalks.

- f. Streets shall be laid out so as to intersect at intervals which will permit block size to be in a range of six hundred (600) to twelve hundred (1200) feet in length unless otherwise specified by the Planning Board. In lieu of actual construction of a cross street in special instances the Planning Board may approve an easement for a future street.

3. Width

- a. The minimum width of rights-of-way shall be as follows:

Minor Streets: forty (40) feet.
Secondary Streets: fifty (50) feet.
Major streets and such secondary streets, which in judgement of the Planning Board may in the future be changed in character to become a major street: sixty (60) feet.

- b. When a minor street will provide the only access for lots fronting on a length in excess of five hundred (500) feet or where on a major street potential volume is such to warrant it, the Planning Board may require a greater right-of-way than that specified above and may require construction of a divided roadway.

4. Grade

- a. The centerline grade for any street shall not be less than five-tenths of one percent (.5%).

- b. The maximum centerline grade for streets shall be as follows:

Minor Streets - nine (9) per cent.
Secondary Streets - nine (9) per cent.
Major Streets - five (5) per cent.

- c. Where changes in grade exceed one (1) percent, reasonable vertical curves as required by the Surveyor of Highways, will be provided, and where a grade is five (5) percent or greater within one hundred and fifty (150) feet of the intersection of street right-of-way lines, there shall be provided a levelling area of at least seventy-five (75) feet with a maximum grade of three (3) per cent.

5. Dead-end Streets

- a. Dead-end streets shall not be longer than five hundred (500) feet, unless provided with a divided roadway (see 3b above) unless in the opinion of the Planning Board such a greater length is necessitated by topography or other local conditions.
- b. Dead-end streets shall be provided at the closed end with a turn-around having an outside roadway diameter of at least one hundred feet (100') and a property line diameter of at least one hundred and twenty feet (120'), unless otherwise specified by the Planning Board.

B. Curb Cuts

- a. Driveway shall be at least eight feet (8') wide and have a curb return at the roadway of three feet (3') in radius.
- b. Where rolled curbs or no curbs exist the driveway flare should have a three foot (3') radius. Driveway cuts shall not be within fifty-five feet (55') of the intersection of the center lines of intersecting streets.

C. Easements

1. Easements for utilities across lots or centered on rear or side lot lines shall be provided where necessary and shall be at least twenty feet (20') wide.
2. Where a subdivision is traversed by a water course, drainage way, channel or stream, the Planning Board may require that there be provided a storm water easement or drainage right-of-way of adequate width and proper side slope, to conform substantially to the lines of such water course, drainage way, channel or stream and to provide for construction or other necessary purposes.

D. Open Spaces

Before approval of a plan the Planning Board may also in proper cases require the plan to show a park or parks suitably located for playground or recreation purposes or for providing light and air. The park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land. The Planning Board may by appropriate endorsement on the plan require that no building be erected upon such park or parks without its approval for a period of three (3) years.

E. Protection of Natural Features

Due regard shall be shown for all natural features, such as large trees, wooded areas, water courses, scenic points, historic spots, and similar community assets, which, if preserved, will add attractiveness and value to the subdivision.

SECTION V. REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION

A. Street and Roadway

1. The roadway shall be graded and prepared for pavement in accord with Data Sheet SG-102 included in Land Planning Bulletin #3, Federal Housing Administration, Boston, Massachusetts, 1957, (Appendix A). At the conclusion of this step the roadway shall be staked in all locations where the permanent monuments are to be installed as provided in subsection H.
2. Roadways shall be constructed for the full length of all streets within the subdivision and shall have the same curb radius

required in Section IV A2 above. The centerline of all roadways shall coincide with the centerline of the street right-of-way unless a deviation is approved by the Planning Board. The minimum width of roadways shall be as follows:

Minor Streets - twenty-six (26) feet.

Secondary Streets - Thirty (30) feet except in a subdivision in which the average lot size is an acre or more the roadway may be reduced to twenty-six (26) feet.

Major Streets - thirty-six (36) feet except in a subdivision in which the average lot size is an acre or more the roadway may be reduced to thirty-two (32) feet. If in the opinion of the Planning Board volume generated by other areas of the town using such streets exceeds the limits of a thirty-two (32) foot roadway, the roadway should be forty (40) feet, and the Planning Board should initiate action to have the Town reimburse the subdivider for the cost of the additional eight (8) feet.

3. The foundation and pavements of roadways shall be prepared in accord with Data Sheets SL-301 and SK-101 included in Land Bulletin #3, Federal Housing Administration, Boston, Massachusetts, 1957 (Appendix B) and shall have cross sections as shown on the following data sheets (ibid) as pertains:

Data Sheets SF-100 and 200.

