SURVEY AND CITY PLAN

FOR

KEENE, N.H.

by

George Nez

A.B., Olivet College (1941)

SUBMITTED IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS OF THE DEGREE OF

MASTER IN CITY PLANNING

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

May 19, 1950

Signature of Author _____

Certified by _____

Head, Department of City and
Regional Planning

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(Pages 136 - 139)

108 Tech Lane
Westgate
Cambridge, Mass.
May 19, 1950

Professor Frederick J. Adams
Department of City and Regional Planning
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Professor Adams:

In partial fulfillment of the requirements for the degree of Master in City Planning, I submit this thesis entitled "Survey and City Plan for Keene, New Hampshire".

Respectfully,

George Nez

Acknowledgements

Thanks are due for valuable assistance given by:

Prof. Roland Greeley

Prof. Burnham Kelly

Prof. Kevin Lynch

Mr. Henry Goodnow, City Manager of Keene, N.H.

Mr. Robert Shaw, Superintendent of Public Works

Mr. Chester F. Langtry, City Engineer

Mr. L. Roland Taylor, Chairman, Keene Planning Board

Mr. John R. Holbrook, member, Keene Planning Board

Mr. Ralph W. Newell, member, Keene Planning Board

Mr. Lloyd W. Hewitt, member, Keene Planning Board

Mr. Arthur Whitcomb, member, Keene Planning Board

Mr. William H. Shea, member, Keene Planning Board

Mr. Ralph M. Clark, member, Keene Planning Board

Dr. Leroy Ford, Mayor, City of Keene

Mr. Herbert Allen, Executive Secretary Keene Business Bureau

Mr. Eliot Priest, Chairman of Industries Committee, Keene Business Bureau

Mr. Sulo J. Tani, Planning Director, N.H. State Planning and Development Commission

Thirty-eight manufacturers in Keene and the region were very cooperative in the industrial survey.

SECTIONS Page

About Keene Growing Up 1

Planning: Formality and Actuality 7

The Planning Record to Date 12

The Scope of This Report 16

Keene's Place in the Region 19

section summary 22

The Trend of Keene's Population 24

section summary 27

Trends in Basic Industrial Employment 33

section summary 44

Buildable Land Sets the Pattern 49

section summary 52

The Land Use Pattern in Motion 55

section summary 63

Troubles of Irregularly Shaped Properties 66

section summary 71

Housing Now and in 20 Years 74

section summary 81

Recreational Requirements 86

section summary 95

Schools as Community Fixtures 97

section summary 101

SECTIONS	Page
Traffic and Parking Demand Relief	106
section summary	117
Subdivision Control and an Official Map: Assistance to Good City Development	121
section summary	130
The Proposed City Development Plan	134
Zoning is Instrumental to Planning	143
Tax Policy to Assist the Plan	147
Summary of Main Recommendations	148
What Would It Cost Under Planning?	150
In Conclusion	152

ADDENDA

Aerial Photo Coverage of Keene	155
Keene Planning Ordinance	161
Population Statistics	162
Industrial Questionnaire Form	164
Harvard School Survey	169
Description of Potential Parking Lot Sites	170
Monthly Traffic Fluctuation	172
Present Subdivision Control Ordinance	173
State Enabling Legislation for Subdivision Control and Official Community Map	174

CHARTS AND ILLUSTRATIONS

Figure		Page
1	Organization of Keene City Government	6
2	Keene Trading Area Towns	18
3	Trading Area Traffic Volumes	18 b
	Shopping Questionnaire, Trading Area	20
4	Population Graph	23
5	New England Industrial Statistics	29
6	Employment Trends Compared	30
7	Industrial Questionnaire Results	31
8	Life Span of Keene Establishments	31 b
9	Trends in Employment and Population	32
10	Present and Potential Industrial Land	32 b
11	Soil Map	46
12	Topographic Map	46 b
13	Buildable Land	47
14	Flood Map	47 b
15	Water Mains	48
16	Sewer Mains	48 b
17	Land Use Map	53
18	Land Use Analysis	53 b
19	Business Location Map	54
20	Subdivision Plan Case 1	65
21	Subdivision Plan Case 2	65 b
22	Housing Map	73
	Housing Statistics	79

Figure		Page
23	Proposed Park "K"	84
24	Proposed Park "J"	84 b
25	Improvements at Robin Hood Park	85
26	Improvements at Fuller Park	85 b
27	Recreation Statistics	88
28	Recreation Layout	89
29	Recreation Coverage	90
	Description Existing Adequate Playgrounds	91
	Improvements and Potential Playgrounds	92
30	Keene Traffic Volume	103
31	Federal Aid Circumferential Road	103 b
32	Parking Condition Map	104
33	Downtown Parking Lot and Loop Street	105
	How Subdivision Control Would Work	128
34	Planning Problems Map	132
35	City Development Plan	133
	Suggested Payment Schedule	151
36	Aerial Photos of Keene	155-160
	Population Statistics	162
	Harvard School Survey Maps	169
	Monthly Traffic Fluctuation	172

about Keene growing up

For all that is charming and orderly in Keene today, the present generation owes an obligation to the old-timers who built with good taste and a warm regard for their home town; built wide Elm-lined streets, laid out generous lots, erected sound houses, donated and reserved large parks for public lands on the town's outskirts.

At the town meeting of October 1, 1736, the following vote was recorded, to which noble act Keene is indebted for its wide and elegant Main Street:

> "Foreasmuch as the Town Street is judged to be too narrow to accomidate the Propiators, Voted, That Every Propriator whose Lotts Ly on the west side of said street, that will Leave out of his Lott at the front or next adjoyning to sd Street four Rods in depth the whole bredth of their Respective Lotts to accomidate the sd street Shall have it made up in quantity in the Rear or other End of their Lotts.
>
> Jeremiah Hall Moderator"

By advantage of a good level site and early railroad connections and good Yankee business enterprise, that

ambitious community has grown forty times in population, spread development across the Ashuelot Valley, extended its trading service over a region of some twenty odd dependant towns, and sent its manufactures out over national markets.

Particularily during periods of prosperity and wartime, it gained an influx of population from the surrounding region of small towns and farms. Today again Keene is trying to build up enough of the right kind of housing, streets, services, schools, and shopping to accomodate an extraordinary population increase which happened in the past decade.

A look at Keene from an airplane reveals the stages of city history. First and fortunately Captain William Chandler chose as broad and level a town site as can be found in this region. Second, enterprising Keene trade drew horse and buggy traffic from all directions on roads which grew like spokes of a wagon wheel converging at the hub. Then came the railroad, laying a ribbon of factories squarely across the wheel. Finally, the motor truck and automobile crowded in, widened and straightened and paved the wheel-spoke roads and carried new housing beyond walking distance of Central Square.

Just as the railroad ribbon trampled across the inadequate horse and buggy pattern, so the motor vehicle,

having crowded too much congestion into the old hub, now sought new arteries along which to develop new commerce and industry and housing.

Under impact of these forces the city was shaped and reshaped but not always in the best interest of comfortable living. The industrial belt cut the town in half, degraded the housing and other land uses lying in the no man's land which bordered on the factories, and held back the "wrong side of the tracks" from free and equal access to stores, schools, and parks lying mostly on the other side of town. It poured southward a blanket of smoke, and loaded the streets with trucks and working traffic. It had the net effect of driving good residence out toward the edges and over the valley into undeveloped lands.

The auto had a somewhat better effect on general living conditions by helping to disperse residence. But then the old dignified central areas were overrun with automobile traffic. This changed the use of main street property from residence to business of any and all sorts. The pleasant old houses still left along Winchester Street, West Street, Washington Street, Roxbury Street, and Marlboro Street fight a losing battle against advancing store fronts and gas stations.

Interior residential areas away from the main drag

of traffic suffer indirectly from surrounding intensive land uses and traffic circulation. They become parking streets and shortcut streets. As they lose their traditional quality of single family homes, the old houses convert into multi-family apartments.

These basic trends shaping and reshaping the city are of great concern to the city government, since it is charged with improvements of streets, underground utilities, schools and playgrounds, traffic controls, and parking lots; it is charged with inspecting new building construction and alteration, and controlling land uses under zoning regulations; it must set equitable tax values and allocate public works to fit this growing and changing city.

Likewise Keene business men, manufacturers, and home builders, if they are to invest wisely and guard their investments, must concern themselves with city development trends. A clear understanding between the city official, the businessman, and the homebuilder, regarding a desirable pattern of land use, is the necessary basis for good development. In past years development was left partly to the ambitions of current city officials, the expediences of one-year city budgets, the requirements of seperate industries, seperate businesses,

and seperate house builders. More general problems of the street system, traffic circulation, parking, degrading conflicts of land uses and growing inadequacy of schools and play areas, came up only as separate emergencies to be faced when the city could afford it.

* * *

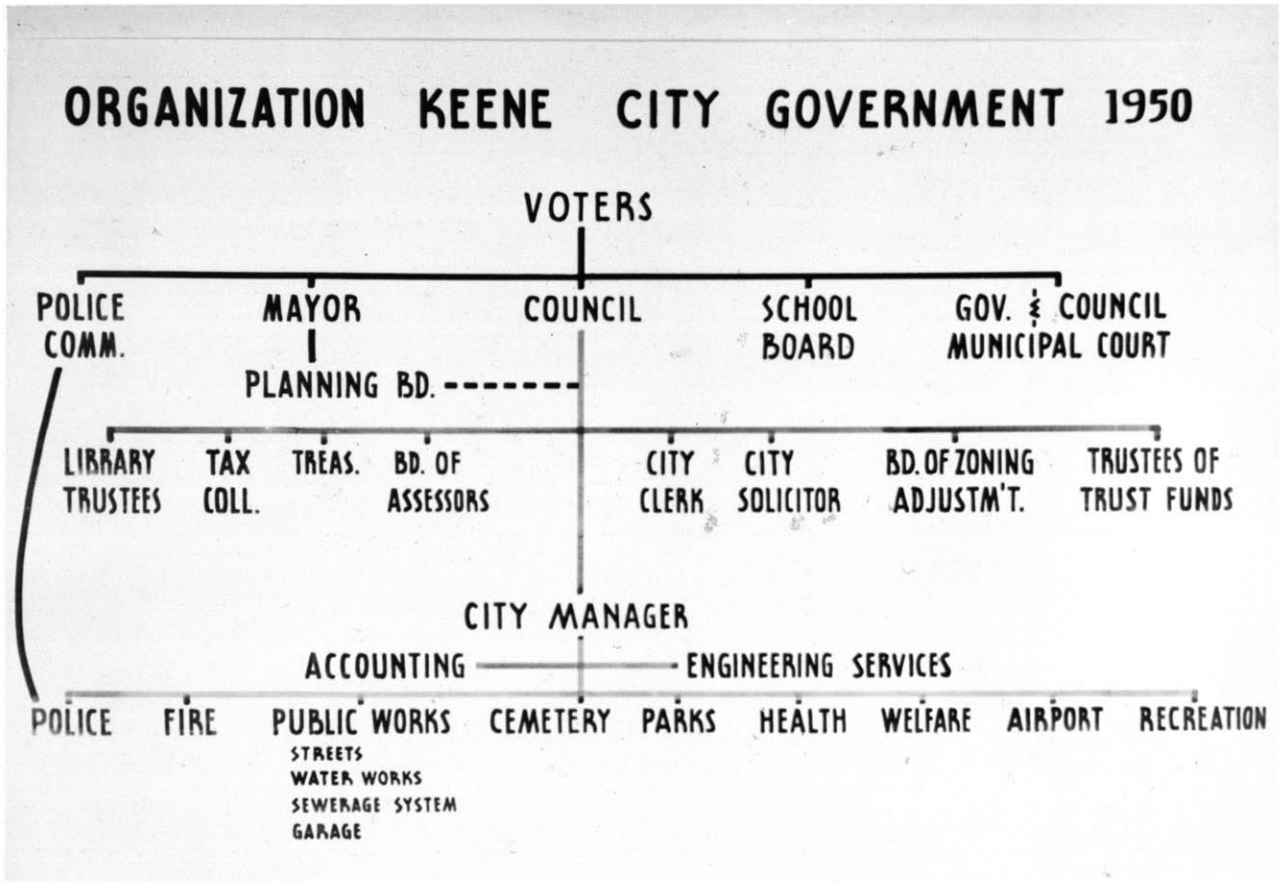
ORGANIZATION KEENE CITY GOVERNMENT 1950
VOTERS
POLICE COMM.
MAYOR
COUNCIL
SCHOOL BOARD
GOV. & COUNCIL MUNICIPAL COURT
PLANNING BD.
LIBRARY TRUSTEES
TAX COLL.
TREAS.
BD. OF ASSESSORS
CITY CLERK
CITY SOLICITOR
BD. OF ZONING ADJUSTM'T.
TRUSTEES OF TRUST FUNDS
CITY MANAGER
ACCOUNTING
ENGINEERING SERVICES
POLICE
FIRE
PUBLIC WORKS
STREETS
WATER WORKS
SEWERAGE SYSTEM
GARAGE
CEMETERY
PARKS
HEALTH
WELFARE
AIRPORT
RECREATION

Figure 1

Planning: formality and actuality

In Keene's modern City Government the Planning Board has the important function of studying Keene's development apart from current pressures and politics. It takes the long view of desirable growth, develops a long-range city plan, promotes public and official understanding of the plan, and advises the Council and administration on specific development problems such as new street extensions, subdivisions and public works which have a bearing on the quality of future Keene.

The Planning Board was established in 1940 under Chapter 55, General Laws of New Hampshire.(1) The city ordinance prescribes:

> "It shall be the function and duty of the Planning Board to make...a city plan for the development of the municipality including any areas outside its boundaries...which bear relation to the planning of

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(1) Planning Ordinance bound into Addenda p.161.

> the municipality. Such city plan, with the accompanying necessary maps, plates, charts and descriptive matters may be designated with the intention of showing as fully as possible...the Planning Boards recommendations for the desirable development of the City. The Planning Board may make careful and comprehensive surveys and studies of existing conditions and of data and information relative to the probable future growth of the municipality and its environs. The city plan shall be made with the general purpose of guiding...a harmonious development of the municipality and its environs which will, in accordance with existing and probable future needs, best promote health, safety, morals, order, convenience, prosperity, and the general welfare, as well as efficiency and economy in the process of development; including among other things adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of good civil design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements."

As shown on the organization chart of Keene's government the Board is at a policy level to receive important questions which come before the Council, Mayor, and Manager. In practice routine questions of new street extensions, and new subdivisions, are also referred to the Board. Clearly the Board is in a position to be very helpful, providing it is equipped with the city plan. In successive annual reports the Board has expressed its need for the technical assistance of a City Planner to establish this plan.

The present report will constitute a part of the Board's requirement. The immediate next job should be a capital improvement budget extending five or six years

ahead. This would enable the Board to schedule projects under the city plan.

It must be emphasized that neither the plan nor the capital improvement budget can be left very long in their original form. In the course of progress, projects and finances must be made exact. Particularly the Capital Budget, the financial vehicle of the plan, must be put into exact figures for each year's program, in line with public works costs and city revenue.

Last but not least the Board needs active press relations and public displays of planning material. It is not enough to contact the public only in a hearing on a new street acceptance. In such a tension situation there is little chance to expound the real plan which actually stands behind the discussion. Newspaper publicity, map displays, and public lectures will arouse public interest to support the general cause of planning and thus help to work out specific problems that always arise.

The present membership of the Planning Board spans a broad field of experience. This is a strong feature which enables it to handle wisely the variety of problems coming before it. Members and their background are as follows:

Chairman:	L. Roland Taylor	- Insurance
	John R. Holbrook	- Architecture
	Ralph W. Newell	- Press
	Lloyd W. Hewitt	- Industry
	Arthur Whitcomb	- Construction
	William H. Shea	- Labor
	Dr. Leroy Ford	- Mayor, Physician
	Ralph M. Clark	- Member City Council, Former City Engineer
	Henry Goodnow	- City Manager
Secretary:	Chester F. Langtry	- City Engineer

The list of interested people and groups who talk to members of the Planning Board both inside and outside formal meeting would be much longer. Keene has by no means outgrown the healthy habit of talking things over on the street corner, in the office, shop, and home, and advancing proposals in public hearings, civic clubs, business organizations and everyday conversations with members of the Planning Board. All this is very helpful to the deliberations of the Board. Members actually spend a good deal of time talking with the public and particularly with those who may be affected by the current decisions.

The Keene Business Bureau has worked closely with the Planning Board on traffic and parking plans and on the industry survey contained in this report. In all the

phases of planning which are of mutual interest to the Board and Business Bureau close cooperation should be the rule.

* * *

the planning record to date

An early forerunner of formal City Planning activity was the Keene Development Corporation begun in 1913. Keene at that time was faced with the possible loss of several industries. Prominent citizens and members of the Chamber of Commerce proposed a public non-profit corporation to subscribe an issue of stock in order to build adequate factories and workers' houses not only for the threatened industries but for additional new industries yet to come. Banks put up the balance when the program proved popular. A number of factories and houses were built and the scheme did in fact add sizable industry and population and taxable value to Keene.

The next major step in City Planning was the establishment in 1926 of a zoning commission and ordinance.

The commission soon thereafter engaged Mr. Arthur A. Shurtleff to study and report a City Planning program

for Keene. His report, delivered in 1927 for publication in the Annual Report of that year, was an excellent catalogue of Keene's good and bad features. It included a number of specific recommendations for improvement of streets, parks, zoning categories and marginal stream-side lands. The main administrative recommendation called for a system of reviewing proposed subdivision and street extensions by a joint meeting of the city engineer and building inspector, the superintendant of public works, and the Planning Board. Plans were included with the report showing an overall street scheme, an island separating the center of Main Street in down-town Keene, and a new park and street junction on South Main Street.

Mr. Shurtleff turned over the report with strong warnings against delaying development until a day when circumstances would force them at a much higher cost in property and efficiency. His far-sighted advice was largely unheeded but circumstances turned out to prove him correct.

The next step toward a city plan was made in 1941 by the newly-formed Planning Board which, acting at the Mayor's request, engaged Mr. Charles T. Meloon and Mr. William Stanley Parker to review the city's budgeting procedure and recommend a capital expenditure budget. A

thorough picture of past, current, and anticipated city expenditure was produced which pointed out the need for a systematic reorganization of accounts for the purpose of clearly controlling operating expenditures on the one hand and capital improvement expenditures on the other. This would have enabled the city to plan capital expenditures over a period of years and thereby accomplish a long-range schedule of public works under a controlled tax rate. Properly such a study should have been based on prior physical planning, so that long-range fiscal planning would have meaning. The financial estimates were tentative pending the unusual economic conditions of wartime. But the procedural recommendations were influential in getting centralization of accounts in the office of comptroller.

In 1946 the Planning Board engaged Mr. Donald Durell to draw up a map of the city's land uses. He also provided them with an analysis of Keene's land use as compared with the average city. All of this work was used in the present report.

In 1949 the board hired the author as a resident technical assistant, to undertake the project of alleviating the downtown traffic and parking. At the end of three months of traffic measurements and experiments,

an eleven point report[1] was worked out jointly with the Business Bureau and Police Department. Most of the points have been put into effect. Off street parking, the main point, has been restudied in this report.

The traffic experiment proved the need for a wider solution to the problem of through traffic, which would have to include by-pass routes avoiding the heart of town.

All of the conditions discussed so far pointed to the wisdom of Section 7 of the City Planning Ordinance calling for a City Plan. The Planning Board felt that it was high time to undertake this project.

* * *

---

(1) Report on Downtown Traffic, Parking, and New Business Frontage. Keene Planning Board and Business Bureau. 1949

the scope of this report

This report is arranged in a series of surveys which describe the planning characteristics of present-day Keene, how Keene got that way, and how it is likely to develop. These are followed by the City Development Plan and a summary of recommendations.

The surveys are building blocks of the plan, and essential to all other planning considerations. A population of 15,000 presents an adequate statistical base for indications of future population, industry, housing, etc. But surveys cannot rely on statistics alone. In dealing with living situations, understanding counts as much as numbers; it must, in order that plans turn out to be desirable as well as logical. The ideal plan is that which can bring the two sides of current problems - the "desirable" and the "necessary" - to one and the same solution.

The solutions called for by these respective surveys are fitted together in the City Development Plan of twenty years range. This period is long enough to allow time for Keene's natural rate of growth to accomplish the large factors of the plan, and yet short enough to put these accomplishments within reach of the present generation. (This time period by no means overlooks the need for immediate developments; in fact it will facilitate early progress by offering guidance and protection.)

The plan shows land use and street developments which are necessary and desirable. It will have no compulsion except desirability. Its only force will lie in recognition by the Planning Board, City Council, City Departments, Business Bureau, and an informed public, who will be thinking together and working together in mutual interest.

The plan will provide guidance to the city government in problems of zoning, street extensions, and subdivision controls, and public works planning under a capital improvement budget.

* * *

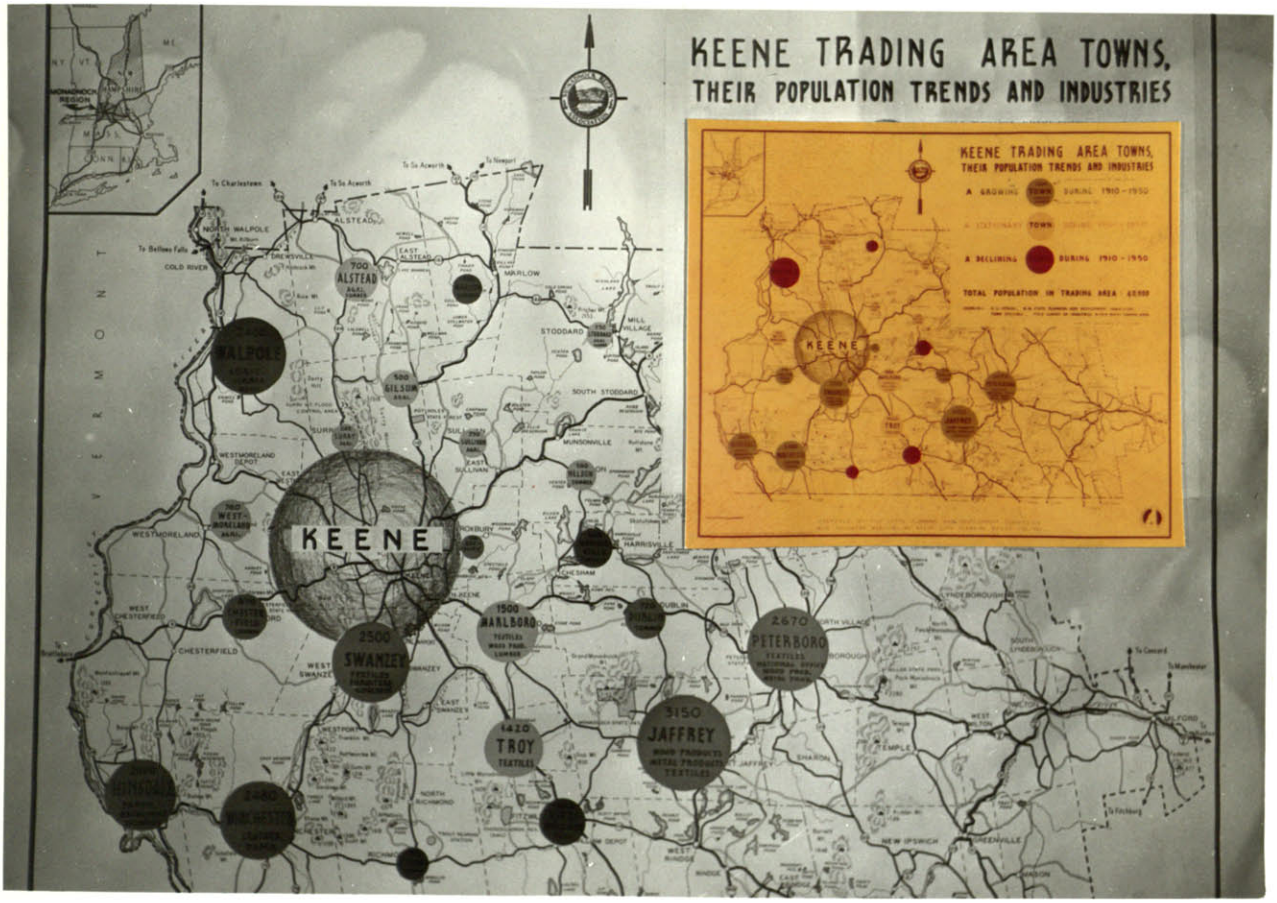

KEENE TRADING AREA TOWNS,
THEIR POPULATION TRENDS AND INDUSTRIES
KEENE TRADING AREA TOWNS,
THEIR POPULATION TRENDS AND INDUSTRIES
KEENE
WALPOLE
ALSTEAD
SWANZEY
TROY
JAFFREY
PETERBORO
MARLBORO
VERMONT

Figure 2

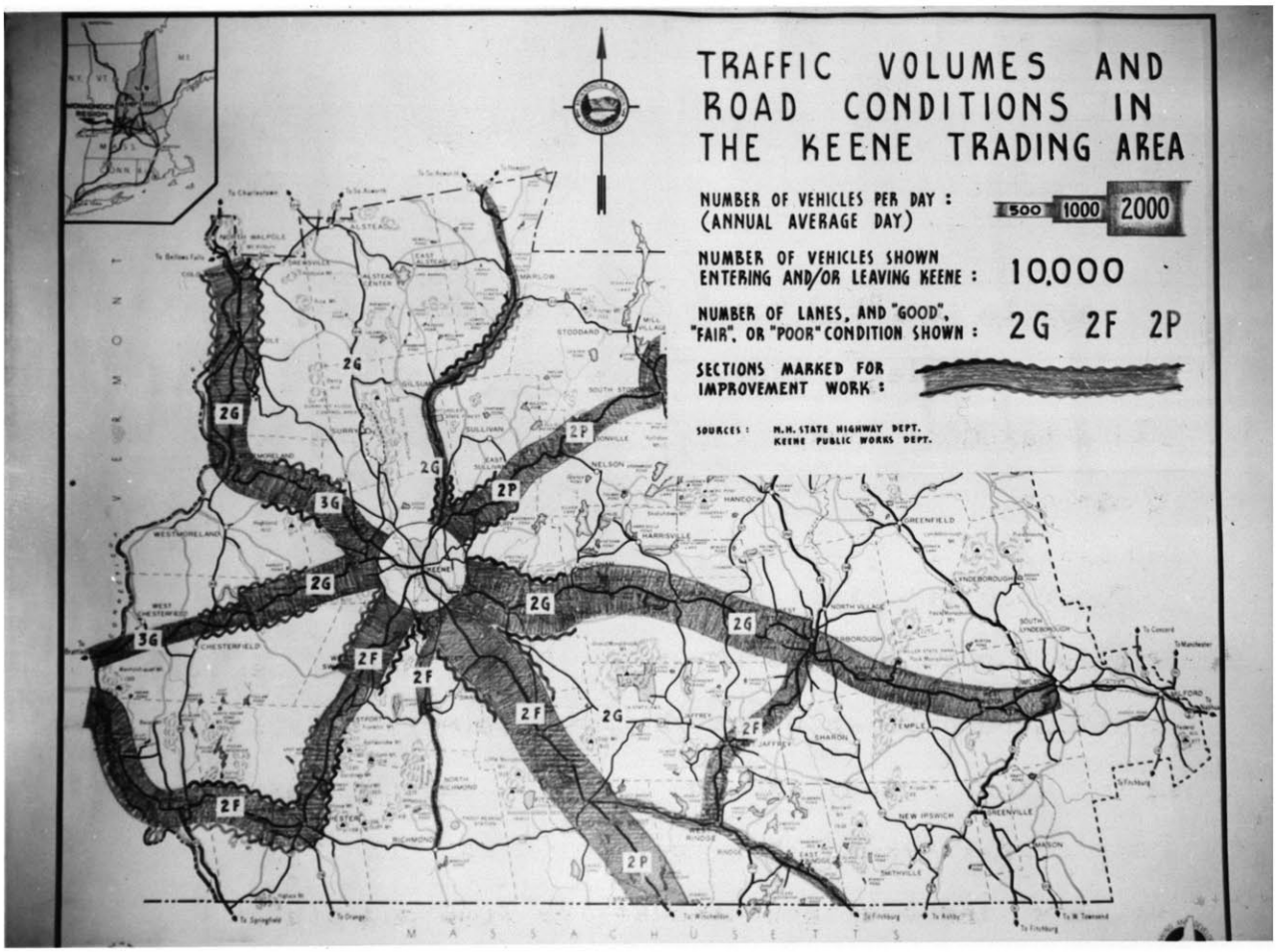

TRAFFIC VOLUMES AND ROAD CONDITIONS IN THE KEENE TRADING AREA
NUMBER OF VEHICLES PER DAY : (ANNUAL AVERAGE DAY)
500 1000 2000
NUMBER OF VEHICLES SHOWN ENTERING AND/OR LEAVING KEENE : 10,000
NUMBER OF LANES, AND "GOOD", "FAIR", OR "POOR" CONDITION SHOWN : 2G 2F 2P
SECTIONS MARKED FOR IMPROVEMENT WORK :
SOURCES : N.H. STATE HIGHWAY DEPT.
KEENE PUBLIC WORKS DEPT.
2G
2P
3G
2F
MASSACHUSETTS

Figure 3

Keene's place in the region

Keene is the "big town" of the Monadnock Region; trading center, legal center, medical center, education and entertainment center for some twenty odd smaller communities.

The relative sizes of all these towns, as shown by Figure 2 page 18, have important planning implications. Population records show that Keene grew more consistently than the other towns, and that those towns having industries maintained their growth better than the rest. Conversely, those without industries remained stationary or declined.

Gradual "urbanization" has been going on in New Hampshire; a process in which smaller towns remain stationary or decline while sending their population, along with farm population, into a central city where modern industry and commerce provide better employment

opportunities and the city provides more interesting social life. In this process Keene actually functions as the center of a loosely knit suburban region; all main roads lead into the city, bringing commuters to work, to school, to stores, offices and theaters.

Regional road convergence in Keene loads the city with thousands of extra care in addition to Keene traffic. (See figure 3 page 18b) This extra load consists both of commuting and through traffic, and both are increasing. The scale of this increase may be appreciated by New Hampshire State Highway Department figures showing that auto ownership is growing one more car per 100 persons each year.

A survey conducted by the Keene Teachers' College in four of the towns in Keene's trading area shows to what extent Keene's regional shopping business depends on good traffic and parking conditions:

COMBINED ANSWERS TO INTERVIEWS MADE IN TROY, WINCHESTER, JAFFREY, AND WALPOLE

1. Main reason for selecting shopping town, (694 answers):

Accessibility - Road conditions		21%
Values - prices and variety		18%
All types merchandise available		14%
Courteous and prompt service		11%
Other reasons		11%
Available transp. - bus service, etc.		7%
Convenient evening hours		9%
Parking facilities		5%
(Do you favor parking meters	81 yes 71 no)	
Better amusement facilities		4%
		100%

2. Do you shop in Keene? Yes, because, (780 answers):

Values, price, etc.	23%
All types merchandise	22%
Accessibility, road conditions	12%
Other	10%
Amusement facilities	9%
Parking facilities	8%
Courteous and good service	6%
Available transportation	5%
Convenient evening hours	5%
	100%

3. Do you shop in Keene? No, because, (197 answers):

Poor accessibility, poor roads	16%
Poor transportation	16%
Poor parking facilities	13%
Poor service and inattention	12%
Inconvenient evening hours	11%
Poor values, prices, etc.	9%
Other	9%
Poor selection of merchandise	7%
Lack of amusement facilities	4%
Closed Wednesday afternoons	3%
	100%

The volume of through traffic is known to be very heavy in summertime. A most helpful survey would be Origin and Destination of all incoming cars. Such a survey is to be carried out by the New Hampshire State Highway Department this summer.

A critical fact is that the highway system converging in Keene pours through the city volumes of traffic which originate in New York City, Connecticut, Massachusetts, and up-state New York, headed north and east to vacation lands. As far as Keene is concerned this is all excess traffic, notwithstanding the small wayside income (which would accrue to Keene business anyway even if traffic

could conveniently by-pass downtown congestion). Expected benefits from quick-stop vacation business are more wishful than real under present conditions of inadequate parking capacity in downtown Keene, which is hardly sufficient for local and regional shopping traffic during the rest of the year.

Section Summary

By-passes to eliminate through traffic from Central Square, and parking lots to handle shoppers who desire to come into the Square, would loosen up downtown congestion for the benefit of business and good appearance. Federal road aid is available to the city for improvement of traffic capacity and the better handling of regional traffic. Keene should try to use as much of this aid as it can match, and go ahead by itself on off-street parking.

* * *

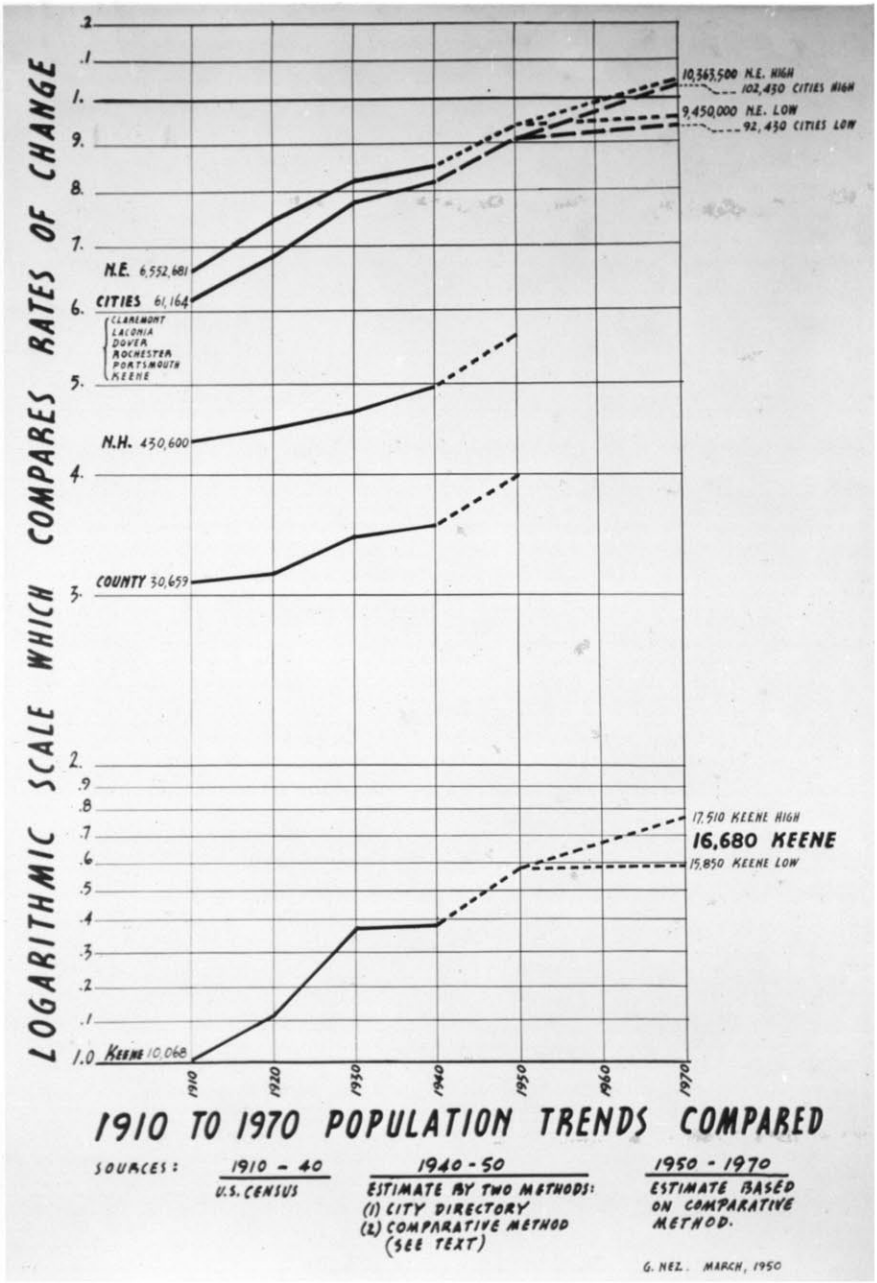

LOGARITHMIC SCALE WHICH COMPARES RATES OF CHANGE
2
.1
1.
9.
8.
7.
6.
5.
4.
3.
2.
.9
.8
.7
.6
.5
.4
.3
.2
.1
1.0
N.E. 6,552,681
CITIES 61,164
CLAREMONT
LACONIA
DOVER
ROCHESTER
PORTSMOUTH
KEENE
N.H. 430,600
COUNTY 30,659
KEENE 10,068
10,363,500 N.E. HIGH
102,430 CITIES HIGH
9,450,000 N.E. LOW
92,430 CITIES LOW
17,510 KEENE HIGH
16,680 KEENE
15,850 KEENE LOW
1910
1920
1930
1940
1950
1960
1970
1910 TO 1970 POPULATION TRENDS COMPARED
SOURCES:
1910 - 40
U.S. CENSUS
1940 - 50
ESTIMATE BY TWO METHODS:
(1) CITY DIRECTORY
(2) COMPARATIVE METHOD
(SEE TEXT)
1950 - 1970
ESTIMATE BASED ON COMPARATIVE METHOD.
G. NEZ. MARCH, 1950

Figure 4

the trend of Keene's population

Population trends apply to city planning in many ways, particularly in planning subdivisions, streets, utility projects, schools, playgrounds, the capital expenditure budget, and zoning.

It is necessary to work out a twenty year trend forecast of Keene's population, to serve as a basis for twenty years of planned city development. While the forecasting of exact numbers is impossible, methods have been worked out for predicting approximate population within a ten per cent range of allowance which is suitable for planning purposes.

Two independant methods are applied here, which point to a 1970 figure of 16,800 (plus or minus 5%). One of these methods, "A", deals purely in population statistics, and indicates an answer of 16,680 (plus or minus 5%). The other method, "B", deals

purely in economics, and indicates an approximate answer of 17,000. A mid-point of 16,800 is accepted as the probable 1970 population.