B. Utilities

1. Sanitary sewers and related equipment, such as manholes and connecting Y's and other appurtenances, when installed, shall be constructed in conformity with specifications of the Town.
2. Adequate disposal of surface water shall be provided and pipes, manholes and catch basins shall be constructed in conformity to the specification Data Sheets SH-101 and SH-201 included in Land Bulletin #3, Federal Housing Administration, Boston, Massachusetts, 1957 (Appendix C), except that no backfilling of pipes shall be done until the installation has been inspected by the Planning Board or its authorized representative. Catch basins shall be built on both sides of the roadway on continuous grades at intervals of not more than four hundred (400) feet, unless otherwise provided by the Planning Board, and at such other places as deemed necessary by the Selectmen, Surveyor of Highways and the Planning Board to assure the unimpeded flow of all natural watercourses, to assure adequate drainage of all low points and to provide proper runoff of storm water. In no instance shall catch basins be located along a driveway cut. Provision shall be made to drain swamps. In addition the Selectmen shall examine the Definitive Plan so that they can determine prior to issuance of a building permit that each lot is properly drained.
3. Water pipes and related equipment, such as hydrants and main shut-off valves, shall be constructed within the subdivision to serve each lot with an adequate water supply for domestic use and fire protection. Construction shall be in conformity with the specifications of the Town Water Commissioners and connection shall only be made to existing mains when in the judgement of the Water Commissioners the capacity is sufficient to accommodate the additional connection.

All water and utility pipes shall be laid to the edge of the street right-of-way for each lot prior to paving or the bond shall cover the cost of restoring the roadway to specification after a cut is made. Roadways must be restored in 48 hours unless an extension in writing is granted by the Selectmen.

4. Where adjacent property is not subdivided or where all the property of the applicant is not being subdivided at the same time, provision shall be made for the extension of the utility system by continuing the mains the full length of streets and to the exterior limits of the subdivision, at such grade and size which will, in the opinion of the Surveyor of Highways and the Water Commissioners, permit their proper extension.

5. Gas installations shall be installed in accord with the requirements of the Fire Chief.

C. Hydrants

1. Hydrants shall be provided every five hundred (500) running feet on one side of each street unless a greater distance is approved by the Fire Chief in writing. They shall be a style approved both by the Fire Chief and the American Underwriters Association.

D. Sidewalks

1. Sidewalks shall be constructed within the subdivision, separated from the pavement area by a seeded strip, as provided in subsection F below.
2. Unless otherwise specified by the Planning Board, the sidewalk shall extend the full length of each side of the street and shall be of the following width:

Along Minor Streets - four (4) feet.
Along Secondary Streets - four (4) feet.
Along Major Streets - five (5) feet.

except as follows:

In a subdivision in which the average lot size exceeds an acre, sidewalks do not need to be provided on minor streets and need be provided on one side only of secondary streets. However, no reduction shall be made in the required right-of-way. Around a cul-de-sac a sidewalk need be provided on one side only, the exterior side.

3. Construction shall be bituminous concrete in accord with Data Sheet SN-111 included in Land Bulletin #3, Federal Housing Administration,

FORM A

APPLICATION FOR ENDORSEMENT
OF PLAN BELIEVED NOT TO REQUIRE APPROVAL

File one completed form with the Planning Board and one copy with the Town Clerk in accordance with the requirements of Section II-B.

West Newbury, Massachusetts
_____ 1960

To the Planning Board:

The undersigned, believing that the accompanying plan of his property in the Town of West Newbury does not constitute a subdivision within the meaning of the Subdivision Control Law, herewith submits said plan for a determination and endorsement that Planning Board approval under the Subdivision Control Law is not required.

1. Name of Applicant _____
Address _____
2. Names of Engineer or Surveyor _____
Address _____
3. Deed of property recorded in _____ Registry,
Book _____ Page _____
4. Location and Description of Property:

Signature of owner _____
Address _____

FORM C

APPLICATION FOR APPROVAL
OF DEFINITIVE PLAN

File one completed form with the Planning Board and one copy with the Town Clerk in accordance with the requirements of Section III-B

West Newbury, Mass. _____ 1960

To the Planning Board:

The undersigned herewith submits the accompanying Definitive Plan of property located in the Town of West Newbury for approval as a subdivision under the requirements of the Subdivision Control Law and the Rules and Regulations governing the Subdivision of Land of the Planning Board in the Town of West Newbury.

1. Name of Subdivider _____
Address _____
2. Name of Engineer or Surveyor _____
Address _____
3. Deed of property recorded in _____ Registry,
Book _____ Page _____
4. Location and Description of Property:

Signature of Owner _____
Address _____

FORM B

APPLICATION FOR TENTATIVE APPROVAL
OF PRELIMINARY PLAN

File one completed form with the Planning Board and one copy with the Town Clerk in accordance with the requirement of Section III-A

West Newbury, Mass., _____ 1960

To the Planning Board:

The undersigned herewith submits the accompanying Preliminary Plan of property located in the Town of West Newbury for tentative approval as a subdivision as allowed under the Subdivision Control Law and the Rules and Regulations governing the Subdivision of Land of the Planning Board in the Town of West Newbury.

1. Name of Subdivider _____
Address _____
2. Name of Engineer or Surveyor _____
Address _____
3. Deed of property recorded in _____ Registry,
Book _____ Page _____
4. Location and Description of Property

Signature of Owner _____
Address _____