Method A (See Figure 4 Page 13.)

First, population records (1) are plotted for New England, New Hampshire, Cheshire County, Keene, and the combined New Hampshire cities which are similar to Keene in size and economy. It is found that the curve of the combined cities resembles the New Hampshire curve, and the Keene curve resembles these two. The remaining two curves include a large percentage of stationary or declining rural population.

Second, population curves for New England, the combined cities, and Keene were carried forward: (A) The New England curve was taken from the U.S. Census Bureau. (B) The combined cities curve was carried forward to 1950 by reference to 1950 estimates made by newspapers of each of the combined cities. (C) The Keene curve was carried forward to 1950 by reference to the local newspaper and also by means of the current City Directory. (2)

---

(1) Addenda page 162.

(2) City Directories for 1930 and 1940 were found to list a consistent proportion of the total Keene population as reported by the respective U.S. Censuses. This proportion was 59.5% in one case, and 59.0% in the other. The recent Directory "1949-50" reported 9360 persons, which is assumed to represent 59% of Keene's present population: 15,750.

(D) Having found similarity between the curves for New England, the combined cities, and Keene, the New England forecast to 1970 was taken as the best reference for forecasting these other curves.

The method applied here may be called "rate comparison". It is based on the principle that the separate rates of change of each of two population curves will remain in fairly constant proportion to each other if they showed such proportion in the past. Here is how the method was applied:

(1) New England population increased by 14.5%, from 1930 to 1950.

(2) The combined cities population increased by 18%, over same period. (This is 1.25 times the New England percentage of increase, a ratio which has held in the past.)

(3) The census bureau forecasts a 6% increase in New England population by 1970.

(4) The Combined Cities curve is expected to increase 1.25 times 6%, which is 7.5%.

(5) Repeat steps 1 to 4 using the Combined Cities as a base for the projection of Keene.

Method B (See Figure 9 Page 37.)

This method forecasts 1970 Keene population by economic analysis. Shown at the top of the 1939 bar is a population figure which is 6.2 times total basic employment 2230. The 1949 bar shows total population

to be 5.5 times basic employment (this increase in the portion of total population employed in industry is explained by war stimulation to Keene manufacturing). The 1970 estimated employment (explained in the next section of this report) is multiplied by 5.5 to indicate a total population of about 17,000.

This method of forecasting population is justified by an obvious relationship between population and employment. Basic industries produce for markets outside Keene, and thereby bring money into Keene as a net increase in purchase power. Power to buy clothing, food, building materials, and furnishings represents support for more people.

Section Summary

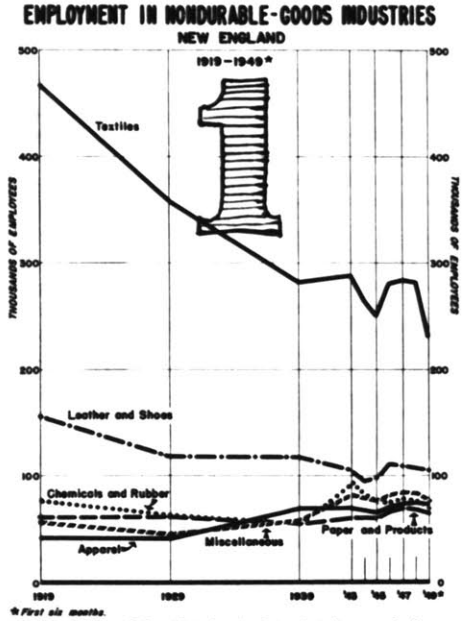
These methods of estimating Keene's 1970 population have considered all available relevant data, and have begun back far enough to include effects of depression, war, and prosperity. Therefore, the 1970 forecast makes allowance for such possibilities.

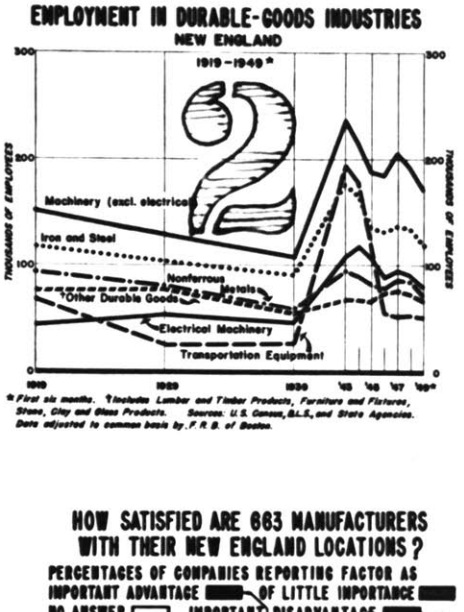
Keene may expect a population increase of 1000 by 1970; 280 more families. This may seem too conservative for the Keene booster but it is the most reliable basis for planning.

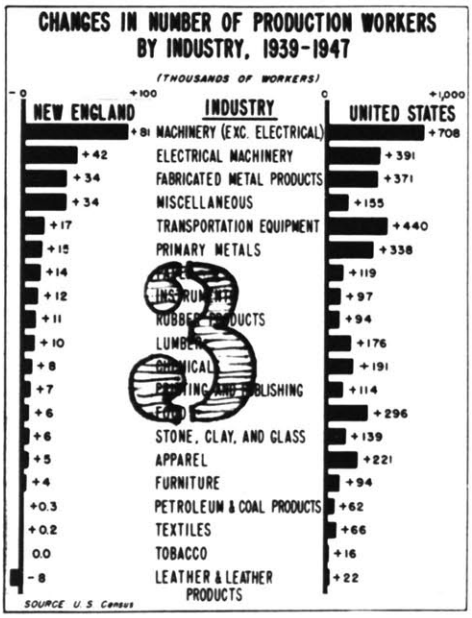
This increase calls for no drastic expansion of subdivisions, new streets, or public works. Rather, it calls for improvement of the facilities which already exist, and a certain amount of extension work in which the city can do a gradual and high quality job.

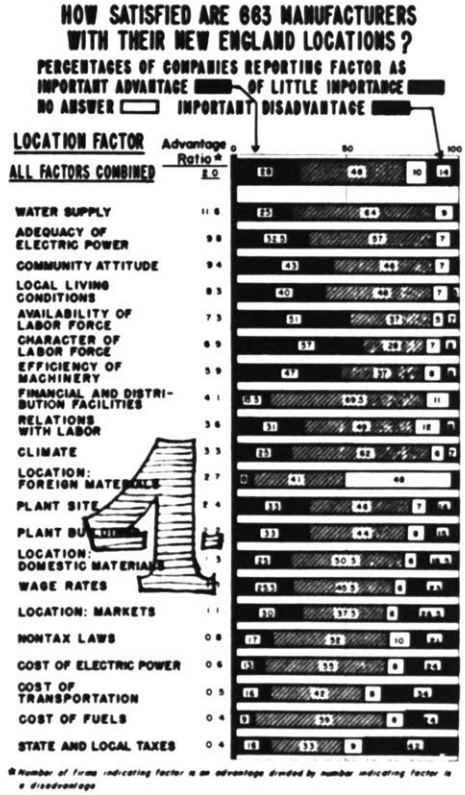
* * *

CHARTS COMPILED BY FEDERAL RESERVE BANK, BOSTON









STATE DIFFERENCES IN LOCATION APPRAISALS OF 663 NEW ENGLAND MANUFACTURERS

(Ratios Between Numbers of Companies Reporting Advantages and Disadvantages)

Location Factor	New England	Connecticut	Vermont	New Hampshire	Massachusetts	Maine	Rhode Island
ALL FACTORS COMBINED	2.0	3.1	2.1	1.9	1.7	1.6	1.3
Water Supply	11.6	40.0	19.0	7.7	7.5	Infinite	5.0
Adequacy of Electric Power	9.8	67.0	2.6	7.7	7.7	Infinite	Infinite
Community Attitude	9.4	13.7	7.7	10.7	8.5	12.0	4.3
Local Living Conditions	8.3	7.9	8.3	8.3	9.5	18.0	3.3
Availability of Labor Force	7.3	9.3	5.5	2.3	13.3	4.6	3.4
Character of Labor Force	6.9	11.4	11.0	4.6	7.9	4.0	1.7
Efficiency of Machinery	5.9	6.3	5.5	3.8	9.9	3.0	3.8
Financial and Distribution Facilities	4.1	4.5	5.5	5.3	4.4	4.0	5.0
Relations With Labor	3.6	5.2	10.5	9.7	2.3	4.0	4.7
Climate	3.3	5.9	5.5	2.1	3.7	1.0	12.0
Location: Foreign Materials	2.7	6.0	5.5	2.5	3.0	1.0	Infinite
Plant Site	2.4	2.1	5.5	2.1	2.9	0.8	2.2
Plant Buildings	2.2	1.5	5.5	3.1	2.5	1.3	1.4
Location: Domestic Materials	1.3	2.2	2.2	1.9	1.0	0.8	0.6
Wage Rates	1.1	1.9	1.4	1.6	0.9	1.0	0.4
Location: Markets	1.1	1.7	0.9	0.9	1.1	0.5	1.1
Nontax Laws	0.8	2.7	6.0	4.3	0.2	5.5	0.1
Cost of Electric Power	0.6	1.0	0.6	0.4	0.4	1.1	0.4
Cost of Transportation	0.5	0.9	0.3	0.5	0.5	0.2	0.1
Cost of Fuels	0.4	0.8	0.5	0.3	0.3	0.3	0.8
State and Local Taxes	0.4	1.2	1.1	0.5	0.1	0.9	0.2

5

Figure 5

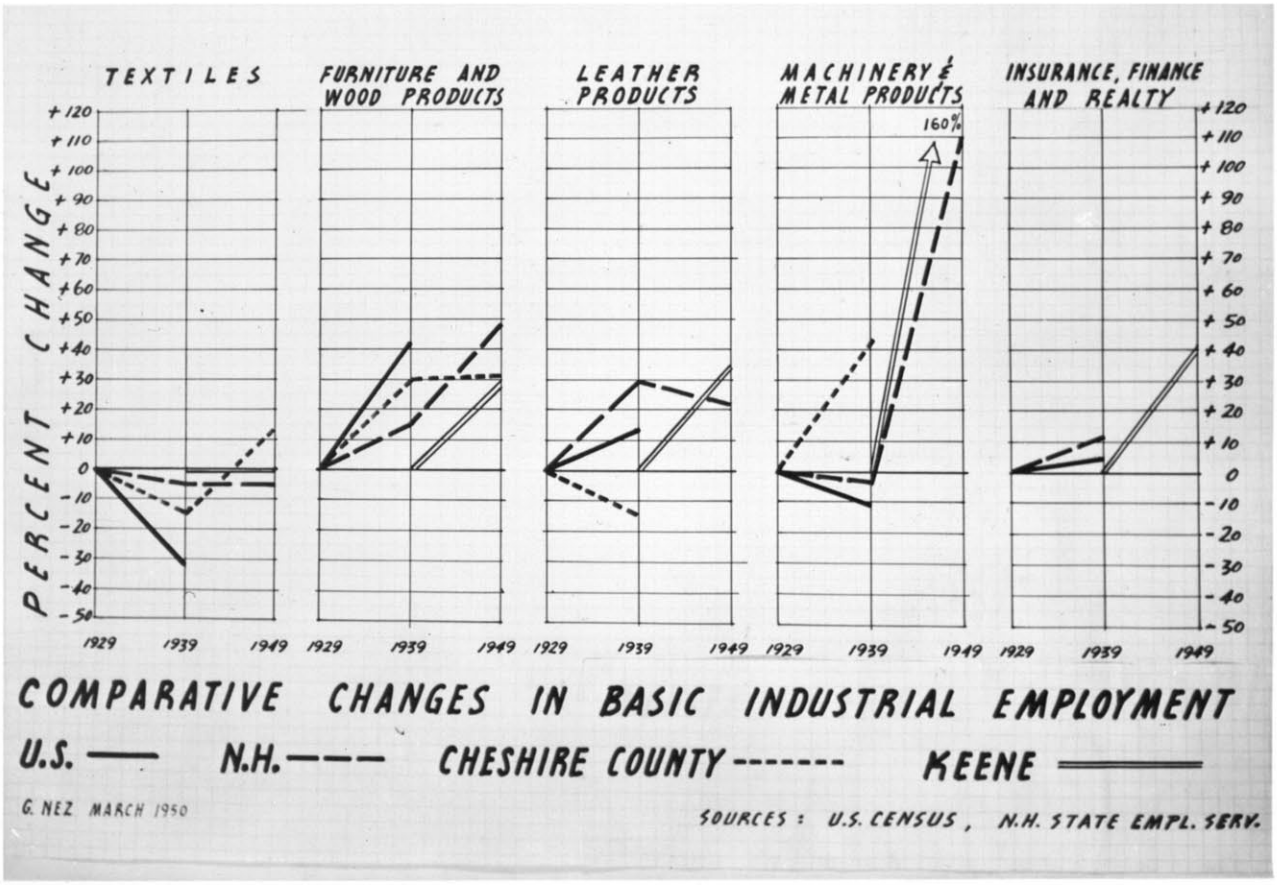
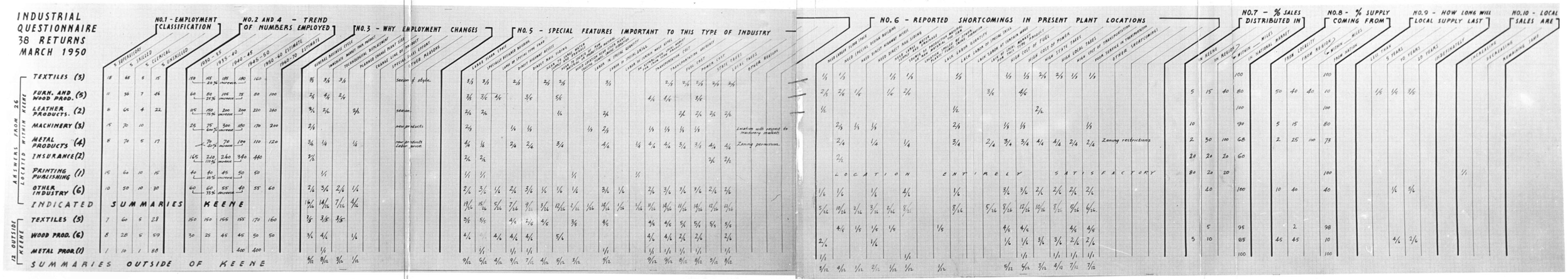

TEXTILES
FURNITURE AND WOOD PRODUCTS
LEATHER PRODUCTS
MACHINERY & METAL PRODUCTS
INSURANCE, FINANCE AND REALTY
PERCENT CHANGE
+120
+110
+100
+90
+80
+70
+60
+50
+40
+30
+20
+10
0
-10
-20
-30
-40
-50
160%
1929
1939
1949
COMPARATIVE CHANGES IN BASIC INDUSTRIAL EMPLOYMENT
U.S. —— N.H. ——— CHESHIRE COUNTY ------- KEENE ═══
G. NEZ MARCH 1950
SOURCES: U.S. CENSUS, N.H. STATE EMPL. SERV.

Figure 6



Explanation of fractions: "3/5" means
3 answers out of a possible 5

Figure 7

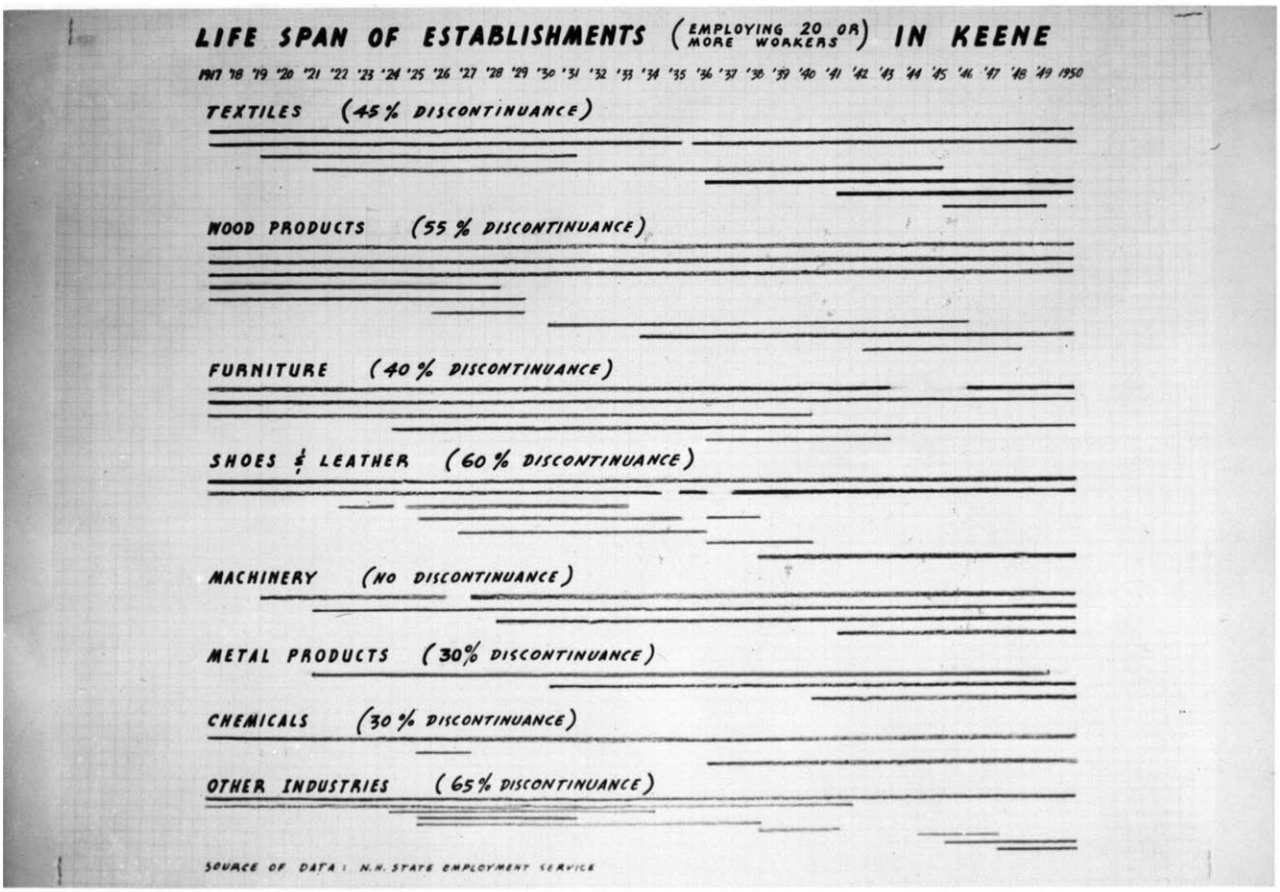

LIFE SPAN OF ESTABLISHMENTS (EMPLOYING 20 OR MORE WORKERS) IN KEENE
1917 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 '30 '31 '32 '33 '34 '35 '36 '37 '38 '39 '40 '41 '42 '43 '44 '45 '46 '47 '48 '49 1950
TEXTILES (45% DISCONTINUANCE)
WOOD PRODUCTS (55% DISCONTINUANCE)
FURNITURE (40% DISCONTINUANCE)
SHOES & LEATHER (60% DISCONTINUANCE)
MACHINERY (NO DISCONTINUANCE)
METAL PRODUCTS (30% DISCONTINUANCE)
CHEMICALS (30% DISCONTINUANCE)
OTHER INDUSTRIES (65% DISCONTINUANCE)
SOURCE OF DATA: N.H. STATE EMPLOYMENT SERVICE

Figure 8

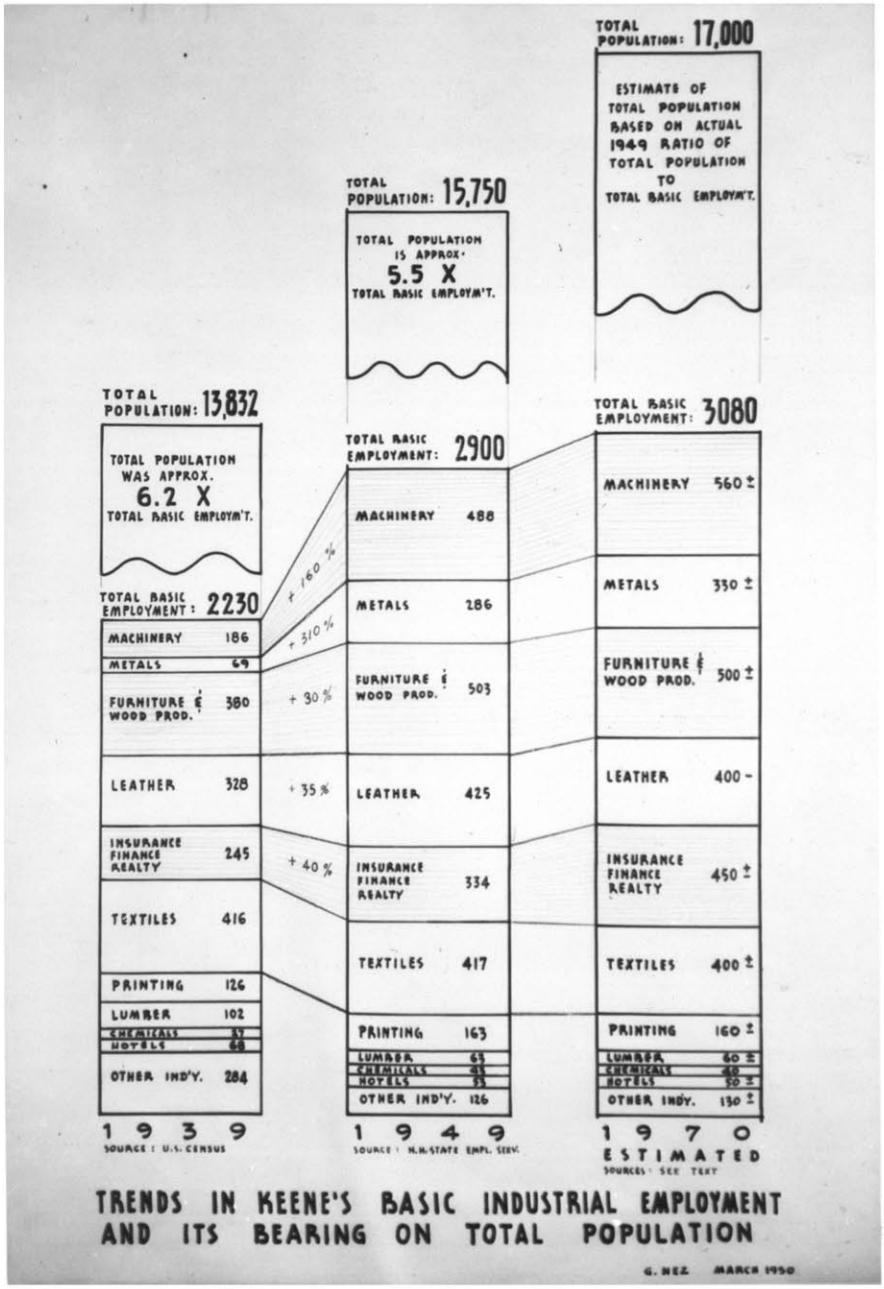

TOTAL POPULATION: 17,000
ESTIMATE OF TOTAL POPULATION BASED ON ACTUAL 1949 RATIO OF TOTAL POPULATION TO TOTAL BASIC EMPLOYM'T.
TOTAL POPULATION: 15,750
TOTAL POPULATION IS APPROX. 5.5 X TOTAL BASIC EMPLOYM'T.
TOTAL POPULATION: 13,832
TOTAL POPULATION WAS APPROX. 6.2 X TOTAL BASIC EMPLOYM'T.
TOTAL BASIC EMPLOYMENT: 3080
TOTAL BASIC EMPLOYMENT: 2900
TOTAL BASIC EMPLOYMENT: 2230
MACHINERY 560 ±
METALS 330 ±
FURNITURE & WOOD PROD. 500 ±
LEATHER 400 -
INSURANCE FINANCE REALTY 450 ±
TEXTILES 400 ±
PRINTING 160 ±
LUMBER 60 ±
CHEMICALS 40
HOTELS 50 ±
OTHER IND'Y. 130 ±
+ 160 %
+ 310 %
+ 30 %
+ 35 %
+ 40 %
MACHINERY 488
METALS 286
FURNITURE & WOOD PROD. 503
LEATHER 425
INSURANCE FINANCE REALTY 334
TEXTILES 417
PRINTING 163
LUMBER 63
CHEMICALS 43
HOTELS 35
OTHER IND'Y. 126
MACHINERY 186
METALS 69
FURNITURE & WOOD PROD. 380
LEATHER 328
INSURANCE FINANCE REALTY 245
TEXTILES 416
PRINTING 126
LUMBER 102
CHEMICALS 57
HOTELS 68
OTHER IND'Y. 284
1 9 3 9
SOURCE : U.S. CENSUS
1 9 4 9
SOURCE : N.H. STATE EMPL. SERV.
1 9 7 0
ESTIMATED
SOURCES : SEE TEXT
TRENDS IN KEENE'S BASIC INDUSTRIAL EMPLOYMENT AND ITS BEARING ON TOTAL POPULATION
G. NEZ MARCH 1950

Figure 9

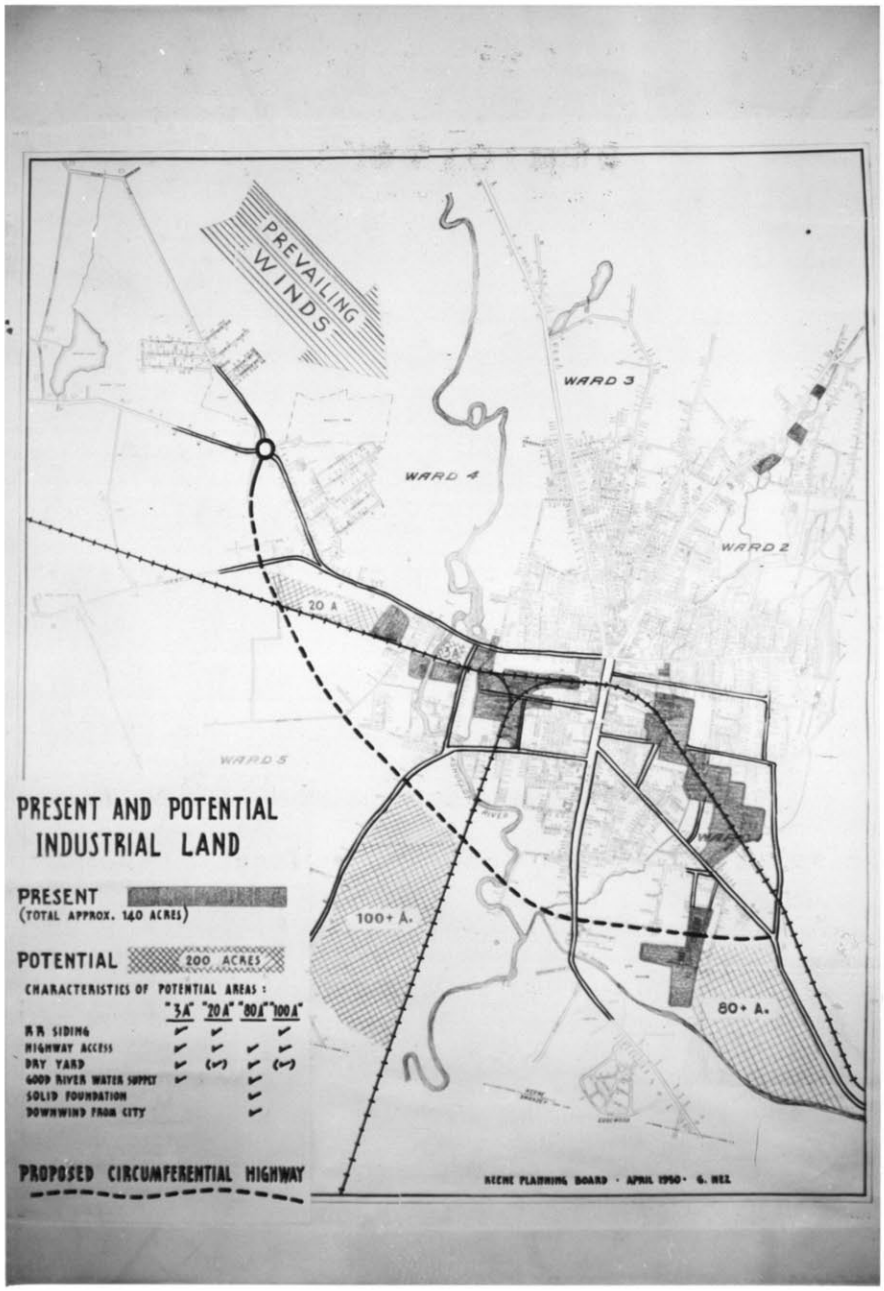

PREVAILING WINDS
WARD 3
WARD 4
WARD 2
WARD 5
20 A
100+ A.
80+ A.
PRESENT AND POTENTIAL INDUSTRIAL LAND
PRESENT
(TOTAL APPROX. 140 ACRES)
POTENTIAL
200 ACRES
CHARACTERISTICS OF POTENTIAL AREAS :
"3 A" "20 A" "80 A" "100 A"
RR SIDING
HIGHWAY ACCESS
DAY YARD
GOOD RIVER WATER SUPPLY
SOLID FOUNDATION
DOWNWIND FROM CITY
PROPOSED CIRCUMFERENTIAL HIGHWAY
KEENE PLANNING BOARD · APRIL 1950 · G. HEE

Figure 10

trends in basic industrial employment

The purpose of this particular survey is to know what amount of basic industrial employment and additional industrial site development to expect over the next twenty years.

Stability or instability of basic manufacturing industries which bring in Keene's net income from outside sales is of greatest importance to the city's general welfare. Stable industries assure a steady volume of employment, earning wages which recirculate within Keene stores and offices and thereby keep the entire town on an even economic keel. Industrial stability is indicative of the population trend and the rate of residential construction, which in turn affects public works, schools, and business expansion.

The chart showing employment trends in Keene's basic industries, Figure 9 page 32, indicates a stationary

level of employment, with certain shifts between industries, over the next twenty years.

A number of sources of information were used which cover a period of time extending back to 1930. This takes in the effects of depression, war, and prosperity. By including these past twenty years in calculations for the next twenty years, the possibilities of good fortune in gaining new industries and bad fortune in losing industries in Keene have been taken into reasonable account.

The industries to be studied are machinery, metal products, furniture and wood products, leather products, textiles and the group classified as insurance, finance, and realty. For each, stability and employment trend were examined systematically in three steps:

The first step was to compare each of Keene's main industries with the general trends of these industries in New England and the nation. Table 1 of figure 5 page 19 indicates a long-time decline in New England textiles and leather products employment. Table 2 indicates strength in New England machinery and metal products employment. Table 3 further bears out the relative strength of machinery and metal products in a comparison between the New England and United States employment

records. Tables 4 and 5 name the favorable factors offered by New England and New Hampshire for the location of industries: water supply, adequate power, community attitude and living conditions, the quantity and quality of the labor force. Except for power, these are not technological features but environmental and human conditions, especially the supply of skilled labor well distributed in many small cities. Fortunately for New England this labor supply and the growing machinery and metal industries have a mutual interest in each other. This vital fact shows up as an increase in Keene's machinery and metal products employment.

Figure 6 page 30 was drawn up to show how Keene's industrial employment stood in relation to the larger areas. Keene indicated a much better than average curve in machinery and metal products, and a somewhat better than average curve in the group of finance, insurance and realty, and in leather products.

The second step was to go directly to manufacturers in Keene and the region with a questionnaire[1] to determine the employment trends and the problems of each plant and industry. In most cases these questionnaires were delivered in person and a valuable interview

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(1) copy of questionnaire in addenda page 64.

obtained to supplement the answers in the form. Questionnaire results were compiled in figure 7 page 31, and used in estimating the strength and future employment of each type of industry.

The third step was to go back over the past 33 years of Keene's industrial history to find out how steady its various industries have been. This would be shown by the proportion of establishments which went out of business. Figure 8 page 31b shows the years over which establishments operated and puts the combined records of establishment in the form of a "rate of discontinuance". The lowest rates of discontinuance are found in machinery, metal products, and chemicals; the highest in leather products and wood products (other than furniture).

Machinery and Metal Products Trends

First: National and New England machinery and metal products production, especially in electrical and appliance lines, has climbed consistently in the past thirty years. New England's increase has been above that of the United States. The relatively high capitalization in plant, equipment, and organization, and the nature of the market in these industries make them strong elements in the employment picture of any community.

Second: The questionnaires and interviews forecast steady employment growth along with the construction of new plants and additions to existing plants. Keene's supply of skilled and trainee labor, favorable overhead costs, and desirable residential environment are the elements which encourage growth of these industries. War activities had stimulated local plants and resulted in more growth than might otherwise have been obtained, but this gain has been retained.

Third: The recorded rate of discontinuance in these industries is low and reinforces the other points in this forecast.

Summary: Machinery and metal products, being highly capitalized and skilled industries, constitute a strong and stable employment source in a community. Keene offers favorable local features and an attractive residential environment. The increase in employment in these industries during the decade 1939-49 was abnormally high because of war stimulation. A reasonable estimate of 1970 employment would be 15% greater than at present, as indicated by the questionnaires.

Furniture and Wood Products Trends

First: In New England, furniture and wood products have gradually grown in employment from 32,000 in 1919 to 40,000 in 1949.

Second: These industries are at home in the Keene environment which provides the employment, the long established shops, and specialized labor for both forest and shop. These features count more than capital equipment, since a wood shop is an inexpensive building with standard tools applicable to any number of products. The questionnaire indicates that Keene has the buildings, yard space, labor, lumber, and sales to keep employment at or above its present level for the next two decades.

Third: The "Life-Span Chart" indicates the relatively frequent discontinuance of establishments in this industry. This may be considered normal since production is for an elastic consumer demand and may start, stop, or change over to another line of production without affecting a great deal of capital or employment.

Summary: Furniture and wood products are naturally located in the Keene environment. The industry is characteristically flexible by demand, and involves no great capital turn over. Keene is favorably located within the large Eastern market. Taken together these conditions point to a continuation of employment at the level of 500 or more.

Textile Trends

First: The curve of New England textile employment has been falling below the United States curve for some time. Since 1919 the New England curve fell by half, reflecting technological displacement of labor and plant emmigration particularly in the cheaper lines of fabric. Considering that the national market for textiles is not growing New England must expect further developments in textile machinery and processes which displace labor in order to keep its plants in competition.

Second: Keene textiles have been a mainstay of town employment, but are now competing with Southern mills of recent design, late machinery, and lower costs of fuel and power. Local plants have held their own by specializing in finer woolens and narrow fabrics. They have an advantage in being free of the overhead costs of new construction, and a marketing advantage in this northeastern location where they can readily respond to seasonal style changes. This is where established reputation and specialized management count.

Third: The "Life-Span Chart" indicates a discontinuance of about 45% of textile establishments during the past 32 years. But the existing establishments are those which have employed and continue to employ the bulk of textile labor.

Summary: Keene textiles, specializing in fine clothing fabrics, are expected to retain their employment at a level of about 400, over the next two decades.

Leather Products Trends

First: Over the last thirty years New England employment in leather products declined by one-third. During the war it showed an exaggerated decline. The leather curve parallels textiles for similar reasons of new competition outside New England and technological displacement of labor.

Second: But contrary to the New England trend, Keene recorded an increase in employment over the last ten years. Since the industry is dependent on a very elastic consumer demand and on seasonal style fluctuations, good management is highly important. Keene appears to offer the conditions which enable shoe factories to compete successfully: plenty floor space, labor of sufficient quantity and skill at an accepted wage level, and competitive overhead costs. Women and young persons are available for seasonal employment, and the factories are centrally located convenient to these employees. Questionnaires show an expected continuance of the past

rate of increase in employment.

Third: The "Life-Span Chart" shows leather products to suffer the highest rate of discontinuance of any Keene industry (60%). The fact that these discontinuations occurred during depression years indicates their marginal nature. High wage industries such as machinery and metal products will continue to compete with the wages affordable by leather product factories.

Summary: In the hands of good management employment may be expected to remain near 400.

Trends in Insurance, Finance and Realty

First: These are traditional in New England, the original center of banking and law. Today institutional investment and insurance are two of New England's fastest growing businesses. According to the New England Council the assets of insurance companies grew from 4.2 billions in 1932 to 12.4 billions in 1948 (a large increase despite devaluation in the later dollar).

Second: The questionnaires indicate steady growth in past employment. A large office building is being built which will increase insurance employment. This is a stable source of employment in the skilled categories,

based on a national market and a highly specialized organization. Expected increase reported by the questionnaire continues the steady increase of the past eighteen years.

Summary: Insurance, finance and realty are traditional activities suitable to settled New England conditions. Keene's organizations serve a wide market and may be expected to continue their increase of employment at the steady rate of the past; reaching 450 in 1970.

* * *

Figure 10 page 32b shows how present industries have built up along the railroad all the way across town, where new sites are available, and how good their physical features are for industry.

As expressed by the questionnaires, the main physical considerations in plant location are: (1) adequate floor space and design, (2) railroad siding, (3) highway access, (4) yard space, (5) low cost water of good quality. To these add two self-evident features: (6) good building foundations, and (7) location downwind from the city to spare it from smoke and fumes.

Judged by standards of residential building land (figure 13 page 47) half of the present industrial area is second class land. But if foundations will hold up, occasional high water or sewerage problems do not disqualify it for industrial location. It should distinctly disqualify housing, and in this way keep housing out of industrial areas.

There is an eighty acre site which meets practically all of the main standards, and three other sites which meet some of them but would be quite suitable for plants not requiring all of the features. All together there is more land available for industrial building than has been occupied for the last 200 years. (See figure 10 page 32 b)

How much of this additional industrial land may Keene be expected to use by 1970? Present industries employ 2900 people on approximately 140 acres of industrial sites; 21 people per acre, average. By the year 1970 an expected industrial force of about 3100 would require 150 acres; only ten acres more than present industrial acreage. This is a very small expansion requirement, and is even diminished by the fact that 160,000 square feet of vacant factory floor space is now available in seven existing plants. Thus the only conceivable user of any substantial part of available

industrial acreage would be a new large industry coming in from outside.

The area best suited for such a newcomer, and for expansion of existing Keene establishments, is the eighty acre site lying southeast. Its only deficiency, a railroad spur, could be brought in economically. The 100 acre site is too low for gravity sewerage by the city system, is downstream from river pollution, and suffers from Spring high water and a high groundwater level. Industries which would use no process water and require no heavy buildings could get along by pumping their sewage.

Figure 31 page 103b shows how legs of the proposed circumferential highway would improve three potential industrial sites by giving direct access to all areas of the city and to main highways leading out in all directions.

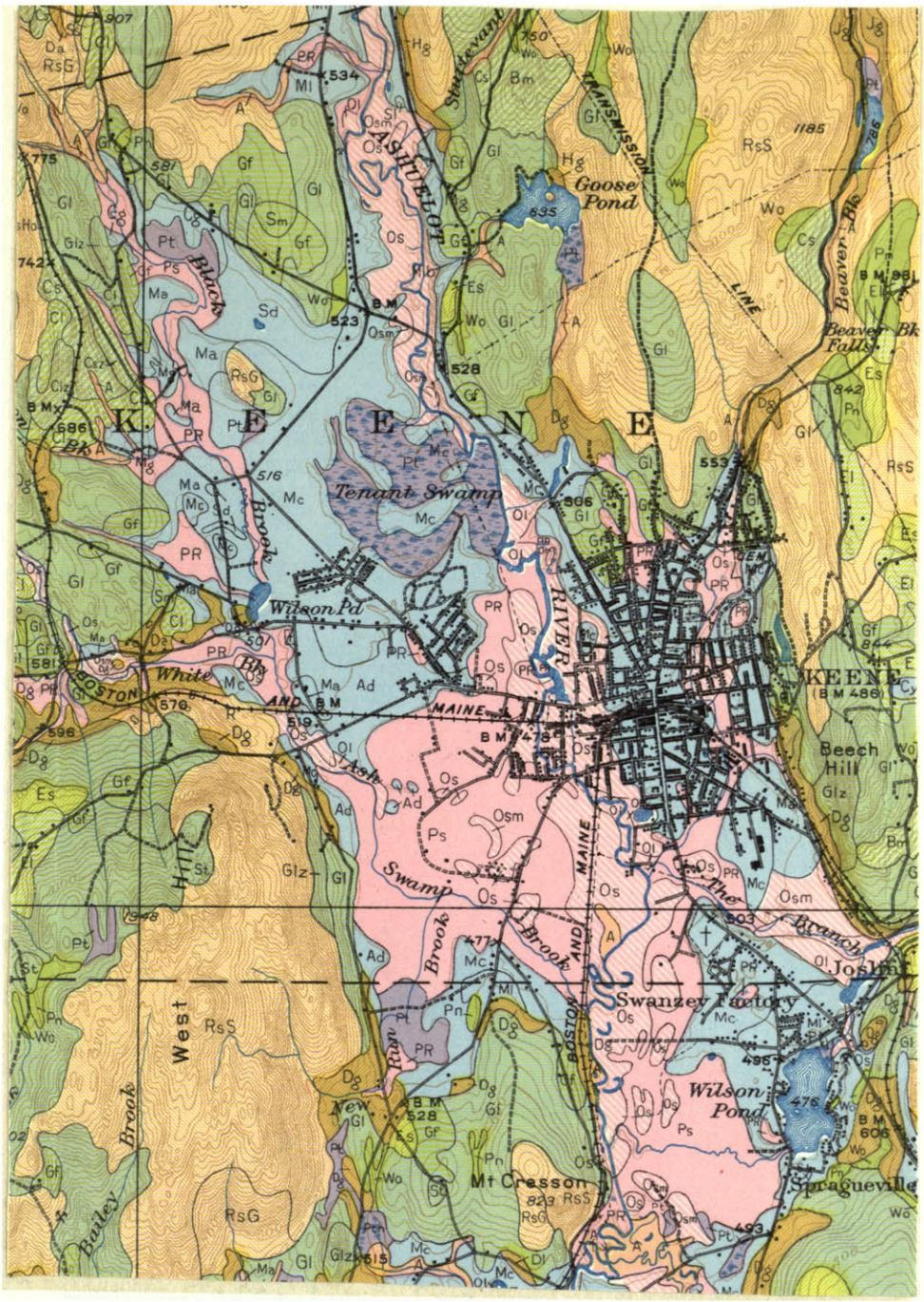
Section Summary

On the basis of long-range industrial trends in Keene and in the region, Keene may expect a moderate increase of about 200 in basic industrial employment. (See figure 9 page 32) This would require about ten acres, a part of which space already exists as plant

vacancy. Keene has potential industrial land exceeding the total area of present industrial land. Construction of the circumferential highway would considerably improve potential land for the attraction of new industry into Keene.

Along with such site improvement, Keene should consider the importance of improving community-wide residential conditions which score so high on the list of reasons why New England manufacturers locate and remain in a community.

* * *

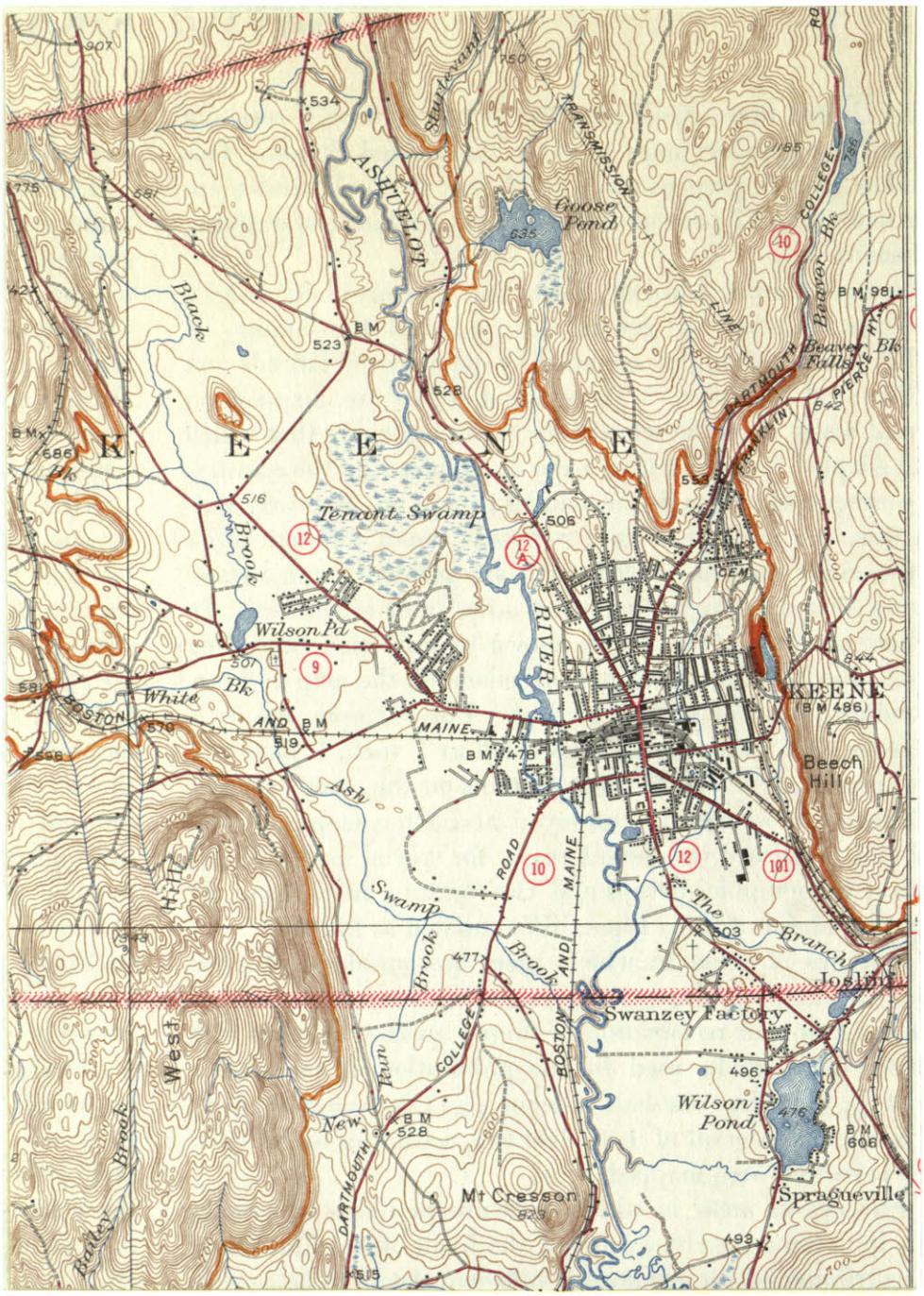


U.S. Dept. of Agriculture Soil Map

Well drained soils _ _ _ _ _ _ _ _ _

Poorly drained soils _ _ _ _ _ _ _ _ _

Figure //



U.S. Geodetic Survey Topographic Map

Figure 12

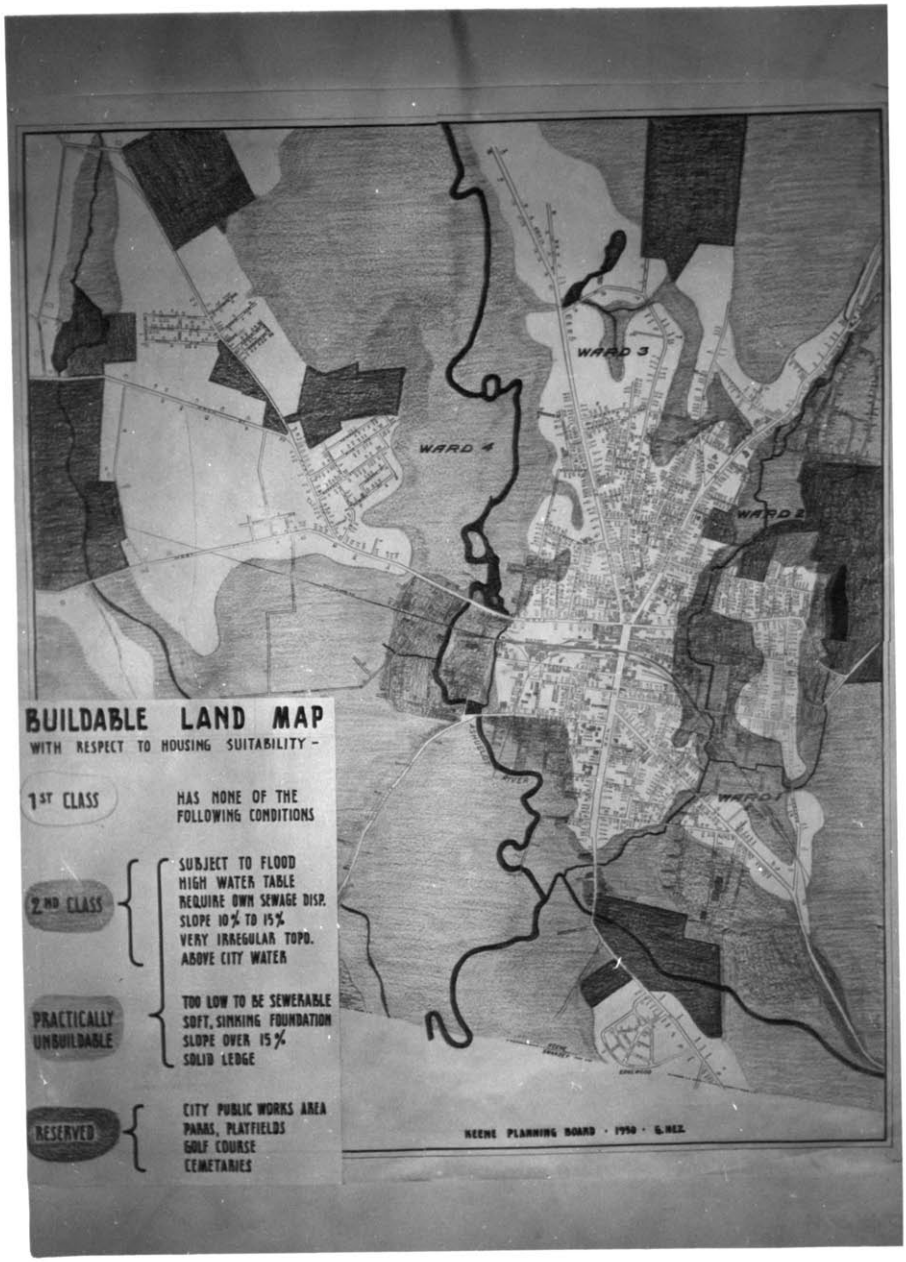

BUILDABLE LAND MAP
WITH RESPECT TO HOUSING SUITABILITY -
1ST CLASS
HAS NONE OF THE FOLLOWING CONDITIONS
2ND CLASS
SUBJECT TO FLOOD
HIGH WATER TABLE
REQUIRE OWN SEWAGE DISP.
SLOPE 10% TO 15%
VERY IRREGULAR TOPO.
ABOVE CITY WATER
PRACTICALLY UNBUILDABLE
TOO LOW TO BE SEWERABLE
SOFT, SINKING FOUNDATION
SLOPE OVER 15%
SOLID LEDGE
RESERVED
CITY PUBLIC WORKS AREA
PARKS, PLAYFIELDS
GOLF COURSE
CEMETARIES
WARD 3
WARD 4
WARD 2
WARD 1
KEENE PLANNING BOARD · 1950 · E. REZ.

Figure 13

Figure 14

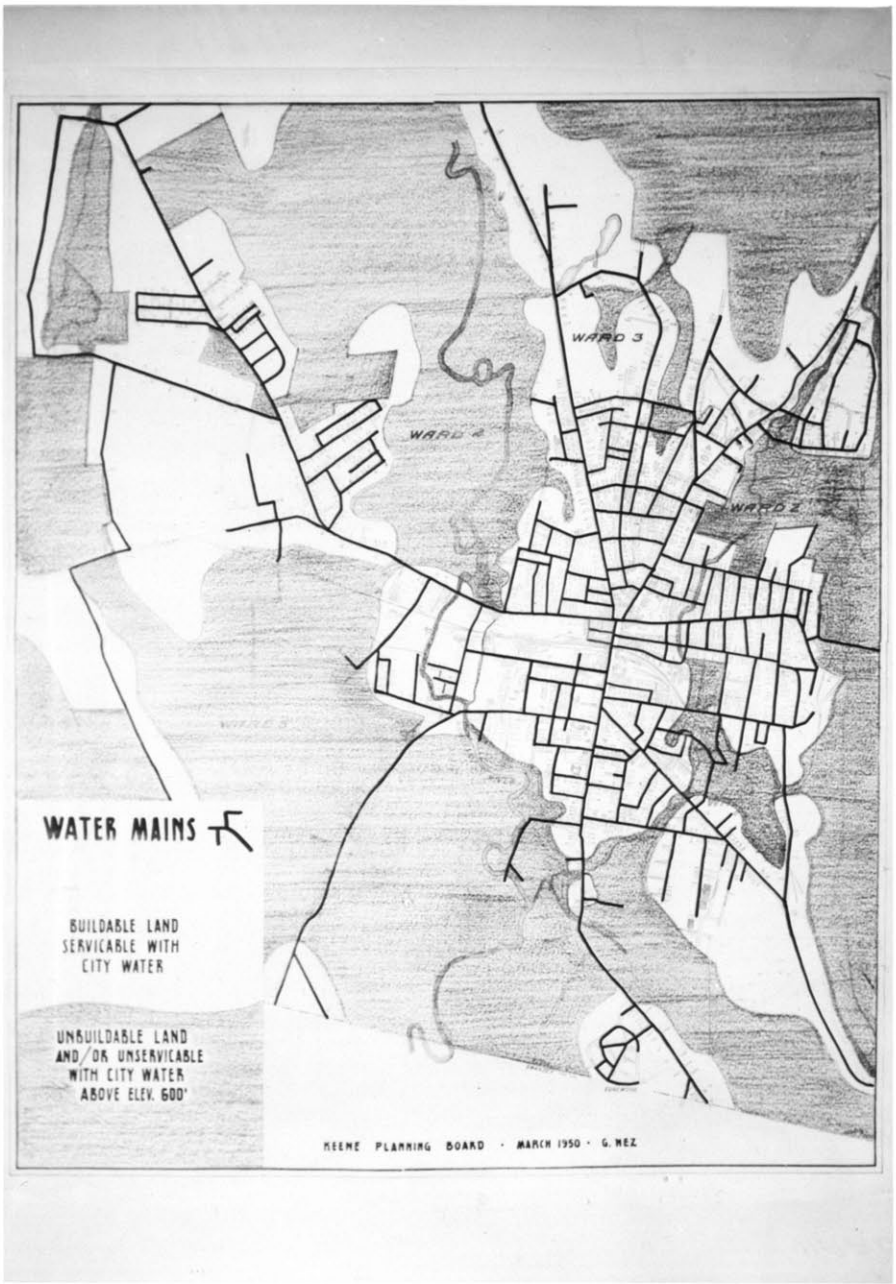

WARD 3
WARD 4
WARD 2
WATER MAINS
BUILDABLE LAND SERVICABLE WITH CITY WATER
UNBUILDABLE LAND AND/OR UNSERVICABLE WITH CITY WATER ABOVE ELEV. 600'
KEENE PLANNING BOARD · MARCH 1950 · G. NEZ

Figure 15

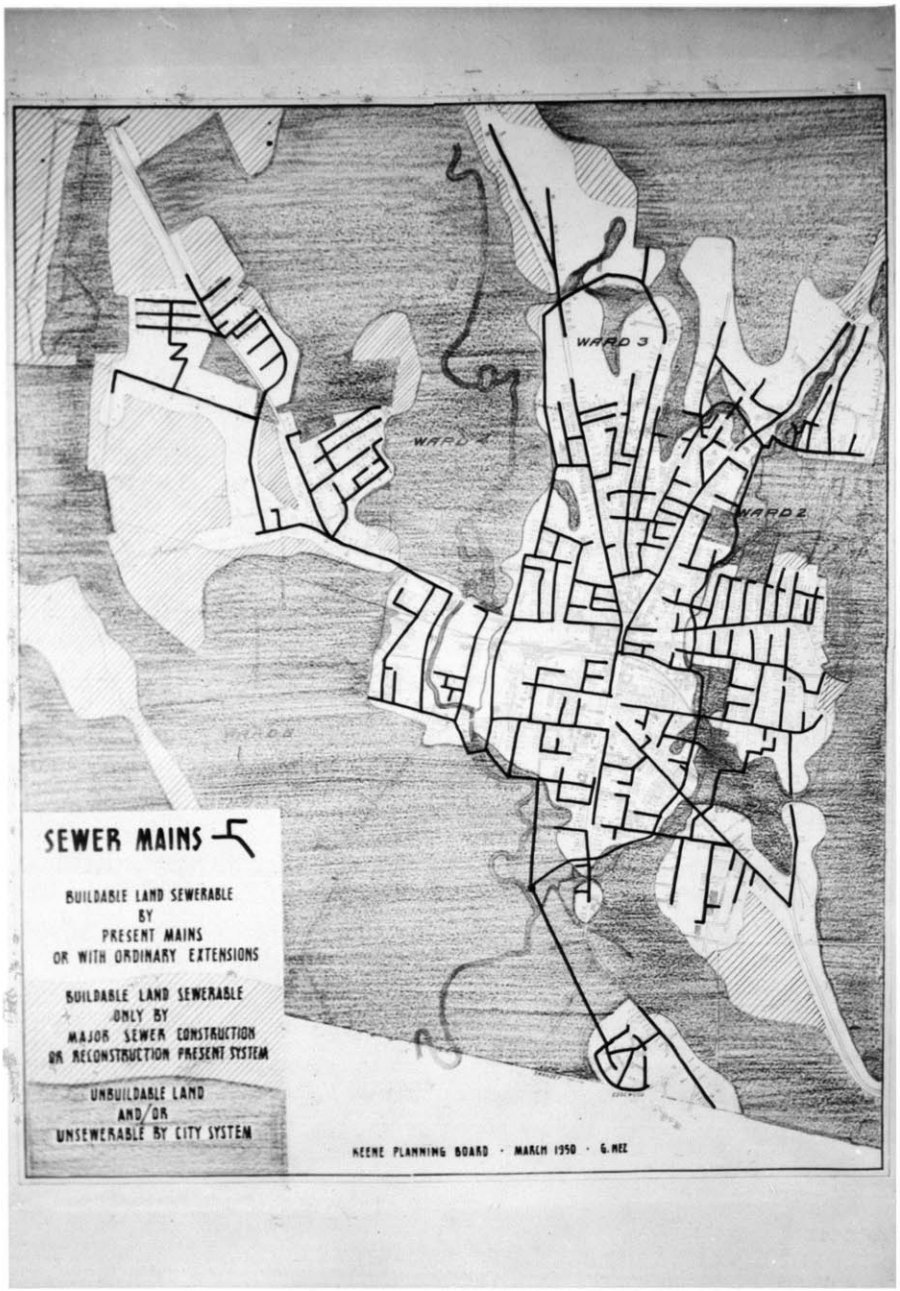

WARD 3
WARD 4
WARD 2
SEWER MAINS
BUILDABLE LAND SEWERABLE BY PRESENT MAINS OR WITH ORDINARY EXTENSIONS
BUILDABLE LAND SEWERABLE ONLY BY MAJOR SEWER CONSTRUCTION OR RECONSTRUCTION PRESENT SYSTEM
UNBUILDABLE LAND AND/OR UNSEWERABLE BY CITY SYSTEM
KEENE PLANNING BOARD · MARCH 1950 · G. MEZ

Figure 16

buildable land sets the pattern

Ground suitability for building is a more restrictive factor than any other, in predetermining the city's pattern of land uses. The accompanying soil map (figure 11 page 46) reveals poor foundation areas in Keene; the poorly drained soils. Housing and industry have actually gone down on these areas in some places, but have not escaped affliction with floods, wet and sinking foundations, and unsewerability.

The Flood Map (figure 14 page 47b) shows the various recorded flood levels. The light central area would be the only one floodable if two dams were built in addition to Surry Dam, one up the Branch River and the other up Otter Creek as planned by the U. S. Engineers (and resisted locally). Although this would protect parts of the city against such damage as the flood of 1938, it would not substantially recover buildable land from

the low-lying area because this area suffers from a high ground water level all year long whether or not surface flooding is imminent.

The upper limit of practical building land may be seen on the topographic map (figure 12 page 46). It is that area lying above enough city water pressure for fire fighting (600' elevation) and/or lying on slopes too steep for road construction (over 15% grade) and/or on solid ledge. While these conditions do not prevent building isolated homes up in the hills, they are a practical obstacle to the extension of the city's complete system of streets, sewers, water, and fire-fighting protection. In view of all the good land available it would be bad policy for the city to allow use of such poor land for any type of intensive development.

Some of this high and irregular land is fine for park use, and has in fact been so reserved. Some of the level lowland is also good for recreational use, such as the country club and two large playfields, "J" and "K", which are proposed inside the city. Neither spring flooding nor year-round high ground water detracts from the recreational value of these level open areas. In fact the turf benefits.

The "Buildable Land Map" (figure 13 page 47) shows in white the first class building land with no deterring conditions. Houses and factories which have located in the second class areas encounter special difficulties, and even health hazards where they are too low for city sewerage. Attempted building on unbuildable land is not only bad for owners (soft foundations, flood, unsewerability, or lack of city water pressure) but also puts the city on the spot. Two recent typical cases are:

1. Houses built on Lee Street and Meadow Road are on swampland where the road turns to mud and is frequently under water during winter and spring. They are too low for the present city sewer main. Septic tanks are impractical in saturated soil. The owners demand road maintenance, sewer and water of the city, considering these to be their rights as taxpayers. In order to keep the road up to standard the city would have to build a special road bed which would cost thousands of dollars of other taxpayer's money. To provide city sewerage a large part of the existing sewer system would have to be lowered.
2. Several houses were built on the slope above Eastern Avenue, owners bulldozed their own roads (Lorraine Street, Bellvue Avenue, Woodland Avenue) on a grade which is over 15%. Neither

the owners nor city emergency vehicles can make the grade. The city is asked to provide a suitable road on such a slope.

Section Summary

Any and all plans for development whether public plans for new streets, sewers, water mains, schools and playgrounds, or private plans for subdivisions or industrial sites should put efficiency first and avoid compromises which accept poor building areas. There is plenty of good buildable land already developed with street, sewer and water. (Figure 13 page 47, Figure 11 page 73, Figure 15 page 48, Figure 16 page 48b) Proper zoning, subdivision control, tax valuation, and educational efforts by the Planning Board can help to prevent private building from going on poor building land. More positively, public works can be planned to open up the good buildable land in an attractive way for private building.

* * *

Figure 17

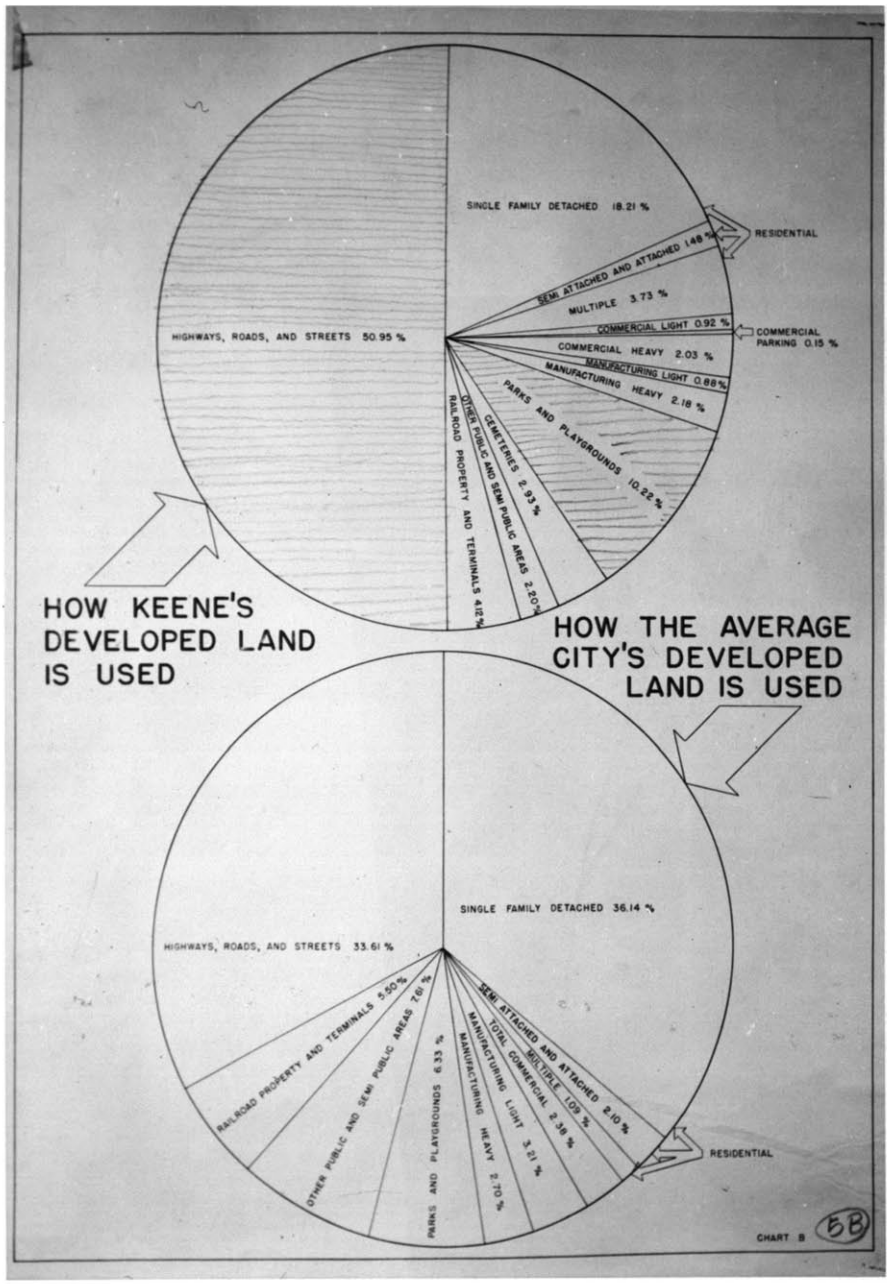

HOW KEENE'S DEVELOPED LAND IS USED
HIGHWAYS, ROADS, AND STREETS 50.95 %
SINGLE FAMILY DETACHED 18.21 %
SEMI ATTACHED AND ATTACHED 1.48 %
MULTIPLE 3.73 %
COMMERCIAL LIGHT 0.92 %
COMMERCIAL HEAVY 2.03 %
MANUFACTURING LIGHT 0.88%
MANUFACTURING HEAVY 2.18 %
PARKS AND PLAYGROUNDS 10.22 %
CEMETERIES 2.93 %
OTHER PUBLIC AND SEMI PUBLIC AREAS 2.20%
RAILROAD PROPERTY AND TERMINALS 4.12 %
RESIDENTIAL
COMMERCIAL
PARKING 0.15 %
HOW THE AVERAGE CITY'S DEVELOPED LAND IS USED
SINGLE FAMILY DETACHED 36.14 %
HIGHWAYS, ROADS, AND STREETS 33.61 %
SEMI ATTACHED AND ATTACHED 2.10 %
TOTAL MULTIPLE 1.09 %
COMMERCIAL 2.36 %
MANUFACTURING LIGHT 3.21 %
MANUFACTURING HEAVY 2.70 %
PARKS AND PLAYGROUNDS 6.33 %
OTHER PUBLIC AND SEMI PUBLIC AREAS 7.61 %
RAILROAD PROPERTY AND TERMINALS 5.50 %
RESIDENTIAL
CHART B
5B

Figure 18

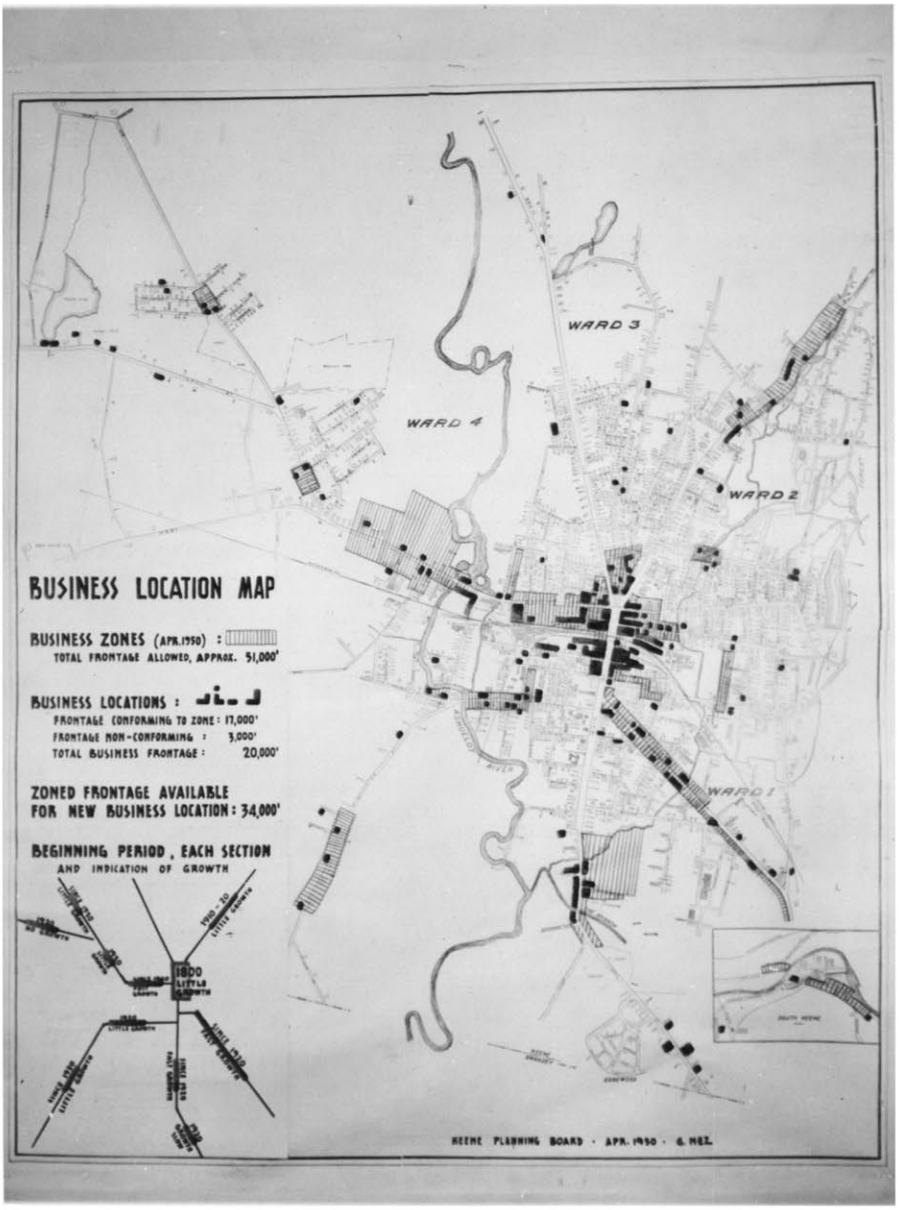

WARD 3
WARD 4
WARD 2
WARD 1
BUSINESS LOCATION MAP
BUSINESS ZONES (APR.1950) :
TOTAL FRONTAGE ALLOWED, APPROX. 51,000'
BUSINESS LOCATIONS :
FRONTAGE CONFORMING TO ZONE : 17,000'
FRONTAGE NON-CONFORMING : 3,000'
TOTAL BUSINESS FRONTAGE : 20,000'
ZONED FRONTAGE AVAILABLE
FOR NEW BUSINESS LOCATION : 34,000'
BEGINNING PERIOD, EACH SECTION
AND INDICATION OF GROWTH
1800
LITTLE
GROWTH
KEENE PLANNING BOARD · APR. 1950 · G. MEZ.

Figure 19

the land use pattern in motion

Keene residents are so used to their city that its form is taken as a matter of course, much the same as every day weather and probably less interesting. But in reality this form is no more permanent than any of these residents' houses. Consider that 75% of the houses are less than 100 years old; that there has been a complete change of residents at least twice in that time; that the total population has grown three quarters larger; that the automobile has only recently begun to carry residence out into West Keene and into the country, to bring in working commuters from surrounding towns, and to transplant business from downtown to ribbons of stores growing up along the main streams of traffic; West Keene has grown up into a sub city in a few years and is now proposed as the site for Keene's High School and community center; and that all this change is less than fifty years old. Clearly the

city's form is changing, and quite as rapidly as the turnover of its people. The broad object of a development plan is to encourage improvement in this overall pattern of land uses and to provide for the efficiency of each use.

The main fact about land uses is that certain mixtures are injurious or mutually injurious, and lead to general degradation. Zoning recognizes this and attempts to hold the line between land uses. Planning recognizes this and plans for a better pattern of land uses which will allow each use full freedom in its area without harming or being harmed by neighboring uses, and at the same time fit into a convenient pattern which allows people to circulate to and from home, workshop, store, school, and playground in the course of their daily routine.

On the map of "Land Uses in Keene" (Figure 7 page 53) the city's dominating feature is its concentric shape; business, warehousing, industries, city buildings, churches, junior and senior high schools, main road junctions and railroad station are all packed into the center, with residence surrounding. This pattern was naturally laid down on the level valley in the early days by housing expanding around the busy center.

Across this concentric pattern the railroad laid a belt of factories which degraded the residential value of bordering land. The factories found their own expansion limited and in some cases found their operations restricted where waste disposal and fumes were involved.

There are no convenient lines, such as main streets, limiting the mixture of factories with residences and business. A belt of buffer land is required for a clean separation of land uses; this land could be used for parking, industrial yard space, recreation, garages accessory to industry and perhaps inactive types of warehousing. The main idea would be to prevent further building of factories or houses in this separating zone.

Figure 18 page 53b was prepared by Mr. Durell to compare the apportionment of land uses in Keene with the average city. It points out Keene's comparatively greater street area and comparatively smaller residential area, than the "average city". One reason is Keene's irregular pattern of buildable land. But the other reason, wasteful street patterns, comes down to city responsibility.

For one thing this means that it has cost the Keene taxpayer 15% more than the average city taxpayer to build his streets and underground services, and it goes on costing him 15% more to maintain them. And it does

not mean he is getting 15% more service. Far from it. In many places the street and subdivision pattern is so irregular and inefficient that he gets less for his money than the citizen of "average city"; for instance such places as shown on air photos 1, 2, 3, 11, 12 and 13. (See figure 36 page 155) Here can be seen short dead end streets (which have dead-end underground services), streets spaced close together making the double row of lots very shallow or only allowing a single row of lots between them, excessive corners, corners at acute angles forming inefficient lots, some lots with streets on three sides. Here can also be seen houses crowded into the interior of larger blocks.

Other instances of excessive and inefficient streets are those prematurely extended streets which have very few houses on them, such as Blossom Street, Meadow Road, Lee Street, Appleton Street, Martin Street, upper Elm Street, etc. These resulted from the city's past acceptance of any and all streets and provision of sewer and water service at public expense.

Irregular shapes on the map of buildable land are responsible for some of this street cramping and overextension, but the burden of blame remains with the city for having accepted and built streets and underground services in obviously wasteful patterns.

Another change imposed upon the earlier pattern has been a business migration out along West Street, Main Street, Winchester Street and Marlboro Street. As shown on the Business Location Map (figure 19 page 54) these business ribbons date from the coming of the automobile. They are growing vigorously today and have serious effects on the old residential frontage, changing it to a business value and making it increasingly expensive and unattractive as residence.

Business movement can very soon change the character of a neighborhood and make an old street pattern inefficient, unless reservations for additional business frontage are fitted into the scheme of each residential neighborhood.

The Business Location Map shows how much area in excess of present business frontage has been zoned for business use. The fact stands out that there is more than twice as much frontage zoned for business as has been actually taken up by business in 200 years. All the "extra" area is existing residence faced with degradation and/or with business valuation. That is to say the quality of existing housing tends to degenerate, and no residential improvement or new housing can be encouraged in all this surplus business zone.

For one thing this fact should stiffen the city's resistance against requests for business building permits outside the present business zones. Ultimately the zoning ordinance should be revised: (1) to reduce the ribbon zone which allows business to skip out along both sides of an avenue. (2) to recognize that business is best located at junctions where neighborhood streets focus into a main street, (3) and to require that all street-front business construction be set back to provide for parking off the main street, even though street parking is permitted today. Future increase of traffic and/or the widening of main streets should not be hampered by todays shortsighted permission to crowd the public right-of-way. Set-back of new business, will also improve the general appearance of streets which remain predominantly residential and should keep an appropriate residential appearance.

A wave of residential conversion from single family into multiple residences resulted from the extraordinary population increase and housing shortage of recent years. This fact became evident in bringing the 1946 map of land use up to date in 1949. (Figure 17 page 53) The tan color signifies multiple residences. Note how they fill in around the downtown business area. This conversion of houses may have unexpected effects

of concentrating too many people, especially children, into areas solidly built up and lacking the open space, playground space, and parking space demanded by doubling and tripling local population. Such conversions have a cumulative effect of forcing the remaining single-family houses into conversion, because the locality loses character as a social neighborhood of home owners.

The positive solution would be to recognize the need for apartments in these central residential areas; to zone for adequate open space and parking reservation, so that in future years the obsolescant converted houses will be replaced by efficient and pleasant apartments.

Another important point in the land use pattern is that the southern half of Keene is practically cut off from the larger northern portion by the railroad ribbon of industries. This restricts the southern half from easy access to Central Square shopping, high schools, playgrounds, and parks, since there are so few streets crossing the railroad. This half is further "balkanized" by Main Street traffic, which leaves the western quadrant cut off without a public elementary school, thus compelling children to cross Main Street traffic daily to and from a public elementary school in the eastern

quadrant, or compelling them to go out Winchester Street across the river to distant Cleveland School. In all this southern part of Keene there is no public playground or park. There are several deep claypits filled with water, a dangerous substitute. An excellent park-playground could be developed for the eastern quadrant on the large tract of open lowland lying along Beaver Brook below Baker Street. (Figure 13 page 84) An even more picturesque park could be provided for the western quadrant on the riverside land lying across the river from the college athletic field and could be entered by several foot bridges.

In addition to these parks, the effect of being on the "wrong side of the tracks" can be further eliminated by a circumferential road system which would tie together all parts of the city in the form of a ring, rather than having them all connected only downtown.

Figure 18 page 53b also shows Keene to have 10% of its developed land in parks and playgrounds as compared to 6% for the average city. Statistically speaking this looks good. But a closer examination of the Land Use Map shows that practically all this park and playground land is located out on edges of the city, where it is inaccessable for everyday use of most of

the city's youngsters who live in the built-up city.

Section Summary

Constant change happening to Keene's land use pattern provides the opportunity for long-range planning and encouragement of improvements in this pattern. The main object of this report is to determine, by reference to the past and present pattern, what would be the most practical and desirable future pattern.

Keene's early concentric form suffered from damaging mixture of uncongenial land uses; industrial with residential, business with residential. Further mixing of industry with residences can be checked by zoning industrial buffer strips for the purpose of separation. It is found that business zones are far in excess of business needs, therefore depreciation of residences along traffic arteries can be checked by restoring the residential zone except at reasonable locations for local business, and by requiring sufficient business set-back to accomodate parking.

The wave of conversions of single-family homes into

multi-residences should be met with zoning changes to permit types of new apartments in certain areas and require open space sufficient for play and parking.

The southern part of Keene is insulated from the larger northern part where most of the shopping, recreational and civic functions are located, and cut up by the heavy traffic of Main Street and Marlboro Street. This condition can be improved by the provision of playgrounds in two convenient locations, and by the construction of a circumferential road system which would join these southern parts together with other sections in a ring around town. The circumferential road would further benefit the southern part of Keene by taking the load of through traffic off Marlboro, Main, and Winchester Streets which this community uses for its daily contact with downtown stores and schools.

* * *

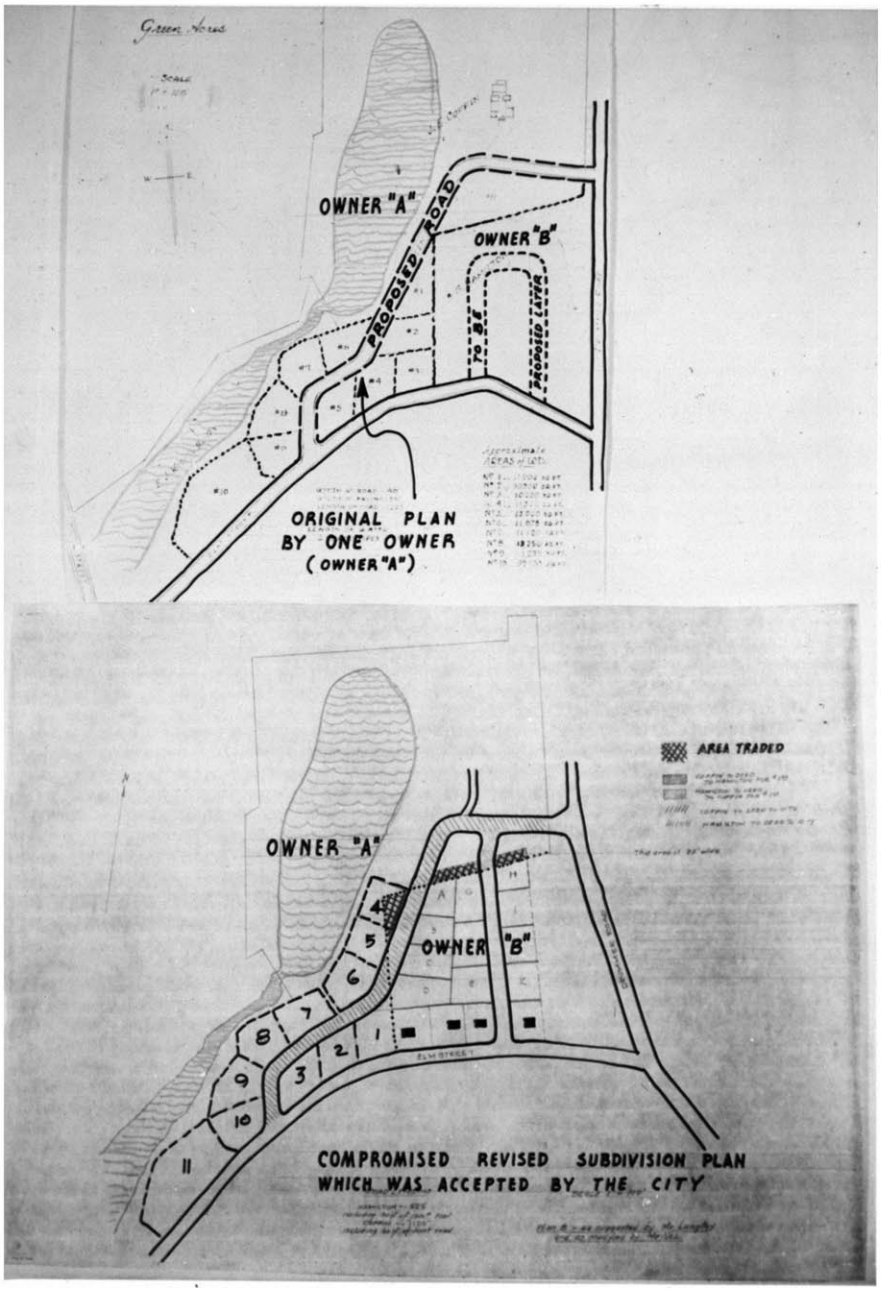

OWNER "A"
PROPOSED ROAD
OWNER "B"
ORIGINAL PLAN
BY ONE OWNER
(OWNER "A")
AREA TRADED
OWNER "A"
OWNER "B"
COMPROMISED REVISED SUBDIVISION PLAN
WHICH WAS ACCEPTED BY THE CITY

Figure 20

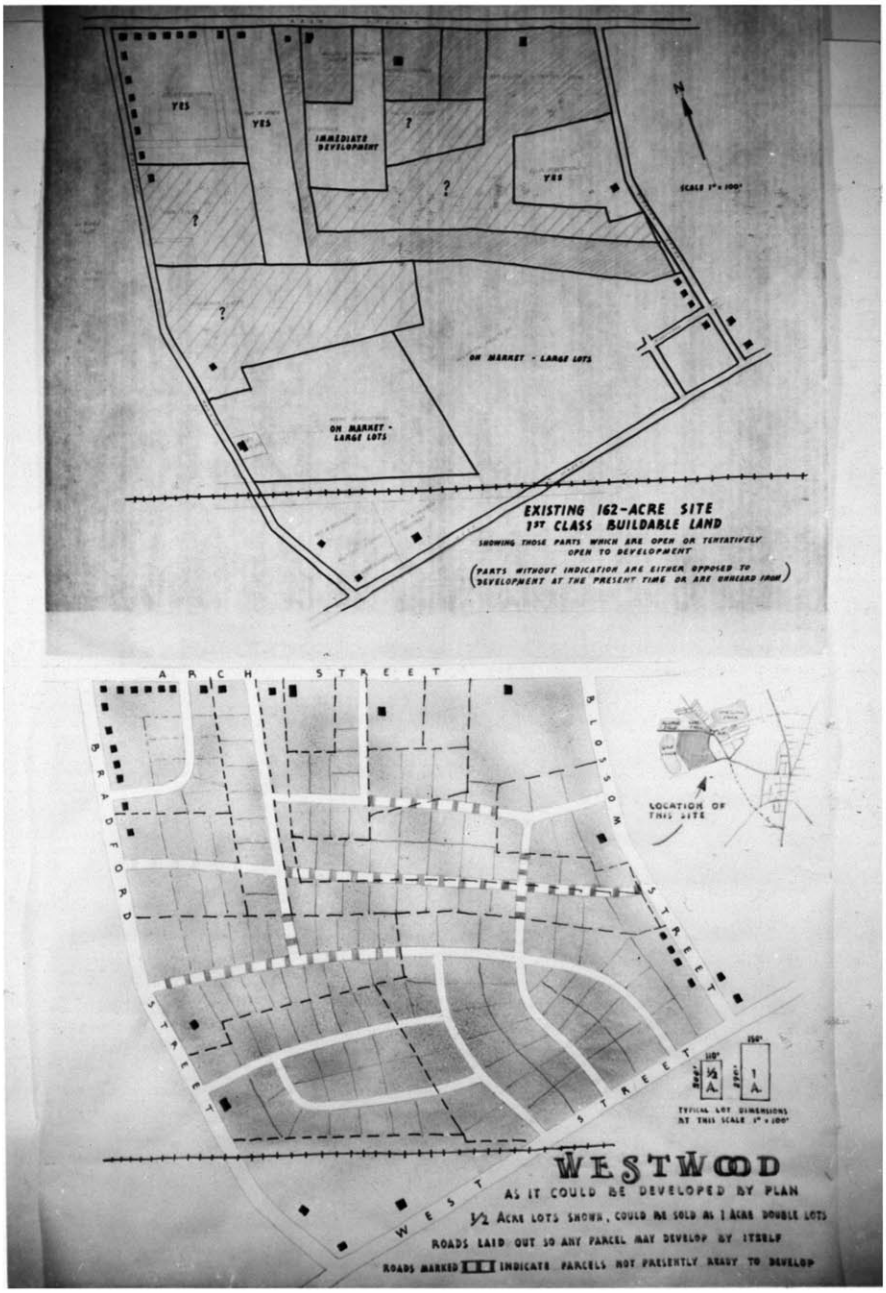

YES
YES
IMMEDIATE DEVELOPMENT
?
?
?
?
YES
N
SCALE 1" = 100'
ON MARKET - LARGE LOTS
ON MARKET - LARGE LOTS
EXISTING 162-ACRE SITE
1ST CLASS BUILDABLE LAND
SHOWING THOSE PARTS WHICH ARE OPEN OR TENTATIVELY OPEN TO DEVELOPMENT
(PARTS WITHOUT INDICATION ARE EITHER OPPOSED TO DEVELOPMENT AT THE PRESENT TIME OR ARE UNHEARD FROM)
ARCH STREET
BRADFORD STREET
BLOSSOM STREET
WEST STREET
LOCATION OF THIS SITE
118'
½ A.
134'
1 A.
TYPICAL LOT DIMENSIONS AT THIS SCALE 1" = 100'
WESTWOOD
AS IT COULD BE DEVELOPED BY PLAN
½ ACRE LOTS SHOWN, COULD BE SOLD AS 1 ACRE DOUBLE LOTS
ROADS LAID OUT SO ANY PARCEL MAY DEVELOP BY ITSELF
ROADS MARKED ▭▭ INDICATE PARCELS NOT PRESENTLY READY TO DEVELOP

Figure 21

troubles of irregularly shaped properties

The irregular street layout discussed above reflects an irregular pattern of land ownership, and even before that an irregular pattern of buildable land. In early agricultural times the irregularity of buildable land defined odd shapes and sizes, which were divided and redivided among heirs and developers down to the present day.

Developers are not wholly responsible for a poor layout, where they attempt to make use of an irregular-shaped piece of land. The matter should be common concern among property owners in an area. The more irregular the pattern of property lines, the more they need to agree on a plan. Otherwise they pay more and get less out of streets and underground services covering only their own plots.

Heretofore practically all street layouts have been at the initiative of separate property owners acting alone. It was the city's obligation to build the street and lay the services to suit each developer. Finally it was the city's problem to connect such developments together for the efficiency of traffic, water, and sewerage. The city actually had a comparable investment, and a longer-lasting obligation, than the private developer who was calling the tune.

The following cases show that the problem of how to get systematic development with irregular patterns of land-ownership can be solved. The main idea of the street scheme must be worked out jointly between the owner (or owners) and the Planning Board, taking into consideration all the relevant conditions of topography, existing land uses, relative costs of improvement, and how this fits into the long-range city plan.

The case shown in figure 20 page 65 worked out as follows:

1. Owner "A", desiring to subdivide and occupy one of his own lots, came to the city with request for a street extension according to his own plan.
2. The application was referred to the Planning Board, which hesitated at the very irregular layout apparantly needed to service the odd-shaped property.

3. The problem would be further complicated if and when owner "B" desired to put in his separate street, with the result of a high percentage of public street and long underground services for a relatively small subdividable lot area. In fact owner "B" would have to lay out many small lots in order to compensate for excessive "U"-shaped road which would serve his separate subdivision.
4. The Planning Board called in owner "B" and asked him and owner "A" to reconsider their developments along the lines of a combined street scheme which might do a better job for both parcels of land with less street length and more net lot area.
5. The owners agreed to a combined street scheme and exchanged the area (shown crosshatched) in order to come out even in the new plan.
6. Net results:
    a. shortening of streets and underground services
    b. more net land for lots
    c. more systematic lot arrangements
    d. comparable sizes of lots in both subdivisions
    e. water-front lots made possible

	Street & Underground Services, Length	Net Area Left For Lots
Owner "A"		
Original Plan	1225'	137,000 sq. ft.
Compromise Plan	1100'	146,000 sq. ft.
	125' saving	9,000 sq. ft. gai
Owner "B"		
Original Plan	810'	121,600 sq. ft.
Compromise Plan	625'	129,000 sq. ft.
	185' saving	8,000 sq. ft. gai

Figure 21 page 65b shows a larger case involving a tract of land which, by its size and location, is important in the residential future of Keene. The history of this case to date is as follows:

(1) A developer who bought a small parcel in this large tract desired to subdivide as he saw fit. Abutting owners appeared before the Planning Board to protest. Some thought this area ought not to be subdivided at all, but rather kept in large estates. Others thought subdivision might be alright providing lot sizes were large.

(2) All agreed that the tract should have over-all consideration, that no single developer should set a pattern which would commit the rest to an undesirable street scheme or degrade the high residential tone of the area.

(3) The city saw this area as one of the few remaining large potential housing areas serviced on all sides by good highways, serviced with sewer and water mains, and having schools and parks adjacent.

(4) The Planning Board's job was to bring these private and public interests together in a development scheme acceptable now and which could be adhered to in the course of development for the protection of all owners. A tentative plan was drawn up (as illustrated) to suggest the layout of a street system and to interest the owners in defining preferred lot sizes which would determine the spacing of streets in a final plan. The aims of the preliminary plan are:

(a) The street scheme is so designed that it will work by parts, so that any owner may develop his part and have an efficient layout even though his neighbors choose not to develop their streets at this time. In some cases streets are layed along property lines to leave enough lot depth in the narrow bordering properties.

(b) Spacing between streets allows for 150' lot depths.

(c) The street scheme provides main access to the desired Southeast, simplicity for the sake of easy circulation and low engineering costs, curved streets and variation in lot orientation to avoid monotony and allow each house an individual setting.

(d) A park reservation need not be provided, in view of the desired large lots (1/3 acre or larger) and the nearness of Symonds School, Wheelock and Ladies' Parks, Alumni Field, the golf course, and large areas of open unbuildable land.

5. The owners met with the Planning Board, found the suggested plan agreeable and went to work on definitions of desirable lot sizes.

Section Summary

The irregular pattern of land ownership was a historic accident which caused faulty street design running into considerable expense for excessive street and utilities. This left less lot space to the developer, and the lot space was less efficient. It cost too much for streets and utilities per lot. Most

of the cost fell upon the city.

Further irregular layouts can be prevented by mutual planning of street schemes between the developers and the City Planning Board. Mutual benefits, illustrated by two cases, include more and better-shaped lot area, less street and utility installation, greater efficiency and thereby higher lot value, and a mutually acceptable pattern which protects abutting owners whether or not they choose to develop at once.

* * *

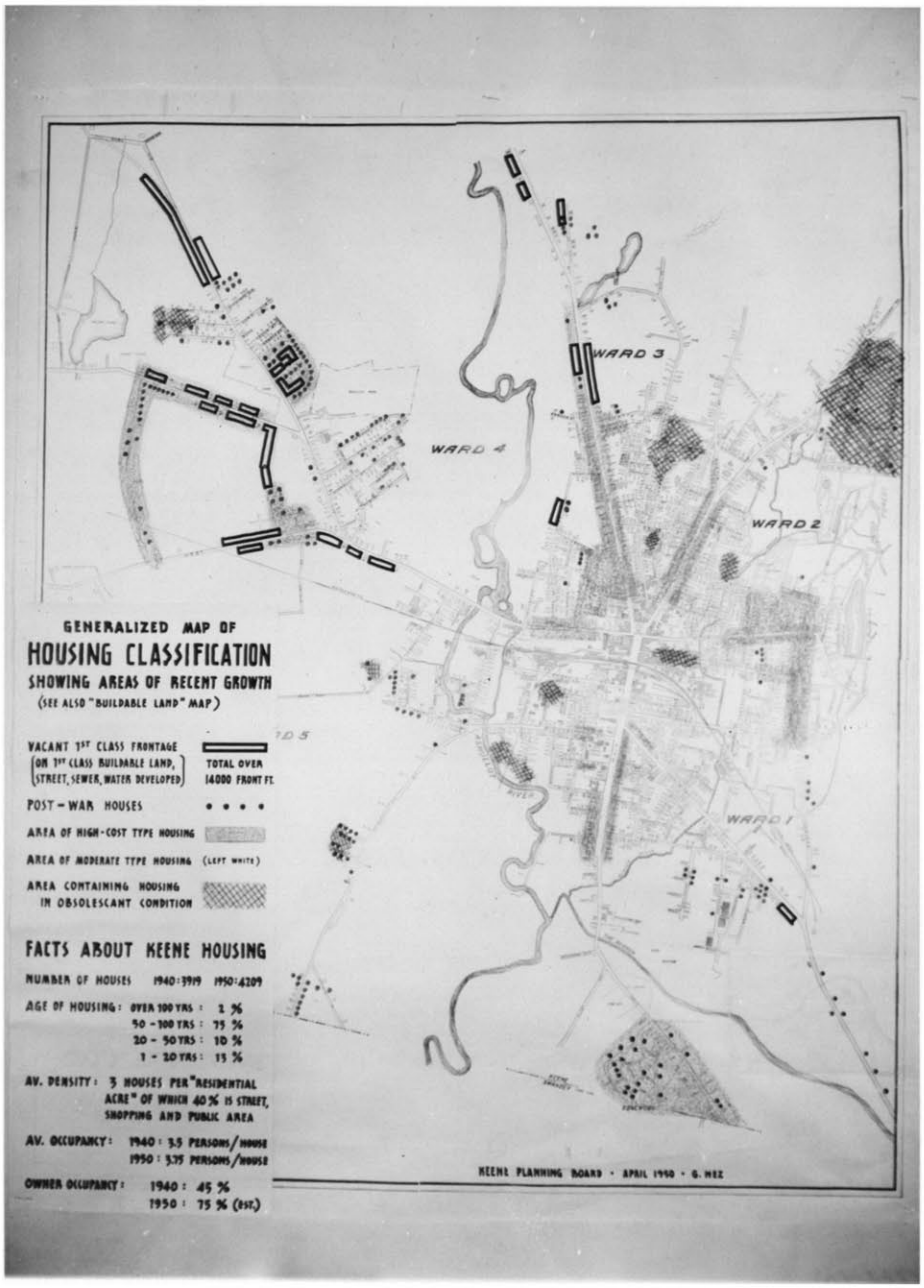

WARD 3
WARD 4
WARD 2
WARD 1
GENERALIZED MAP OF
HOUSING CLASSIFICATION
SHOWING AREAS OF RECENT GROWTH
(SEE ALSO "BUILDABLE LAND" MAP)
VACANT 1ST CLASS FRONTAGE (OR 1ST CLASS BUILDABLE LAND, STREET, SEWER, WATER DEVELOPED) TOTAL OVER 14000 FRONT FT.
POST-WAR HOUSES
AREA OF HIGH-COST TYPE HOUSING
AREA OF MODERATE TYPE HOUSING (LEFT WHITE)
AREA CONTAINING HOUSING IN OBSOLESCANT CONDITION
FACTS ABOUT KEENE HOUSING
NUMBER OF HOUSES 1940: 3919 1950: 4209
AGE OF HOUSING: OVER 100 YRS: 2 %
50 - 100 YRS: 75 %
20 - 50 YRS: 10 %
1 - 20 YRS: 13 %
AV. DENSITY: 3 HOUSES PER "RESIDENTIAL ACRE" OF WHICH 40 % IS STREET, SHOPPING AND PUBLIC AREA
AV. OCCUPANCY: 1940: 3.5 PERSONS/HOUSE
1950: 3.39 PERSONS/HOUSE
OWNER OCCUPANCY: 1940: 45 %
1950: 75 % (EST.)
KEENE PLANNING BOARD · APRIL 1950 · G. NEE

Figure 22

housing now and in 20 years

Houses are the building blocks of a community, and in many respects the joint concern of the owner and the city. The city's part in community improvement may be exercised through zoning, inspecting buildings, installing and improving streets, utilities, schools and playgrounds, and protecting public health and safety.

Since city functions touch the home in so many ways, the Planning Board must give prior attention to residents and the quality of their housing environment, in making physical plans.

This section reviews the main changes taking place in Keene housing, and estimates general housing requirements and locations for the next twenty years, taking into consideration present housing conditions and the expected increase of population.

Figure 22 page 73 shows where new housing (since the war) has been going. Comparing this map with the "Buildable Land Map" Figure 13 page 41 shows that new housing has not all gone on first class buildable land. The existing areas of obsolescant housing have proven costly in terms of maintenance. They have been poor social environments for children in particular.

Building houses on cheaper second class land is false economy because the soft foundations, drainage problems, road conditions, and local neighborhood of houses similarly afflicted will depreciate a new house right from the start.

The city is called upon to provide road and sewer service where the cost of doing a good job would be extraordinarily high. For instance the sewering of houses out Winchester Street is impossible with the present level of the city's pumping station: the job would mean (1) lowering this station and the grade of all mains leading into it and out to the Imhoff Tanks, and (2) laying a long stretch of new main for comparatively few houses.

The city could head off further building on poor land by (1) critical review of building permits,

(2) establishing more inclusive subdivision control, (3) inducing the use of first class buildable lands by fully servicing them according to plan, and revaluing to get them out of the almost taxfree category which profits by speculatively holding out against sale.

Figures of housing age, shown on the map, indicate that three quarters of Keene housing is between 50 and 100 years old. Aging explains why certain changes are taking place:

(a) The old mansions along central avenues are, in many cases, abolescant. Having been vacated in favor of smaller modern homes, they are left for conversion into multiple dwellings or institutions or professional offices. In this capacity they can be fairly efficient, providing the dignified appearance of the street is maintained, trees and landscaping kept up, bold advertising displays prevented, and parking concentration taken off the street into bays and lots.

(b) More and more homeowners on the interior residential streets are converting their houses to apartment units, (1) partly in response to the current housing shortage, and (2) partly because the local character of single-family ownership has been slipping away with age, housing turnover, and the conversion of other houses in the neighborhood.

While there is a current demand for apartments, the housing pinch in Keene will not last long enough to justify much more of this conversion. Fast population increase is over, and home construction on the outskirts of town will take the pressure off these central housing areas. By 1970 many of these converted units will be obsolete, but their location and established occupancy may make new apartment construction worth while.

The city should anticipate this by revising the zoning ordinance to permit apartments with adequate open space allowance for play and parking. Two or three story apartments covering not over one-third of their lots, and containing not over twenty families per lot acre, may turn out to be quite acceptable to Keene.

The average number of houses per residential acre in Keene is 2.8, which is relatively low as compared with the average city. It may be ascribed to three causes: (1) a taste for generous residential lots which prevailed in past subdivision development, (2) waste of land resulting from inefficient subdivisions laid out on irregular shaped parcels of land with excessive percentage of the area devoted to streets and (3) premature extensions of streets and services to a few scattered houses, leaving open space wasted in between.

The taste for low density should be respected in planning. On the other hand inefficient street patterns and overextensions can be checked by a combination of (a) charging costs of street and utility installation against individual builders or developers on a benefit basis, rather than paying most of these costs out of public money, and (b) adequate subdivision control which empowers the city, after hearings, and subject to appeal, to refuse public works and building permits for layouts which violate standards of health or safety, or would necessitate excessive expenditures of public funds to provide streets, sewers, water pressure, health service, or fire protection.

The following statistics take a long view of housing needs, and indicate that Keene should expect only a moderate new building program. But here lies the opportunity to profit by past lessons and to accomplish new developments unhurriedly, along with improvements of present neighborhoods.

DATE	POPULATION	HOUSES	AVERAGE NUMBER PERSONS PER HOUSE	AVERAGE NUMBER OF HOUSES PER RESIDENTIAL ACRE (a)
1940	13,832	3919	3.5	2.8
1950	15,750	4209	3.75	2.8
approx. increase or decrease 1950 to 1970	+ 1000 (b)	+ 450 (c)	- 0.15 (d)	0 (e)
1970	16,800	4600	3.6	2.8

(a) "Residential acre" includes 40% of area which is accessory to house lots; includes local streets, school grounds, playgrounds, and shopping.

(b) 20 year forecast, see section on population.

(c) The approximate number of additional houses needed to house the expected 1970 population at 3.6 persons per house.

(d) A decrease of average number of persons per house is expected after the current housing shortage is relieved; the expected number per house (3.6) is about half way back toward the traditional Keene number (3.5).

(e) Recent subdivision layouts tend to remain at traditional low density of 2.8 houses per residential acre, a very desirable figure.

What amount of residential acreage will be required by 450 additional houses? What part of the required acreage is already developed with street, sewer, and water, and lies on first class buildable land? And how much new street frontage will be required?

(a) About 430 houses of the expected 450 will be within the urban area, as 5% of Keene housing is generally in the rural area.

(b) 430 houses will require a total of 150 residential acres (at traditional density of 2.8 houses per residential acre). About 90 acres will need to be actual house lots, the rest (40%) will normally be apportioned to accessory uses such as streets, shopping, playgrounds.

(c) At 2.8 houses per residential acre the lot size would be about 9500 sq. ft., say 95' x 100'.

(d) Total frontage represented by 430 lots 95' wide would be about 40,000'.

(e) At present there is 14,000' of frontage on first class buildable land, with street and utilities installed. For various reasons, such as holdouts and builders' preference for entirely new territory, not all of this 14,000' will be taken up. Assume that 4/5, or 11,000' of existing developed frontage will be put to use for part of the 430 lots.

(f) 29,000' of frontage remains to be placed on 15,000' of required new streets.

To give an idea of how much new area would need to be developed, the tract of land, shown in figure 21, page 65b could easily provide the extra frontage. (This is only a figure of measurement and does not suggest arbitrary allocation, for such is not the purpose of City Planning.)

The distribution of first class buildable land indicates that north Keene and West Keene, will receive most of this new housing over the next twenty years. These are the areas in which the Planning Board should work out general development schemes.

Section Summary

Housing and housing environment are of greatest importance in community quality. Housing development involves not only the private builder, but also the city, which is responsible for accessory public works, education, recreation, health, and safety.

Moderate population growth will require only a moderate addition to total housing. Housing obsolescance is expected to result in conversion and new apartment construction. Keene will be relieved of further need for

hasty development, and should concentrate on quality development over the next twenty years.

Some post-war housing has been going on marginal land which requires an extraordinary public expense for road, sewer, water, and health service. Old areas of obsolescant housing on these marginal lands have proven costly both in these respects and in terms of the social environment. The city should discourage further such building by controlling subdivision and building permits.

Aging is becoming evident in three-quarters of the present housing. Combined with recent housing shortages, this has had the effect of converting old owner-residences into apartments, especially in central areas. The housing pinch will be shortlived, and will relieve further necessity for conversions, and thus tend to make inefficient units obsolescant. In time, modern apartments of low density should be allowed by zoning to replace these older structures.

The overall low density of Keene housing has three reasons: a large-lot tradition, wasted area in irregular-shaped layouts, and premature developments containing much vacant space. The later two conditions are expensive in terms of public works. They could be prevented by charging builders an appropriate share of streets and

utilities, by subdivision control, and by control of building permits.

Estimates, based on forecast population and present housing occupancy, indicate 430 additional houses for urban Keene by 1970. Part of these will occupy existing developed frontage. About 15,000' of new residential streets will be required to provide for the balance of frontage. There is more than enough first class buildable land lying on the north and west side of urban Keene.

* * *

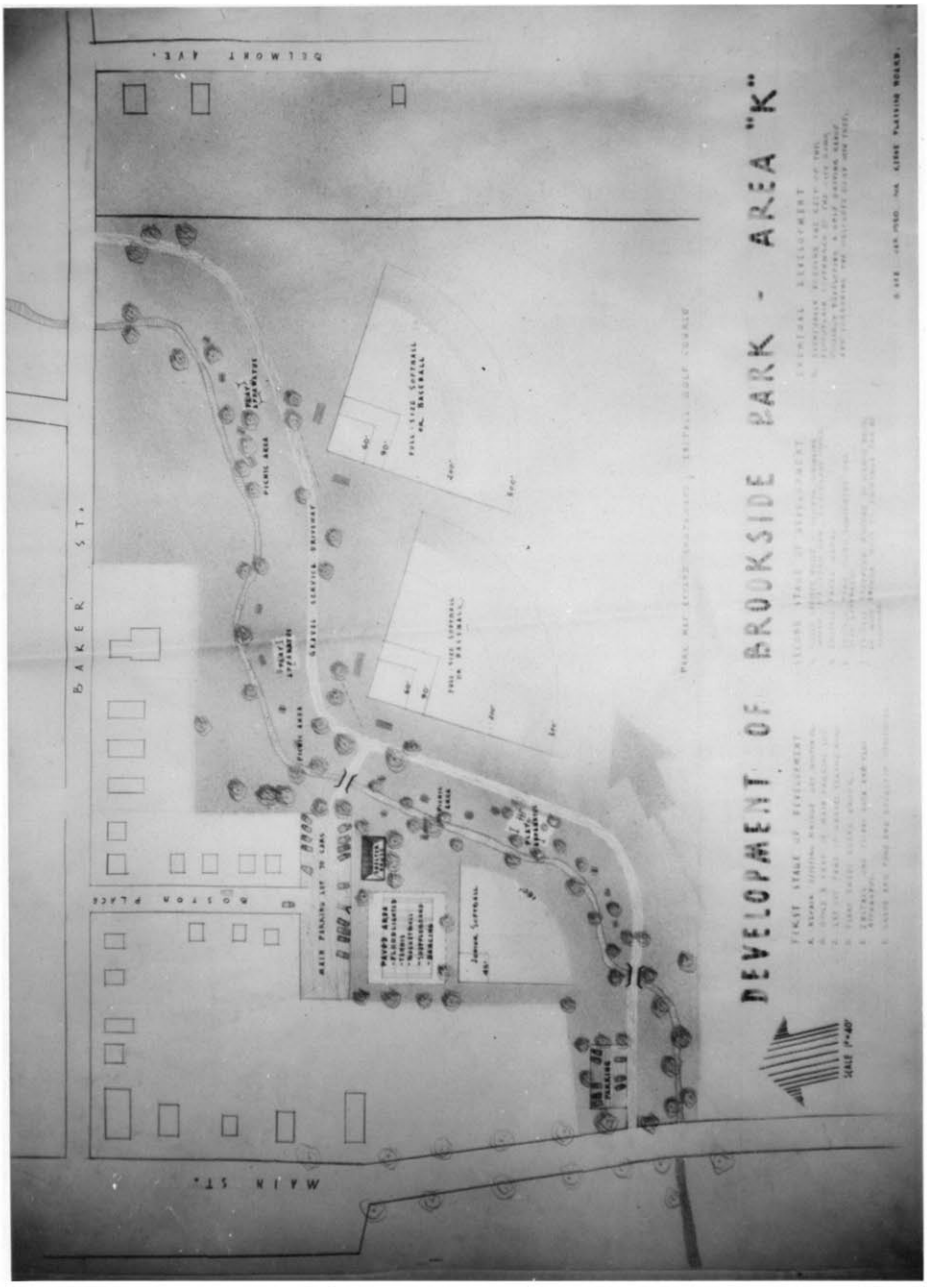

DEVELOPMENT OF BROOKSIDE PARK - AREA "K"
BELMONT AVE.
BAKER ST.
BOSTON PLACE
MAIN ST.

Figure 23

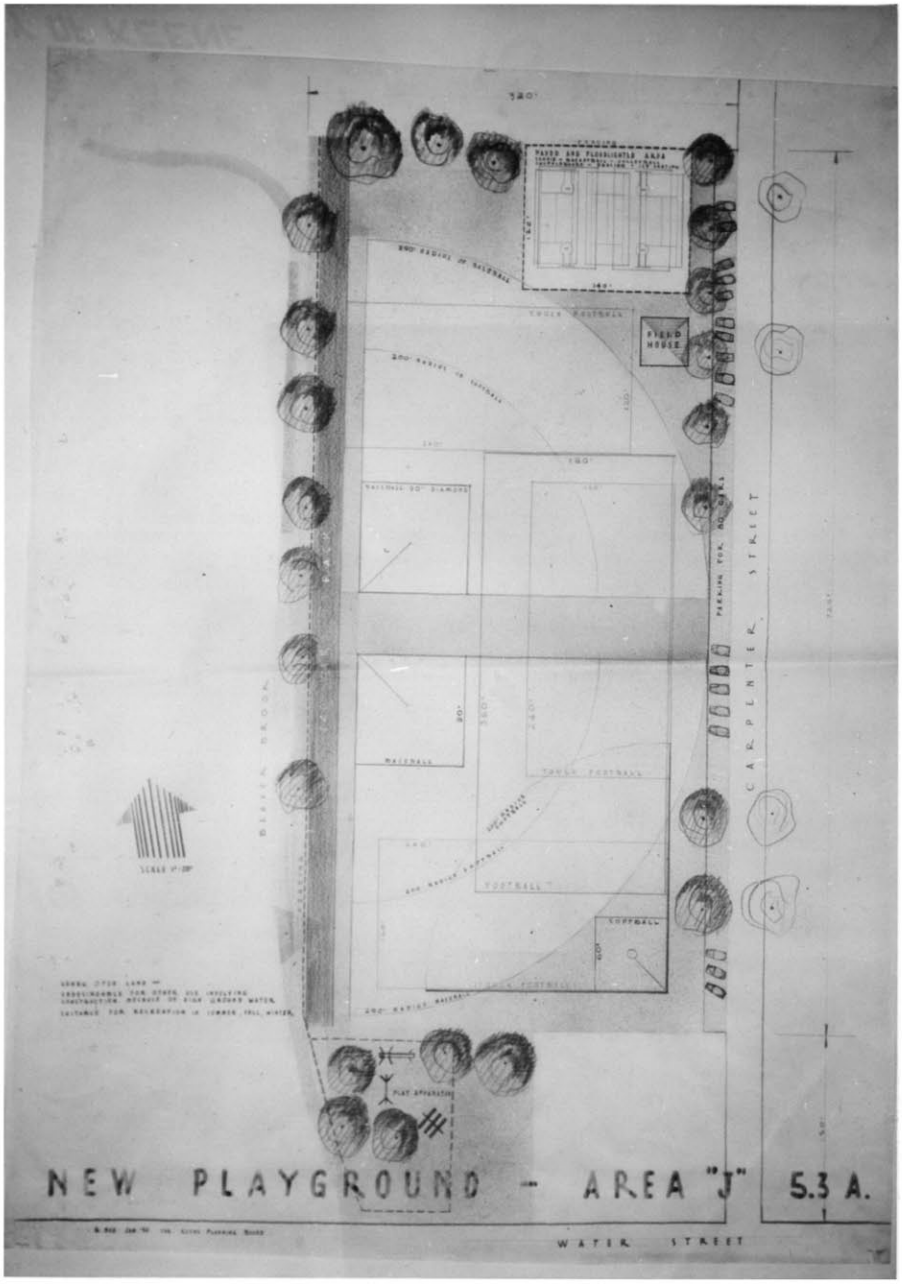

NEW PLAYGROUND - AREA "J" 5.3 A.
CARPENTER STREET
WATER STREET
FIELD HOUSE
BEAVER BROOK

Figure 24

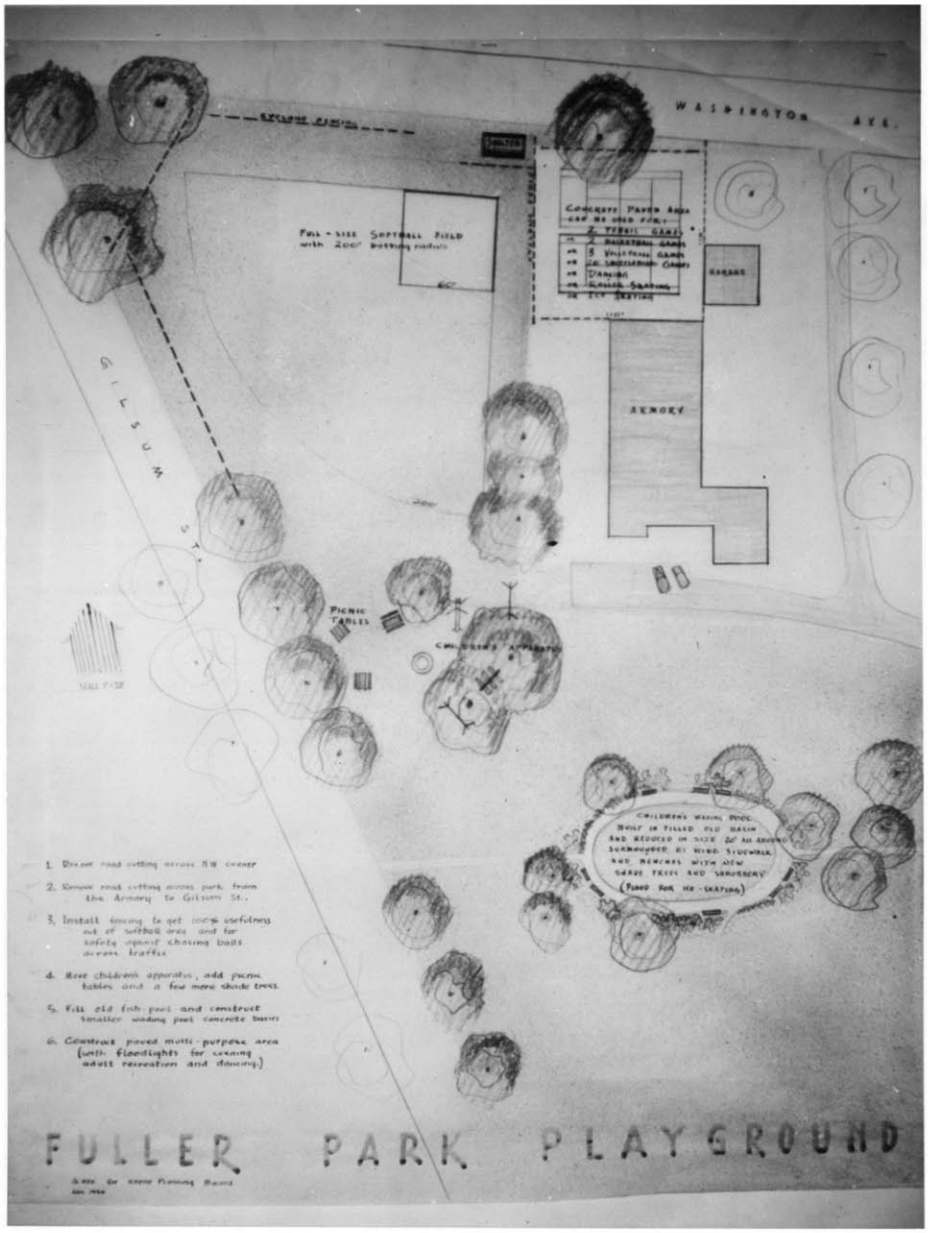

WASHINGTON AVE.
GILSUM ST.
FULL-SIZE SOFTBALL FIELD with 200' batting radius
CONCRETE PAVED AREA CAN BE USED FOR:
2 TENNIS GAMES
2 BASKETBALL GAMES
3 VOLLEYBALL GAMES
20 SHUFFLEBOARD GAMES
DANCING
ROLLER SKATING
ICE SKATING
GARAGE
ARMORY
PICNIC TABLES
CHILDREN'S APPARATUS
CHILDREN'S WADING POOL BUILT IN FILLED OLD BASIN AND REDUCED IN SIZE 20' AS AROUND SURROUNDED BY WIDE SIDEWALK AND BENCHES WITH NEW SHADE TREES AND SHRUBBERY (FLOOD FOR ICE-SKATING)
1. Remove road cutting across NW corner
2. Remove road cutting across park from the Armory to Gilsum St.
3. Install fencing to get 100% usefulness out of softball area and for safety against chasing balls across traffic
4. Move children's apparatus, add picnic tables and a few more shade trees
5. Fill old fish-pool and construct smaller wading pool concrete basin
6. Construct paved multi-purpose area (with floodlights for evening adult recreation and dancing.)
FULLER PARK PLAYGROUND

Figure ____

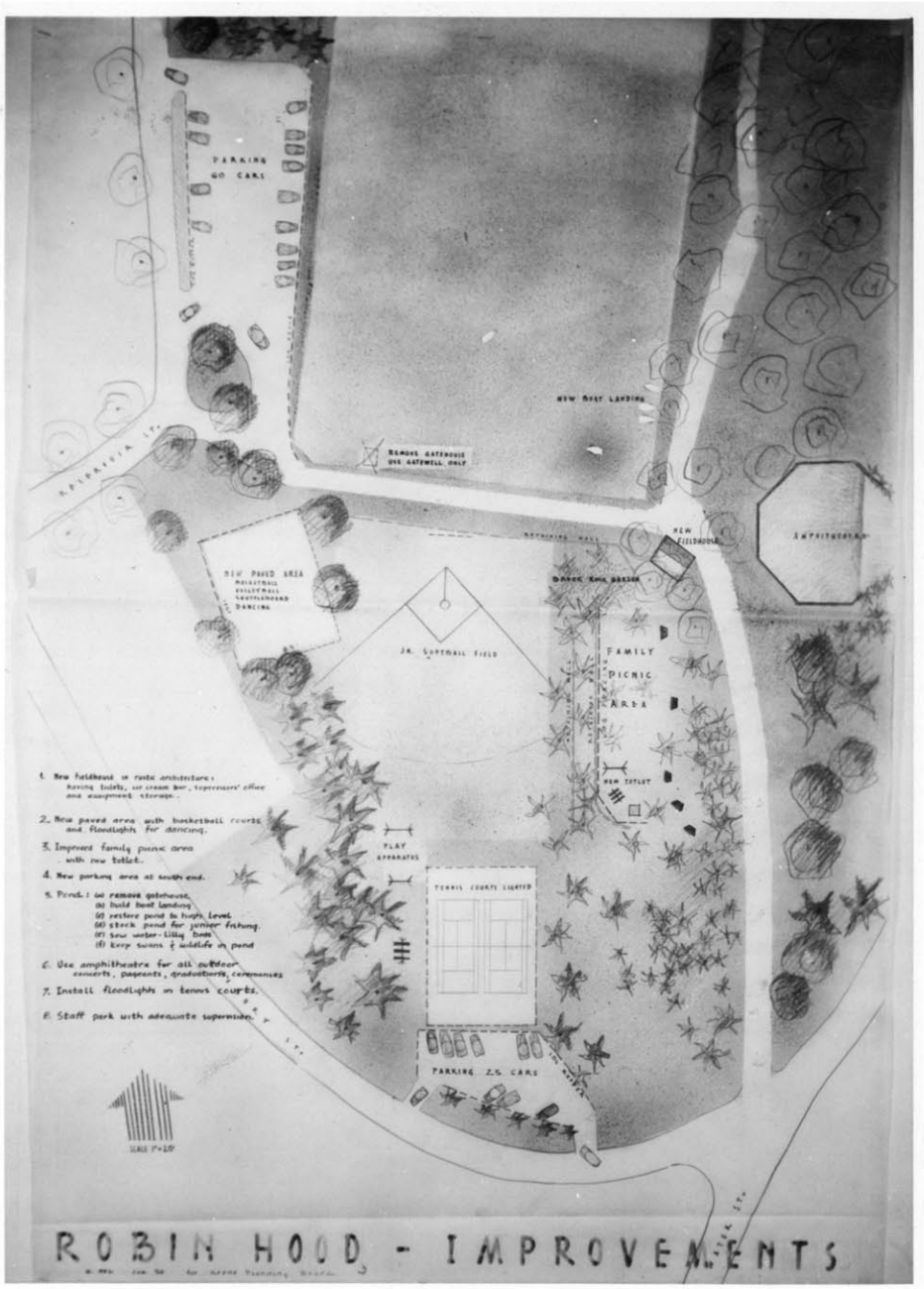

PARKING 60 CARS
NEW BOAT LANDING
REMOVE GATEHOUSE USE GATEWELL ONLY
NEW FIELDHOUSE
NEW PAVED AREA
BASKETBALL
VOLLEYBALL
SHUFFLEBOARD
DANCING
JR. SOFTBALL FIELD
FAMILY PICNIC AREA
NEW TOILET
PLAY APPARATUS
TENNIS COURTS LIGHTED
PARKING 25 CARS
1. New fieldhouse in rustic architecture: having toilets, ice cream bar, supervisors' office and equipment storage.
2. New paved area with basketball courts and floodlights for dancing.
3. Improved family picnic area with new toilet.
4. New parking area at south end.
5. Pond: (a) remove gatehouse.
(b) build boat landing
(c) restore pond to high level
(d) stock pond for junior fishing
(e) sew water-lilly bank
(f) keep swans & wildlife in pond
6. Use amphitheatre for all outdoor concerts, pageants, graduations, ceremonies
7. Install floodlights in tennis courts.
8. Staff park with adequate supervision.
ROBIN HOOD - IMPROVEMENTS

Figure 25

recreational requirements

Local playgrounds for growing children are very practical in a community. In Keene's earlier years as a small country town, fields and woods came up to every back door. Today, the built-up city lacks minimum playgrounds close to the homes of many of its youngsters. In certain areas neither the city nor the realtor has taken precaution to reserve large enough school sites or playground sites to keep kids off the streets.

There are several clear reasons why local playgrounds are practical:

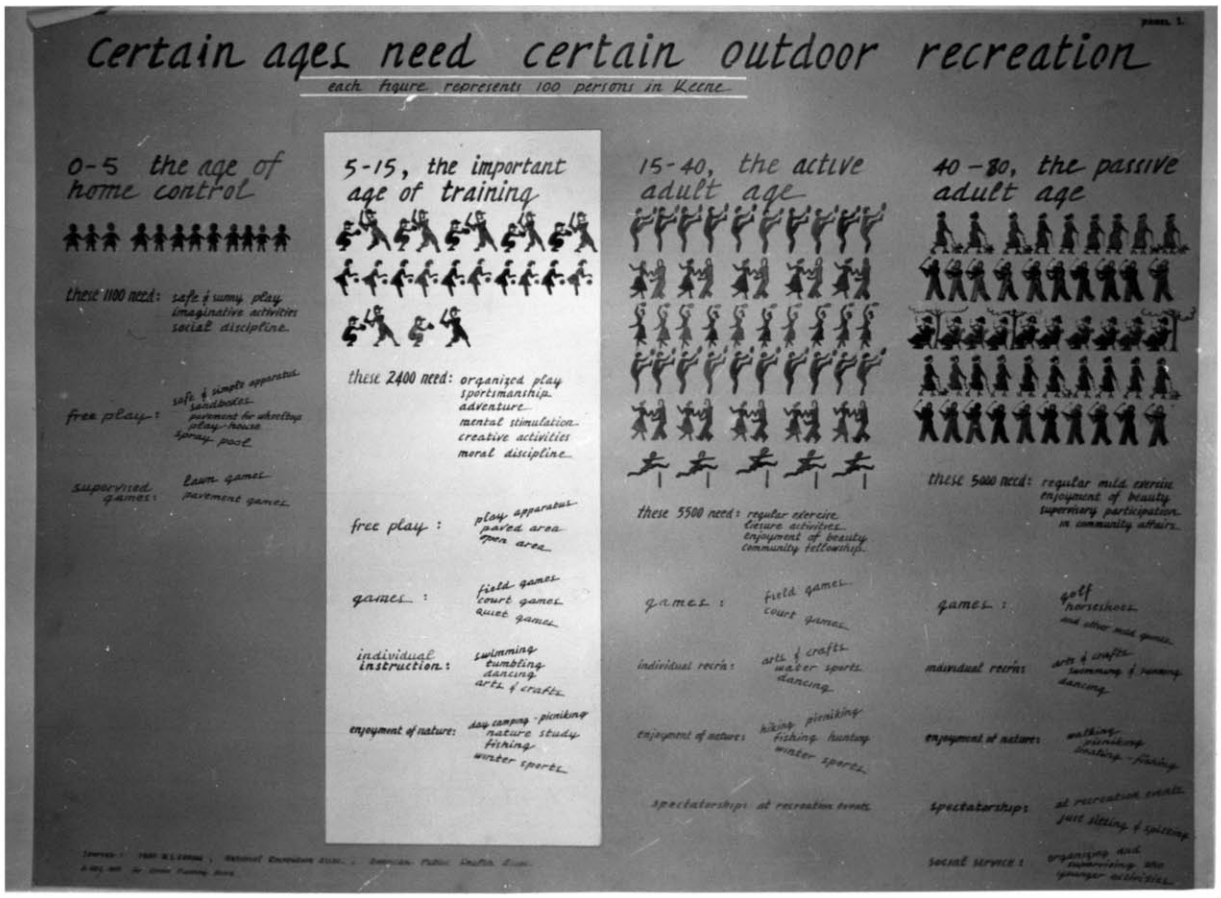
1. A local playground is equivalent to a local school for a healthy education in fair play, organized sports, and self-discipline. It is a place where parents can trust that their children are physically and morally safe.
2. A properly landscaped local playground is a community yard where local folks can meet,

bring the babies, talk away the time of day, play ball or horseshoes or have a community supper, as they will.

3. It improves property values in a community for the same reason that a nice lot improves the value of a single house.
4. From the taxpayer's standpoint, good recreation costs less than its alternatives: delinquency, police and legal attention, reform school, and intangible social costs.

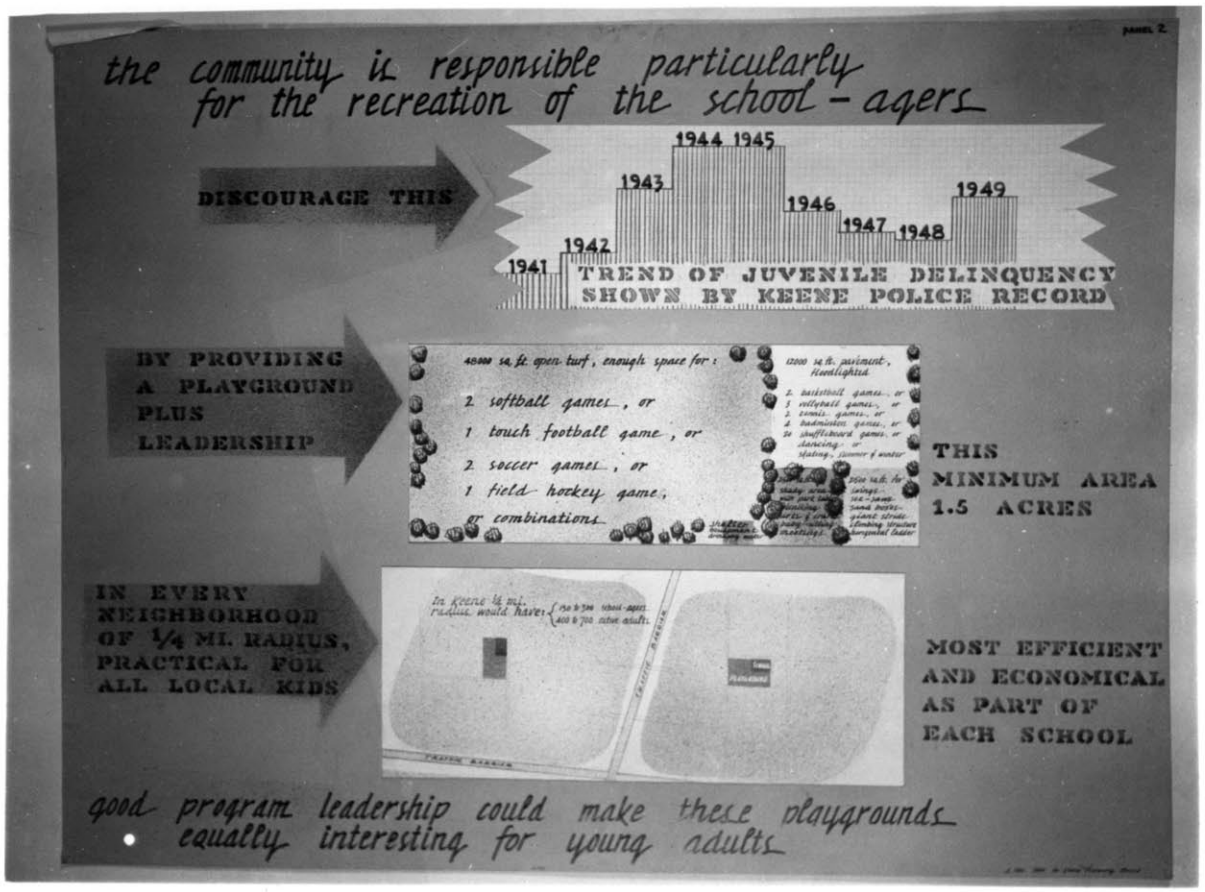
The need to build local playgrounds in certain neighborhoods is the only, but the most important, deficiency in Keene's recreational resources. Fine large parks on the city's edge, and lakes and mountains within driving distance, take care of active adults. Backyards take care of toddlers. But the school-age group is beyond the backyard stage, and yet unable to travel to outlying parks and lakes for daily recreation. It is this school-age group, growing out of direct home supervision, which needs the local playgrounds.

How many school-agers are there, where do they live in Keene, and what playground facilities exist or need to be built? The accompanying charts and maps cover these questions.



Keene population is classified into recreational age groups, 100 persons per each symbol. There are 2400 school-agers, whose recreation needs include the kinds of free play, organized play, and individual instruction which only a playground under good leadership can give.

Figure 27



The community becomes responsible along with failing parents, when inadequate juvenile recreation leads to juvenile delinquency. The police record shows a definate drop of juvenile delinquency after 1945, when a city recreation program was initiated. Location of playgrounds is quite as important as having any playgrounds at all. 1/4 mile is as far as youngsters can go daily in their odd hours, and still be close enough to their homes so that parents know where they are and what they are up to. Youngsters should not have to cross major traffic arteries to get to playgrounds. Schools, being located for similar reasons, ought to have the playgrounds wherever possible.

Figure 28

Drawing quarter-mile circles from existing adequate playgrounds shows that only the outer edges of Keene are served, (as shown in green). Schoolground enlargements and new playgrounds are needed in the built-up central areas, (as shown in red).

Figure 29

EXISTING ADEQUATE PLAYGROUNDS

	Approximate Play Area	Play Equipment Condition	Shelter, Drinking Water, and Toilets	Number of Schoolagers Living Within Practical Radius of Playground	Minor Improvements Recommended
A. WHEELOCK PARK	5 acres		yes	200 to 300	Sod ballfields and build backstops. Rebuild shelter house. Build multi-game pavement 120' square. Enlarge children's play-lot and apparatus. Provide movable bleachers.
B. ROBIN HOOD PARK	1 acre	fair	yes	200 to 300	Relocate childrens apparatus. Build multi-games pavement 120' square. Add parking area at tennis courts. Build new shelter house. Repair dam, remove brick tower. Build boat dock, stock pond with Horn Pout.
C. FULLER PARK	1½ acres	good	yes	100 to 200	Eliminate corner-cutting road and armory drive on west half of park. Enlarge ballfield and fence outfield against Washington Avenue and Gilsum St. Relocate childrens' play equipment area and plant it with more trees. Build multi-purpose game area 120' square. Convert fish pool to wading pool, add trees and benches for baby sitters.
D. FULLER SCHOOL	5 acres		could be made available	100 to 250	Sod game area. Install more play apparatus.
E. ROOSEVELT SCHOOL	1½ acres		could be made available	100 to 170	Erect fence along Washington Street. Install more play apparatus.
F. CLEVELAND SCHOOL	3 acres	fair	could be made available	50 to 100	
G. SYMONDS SCHOOL	4 acres	fair	could be made available	200 to 300	Block off cross-cutting road.

POTENTIAL PLAYGROUND DEVELOPMENTS

	Acreage	Number of Schoolagers Living Within Practical Radius of Playground	Potential Developments
H. Tilden School	Enlarge by 3/4 acre	200 to 300	Add 3/4 acre lying next to present 3/4 acre school playground, this new 1 1/2 acre playground would be adequate to serve surrounding neighborhood now without enough public playground space. (Proposed addition is idle pasture land, would need draining and some filling plus surfacing)
I. High School	Enlarge by 1 3/4 acre	300 to 1000	Add 1 3/4 acres of adjoining property, if this playground is to be counted on for the future. New total would be 2 1/2 acres, large enough for football and track plus softball multi-use area.
J. Open idle land at Water and Carpenter Streets	5 1/2 acres	250 to 500	Convert this area to a full-scale playfield such as Alumni Field. Large enough for 2 baseball fields and a football field with a track, and other games such as soccer, build a paved multi-use area 120' square, a shade area with play apparatus, and a fieldhouse with showers, toilets, drinking fountains, large enough for team meetings. (this ground is unbuildable for residence, but could be drained and surfaced at low cost, and has a scattering of trees which could be selected and saved. Fencing would have to be installed along Water Street and the brook.
K. Open unbuildable land along Beaver Brook below Baker Street	17 acres	250 to 350	Convert to a city park and playground, add paved area 120' square for multiple uses. Include apparatus for small children, also shelter and drinking water.

The southern part of Keene is shortest on playground space, therefore projects "J" and "K" should be top priority on the playground program. (See figure__ page 91, figure__ page 92 and aerial photos) Both of these are on lowland which has never been built upon, but which would be quite satisfactory for playfields. Both are large enough for several baseball fields and football fields in season, for paved multi-purpose areas, children's play equipment, and plenty parking.

These opportunities should not be passed up, as the areas have low valuation and are ideally located.

Schoolgrounds should be integrated into the playground scheme, enlarged where necessary, and used for organized summer programs. School buildings could open up a hallway leading to drinking fountains and toilets and a store-room for game equipment, and close off the rest of the school building by a hall barrier. The city administration and school administration would have mutual interest in cooperating for the year-round use of all public playgrounds including both the school grounds and the new playgrounds such as "J" and "K" where school grounds are inadequate.

In addition to the playgrounds already discussed, the city should attempt to acquire the forty acre open

lowland lying along the river on the other side of the college athletic field. This is a practically unbuildable area, valued as agricultural land. But it is very scenic, with large riverside trees and could easily be made into a park-playground to be reached by several footbridges from the southwest part of town which has no public playground site on its side of Main Street.

The issue of swimming facilities for Keene is important but not of greater importance than playground development which would provide more activity and education. In view of the short outdoor swimming season (twelve weeks) Keene should put its beautiful Goose Pond to use for summer swimming at the small cost of building a locker house and arranging continuous bus service to all parts of town. This would require temporary disconnection of Goose Pond as a water reservoir, a matter that can be arranged.

For year-round swimming Keene should include a pool in the new high school where it could serve both the high school and the public on a full daily schedule. It could be built at a great saving over the cost of a separate indoor pool elsewhere. Such a pool can be designed for pleasant summer sunlight and outdoor access. It would be part of the gymnasium and community center set-up which should properly be included in a new high school.

Section Summary

Good local playgrounds would have a practical value to Keene. They would give youngsters in the central parts of town a safe and adequate place for play activities which are valuable for their character formation. Local playgrounds of good design would also be community parks for adult activities. Playgrounds reflect on general property values in the neighborhood. From the taxpayer's point of view playgrounds and playground leadership are alternatives to the costs of juvenile delinquency.

Keene lacks playgrounds for school-agers within the built-up parts of town. The outlying parks and lakes are alright for adults who can drive, but they are practically inaccessable for everyday use by school children. The needs of school children should be the measure of playground adequacy.

Specific projects are shown, the main ideas being; to make use of existing school and park grounds wherever possible, and elsewhere to build new playgrounds by using open lands of low building value but lying in good locations within the built-up city. The school administration and the city should cooperate to mutual benefit by using all play facilities; the schools lacking

playgrounds could have organized programs on nearby playgrounds during the school year, and open their playgrounds and lavatories to the city summer program.

The problem of swimming facilities is a lesser one than the long-range playground program. It has two economical solutions: (1) make the necessary water supply arrangements to use Goose Pond, and provide a continuous bus service to all points in town, and (2) build a community size indoor pool into the new high school, making it available for both school and public on a full schedule.

* * *

schools as community fixtures

The school is the half-time home of neighborhood children and the logical center for civic activities. It is also the costliest public expenditure.

For planning purposes the elementary school is the neighborhood's walking center which must be approachable by young children without crossing dangerous traffic arteries, and therefore be located most conveniently toward the center of each community.

Keene's school plant has been surveyed several times in recent years at the request of the Union School District. There is need for modernization of both the educational system and parts of the school plant. The latest survey report, made by the Harvard Graduate School of Education, is bound into the addenda, page 169. It is a thorough report, and its main features should be integrated with the city development plan.

The recommended elementary school locations (Map III of Harvard Report) consider the way in which the city is divided up by the railroad belt, main streets, and the river.

The recommended standard size of five to ten acres for the elementary school sites would be easily achievable at Symonds and Tilden, but practically unachievable at Roosevelt and Wheelock. (See aerial photos, figure 36 page 155) At Roosevelt the topographic conditions would make field enlargement impractical, and at Wheelock the state of residential development within the school block would make it prohibitively expensive. On top of these limitations, Roosevelt and Wheelock are on main traffic arteries.

The steps which should be taken immediately for the relief of these schools are: (1) prevent more business from locating near them by immediately removing the business zone for at least 200' each way along the street, (2) erect extra high fencing between the small playgrounds and the streets, to keep in balls and children (Roosevelt School has no fence whatever at present!) (3) build new playground "K" (figure 23 page 84) to supplement Wheelock School, and improve the Fuller Park playground (figure 24 page 84b) to supplement Roosevelt

School; playground classes of older children could then be conducted back and forth in five minutes by their playground supervision.

The school survey recommends enlargement of the present high school playground. Enlargement should plan to include the property along Roxbury Street which is now in old residential estates, thus providing both the playground and for an extension to Roxbury Street of the city parking lot (which is proposed for the space now occupied by the old Public Works garages).

The demolition of the Central Junior High School, strongly recommended by all school surveys, should be marked as a site for a parking lot. No other use should have as high priority as parking in this strategic location lying directly off the square and with good access from all directions. This parking lot would be a main feature in the downtown loop street proposed in the city development plan.

Wheelock Park as the site for a new high school was proposed with the important provision that the northern leg of the circumferential road be built to allow direct access from the north half of Keene. (See figure 3/ page 103A)

Not only the northern leg, but the entire circumferential road should be considered important for the

new high school. As may be seen on the Federal Urban Aid Map, this route would skirt all residential parts of Keene to provide excellent access entirely free of downtown congestion; an ideal bus route serving incoming tuition students as well as Keene students, and also West Keene residents who will be travelling in greater numbers to the growing industrial area in the southeast corner.

The proposal to place the new high school on a spacious site and to design it for double use as a community center, is an excellent idea from the standpoints of economy and city development. City-wide use of an auditorium, gymnasium, swimming pool, evening classes, and Wheelock Park athletic field would be a one-stroke solution to all these community requirements. These could be installed together at a great saving over what separate facilities would have cost. The location would be easily accessable from all residential parts of Keene by the circumferential highway.

Another site, near Alumni Field, is being considered. It would be a less favorable location in relation to the circumferential highway and community center functions which depend on the good location.

In case of either location for the proposed high school, West Keene would be given a development boost. The Planning Board should anticipate development by good preliminary plans for residential streets.

Section Summary

The elementary school is the important centralizing feature of a residential neighborhood; planning must try to safeguard walking access and develop schools centrally in each section of the city.

Junior and senior high schools are potential community centers, to be located for good community access and provided with adequate settings for recreation and parking.

This report accepts the recent Harvard school survey for integration with the city development plan, and adds supplementary proposals:

(a) The sites of Roosevelt and Wheelock Schools are too small and are located on arterial streets, without practical possibilities of enlargement. To assist these schools immediately: zone against nearby business, erect high fencing along street, and construct supplementary

playgrounds on Fuller Park and area "K" to serve school classes.

The proposed enlargement of the present high school playground should extend to Roxbury Street and provide for some parking along Roxbury which may be connected with the proposed parking lot in rear of City Hall.

The demolition of Central Junior High School would create a strategic parking lot.

The proposed new high school in West Keene at Wheelock Park would have excellent road access by the circumferential street skirting all residential parts of the city. Bus service on this street would save commuters from going anywhere near downtown congestion.

The high school in West Keene would boost residential development, which the Planning Board should anticipate with preliminary plans for good street layouts.

* * *

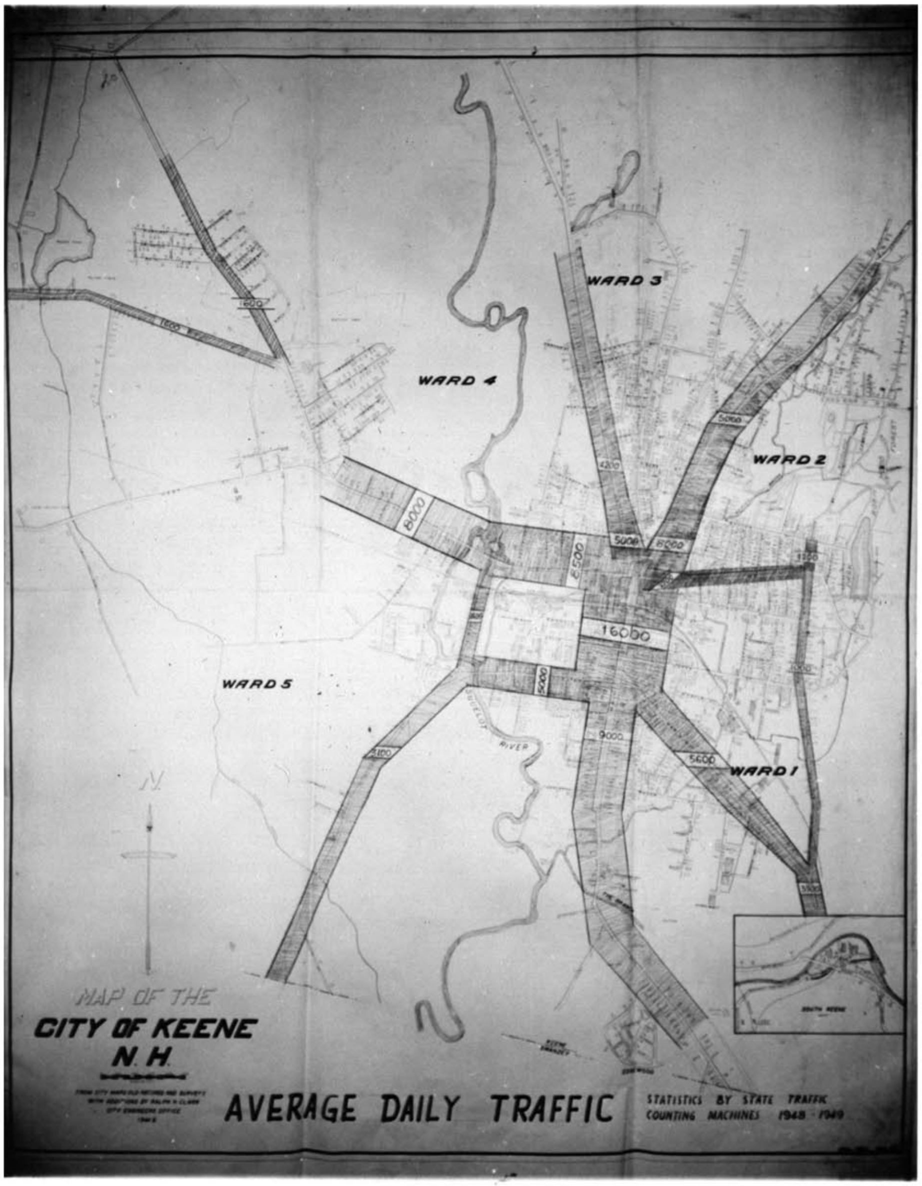

WARD 3
WARD 4
WARD 2
WARD 5
WARD 1
16000
8000
6500
5900
5000
9000
5600
4200
1600
RIVER
MAP OF THE
CITY OF KEENE
N.H.
AVERAGE DAILY TRAFFIC
STATISTICS BY STATE TRAFFIC
COUNTING MACHINES 1948-1949
SOUTH KEENE

Figure 30

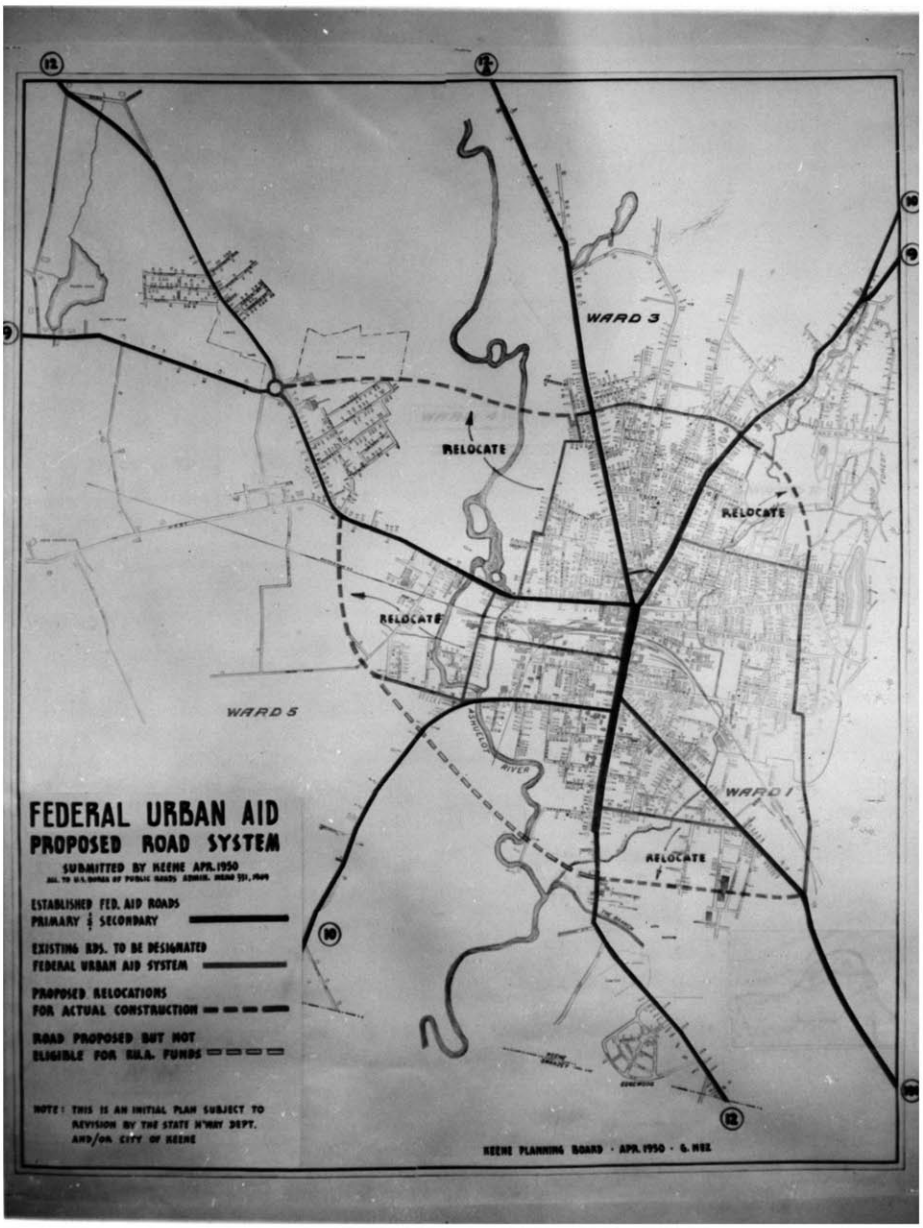

FEDERAL URBAN AID
PROPOSED ROAD SYSTEM
SUBMITTED BY KEENE APR. 1950
ESTABLISHED FED. AID ROADS
PRIMARY & SECONDARY
EXISTING RDS. TO BE DESIGNATED
FEDERAL URBAN AID SYSTEM
PROPOSED RELOCATIONS
FOR ACTUAL CONSTRUCTION
ROAD PROPOSED BUT NOT
ELIGIBLE FOR F.A. FUNDS
NOTE: THIS IS AN INITIAL PLAN SUBJECT TO
REVISION BY THE STATE H'WAY DEPT.
AND/OR CITY OF KEENE
WARD 3
WARD 5
WARD 1
RELOCATE
RELOCATE
RELOCATE
RELOCATE
KEENE PLANNING BOARD - APR. 1950 - G. NEE

Figure 31

Figure 32

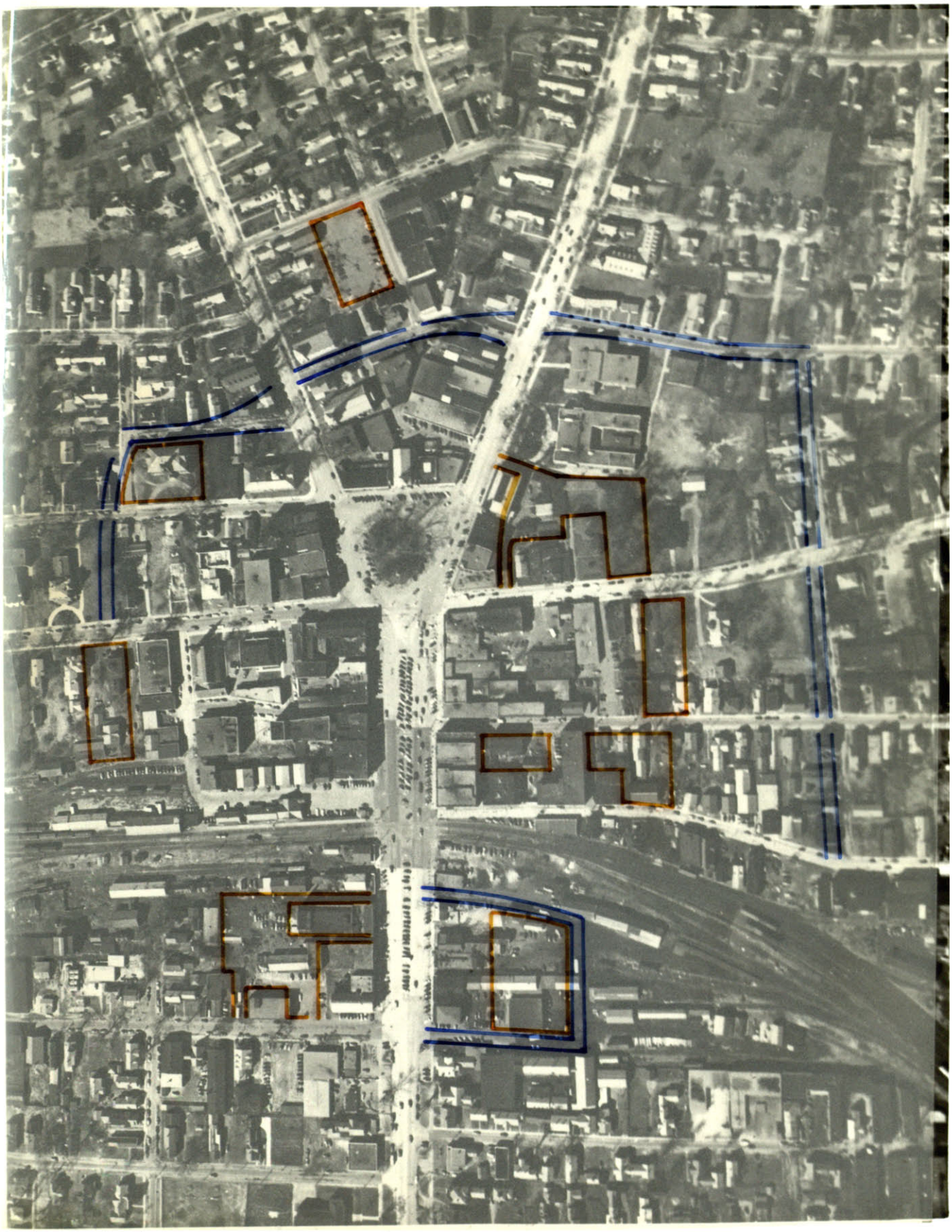


Figure 33

traffic and parking demand relief

By being the road center of a thirty mile circle, and near the middle of the New England road network, Keene is put on the spot to handle up to 50% extra traffic and parking during four months of the year.(1) Figure 30 page 103 shows how the volume is distributed among Keene main streets. Exactly where all this incoming traffic comes from, and is headed, will be known after the State Highway Department's "Origin and Destination Survey" is made in Keene this summer. But enough is known about volumes and general destination to outline basic solutions at this time.

While the Planning Board does not undertake detailed engineering, it is responsible for the advance planning of the major street projects and parking lots.

Its immediate concern should be to relieve Keene's famous downtown congestion, and its ultimate concern

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(1) Addenda page 172 .

should be to plan a street system which will carry traffic around the city without going through the very center. Both of these efforts come down to the same objective; to cure the effect of an overcentralized traffic pattern.

Circumferential Road Scheme

The Federal Urban Aid map (figure 31 page 103A) shows a solution for the following serious needs:

(1) Circulation around the city by Keene traffic and pedestrians. The direction of travel to work and to school desires to go across town rather than through the center. This will become ever more important as Keene's industry grows at the southeast edge of town (figure 10 page 32A), as housing grows outward from the center of the city (figure 11 page 73), and as the new high school and more residence spring up in West Keene. The circumferential road will be ideal for a bus route to serve schools, industry, and cross-town visiting.

(2) Regional commuting to Keene's schools and industries. Central Square shopping traffic

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(1) Add page ___.

will also be assisted, by removal of the surplus traffic which is now forced through the center.

(3) Through traffic, consisting of vacation traffic plus year-round trucking.

(4) Remove the overload from old dignified residential streets: Main, Marlboro, Roxbury, Washington, Court, West, and Winchester.

Under the terms of Federal urban road aid, this project may be undertaken at Keene's initiative, at 50% cost to Keene. It may be undertaken by sections, in which case the northern leg should come first, followed by the southern, then the southwestern, and finally the eastern. Or the whole plan may be surveyed as one stage, then drawn up as another stage, then constructed either in part or in total.

Existing buildings were respected in this layout. No building needs to be removed except a few garage and shed structures up on Spruce Street.

The Public Works garage should be removed from inadequate quarters in the rear of City Hall. The best location would be on the City Pasture where Public Works field operations are located. The new circumferential road would go right by, to take Public Works trucking

efficiently to any residential part of town or across to any highway.

Parking

Average daily parking in downtown Keene, as shown on the accompanying map, occupies every curb, every nook and cranny between buildings, every approach street coming into the area, and half of "the world's widest paved" Main Street. At least 100 parking spaces are either dangerous (center of Main Street and around Central Park) or they are bottlenecks to traffic (sections of West Street, Winter Street, Roxbury Street, Church Street) or they are both. And still there are too few parking spaces!

In the summer of 1949 a study of downtown parking and traffic was made.(1) It looked at the situation from all points of view: the driver's, the parker's, and the pedestrian's. Turning volumes were measured, and the signal lights rearranged for a trial system of direct turns through the square. The experiment failed, mainly because it was unable to discharge outgoing traffic fast enough through certain parking bottlenecks. A parking

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(1) Traffic, Parking, and New Business Frontage in Downtown Keene. Keene Planning Board and Business Bureau 1949.

destination survey showed that over half of the parkers were unable to park near their destination. A pedestrian survey measured street crossings and showed they were much more numberous than auto traffic and much less safe. Following this study there were improvements: police direction of traffic during rush periods, one-way traffic on certain streets, elimination of a few bottleneck parking spaces, and the installation of a center strip in Main Street to protect the parker and the pedestrian.

All such efforts help a little, but the only real solutions are to build adequate off-street parking and re-route through traffic on a circumferential road. Otherwise Central Square will suffer further loss of attractiveness and efficiency. Business will follow the traffic arteries where shoppers can easily park.

How much off-street parking space does Keene need to make downtown an efficient traffic and parking area? One method of estimating is to apply the nationally recommended formula: two square feet of parking area to be supplied for every square foot of floor area used by business. According to this, Keene requires approximately ten times its present total parking area! Obviously the only value of this formula is to show Keene that it is far below modern parking standards.

Last summer's effort to plan a large off-street parking lot in a central location along Main Street came up against the prohibitive expense of acquiring a site which has several owners speculating with their properties. Aside from prohibitive cost, a single large lot cannot efficiently serve the opposite side of the business area. Moreover it would compound the traffic problem by concentrating many cars and pedestrians at one point in a business area which already suffers from traffic over-concentration.

A more practical method for Keene would be to utilize locations which are vacant or in marginal use, lying in the perimeter of the business area. The Fish Lot, for example, is suitable to take care of parking in its immediate locality. Other lots 1/2 acre in size should be located within one or two blocks of the square; east, west, and south.

Potential sites in each part of the downtown area are suggested by figure 33 page 105. These are selected to disperse traffic and parking conveniently near various destinations in the business area. Lots should be laid out to have two points of access to bounding streets.

The lots upon which to concentrate immediately are:

(1) The 1/2 acre area behind City Hall may be cleared for a parking lot as soon as the Public Works Department is relocated in new quarters. This parking lot may include a part of the old residential estate which should be purchased also for the purpose of enlarging the high school playground. The combined area would be one acre, adequate for 180 cars.

(2) The site of old Central Junior High School should be made into a parking lot following demolition of the school. It is about 3/4 acre; capacity 135 cars.

(3) Any one of the old converted residences on West Street beyond the Sentinel building are on approximately 1/2 acre lots, ideally located for a parking lot which is badly needed to remove bottleneck parking on West Street.

(4) One larger lot, of one acre size (180 cars) below the railroad tracks on either side of Main Street. Large areas in marginal use exist in back of business frontage.

More lots would be established after these prove their value and teach Keene how to go about building a

parking system. When these four lots are built the city may eliminate the bottleneck parking (1) on both sides of West Street (except for short-time stopping permission during slack hours), (2) in the center of Main Street, and (3) around the park in the middle of the square.

As soon as the lot in the rear of City Hall or the old Central School site is readied, parking on West Street may be removed and parking in the center of Main Street may be made parallel to the curb. These immediate steps would facilitate free flow of traffic.

The present awkward rotary movement around the park should be replaced by a system of direct turns, (by adding another phase to the traffic light). When tried in 1949 during summer traffic, only the incapacity of West Street and Main Street, due to parking congestion, prevented this system from working effectively. Such a change would greatly reduce the amount of traffic jostling around the park; would recover a pleasant and quiet atmosphere at the head of the Square in Keene's front room.

Another beneficial effect of these parking lots would be to improve business frontage in the perimeter of the business district. At the present time this perimeter is of low retail value because of poor accessability from the Square. The need for new store

location is a definate fact, by evidence of business migration out along the main streets. It would be better for new business and the city to open up the downtown area with parking lots.

How much would these new parking lots cost? To begin with, two lots may be considered "free": the proposed lot behind City Hall, and the Central Junior High School site. The other lots proposed for immediate development would cost about $30,000 to $35,000 cash, based on (a) land cost of not more than 25% above present assessed values, which range up to $1.00 per square foot, and (b) construction and lighting cost of $4,000 per half acre lot. The total cost of the four finished lots would be $70,000 to $100,000.

Who should pay? The various financial resources which have been used elsewhere in parking lot programs boil down essentially to three: (1) the general public (which pays property taxes), (2) the parker (who slugs parking meters), and (3) the businessman (who gets the parked customer). Of these three sources it is clear that the parker and the businessman are directly benefitted, and therefore directly obliged. The general public is benefited, to a lesser degree, by the relief of traffic congestion and by non-business parking. Many of the general public do not own cars. The principle

that should determine who pays is that the parker and the businessman benefit most.

How to pay for parking lots? The general public would contribute its share to the program by donating the City Hall parking lot and the Central Junior High School lot. The parker and the businessman would divide the costs of the other lots as follows: (1) Establish a fund for land purchase and construction, consisting of (a) existing surplus parking meter money, and (b) special municipal serial bonds to be subscribed by the downtown business men. These bonds would carry a low interest rate and be redeemable from parking meter income earmarked for the purpose. If at least $10,000 of the meter revenue could be set aside annually for bond service, it would pay off one lot each three years, and all the lots Keene needs in ten to fifteen years.

Experience all over the country indicates that business values and property values are improved by nearby parking lots. Experience in Keene indicates that off-street parking lots must be programmed immediately.

A list of eight potential parking lots distributed through downtown Keene begins on Addenda page 170.

A Downtown Loop Street

Figure 33 page 105 shows a downtown loop street which can be economically developed to disperse shopping traffic and to provide new and improved business location around the solidly built-up central blocks. This loop street would be ever more important as time went on and business and traffic grew. It would immediately improve the location of the fire station, the enlarged high school site, the Central Junior High School parking lot, the Fish Lot, business on Vernon Street, and factories abutting Norway Avenue and the end of Ninety-Third Street.

Most of the sections of this loop street exist now: Middle Street, Center Street, Vernon Street, Spring Street, Roxbury Court, Norway Avenue, and Ninety-Third Street. New construction would (a) extend Middle Street down to West Street, (b) realign Center Street at Court Street to extend directly into Vernon Street, (c) realign Vernon Street at Washington Street to extend directly into Spring Street, (d) extend Roxbury Court to Spring Street, (e) widen Ninety-Third Street.

Construction plans should be made ready, to be carried out part by part as the right-of-way can be acquired.

In order to promote the loop street it would be helpful to rename all the small streets in the loop by a single name, such as "Central Circle". For the same reason, the Federal Urban Aid circumferential street even in the plan stage should be called "Keene Outer Circle".

Section Summary

The concentration of regional and local traffic in downtown Keene may be relieved in three ways: (1) by connecting and building a road completely around the city but lying within the built up area in order to serve city traffic as well as by-pass traffic, (2) by building parking lots downtown to adequately handle the parking demand which is now a traffic bottleneck, and (3) by completing a downtown loop street, most of which already exists (this would provide needed business frontage, along with traffic relief).

The circumferential road has been planned as a 50% Federal Urban Aid project. The layout was done in cooperation with the State Highway Department acting for the Federal office. It is up to Keene, and only Keene, to initiate work under this Federal Urban Aid plan. As laid out, the circumferential road would satisfy workers'

and school children's need to get across town and around town. This need will be emphasized by a new high school in West Keene. The Public Works Department would have an excellent new location on this road. The road would be a fine bus route, and would help to tie the balkanized section south of the railroad together with the rest of town. It would remove much trucking and through traffic from the streets leading into Central Square which have been losing their fine old residential character. It would facilitate regional traffic.

The need for off-street parking lots cannot be dodged. Heavy parking on downtown streets is constricting traffic flow and inconveniencing the parker and merchant. Mere efforts to rearrange parking and traffic here and there are less than a complete solution.

The general public would be contributing its share to a parking lot program by donating two public sites. Parkers and businessmen, who benefit directly, would finance additional lots by applying the parking meter fund and proceeds of a bond issue bought by businessmen. The bonds would be redeemed by earmarking future parking meter income.

The practical system of parking lots would be made up of lots of 1/2 to one acre located around the periphery

of the business section, where land can be acquired. Traffic would be well distributed away from central congestion, and parkers could get near their destination.

Among proposed locations there are two "free" possibilities: the area behind City Hall to be vacated by the Public Works Department, and the site of the Central Junior High School which is due for demolition. A lot would have to be purchased on West Street, and another south of the railroad, to complete a minimum effective program.

Then parking could be removed from bottlenecks in West Street and Main Street, and from around the park in Central Square. The awkward rotary traffic scheme could be replaced by a system of direct turns, since West Street and Main Street would be cleared and their traffic capacity doubled.

A downtown loop street may be developed with some improvement and addition to present streets. This would provide needed business frontage and disperse traffic. It would be a direct aid to the fire station, the high school, and two parking lots. This project should be given the name "Central Circle", and the separate short streets which form parts of it should be

so renamed to promote public understanding. For the same reason, the outer circumferential road should be called "Keene Outer Circle".

* * *

subdivision control and an official map: assistance to good city development

The Planning Board needs a standard subdivision control ordinance in order to give effect to the City Plan.

The broad civic purpose of the plan is defined by Section 8 of the Planning Ordinance (addenda page 16).

> "The city plan shall be made with the general purpose of guiding a coordinated development of the municipality which will promote health, safety, morals, duty, convenience and prosperity; as well as efficiency and economy in the process of development...adequate provision for traffic... safety from fire and other dangers, adequate provision for light and air, the promotion of good civil design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements."

Each new subdivision which comes to the city for approval involves public money for streets and utilities, and public service for police and fire protection, education, and welfare. Every subdivision plan today means houses and people tomorrow who deserve as good a community as the city plan can provide.

This is the point where the city plan directly touches a future community; the point where systematic subdivision control should be applied. The mere fact that a city plan exists might have some influence on a private developer if he chose to investigate the plan and how his development would fit in. But such influence would be vague indeed. The experience of many cities has taught the need for a regular procedure of systematic cooperation between the developer and the City Planning Board.

Zoning and Building regulations are already well established and proven in Keene. They are instruments of assistance to the city plan, to the extent that they protect standards already prevailing in the community. That is to say Zoning and Building regulations are policemen of good building order.

Subdivision control, exercised by the Planning Board, would complete the city's necessary powers to carry out the broad purpose expressed by the Planning Ordinance. A standard subdivision control ordinance is prescribed by state law.(1) It has been adopted by Concord and New London. In effect it pulls together all the considerations of street design, service requirement, costs, school requirement, and relation with main streets,

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(1) Chapter 53, Sections 19-29, Revised Laws of New Hampshire, 1942. Bound into addenda, p 174.

which are involved in a subdivision application as it stands before the city for approval. The Planning Board would bring to bear the city plan as well as the particular standards of each city department. In a special question of engineering or public works or law, health, budgeting or executive policy, it could call in the opinion of department heads.

Without such systematic review the city has made frequent mistakes in permitting building where it would sooner or later turn into extraordinary expenses for street, sewer, or water service. Cases in point are:

(a) A subdivision permitted on Lorraine Street, Belvue Avenue, and Woodland Avenue on a slope too steep for a standard road, so steep that city maintenance and ploughing will be expensive and approach by fire trucks practically impossible.

(b) A subdivision and street accepted (Billings Avenue) in West Keene is an area which requires major sewer reconstruction, for which no money was appropriated.

(c) Edgewood subdivision and street accepted even though lying partly in Swanzey; the difficult problem of servicing and charging for development in another town.

(d) Several subdivisions on low land out Meadow Road and Winchester Street which cannot be sewered and cannot use septic tanks, and where much road must be maintained for few houses.

(e) Throughout the city there are dead end streets, irregular patterns and excessive streets, and inside-of-block subdivisions which are inefficient in terms of street construction, underground utilities, snow plowing, accessability of fire-fighting equipment, and unpleasant for residence.

Thus in past years the city was "taken in" by developers who wanted to sell lots; the city accepted any street scheme, gave any building permit, and was left "holding the bag" for improvements.

What has the city done so far, to tighten up on subdivision control? Even before the Planning Board approached the problem, the City Engineer secured a limited ordinance[1] which permitted him to disapprove subdivisions which failed to meet certain design and street standards. The standards which he prescribed were a step forward in improving the engineering of new streets and utilities, and encouraging proper street alignment and connection. In practice the City Engineer reported his recommendation on street acceptances to the Council, who acted accordingly. The City Engineer was the only official in a position to see implications of new layouts because he was technically involved with the

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(1) City Ordinance, Chapter 52, quoted in addenda page 173.

street and utilities design, and had the collateral responsibility for building permits and inspections.

As far as the jurisdiction of the City Engineer could extend, this method had some merit in heading off poor subdivision and poor street development. But it had its limitations; it could not speak for the entire city government in questions that involved other departments and city policy; exactly who was responsible in subdivision decisions was not clear.

(a) In case the Engineer approved a subdivision plot, future budgetary expenditure and work of other departments was obligated. When it came time for street, sewer, and water work by the Public Works Department, and time for Council approval of expenditure, these decisions were already committed by private development which had been allowed to proceed.

(b) In case the Engineer refused a subdivision application, the applicant would move on up to the Planning Board or the City Council, where a planning case would have to be decided.

(c) In the case of a building permit refused for a poor location but within a permitted zone, the applicant could go over the heads of the Engineer and City Council and appeal to court, where the city would have to make a planning case in its defense.

These problems all come back to the fact that responsibility for subdivision and street acceptance is not fixed at the same point with responsibility for city planning.

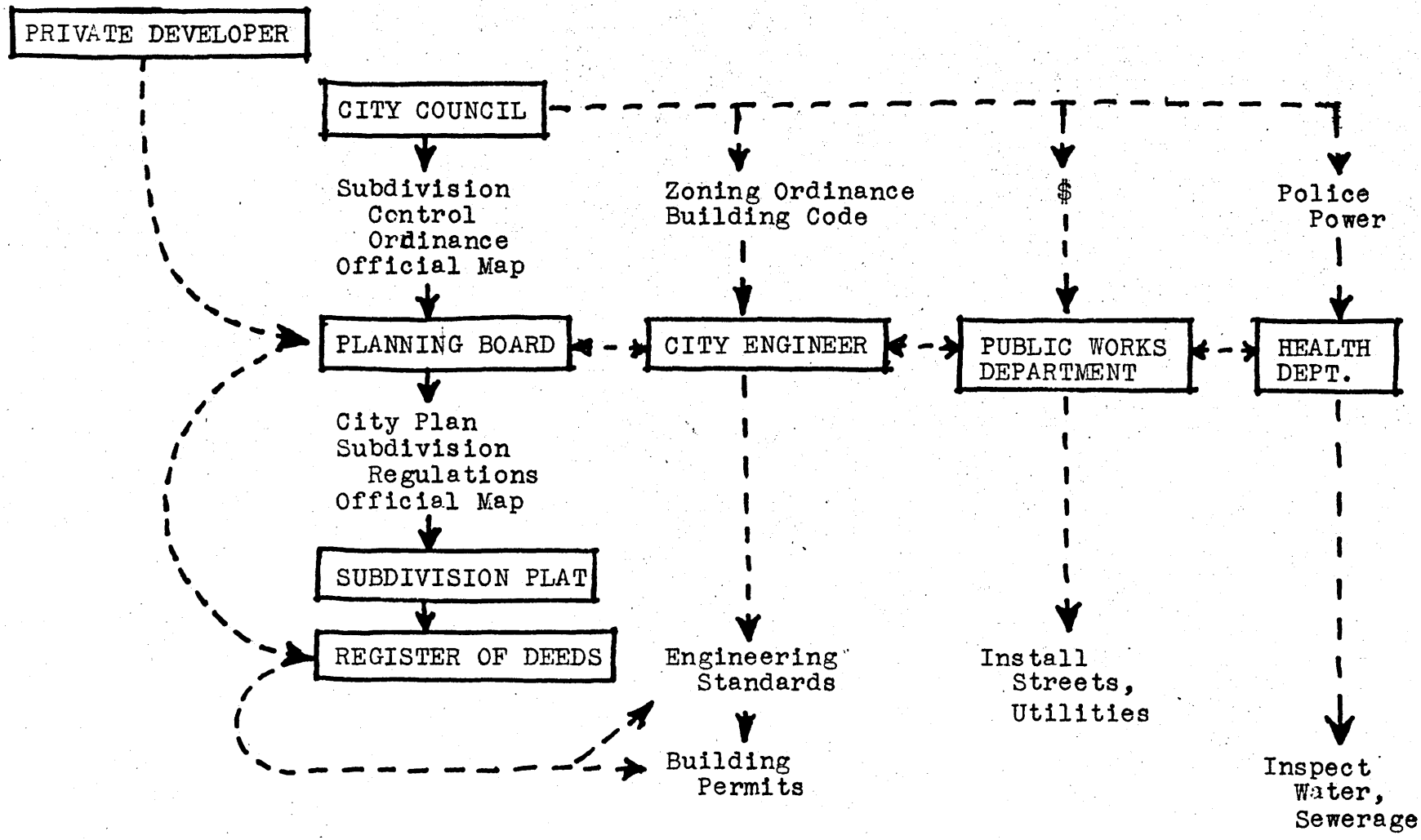
The standard method of subdivision control prescribed by the state law overcomes these limitations. It places Subdivision Control functions at the level of the Planning Board which can require the subdivision plan to fit in with all the city responsibilities involved in city development. It would have power to enforce proper performance by the developer. Building permits and city work could be withheld if the subdivision would be unsound according to the regulations set up by the Planning Board. The general nature of these regulations is defined by the state law:

> "to provide against such scattered or premature subdivision of land as would involve danger or injury to health, safety, or prosperity by reason of the lack of water supply, drainage, transportation, or other public services, or necessitate an excessive expenditure of public funds for the supply of such services. Such regulations may provide for the harmonious development of the municipality and its environs; for the proper arrangement and co-ordination of streets within subdivisions in relation to other existing or planned streets or with features of the official map of the municipality; for open spaces of adequate proportions and for suitably-located streets of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air, and access of fire-fighting apparatus and equipment to buildings, and be

> co-ordinated so as to compose a convenient system. The regulations of the board may require in proper cases that plats shall show a park or parks suitably located for playground or other recreational purposes; they may require that proposed parks shall be of reasonable size for neighborhood playgrounds or other recreation uses, and that the land indicated on plats submitted shall be of such character that it can be used for building purposes without danger to health; they may prescribe minimum widths, depths and areas of lots so as to avoid congestion of population and generally may include provisions which will tend to create conditions favorable to health, safety, convenience, or prosperity...may stipulate the extent to which and the manner in which streets shall be graded and improved and to which water, sewer and other utility mains, piping, connections, or other facilities shall be installed. The planning board may accept a bond, in an amount and with surety and conditions satisfactory to it, providing for and securing to the municipality the actual construction and installation of such improvements and utilities within a period specified by the planning board and expressed in the bond; and the municipality is granted the power to enforce such bonds by all appropriate legal and equitable remedies. Such regulations may provide, in lieu of the completion of such work and installations previous to the final approval of a plat, for an assessment or other method whereby the municipality is put in an assured position to do said work and make said alterations at the cost of the owners of the property within the subdivision."

Guided by such regulations, the Planning Board could make a thorough appraisal of each subdivision and proposed street, both in respect of the city's obligations and in respect of the city plan. Then, if a case were put to legal test, the city would be on the solid ground of state law supported by precedent in other cities.

How Subdivision Control
Would Work



The companion measure needed to go with Subdivision Control is an Official Map of the city.(1) It is simply a scale map of all city property including street lines and park lines, drawn by the City Engineer, approved by the Council, and filed with the Register of Deeds. This map may be amended by the Council from time to time, to include new streets which have been accepted or major streets and parks prescribed by the Planning Board for the development of the city plan.

Once a subdivision plan or a major street plan is accepted by due process and placed on the Official Map, it takes on official status. It cannot be changed except by the City Council, after due consideration and a public hearing. The reason for all this care is to protect the community and the city against random building which can break up a planned street pattern, a school site, or a parking lot reservation in a developing business section. That is to say the Official Map is the vehicle of all accepted physical planning, whether initiated by the private developer or by the City Planning Board. It is the approved record which shows at any time exactly how far city development has progressed.

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(1) The State Legislature authorizes the city to establish an Official Map under Chapter 53, Section 16-18, Revised Laws of N.H., 1942. Bound into Addenda page 174.

Section Summary

Keene needs a standard Subdivision Control ordinance to give effect to the purposes of planning as set forth by the City Planning ordinance. State law prescribes the purpose and form of subdivision control which may be exercised by municipalities. The principle is to place upon the Planning Board responsibility for guarding the quality of new developments and weighing city committments.

Subdivision control is the point where city planning can be translated into good future communities. Without subdivision control city planning can have only vague influence. Experience in many cities has taught the need for a process of control by systematic review of applications for new subdivision developments.

In the past, the city's lack of a complete procedure for reviewing street and subdivision schemes has brought back costly mistakes.

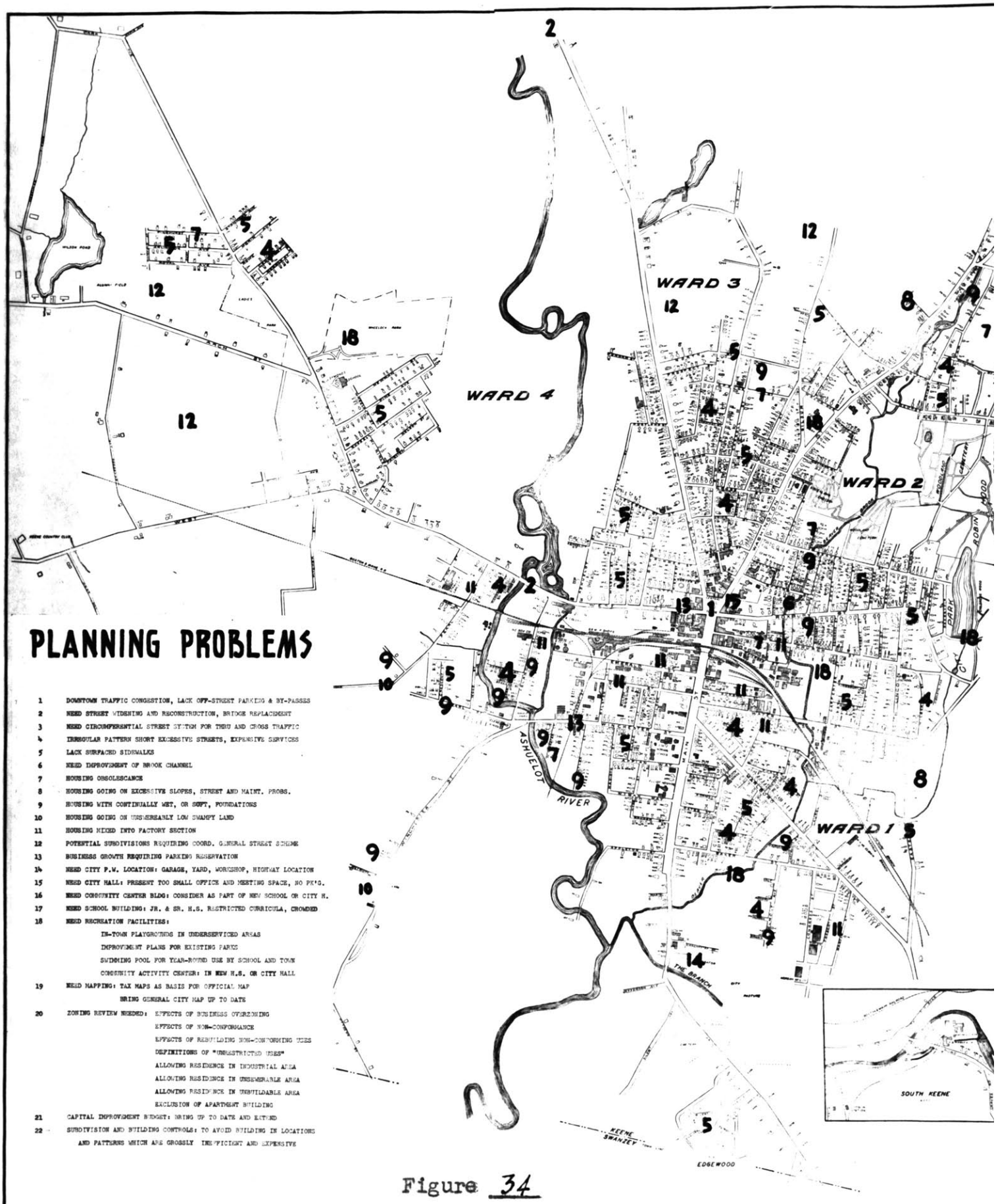
Keene has an ordinance, Chapter 52, relating to subdivision and street acceptance, which operates under the City Engineer. The interests of various departments and the policy level of city government are not included in the prescription, but therefore actual practice has been to refer important decisions to the Planning Board or the City Council.

As this works out, neither the procedure nor the responsibility for decision is clearly fixed.

A standard Subdivision Control ordinance is prescribed by state law, and has been practiced by Concord and New London. Under it, regulations would be set up by the Planning Board covering efficiency and economy of street development as well as the broader purposes of city development prescribed by the Planning ordinance.

An Official Map is needed to supplement the city plan and Subdivision Controls. It is a scale map showing existing streets and public lands; it may be abstracted from the tax map which is now being developed. Proposed new streets and changes in public lands would be entered as amendments after due process. Only the City Council can adopt or amend the Official Map. It serves as the official record of progress in city development.

* * *



PLANNING PROBLEMS

1 DOWNTOWN TRAFFIC CONGESTION, LACK OFF-STREET PARKING & BY-PASSES
2 NEED STREET WIDENING AND RECONSTRUCTION, BRIDGE REPLACEMENT
3 NEED CIRCUMFERENTIAL STREET SYSTEM FOR THRU AND CROSS TRAFFIC
4 IRREGULAR PATTERN SHORT EXCESSIVE STREETS, EXPENSIVE SERVICES
5 LACK SURFACED SIDEWALKS
6 NEED IMPROVEMENT OF BROOK CHANNEL
7 HOUSING OBSOLESCENCE
8 HOUSING GOING ON EXCESSIVE SLOPES, STREET AND MAINT. PROBS.
9 HOUSING WITH CONTINUALLY WET, OR SOFT, FOUNDATIONS
10 HOUSING GOING ON UNNECESSARILY LOW SWAMPY LAND
11 HOUSING MIXED INTO FACTORY SECTION
12 POTENTIAL SUBDIVISIONS REQUIRING COORD. GENERAL STREET SCHEME
13 BUSINESS GROWTH REQUIRING PARKING RESERVATION
14 NEED CITY P.W. LOCATION: GARAGE, YARD, WORKSHOP, HIGHWAY LOCATION
15 NEED CITY HALL: PRESENT TOO SMALL OFFICE AND MEETING SPACE, NO PK'G.
16 NEED COMMUNITY CENTER BLDG: CONSIDER AS PART OF NEW SCHOOL OR CITY H.
17 NEED SCHOOL BUILDING: JR. & SR. H.S. RESTRICTED CURRICULA, CROWDED
18 NEED RECREATION FACILITIES:
IN-TOWN PLAYGROUNDS IN UNDERSERVICED AREAS
IMPROVEMENT PLANS FOR EXISTING PARKS
SWIMMING POOL FOR YEAR-ROUND USE BY SCHOOL AND TOWN
COMMUNITY ACTIVITY CENTER: IN NEW H.S. OR CITY HALL
19 NEED MAPPING: TAX MAPS AS BASIS FOR OFFICIAL MAP
BRING GENERAL CITY MAP UP TO DATE
20 ZONING REVIEW NEEDED: EFFECTS OF BUSINESS OVERZONING
EFFECTS OF NON-CONFORMANCE
EFFECTS OF REBUILDING NON-CONFORMING USES
DEFINITIONS OF "UNRESTRICTED USES"
ALLOWING RESIDENCE IN INDUSTRIAL AREA
ALLOWING RESIDENCE IN UNSEWERABLE AREA
ALLOWING RESIDENCE IN UNBUILDABLE AREA
EXCLUSION OF APARTMENT BUILDING
21 CAPITAL IMPROVEMENT BUDGET: BRING UP TO DATE AND EXTEND
22 SUBDIVISION AND BUILDING CONTROLS: TO AVOID BUILDING IN LOCATIONS AND PATTERNS WHICH ARE GROSSLY INEFFICIENT AND EXPENSIVE

Figure 34

KEENE PLANNING BOARD · APR 1950 · G. NEZ

1970 DEVELOPMENT
OF KEENE'S LAND USE PATTERN
BASED ON A COMPREHENSIVE STUDY OF THE CITY AND REGION, COVERING TRENDS IN THE POPULATION, HOUSING, INDUSTRIES, EMPLOYMENT, BUSINESS AREAS, TRAFFIC, AND PUBLIC FACILITIES, AS REPORTED IN THE TEXT OF WHICH THIS MAP IS A PART
RESIDENCE, CLASSES "SINGLE" AND "GENERAL" (DEFINED IN KEENE ZONING ORDINANCE 1948)
RESIDENCE, ALL CLASSES INCLUDING APARTMENTS
RESIDENCE, PUBLIC HOUSING DEVELOPMENT
BUSINESS
PARKING LOT, OFFSTREET
PARKING BAY, OFFSTREET
INDUSTRY
INDUSTRY, NEW AREA
INDUSTRIAL BUFFER ZONE
PUBLIC USE OR INSTITUTION OF PUBLIC NATURE
PUBLIC AREA, NEW ACQUISITION
PUBLIC WORKS, NEW HEADQUARTERS
HIGH SCHOOL
JUNIOR HIGH SCHOOL
ELEMENTARY SCHOOL
PLAYGROUND OR PLAYFIELD, NEW
SWAMPLAND TAKEN BY CITY
FLOODABLE SOFT LOWLAND
NEW STREET
ASHUELOT RIVER
KEENE
SWANZEY
EDGEWOOD

the proposed
City Development Plan

Figure 35 page 133 is a composition of the foregoing surveys. It presents the pattern of desirable and logical growth which Keene may expect in twenty years time.

Most city growth is the private growth of housing, industry, and business, but it all takes public money for streets and services, and it all affects the quality of the community. This report has carefully measured the conditions and needs of housing, industry, and business in order to plan how the growth of each should fit in with the growth of the others for best all-around efficiency.

The rest of the plan shows "public" growth consisting of main streets, the public grounds of schools and playgrounds and parks, and parking lots. Much more goes with this than meets the eye; such important matters as the capital improvement budget, zoning and subdivision

regulations, and planning procedures involving the Business Bureau, citizen groups, private developers, and just plain interested citizens.

This map should be more than the Planning Board's document under Section 7 of the City Planning Ordinance. It should be presented as a model for everybody's mutual thinking. It is a general scheme which should be made precise in details as development moves ahead; as streets, playgrounds, parking lots, housing areas and new industry are put under construction.

Explanation of Various Features of the Map

New housing areas are shown more developed than may be expected by 1970, because preliminary designs of streets for "potential" subdivisions should anticipate actual building. But over half of the indicated new residential streets will be needed. The "Public Housing Area" in the northwest corner should be reserved for such purpose for ten years at least, or until Keene's private housing progress proves that it can offer decent housing at a price which people now living in substandard housing can afford. The areas marked for "Residence, All Classes Including Apartments"

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DISCLAIMER

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(Pages 136 - 139)

are located centrally where conversion to multiple dwellings is taking place and zoning ought to define a satisfactory low density. (The survey section on Housing ellaborates these points.)

The business area downtown is shown approximately as it is at present, with the addition of dispersed parking lots to make it more efficient. New business area is expected to grow on the south side of West Street backing on the useful railroad siding. It should allow at least a fifty foot parking bay along the front. With adequate parking allowance, this area will cause no traffic congestion. Elsewhere, business for the service of each neighborhood is located at a logical focal point of streets, with set-back for off-street parking. Business migration in long ribbons extending through residential sections should be discouraged. (See pages 59,60,143 .)

Industrial buffer zones are shown bordering the present industrial areas. These should be developed by means of the zoning ordinance, and required in all new industrial locations or alterations at the industrial border. (See pages 57, 144 .)

The circumferential road should have a new rotary in West Keene. Even if at first only the northern leg extending across the river is built, the rotary should

be constructed. According to national road standards[1] a rotary is fully warranted when traffic reaches 500 cars per hour. This intersection at the present time, without the additional circumferential road, is carrying peaks of 400 cars per hour. The circumferential road plus twenty years of West Keene growth plus regional traffic growth would well exceed 500 cars per hour..

Additions to public land include playgrounds, a park, school enlargements and the swamp below Woodland Cemetary. School sites at Tilden, Roosevelt, Wheelock, and the present high school are shown enlarged. The site of Washington-Franklin School, which is marked by the Harvard School Survey for eventual demolition, should be reserved for some public use such as community center, an institution or church, a hospital, or the extension of Greenlawn Cemetary. The swampland should be acquired for a new link of the circumferential road. The lowland lying across the river from the KTC Athletic Field should also be acquired by the city (1) as a right of way for the circumferential road, and (2) as a park reservation needed by the part of Keene lying south of the tracks and west of Main Street.

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(1) "A Policy on Rotary Intersections", American Association of State Highway Officials.

Parking lots are shown dispersed throughout the downtown area to suggest a pattern which is (1) easy for traffic and pedestrians, (2) covers the business area and (3) allows a choice of locations and lower cost land. (See pages 110 – 115 .)

* * *

zoning is instrumental to planning

Zoning revisions should be made to permit and protect the development shown on the city plan. Zoning is actually a planning function, that of protecting desirable land use. Past zoning was prescribed without a complete study of development trends. It is recommended that zoning be revised wherever necessary to carry out the city plan. The zoning map should be revised:

(1) To remove the ribbons zoned for business along Marlboro and Washington Streets. This would be particularly beneficial to Roosevelt and Wheelock Schools.

(2) To create a local business zone at the focal point of roads within each section of the city, as shown on the City Plan.

(3) To require set-back of all new and altered business construction to accomodate off-street parking in

bays, and to permit future widening of the street.

(4) To delineate a "buffer zone" on the edge of the industrial area so that future housing construction on one side and factory construction on the other side will observe this zone, and it will take shape as an open space usable only for industrial yard space, parking, open storage of non-obnoxious character, or other such neutral use. The Planning Board would make the delineation and definition of the buffer zone precise, and offer it for amendment of the zoning ordinance.

(5) To reclassify as "Restricted Residence" those present "Residence" zones which lie on practically unbuildable land (figure 13 page 47). Applications for building permits (1) would be subject to the following conditions:

(a) building permits may be denied for land that is altogether unsewerable by city sewers and by septic tanks (such unsewerable area to be delineated by the City Engineer).

(b) building permits may be granted for land which is unsewerable by city sewers but sewerable by septic tanks on condition of large enough lot size for adequate septic tank drainage fields

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(1) These rules would apply to applications which are not already subjected to critical review under subdivision regulations.

(a minimum lot size to be uniformly established for each soil area by the City Engineer).

(c) building permits may be granted for locations lying above or beyond city water pressure sufficient for fire-fighting on condition that lots be large enough to supply domestic water, and to separate houses against danger of spreading fire, (the minimum lot size to be uniformly established by the City Engineer).

(d) building permits may be granted for locations which call for exceptionally expensive road work or roads above 15% grade on condition that the builder pays the extra building and maintenance costs. (The "average" building and maintenance costs per dwelling unit should be calculated, and established for reference purposes, by the Public Works Department).

Applicants seeking to build houses on practically unbuildable land would be subject to one or several of these restrictions; the net effect would be to prevent intensive residential development in places which would lower health and safety standards and cost extraordinary public expenditure.

The man who wished to build his house on a steep hill or in a remote place would not be hampered, except

that he could not charge the costs of a special road and special sewer and water lines to public expense.

* * *

tax policy to assist the plan

City tax policy should be consistant with the purposes of the plan.

The valuation of necessarily large house lots should not be based on size, but only on the fact that the lot is a single house lot.

The valuation of industrial land lying in a "buffer zone" should be so much lower than buildable industrial land that the owner would have no grievance whatever in paying taxes on land which he could only use for parking or yard space.

On the other hand, owners of first class residential land in premium locations with city road and services available should not be allowed an outdated low tax rate which allows them to speculate and hold out under tax advantage; in many instances public investment in roads, utilities, schools and other adjacent developments have added real value to the hold-out property.

summary of main recommendations

1. Keep the city plan in effect by staff work on refinements and specific applications.

2. Undertake capital budget studies with the object of putting the city budget on a long-range capital improvement basis.

3. Adopt the standard Subdivision Control ordinance prescribed by Chapter 53, Sections 19-29, Revised Laws of New Hampshire, 1942.

4. Establish an Official Map of Keene, as authorized by Chapter 53, Sections 16-18, Revised Laws of New Hampshire, 1942.

5. Introduce certain zoning changes for the protection of the city plan.

6. Adopt certain points of tax policy to assist the purposes of the city plan.

7. Encourage cooperation between subdivision developers and the Planning Board, particularly in the first stages of subdivision design.

8. Build two essential playgrounds "J" and "K", and improve other playgrounds by enlargement and equipment.

9. Develop community center facilities, including a year-round swimming pool, in connection with the proposed new high school.

10. Immediately commence a parking lot program, and follow it up with certain parking removals and traffic changes in the downtown area.

11. Begin detail planning on the Federal Urban Aid circumferential road, "Keene Outer Circle".

12. Begin detail planning on the downtown loop street, "Central Circle".

* * *

what would it cost under planning?

The purpose of a table of payments is to show the Keene taxpayer what magnitude of costs would be involved over the twenty year period. He may get a relative idea by comparing the annual cost of these planned projects with the capital item allowed in the 1950 Keene budget (last column).

It should be clearly understood that this program consists of items not extra, but necessary to the city. These costs would have to be undertaken sooner or later, even without a city development plan. If not in a program, they may very likely turn out to be higher because they would come as "emergency costs" or "patchwork costs" or "alternative costs" of projects which finally just had to be done somehow. Prior planning can put economical "know-how" in place of the wasteful "somehow".

SUGGESTED SCHEDULE OF PAYMENTS FOR PROJECTS COVERED IN THE CITY DEVELOPMENT PLAN

(based on estimated construction costs, large items covered by loans at 2% interest)

	(1) New High School or Jr. High School	(2) New Public Works Garage & Hdqters	(3) Construction Two City Parking Lots	(4) Circumferential Road	(5) Downtown Loop Street	(6) Playground "J"	(6) Playground "K"	(6) "Riverside Park"	Total Cost Annually	(7) Total without High School	Compare with 1950 Capital Budget $128,340
1951	$70,000	$6,000	$2,000	$35,000		$1,800			$114,800	$44,800	
1952	69,000	5,900	2,000	34,500		1,770			113,170	44,170	
1953	68,000	5,800	2,000	34,000		1,740			111,540	43,540	
1954	67,000	5,700	2,000	33,500		1,710			109,910	42,910	
1955	66,000	5,600		33,000		1,680			106,280	40,280	
1956	65,000	5,500		32,500	$2,400	1,650	$1,800		108,850	43,850	
1957	64,000	5,400		32,000	2,360	1,620	1,770		107,150	43,150	
1958	63,000	5,300		31,500	2,320	1,590	1,740		105,450	42,450	
1959	62,000	5,200		31,000	2,280	1,560	1,710		103,750	41,750	
1960	61,000	5,100		30,500	2,240	1,530	1,680		102,050	41,050	
1961	60,000			30,000	2,200		1,650	$1,800	95,650	35,650	
1962	59,000			29,500	2,160		1,620	1,770	94,050	35,050	
1963	58,000			29,000	2,120		1,590	1,740	92,450	34,450	
1964	57,000			28,500	2,080		1,560	1,710	90,850	33,850	
1965	56,000			28,000	2,040		1,530	1,680	89,250	33,250	
1966	55,000			27,500				1,650	84,150	29,150	
1967	54,000			27,000				1,620	82,620	28,620	
1968	53,000			26,500				1,590	81,090	28,090	
1969	52,000			26,000				1,560	79,560	27,560	
1970	51,000			25,500				1,530	78,030	27,030	
	$1,110,000	$55,500	$8,000	$605,600	$22,220	$16,650	$16,650	$16,650			

Notes:

1. Estim. $1,000,000
2. Estim. $50,000
3. Cost of construction of the two city lots, Central Junior High School site and rear of City Hall, estim. $4,000 each, including lighting. The other lots would be self-amortized by special bond issue and parking meter revenue. See pages_____.
4. 8.7 miles of road, half of which would be new and half improvement of existing roadway, and two new bridges, Estim. $1,000,000. Under Federal Urban Aid plan Keene would pay 50%, or $500,000.
5. 3000' of street widening and realignment, including 300' of new links. Estim. $20,000.
6. Land acquisition plus planned layout and equipment. Estim. $15,000 each.
7. New high school construction would be chargeable under Union School District budget.

in conclusion

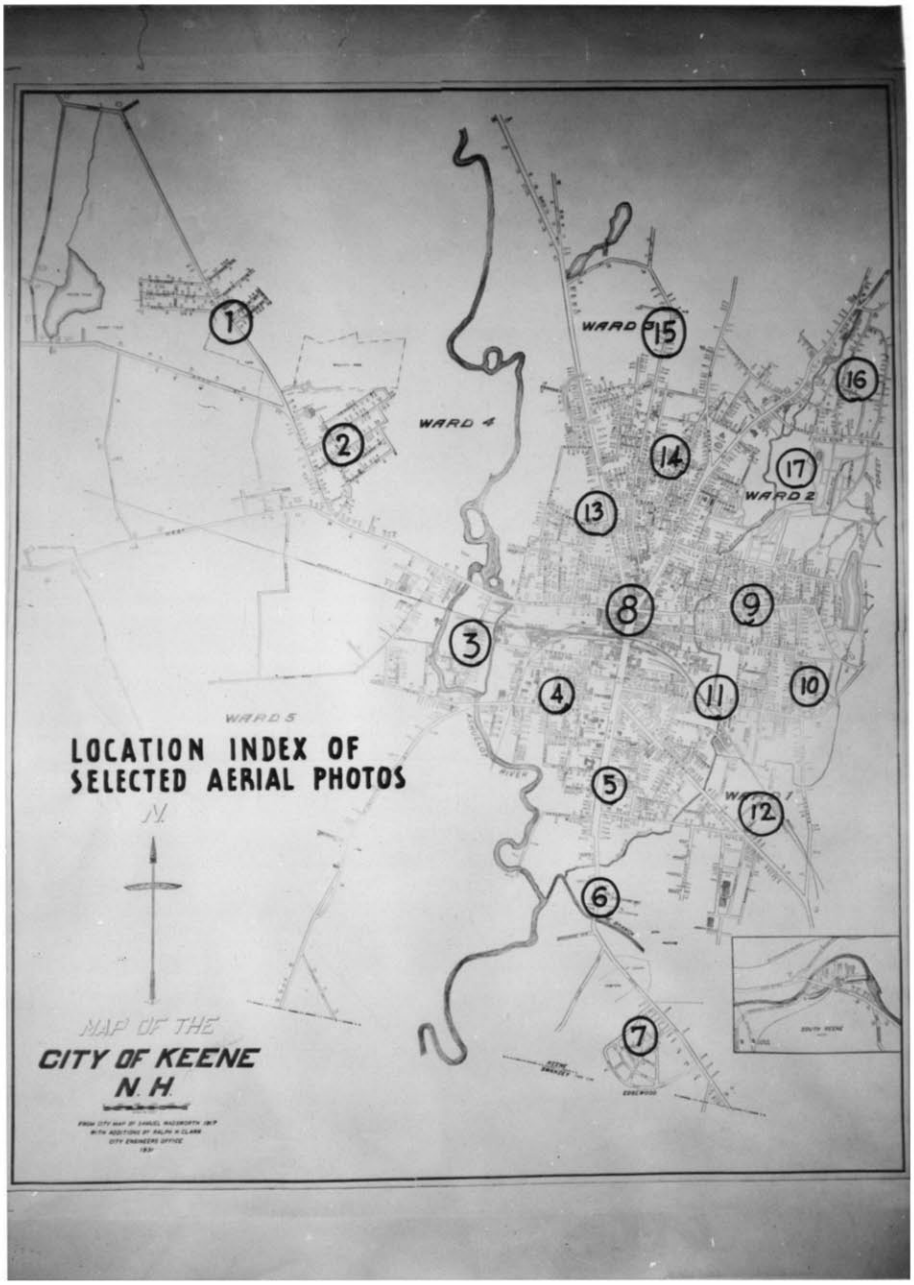
Surveys, plans, and recommendations are in a sense only surface treatment of the living community which lies beneath: the people who know each other, work with each other, look at each other's houses and neighborhoods, pay taxes together and argue town affairs together. The numerous personal contacts that it took to develop this report invariably impressed the writer with the civic interest that is very much alive in Keene today, as it must have been in town meeting days.

The faults today are not expensive to correct because this civic interest kept at work. Good taste and judgement avoided the slums and serious blight which characterize other towns of Keene's age. Nowadays, with the deluge of traffic and the pressure of growth working against an old pattern, some problems are getting too stiff for solution by good taste alone. But it is still the most important element to make any technical plan work.

People just naturally assume that their houses must also be good homes in good neighborhoods with good streets and city services, and that it is their right as taxpayers to get these things. Which is why city planning will work in Keene.

* * *

ADDENDA


WARD 5
LOCATION INDEX OF
SELECTED AERIAL PHOTOS
N
MAP OF THE
CITY OF KEENE
N.H.
WARD 4
WARD 3
WARD 2
WARD 1
1
2
3
4
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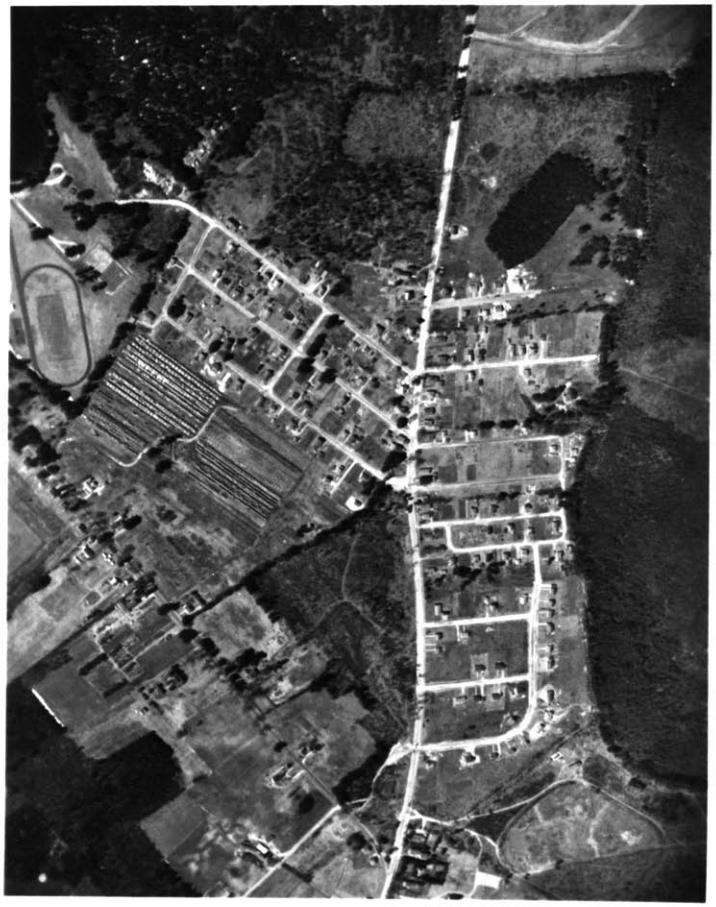
16
17

Figure 36



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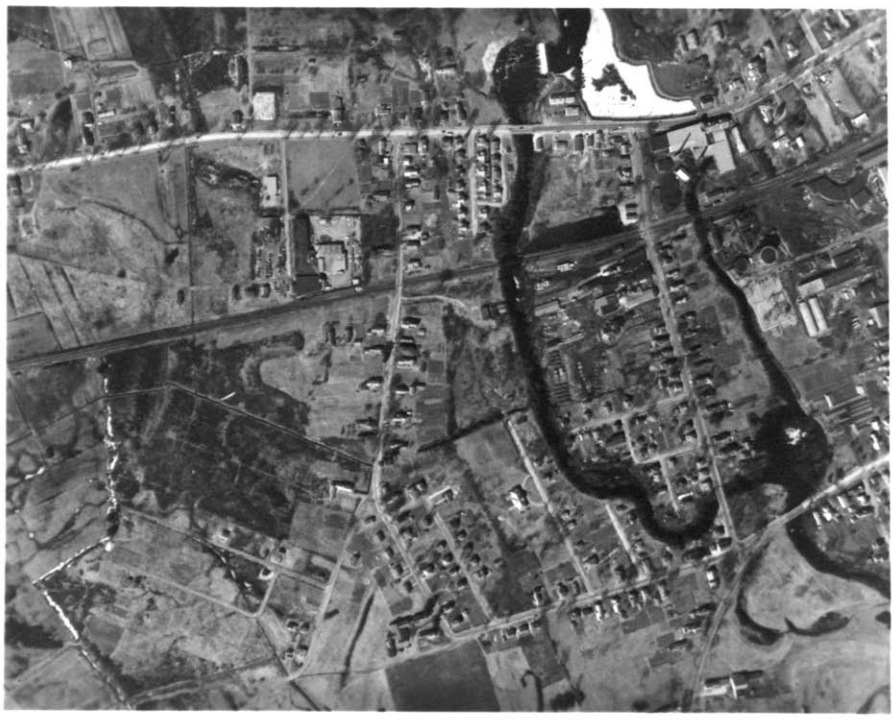

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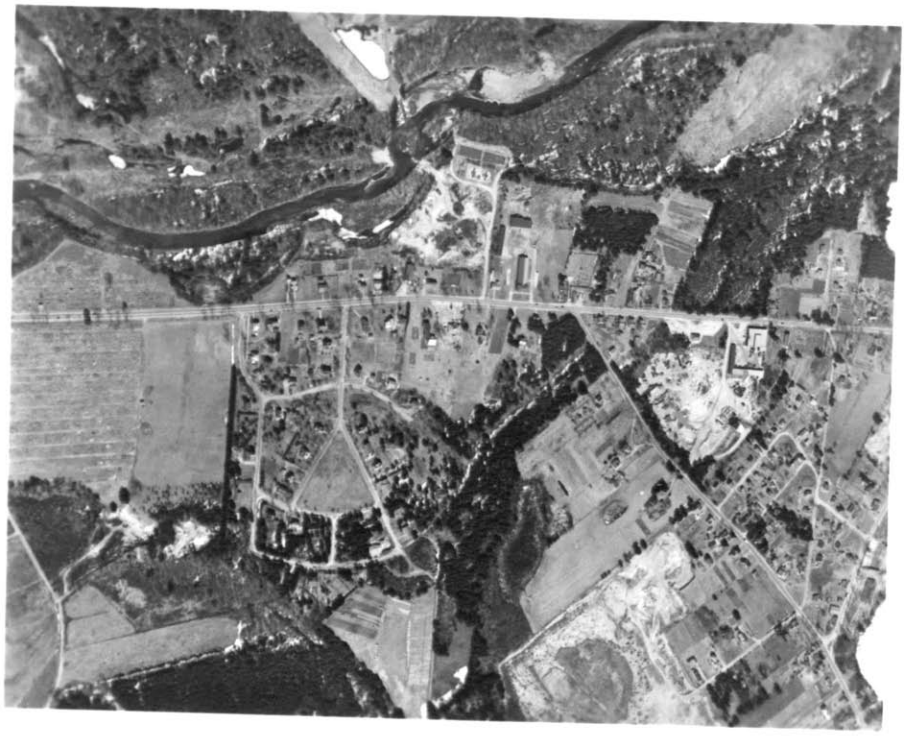

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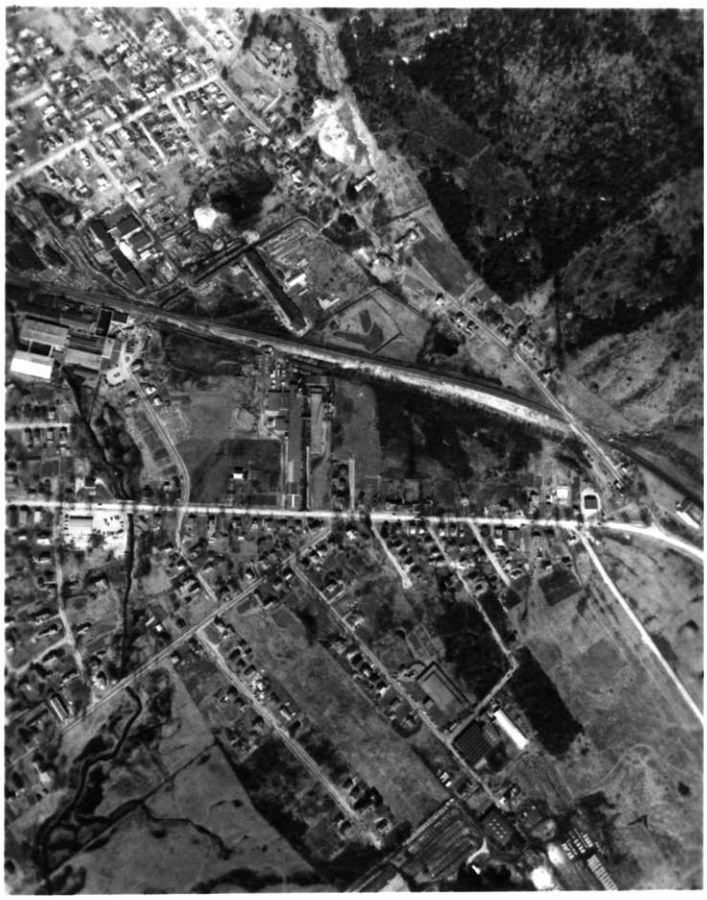

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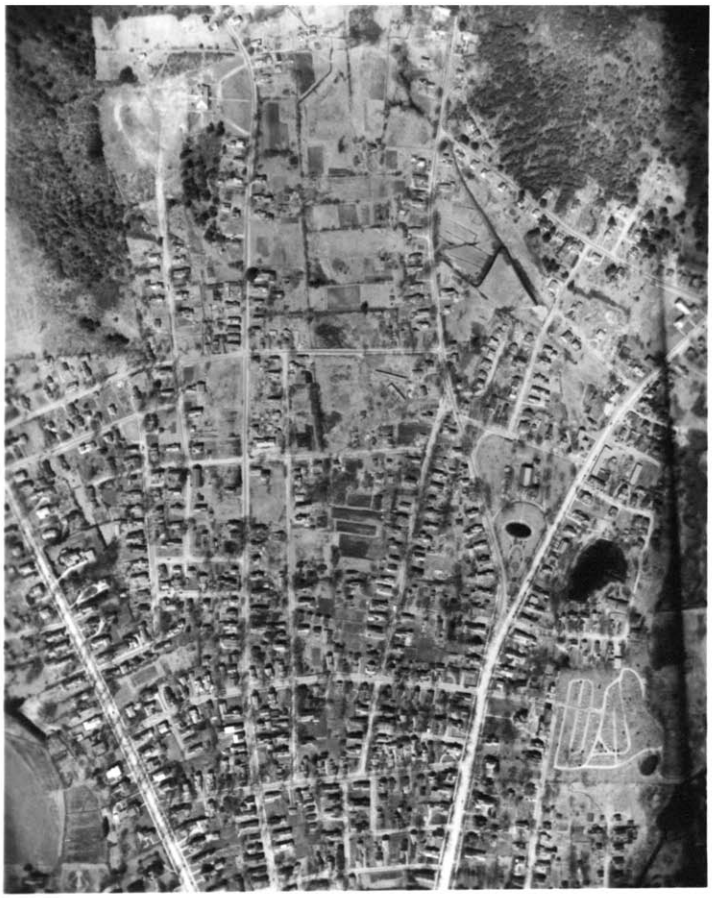
13



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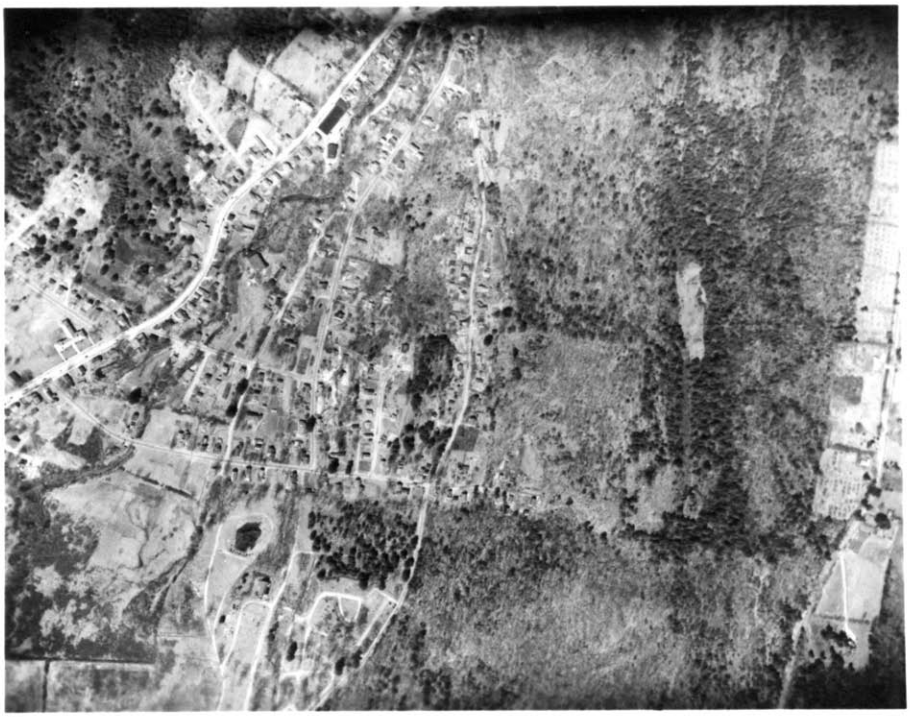


16

17

CHAPTER LI

CITY PLANNING BOARD

SECTION 1. That the provisions of Chapter 55 of the Public Laws of New Hampshire, 1935, as amended by Public Acts of New Hampshire, 1937, be hereby adopted by the City of Keene, for the creation of a City Planning Board, in so far as below set forth.

SECT. 2. That said City Planning Board shall consist of nine members, namely, the Mayor, one of the administrative officials of the municipality, who shall be selected by the Mayor, and a member of the City Councils who shall be selected by the City Councils, the first three members above named being ex-officio members of said City Planning Board, and six persons who shall be appointed by the Mayor.

SECT. 3. That all members of said City Planning Board shall be residents of said city and shall serve as members without compensation and the appointed members shall hold no other municipal office, except that one of such appointed members may be a member of the Zoning Board of Adjustment. The terms of ex-officio members shall correspond to their respective official tenures, or in case of an administrative official selected by the Mayor shall terminate with the term of the Mayor selecting him and/or her. The terms of the appointed members shall be as follows: one for one year, one for two years, one for three years, one for four years, one for five years, and one for six years, and thereafter terms of appointed officers shall be for six years each. Vacancies occurring in membership of the said City Planning Board, otherwise than through the expiration of the term shall be filled for the duration of the unexpired term by the Mayor, except in case of the member selected by the City Councils, wherein if such a vacancy occur it shall be filled by appointment by the City Councils.

SECT. 4. Members of the City Planning Board, other than members selected by the City Councils may, after public hearing, be removed by the Mayor for inefficiency, neglect of duty, or malfeasance in office. The Mayor shall file with the City Clerk a written statement of reasons for such removal.

SECT. 5. The said City Planning Board shall elect its chairman amongst the appointed members and create and fill such other offices as it may deem necessary for its work. The term of the chairman shall be one year, with eligibility for re-election. The said Board shall hold at least one regular meeting in each month. Said Board shall adopt rules for the transaction of business and shall keep a record of its resolutions, transactions, findings and determinations, which record shall be a public record and kept in an office designated for said records.

SECT. 6. The said Planning Board may appoint such employes as it may deem necessary for its work, whose appointment, promotion, demotion and removal shall be subject to the same provisions of law as govern other corresponding civil employes of the municipality. The said Planning Board may also contact with city planners, engineers, architects, and other consultants for such services as it may require. The expenditures of the Planning Board, exclusive of gifts, shall be within the amounts appropriated for that purpose by the City Councils.

SECT. 7. It shall be the function and duty of said Planning Board established under the provisions of this Ordinance, to make and to perfect from time to time, so far as funds appropriated for such purpose will permit, a city plan, for the development of the municipality, including any areas outside of its boundaries which, in the Planning Board's judgment, bear relation to the planning of the municipality. Such city plan, with the accompanying necessary maps, plats, charts and descriptive matters, may be designated with the intention of showing as fully as is possible and practical the said Planning Board's recommendations for the desirable development of the City.

SECT. 8. In the course of the preparation of such city plan the Planning Board may make careful and comprehensive surveys and studies of existing conditions and of data and information relative to the probable future growth of the municipality and its environs. The city plan shall be made with the general purpose of guiding and accomplishing a co-ordinated, adjusted, and harmonious development of the municipality and its environs which will, in accordance with existing and probable future needs, best promote health, safety, morals, order,

convenience, prosperity, or the general welfare, as well as efficiency and economy in the process of development; including among other things, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of good civil design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements.

SECT. 9. The Planning Board may adopt the city plan as a whole by a single resolution or may by successive resolutions adopt successive parts of the plan, said parts corresponding with major geographical sections or divisions of the municipality or with functional subdivisions of the subject matter of the plan, and may adopt any amendment or extension thereof or addition thereto. Such city plan shall be a public record, but its purpose and effect shall be solely to aid the Planning Board in the performance of its duties. The adoption of the city plan or any amendment thereof shall by resolution carried by the affirmative votes of not less than a majority of all the members of the Planning Board. The resolution shall refer expressly to the maps, descriptive matter, and other matters intended by the Planning Board to form the whole or part of the plan, and the action taken shall be recorded on the adopted plan or part thereof adopted by the identifying signature of the chairman or secretary of the Planning Board, and a copy of the plan or part thereof shall be certified to the City Councils.

SECT. 10. The Planning Board shall have authority to promote public interest in and understanding of the city plan and of the official map of the municipality as hereinafter described and to that end may publish and distribute copies of the city plan, or of the aforesaid official map, or of any report and may employ such other means of publicity and education as it may deem advisable. Members of the Planning Board, when duly authorized by the said Planning Board, may attend city planning conferences or meetings of city planning institutes or hearings upon pending city planning legislation, and the Planning Board may, by resolution spread upon its minutes, pay the reasonable traveling expenses incident to such attendance. The

Planning Board shall have authority to make such investigations, maps and reports, and recommendations in connection therewith, relating to the planning and development of the municipality, as seem desirable to it. The Planning Board may, from time to time, report and recommend to the appropriate public officials and public agencies programs for the development of the municipality, for the erection of public structures and improvements and for the financing thereof. It shall be a part of the Planning Board's duties to consult and advise with public officials and agencies, public utility companies, civic, educational, professional, research, and other organizations, and with citizens with relation to the protecting or carrying out of the city plan, and to make recommendations relating to the development of the municipality. The Planning Board shall have the right to accept and use gifts for the exercise of its functions. All public officials shall, upon request, furnish to the Planning Board, within a reasonable period of time, such available information as it may properly require for its work. In general, the Planning Board may be given such powers as may be necessary to enable it to fulfill its functions, promote municipal planning, or carry out the purposes of this Ordinance; provided the total expenditures of said Board shall not exceed the appropriation for its expenses.

SECT. 11. The Planning Board may, from time to time, recommend to council amendments of the zoning map or additions thereto to conform to the Board's recommendations for the zoning regulation of the territory comprised within approved subdivisions.

SECT. 12. All ordinances and parts of ordinances inconsistent herewith are hereby repealed.

Population Statistics

	1910	1920	1930	1940	1950	1960	1970
U.S. (000)	92,407	106,466	123,077	131,970	143,148	148,393	150,476
New England	6,552,681	7,400,909	8,166,341	8,437,290	9,350,000	9,876,000 *(high)* 9,427,000 *(low)*	10,363,500 *(high)* 9,450,000 *(low)*
New Hampshire	430,600	443,300	465,300	491,500	551,500		
Cheshire County	30,659	30,975	33,685	34,950	39,600		
Claremont	7,529	9,524	12,377	12,144	13,000		
Laconia	10,183	10,987	12,471	13,484	13,830		
Rochester	8,868	9,673	10,209	12,012	13,250		
Dover	13,247	13,029	13,573	14,990	16,200		
Portsmouth	11,269	13,569	14,495	14,821	18,600		
Keene	10,068	11,210	13,794	13,832	15,750		
Combined Cities Total	61,164	67,902	76,919	81,283	90,630		

Sources of Population Data:

U.S. data	U.S. Census Bureau
New England	Census Bureau, U.S. Dept. of Agri., and Scripps Foundation joint publication "Prospects for the Regional Distribution of the Population of the U.S."
New Hampshire	U.S. Census, First National Bank of Boston.
Cheshire County	U.S. Census, N.H. State Employment Service, local newspaper estimates.
Cities	U.S. Census, N.H. State Employment Service, local newspaper estimates.
Keene	U.S. Census, Keene City Directory 1949-50 issue.

Date _____

Firm _____

Dear Sir:

You are asked to cooperate with the Business Bureau and the City Planning Board by filling out this questionnaire.

It is part of a broad-guage study of economic and population trends in Keene, which is essential in long-range planning of streets and parking, water supply, sewerage, utilities, zoning, public buildings and other services to industry, residence and commerce.

If, for any reason you desire not to answer all questions, the balance of information would nevertheless be acceptable and helpful.

You will note, in reading over this questionnaire, that care has been exercised to keep the questions factual and to avoid indiscretion and vagueness. The information sought is of a statistical nature about Keene industries in total, rather than about any plant in particular. The individual returns will be kept in strict confidence and the statistical results will be applied only in the proper context of a planning report and planning maps.

These are to be put into useful form during the coming summer.

Although the main porpose of this project is to provide fundamental planning material for the Business Bureau and the City Planning Board, you are hereby invited and encouraged to examine this material for any assistance it may offer to your own business plans.

L. Richard Taylor
Chairman,
City Planning Board

T. H. Bell
Chairman,
Keene Business Bureau

PART ONE - - QUESTIONS ON EMPLOYMENT

1. Classify the employment in your plant:

_____% supervisory

_____% skilled

_____% clerical

_____% unskilled

2. Approximate the size of your normal employment:

during 1930 to 1935 _____

1935 to 1940 _____

1940 to 1945 _____

1945 to 1950 _____

3. Check the main considerations which normally govern the size of your employment force:

_____ the general business cycle

_____ the immediate market conditions in your product

_____ improvements in machinery or process which are making your labor more efficient

_____ a planned increase or decrease of plant size

_____ other consideration (specify) _____

_____

_____

_____

4. Along the lines of the above considerations, make an approximate estimate of the size of your employment:

1950 to 1960 _____

1960 to 1970 _____

(For this answer assume a continuation of the present general business conditions and leave out the possibility of a major depression or a war.)

PART TWO - - QUESTIONS ON PLANT LOCATION

5. In the column below, check the main factors which need to be considered in locating a plant of your type within any industrial city the size of Keene.

a) Large floor space or specially designed building (underline which)..... _____

b) Large or specially equipped yard..... _____

c) Direct highway connections..... _____

d) Direct railroad connection..... _____

e) Nearness to large water supply and drainage..... _____

f) Nearness to source of raw material or production material.. _____

g) Avoid location near other industrial plants which create fumes, smoke, vibration.. _____

h) A labor supply of special quantity, special skill, or certain wage levels (underline which)..... _____

i) An established local market for your type of product..... _____

j) Cost and/or adequacy of transportation service..... _____

k) Cost of fuel or power..... _____

l) State or local taxes (underline which)..... _____

m) Specify any other factor _____

_____

_____

_____

6. In the column below, check those factors which would improve considerably your present plant set-up. Add any other factors, or elaborate on any, at the bottom of this page.

a) Larger floor space or specially designed addition or new building (underline which)..... _____

b) Larger or specially equipped yard..... _____

c) Direct highway connections..... _____

d) Direct railroad connection..... _____

e) Nearness to large water supply and drainage ..... _____

f) Nearness to source of production material or raw material..... _____

g) A location avoiding other industrial plants which create fumes, smoke, or vibration..... _____

h) A labor supply of special quantity, special skill, or certain wage levels..... _____

i) An established local or regional market for your type of product..... _____

j) Lower cost fuel or power..... _____

k) Lower State or local taxes..... _____

l) Lower cost and/or better service in transportation ..... _____

m) Specify other factor, or elaborate on any of the above:

_____

_____

_____

_____

_____

_____

(Use other side of this page if necessary.)

PART THREE - - QUESTIONS ON TRADING AREA

7. What proportion of your product is distributed:

_____% in the immediate locality of Keene

_____% in this region, within _____ miles

_____% in national market

8. What proportion of your raw material or production material comes from:

_____% immediate locality

_____% in the region, within ____ miles

_____% nationally

9. If a substantial part of your raw or production materials come from local sources, do you anticipate adequate supply for: 5 years ____

10 years ____

20 years ____

10. If a substantial part of your distribution is within the region of Keene, is the area ___ or consumption ___ increasing ___, decreasing ____, or remaining the same ___.

SCHOOL BUILDING NEEDS

OF

KEENE, NEW HAMPSHIRE

The Report of a Survey
Made at the Request of the
Keene School Committee

By the

Center for Field Studies
Harvard Graduate School of Education
Peabody House, 13 Kirkland Street
Cambridge, 38, Massachusetts

1950

LETTER OF TRANSMITTAL

The School Board
Keene, New Hampshire
Ladies and Gentlemen:

I transmit herewith the report of the "Survey of the School Building Needs of Keene, New Hampshire", authorized by you, with specification, on December 12, 1949.

This report contains the recommendation for the development of an adequate, modern plant for the School District of Keene. It represents the result of a careful appraisal of the present plant, a study of the program of instruction, and an analysis of future school population and of related geographic factors.

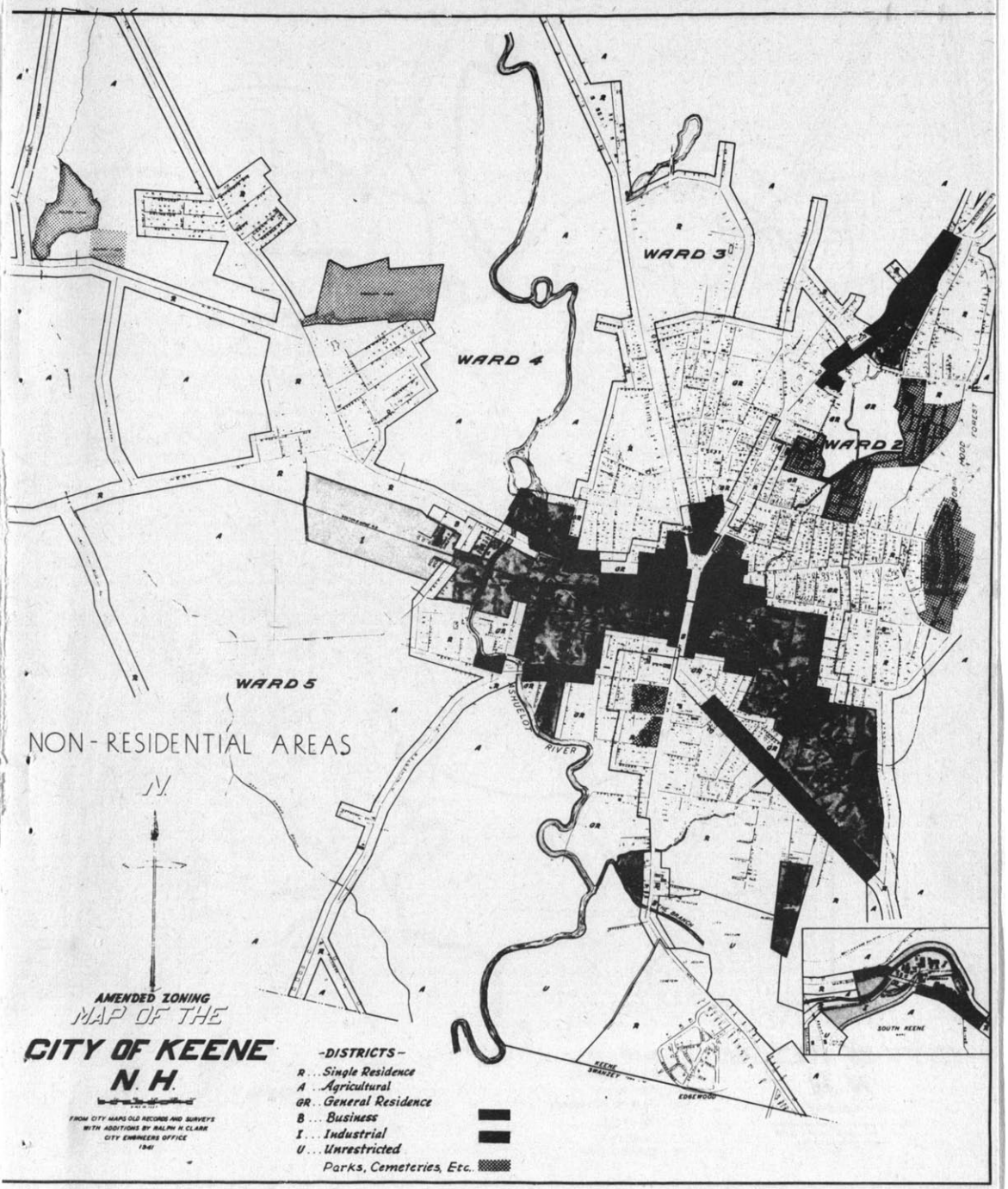
These conclusions and recommendations are based on detailed studies which, while not essential in order to enable you to proceed with your building program, may be of value to those who wish to study further into the conditions underlying the present problem. We shall, therefore, submit them to you in the near future for your use.

The Survey Committee wishes to express its appreciation to Superintendent of Schools, Laurence O. Thompson, who consistently extended to us every courtesy and his full co-operation, and who provided us with the necessary basic data for this report.

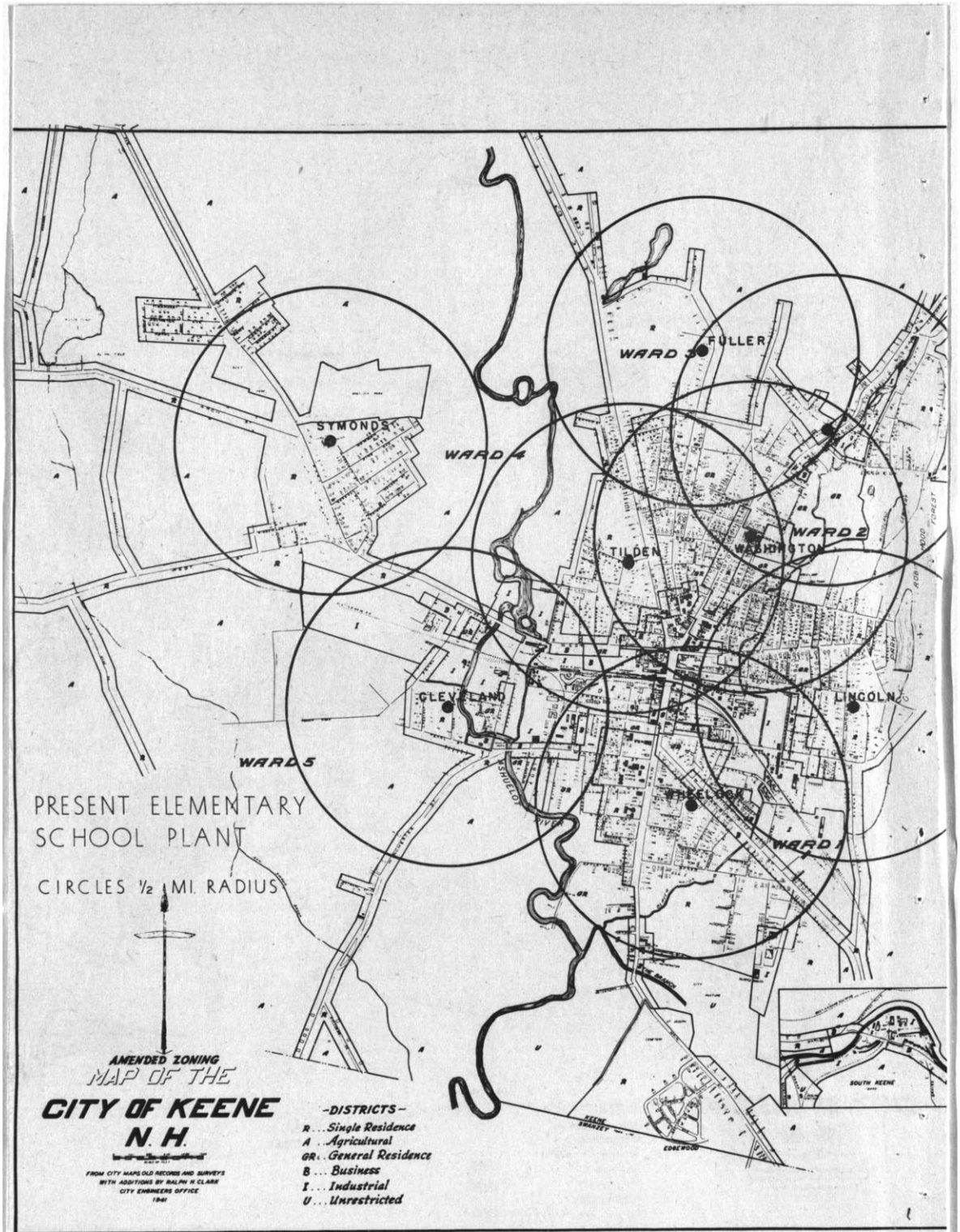
As a School District, Keene must be careful of its resources, both human and material. It cannot afford to maintain a school plant that is not in every way capable of facilitating the best type of educational program which it is possible to provide for the children and youth of the community. The function of this report is to serve as a guide in the development of such a plant. It is our hope that it contains a program which the people of Keene will accept and upon which they will act.

Very truly yours,
CYRIL G. SARGENT,
Director, Center for Field Studies.

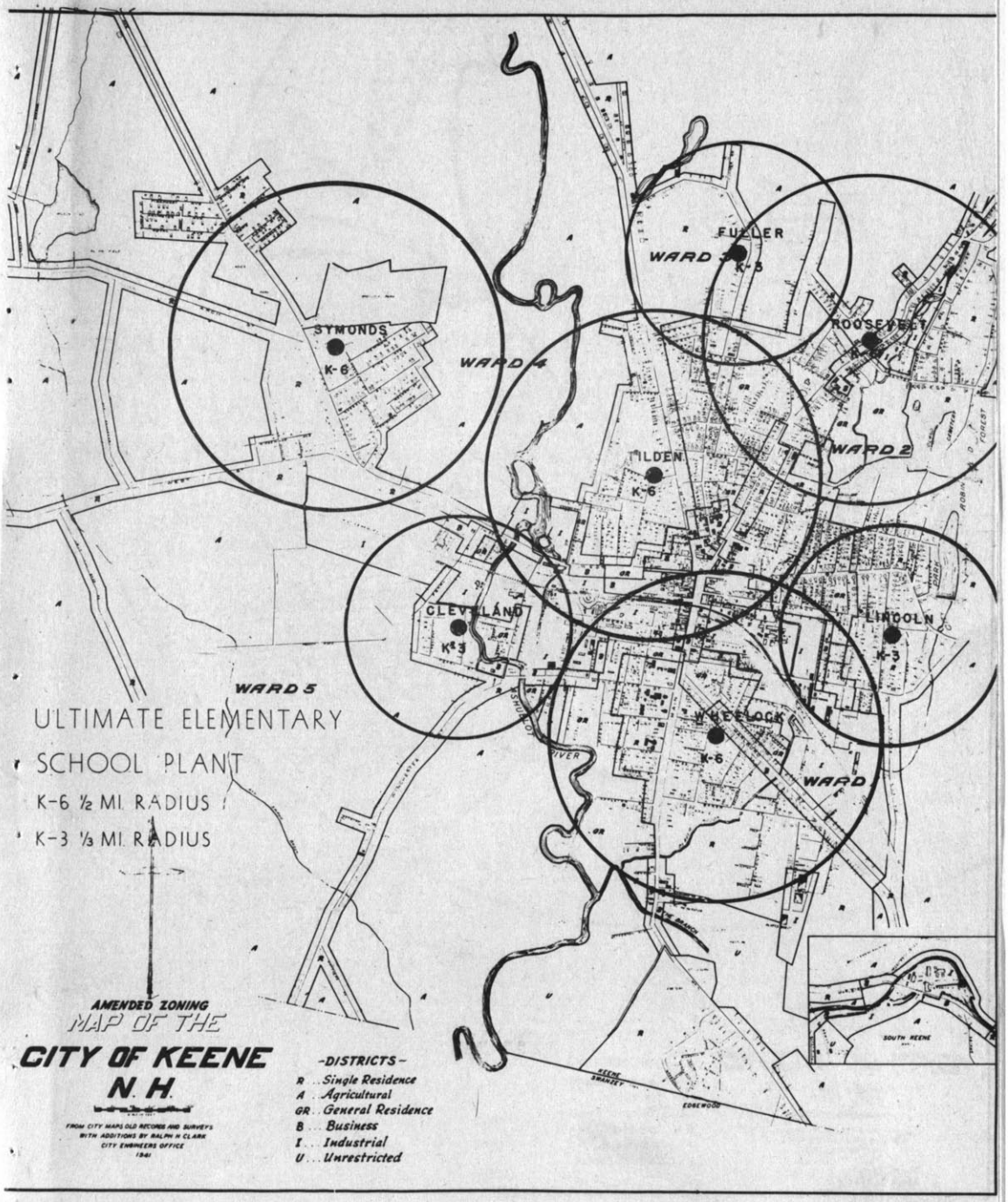
CGS/cb


WARD 3
WARD 4
WARD 2
WARD 5
ASHUELOT RIVER
NON-RESIDENTIAL AREAS
N.
AMENDED ZONING
MAP OF THE
CITY OF KEENE
N. H.
FROM CITY MAPS, OLD RECORDS AND SURVEYS
WITH ADDITIONS BY RALPH H. CLARK
CITY ENGINEERS OFFICE
1941
-DISTRICTS-
R ... Single Residence
A .. Agricultural
GR .. General Residence
B ... Business
I ... Industrial
U ... Unrestricted
Parks, Cemeteries, Etc.
SOUTH KEENE
EDGEWOOD

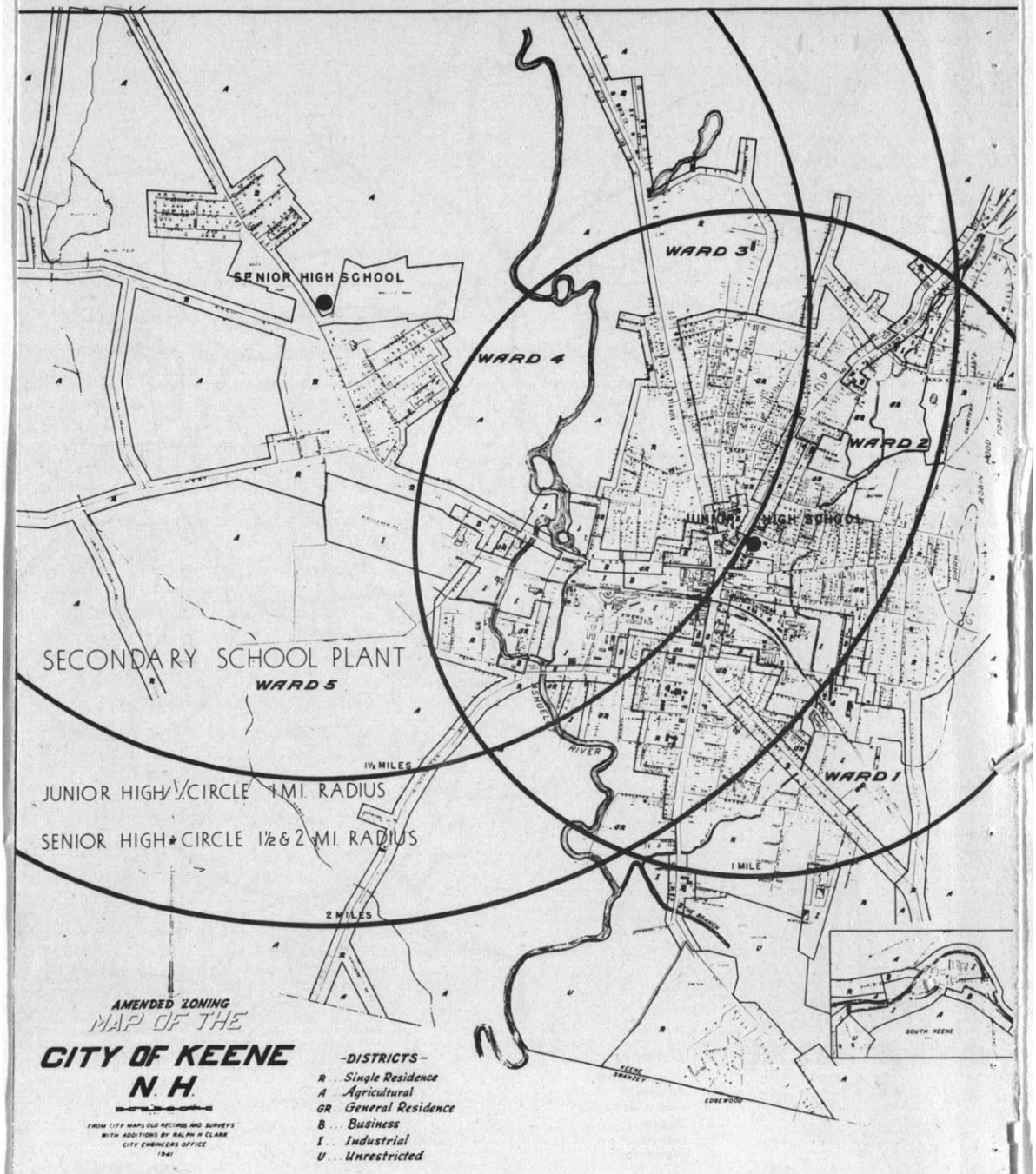
MAP 1


WARD 3
FULLER
SYMONDS
WARD 4
WARD 2
TILDEN
WASHINGTON
CLEVELAND
LINCOLN
WARD 5
WHEELOCK
WARD 1
SOUTH KEENE
EDGEWOOD
PRESENT ELEMENTARY SCHOOL PLANT
CIRCLES 1/2 MI. RADIUS
AMENDED ZONING
MAP OF THE
CITY OF KEENE
N. H.
FROM CITY MAPS, OLD RECORDS AND SURVEYS
WITH ADDITIONS BY RALPH H. CLARK
CITY ENGINEERS OFFICE
1941
-DISTRICTS-
R . . . Single Residence
A . . Agricultural
GR . . General Residence
B . . . Business
I . . . Industrial
U . . . Unrestricted

MAP II


SYMONDS
K-6
WARD 4
FULLER
WARD 3
K-6
ROOSEVELT
WARD 2
ILDEN
K-6
CLEVELAND
K-3
LINCOLN
K-3
WHEELOCK
K-6
WARD
WARD 5
ULTIMATE ELEMENTARY
SCHOOL PLANT
K-6 ½ MI. RADIUS
K-3 ⅓ MI. RADIUS
AMENDED ZONING
MAP OF THE
CITY OF KEENE
N. H.
FROM CITY MAPS OLD RECORDS AND SURVEYS
WITH ADDITIONS BY RALPH H CLARK
CITY ENGINEERS OFFICE
1941
-DISTRICTS-
R ...Single Residence
A ...Agricultural
GR...General Residence
B ...Business
I ...Industrial
U ...Unrestricted
SOUTH KEENE
EDGEWOOD

MAP III


SENIOR HIGH SCHOOL
WARD 3
WARD 4
WARD 2
JUNIOR HIGH SCHOOL
SECONDARY SCHOOL PLANT
WARD 5
WARD 1
1½ MILES
JUNIOR HIGH V CIRCLE 1 MI. RADIUS
SENIOR HIGH * CIRCLE 1½ & 2 MI. RADIUS
1 MILE
2 MILES
SOUTH KEENE
AMENDED ZONING
MAP OF THE
CITY OF KEENE
N. H.
FROM CITY MAPS, OLD RECORDS AND SURVEYS
WITH ADDITIONS BY RALPH H CLARK
CITY ENGINEERS OFFICE
1941
-DISTRICTS-
R . . Single Residence
A . . Agricultural
GR . . General Residence
B . . . Business
I . . Industrial
U . . Unrestricted

MAP IV

THE SURVEY COMMITTEE

Homer W. Anderson, Lecturer in Education, Graduate School of Education, Harvard University, Director of the Survey.

Alfred D. Simpson, Professor of Education, Graduate School of Education, Harvard University.

Cyril G. Sargent, Assistant Professor of Education, Graduate School of Education, Harvard University, Director of the Center for Field Studies.

THE SURVEY STAFF

William B. Black, Principal of the Franklin and Montrose Schools, Wakefield, Massachusetts.

Paul E. Farnum, Administrative Field Agent, State Department of Education, Concord, New Hampshire.

Edward C. Manning, Director of Guidance, Woburn, Massachusetts.

Edward Martinson, Superintendent of Schools, Billerica, Massachusetts.

Harry S. Merson, Superintendent of Schools, Ipswich, Massachusetts.

Paul L. Reason, Supervisor of Veterans Education, State Department of Education, Concord, New Hampshire.

Albert G. Reilly, Principal, Junior High School, Framingham, Massachusetts.

Harold A. Rice, Formerly Headmaster of High School at Keene, New Hampshire.

Edward S. Underwood, Graduate Student, Harvard University.

SCHOOL BUILDING NEEDS OF KEENE, NEW HAMPSHIRE

In its study of Keene's school plant, the Center Field Studies of the Harvard Graduate School of Education has had, in addition to the services of three staff members of the School, the benefit of the study and investigations of a number of experienced school administrators. This group of men were the members of a graduate seminar on School Plant Planning

under the direction of Dr. Homer W. Anderson. All of these men have visited Keene, some several times to study various aspects of the problem. They visited and analyzed every school; they ranged over the entire city; they studied maps of Keene to be familiar with its zoning, the location of industries, its traffic laws, and streets; they investigated population growth, as shown by the record of births, the growth in school population, building permits and the like. They made themselves thoroughly familiar with the facts and factors which must be brought to bear on the development of the future school plant in Keene.

KEENE'S TWO BASIC NEEDS

Keene, just like nearly all American Communities, whether located in New England, the Midwest, the West, or the South has a school plant which expanded without much guidance and certainly without any over-all planning.

The first basic need for Keene, therefore, is a design or blueprint of the total school plant which may be needed in the future. Such a plan must be adopted by the school and city officials as the guide for all future school plant construction. No community can afford to spend any money for school buildings without the knowledge that the money so spent is wisely spent. This can be done only when school buildings for the education of children from the kindergarten through the high school are built in accordance with a carefully drawn up, functional plan for the development of the entire school plant in which all elements fit together in a unified whole, just as the building of a home must follow the architect's blueprints if it is to fulfill its intended objectives. Therefore, the first step in this report is to present such a plan for Keene.

The second basic need, which is becoming increasingly evident as times goes on, is the alleviation of pressure on available building facilities resulting from increased enrollments. The crowded condition of elementary classrooms is developing at a time when some of the school buildings in Keene have outlived their usefulness and should be abandoned.

The second purpose of this report is to present the first steps, which Keene should take immediately to relieve the present outgrown and outmoded school plant.

LONG RANGE PLAN OR BLUEPRINT

The future development of Keene's school plant should be in line with a long range plan or blueprint. Such a plan depends on many factors which are of great importance. The following seem to bear most significantly on the situation in Keene:

(1) Keene's Characteristics as a Community

The city of Keene covers a sparsely settled rural, as well as thickly settled, urban areas. The main population is centered in a section east of the river about a mile wide and two miles long. A second residential section is developing toward the northwest. In planning the school plant, therefore, schools within walking distances should be provided in the residential areas, and provisions should be made in one or more of these areas for the children living outside them, so that they may continue to be transported to these modern schools.

Keene is a manufacturing city; the principal industries being woodusing, textiles, leather products and machinery other than electrical. There seems to be no immediate prospect of acquiring new manufacturers or of losing old. There has been no significant housing boom nor have there been any large housing units constructed. The city engineer estimates that of the approximate 600 dwellings added since 1942 about 200 have been built in the last four years to a total in the neighborhood of 4,500 residence buildings. Of these, maybe half are owner occupied and half tenant occupied. There are comparatively few houses either for sale or for rent.

United States Census figures show a total population of 13,794 in 1930 and 13,832 for 1940. The city has not been a rapidly growing community. It is optimistic, perhaps, to estimate a population of 15,000 in 1950. Since the births have doubled since 1930, it is fair to assume that schools must be planned for a growing school population.

(2) The location of industries and business

In Keene, the main section of the city is divided by the railroad running generally east and west. Along these tracks the industrial section has been built up, creating a dividing line across which elementary school children should not be required to walk to school. The location of the business and industrial sections is shown on Map I.

The river further divides the city, north and south. Thus, Keene is divided into four distinct areas, which affect long range planning of the elementary school plant.

(3) **The status of the present school plant**

Some buildings are nearly new. Obviously, such buildings must remain in the long range plan. Keeen has only three buildings which were built within the past twenty years. They are: the Fuller School—1936; the Cleveland school—1940; and the second high school addition erected in 1940. The survey group would hesitate to recommend the discontinuance of such elementary schools as the Roosevelt, built in 1922, and the Symonds, erected in 1928. The future school plant must, therefore, include these buildings. The high school, too, with proper upkeep, will be good for many years.

All other buildings have paid good dividends on their investment and should in time either be replaced or discontinued, depending on whether or not they are properly located with reference to the area to be served.

The survey staff rated the buildings with regard to safety, cost of maintenance, and possibilities of rehabilitation. The old buildings, even with the additions erected in the 1920's, lack the type and quality of construction and materials commonly found to be most desirable, for insuring the safety of children. Also, they are without many of the better features and facilities provided in up-to-date schools. For these reasons they should be discontinued or replaced as rapidly as possible.

1. **Central Junior High** erected in 1876. It consists of three stories above the basement, with the assembly room on what is really the fourth fioor.

2. **Wheelock;** the original building was erected in 1885. and the addition in 1927.

3. **Tilden**; first unit built in 1892 and the addition in 1927.
4. **Washington**; 1896.
5. **Lincoln**; first unit built in 1899 and the addition, 1925.
6. **Franklin**; first unit 1906; addition, 1930.

In other words, in the long range plan, these buildings should be marked either for discontinuance and the land used for other purposes, or should be replaced with safe, economical, and educationally practical school buildings.

To summarize the status of the school plant, the following buildings should definitely remain in the ultimate future school plant:

1. The High School
2. Roosevelt Elementary
3. Symonds Elementary
4. Fuller Elementary
5. Cleveland Elementary

The sites of other existing schools may fit into the long range future plan, but as far as the buildings themselves are concerned, they need not be taken into account. This does not mean that they will be immediately discontinued in one great big program, but rather that they will be replaced over the next few years as rapidly as Keene feels able to carry out the provisions leading up to the fulfillment of the ultimate design of the future school plant.

(4) **The type of school organization which is best for Keene.**

It seems that Keene's present school organization is as follows:

(a) Elementary schools with a kindergarten and grades one to six, inclusive.

(b) Junior high schools with grades seven and eight, and,

(c) High school with grades nine to twelve, inclusive.

The survey staff believes that this organization tends in the right direction. It is certain, however, that the three small, so-called junior high schools in Keene cannot fulfill the purposes of a varied education which require facilities for academic subjects; science laboratories; shops, home economics;

art; music, both vocal and instrumental; physical education and athletics; and guidance. We, therefore, recommend that all pupils in Keene in grades seven, eight, and nine be combined in one junior high school, and that the organization of the schools underlying the long range planning to be as follows:

a. Elementary schools, kindergarten to grade 6.
b. Junior High School, Grades seven, eight, and nine.
c. Senior High School, Grades ten, eleven, and twelve.

(5) **The number of elementary schools ultimately needed in Keene.**

The number of elementary schools required depends on the distances small children should be required to walk to school with safety. This is usually set at one-half mile. Elementary schools in the thickly settled portions of a city should, therefore, be from three-fourths of a mile to one mile apart. However, in many communities, there are natural or other barriers which require the use of small, primary or neighborhood schools. This, it has been found, is the case in Keene.

A look at Map II shows the tremendous overlapping of the circles with a one-half mile radius drawn from each of the present elementary schools as centers. It is, therefore, quite evident that Keene has more elementary schools than necessary. This means that all elementary schools are too small to afford professional leadership and such facilities as assembly rooms and gymnasiums. In the design of the ultimate school plant, this situation should be corrected.

THE FUTURE SCHOOL PLANT

Elementary School Plant

It would appear, therefore, that in the future school plant, there should be a reduction in the number of elementary schools which accommodate all grades from the kindergarten to the sixth grade. It seems, too, that Keene should look forward to three and not over four area schools for all elementary grades, and a number of smaller schools for the younger children in the kindergarten and grades one to three or four.

Map III shows an elementary school plan for Keene, modeled after these suggestions. This plan is based on a maximum

walking distance of one-half mile or less for small children, the elimination of the necessity for these children to cross the railroad tracks, the industrial area and Washington Street from the business center to Fuller Park. The plan retains the newer schools and sites of older school which are properly located in the area to be served.

It also provides for four area schools and three small neighborhood schools. As was pointed out, this plan saves children from dangerous crossings. It does not, however, effect a large reduction in the number of schools needed to serve Keene. It eliminates Washington and Franklin ultimately from the elementary school plant. It is expected that Wheelock, Tilden, Roosevelt, and Symonds will be full kindergarten and sixth grade area schools; and that Cleveland, Fuller, and Lincoln will be neighborhood schools housing the kindergarten and grades one to three or four inclusive. In this plan, new Wheelock and Tilden schools should be planned with at least twelve classrooms, including kindergarten and other facilities.

The Secondary School Plant

Junior high school youngsters can be expected to walk one mile or more to school. In Map IV a circle with a mile radius has been drawn from the present high school as the center. It seems clear that this location is ideal for a junior high school. It is within a walking distance of one mile for a vast majority of the pupils in grades seven to nine. One junior high school should be the quota for Keene, at least until some long distant future when another junior high school may be needed in the northwestern section of the city.

Keene should provide for a senior high school for grades ten, eleven, and twelve, and probably should anticipate the establishment of advanced secondary education for grades thirteen and fourteen, or a junior college. These more advanced educational opportunities are rapidly becoming an important part of the American educational plan.

The size of the new high school building will depend primarily, of course, upon the number of pupils to be housed in it. The present enrollment of grade ten, eleven, and twelve is 723.

However, in view of the fact that the effect of the marked increase in the birth rate during the years 1942-1947 will not be felt in the senior high school before 1957, the present enrollment is expected to decline over the next six or seven years. In fact, it is estimated that this downward trend will result in an enrollment of 600 or below before the present figure will be exceeded.

However, Keene's policy with respect to the admission of pupils from outlying districts, as well as the plans of such districts for the education of their youth, will naturally have a bearing on the size of the high school needed. As the commercial and cultural center of the entire Monadnock region, Keene may be expected to attract pupils from other communities in increasing numbers, particularly if her future policy should be one of encouragement, as it appears to be at present. This is especially true if instruction in agriculture and other subjects closely related to the interests and needs of rural youth should be included in the curriculum of the proposed high school. Consequently, the probability of larger registrations from outside communities should be taken into account in determining the size of the new high school. Conceivably it should be designed for an enrollment of 800, and serious consideration of a building of this capacity is recommended.

The location of the high school is not so dependent upon walking distance as are the locations of elementary and junior high schools. The strongest factor in the placement of a high school is adequate acreage for play and practice fields, and for the development of agricultural projects. Keene should, therefore, go outside of the thickly settled areas for its high school site.

OTHER IMPORTANT FACTORS

Sizes of school sites to adequately take care of present and future needs.

Elementary sites should contain from five to ten acres, if there is to be adequate space for the building and possible future additions to the building; landscaping with lawn, shrubs, trees, walks and driveways; playground for little children separated from those of larger children; and play areas for the older

children, which are large enough to provide softball diamonds, soccer field, and general play areas.

A Junior High School should have adequate play areas for football, baseball, tennis, archery, soccer, softball, and track. These should be provided on the grounds or in the immediate neighborhood, and, ideally would require ten to fifteen acres.

A senior high school needs practice fields for each season's sports and a stadium for football, track, baseball, and all sorts of pageantry. These would require from twelve and twenty acres for a school the size of Keene's.

Characteristic of a good elementary school

We have learned so much during the last fifty years about how children grow and learn that it has been necessary to change our concept of the elementary school; of course, the revolution hasn't been nearly as great as the change from the horse and buggy to the high-powered automobile, or as devastating to old methods of communication as the transmission of programs over the air without visible or tangible contacts.

Nevertheless, there has been substantial change for the better. Schools are better human institutions. They give children a better chance to grow and develop as physical, mental human beings, with sensibilities, feelings, talents, and ambitions.

To grant better opportunities to develop as human beings has meant changes in methods of instruction, and in the variety of school facilities needed. Classrooms, today, are laboratories for the study and the acquisition of the basic skills; for work in health, art, handwork, music, and science; and for the development of good personalities and democratic human relations. Such a program requires more physical activities by children, more space for the broader program, better lighting and ventilation for the promotion of health and personality.

The modern building, therefore, has larger classrooms; it is provided with play and assembly rooms, library, health clinic, and rest rooms. It has no basement or cellar except for the heating plant.

There is a tendency in some sections of the country toward the one story building. Two story buildings have no classrooms below grade level. The building with three floors has disappeared. Whether a community builds one or two story schools depends on the size of the ground available for the school building and the school's all-round outdoor program.

The modern junior high school

The modern junior high school attempts to meet the needs of the pre-and early adolescent youngster ranging in age from twelve to fifteen years. These boys and girls are expanding rapidly in their physical, mental, and social characteristics. Their interests too are broadening in scope and deepening in insight. They are beginning to think as adults, or at least to think of themselves as adults. They need, however, guidance and learning experiences in the broad fields of social relations, cultural activities, intellectual pursuits, vocational skills of various sorts, and health and physical activities.

The junior high school building must reflect this program for these youngsters. It means that provisions must be made for classrooms, science laboratories, music and art rooms, home economics, shops, auditorium, library, gymnasium, counselling and conference rooms, health clinic, emergency rest rooms, and cafeteria.

The present high school building can be economically converted into a junior high school.

The modern senior high school

The senior high school, in addition to providing for the usual school activities, should be a center for much of the community's recreational and social activities. These should be provided for both inside and outside the building. An auditorium and a library; a gymnasium large enough to accommodate a good sized audience at atheltic and social events; a swimming pool, lockers and showers for community uses, as well as school uses, should be provided. Outdoor play fields, running track, and tennis courts are needed for both the boys and girls in school and for out of school youth and adults in the community.

IMMEDIATE NEEDS

Based on the complete study of all the factors involved in analyzing Keene's needs, including the prospective increase in the school population brought on by the doubling of the number of births in 1947, 1948, and 1949 over those of 1930's, there seem to be two urgent needs. They are:

1. Abandonment of Central junior high school building and the organization of one junior high for all pupils in grades seven, eight, and nine.

2. Provision for housing the growing elementary school enrollment, and abandoning the use of basement rooms now used for kindergarten children in several buildings. It is conservatively estimated that about twelve additional elementary school classrooms will be needed by 1954.

3. Adoption of a program for the replacement of the older, unsafe and inadequate elementary school buildings.

These problems demand an answer to this question, How shall these urgent needs be met?

The survey staff recommends the following steps:

1. Erect a new senior high school with a capacity for 800 pupils in grades ten, eleven, and twelve, preferably on or adjoining Wheelock Park. A street projected eastward from this site across Ashuelot River to Court Street will give walking access to many high school girls and boys living north of the business district.

2. Convert present high school into a junior high school for grades seven, eight, and nine. Study of the high school building indicates that it can be adapted very nicely to accommodate the junior high school program for all the seventh, eighth, and ninth grade pupils, and have room both for six sixth grade classes and for some growth in the regular junior high school enrollment. It should be pointed out, that if the sixth grade pupils are placed in this building to help accommodate the elementary school children through the bulge in elementary school enrollment, they can be returned to the elementary schools when the bulge has passed into the junior high school.

3. Secure additional land at Wheelock, Lincoln, and Tilden schools preparatory to replacing these old buildings with

new buildings and for the enlargement of the playgrounds which are now wholly inadequate. Secure additional land at the Roosevelt School. The total area of the Wheelock school grounds is only 1.35 acres, Lincoln has .74 acre, Tilden only 1.5 acres, and Roosevelt slightly over 2 acres.

4. Purchase land adjoining the high school property to give the junior high school outside play areas. The acquisition of Lots 41, 42, and 60 would help materially; the rest of the block over to Roxbury Court should be secured as rapidly as possible.

5. Rehabilitate Franklin School so that it may be used for an elementary school during the progress of the building program. When this has advanced to the point where the use of the classrooms in the Franklin School is no longer needed, it should be abandoned.

6. Remove the old Washington building and make the space available for more adequate playground facilities in the area.

7. Plan to replace the Wheelock school with a completely modern school building consisting of at least twelve regular classrooms, kindergarten, small assembly room with stage and fixed seating capacity for 250 to 300, a playroom about forty by sixty feet and all other accessory rooms, such as offices, health service room, conference rooms, teachers' room, storage rooms, toilets, and the like.

To this building should be transported the children from the outlying areas in the southern parts of Keene. It should also accommodate the upper grades from Cleveland and Lincoln neighborhood schools.

8. Plan replacement of the Tilden school similar to that suggested for Wheelock. Children from the northern areas of Keene should be transported to the new Tilden school. The upper grades from all surrounding areas as far as three-fourths of a mile away should attend this school.

9. Plan replacement of the Lincoln school with a building containing a kindergarten, playroom, and three or four classrooms so that it may serve as a neighborhood school for the younger children in this area.

What these recommendations will accomplish.

The above recommendations when carried out will accomplish the following:

1. Make possible abandonment of the Central and Washington schools, and eventually of the Franklin school.

2. Make two rooms now used by grades seven and eight at Symonds available for growth in the elementary school enrollment in that school.

3. Make six rooms at Franklin available as an elementary school, thus relieving crowded conditions in Tilden and Lincoln.

4. Make it possible to further relieve the elementary school's crowded condition by accommodating at least five sixth grade classes in the junior high school.

5. If the steps are taken in this order, there is time to further appraise the effect of the enrollment growth in the elementary schools after step six has been completed and to determine both the timing and extent of the program for replacing Wheelock, Tilden, and Lincoln; and the additional facilities, if any, which may be needed at Symonds and Roosevelt schools.

COSTS

The Survey Committee hesitates to attempt estimates of costs of land or of buildings. Local individuals in the city, the Board of Education, or the City Planning group can much more effectively than any survey committee, estimate the cost of land purchases in line with additions of land at Wheelock, Tilden, Lincoln, and the present high school.

The only method to employ in determining the cost of the new high school and new elementary schools is to secure the services of an architect to draw plans in accordance with a program of school accommodations prepared by a competent educator. From such plans rough estimates of costs can be made from floor areas or from the cubical contents of the building. More accurate estimates can be made from rough specifications by a responsible contractor or estimator. We would, therefore, recommend the appointment of an architect to begin immediately the preparation of plans for the high school of 800 pupils,

and that he be directed to give you careful estimates of cost based on well conceived drawings of the floor plans and rough elevations of the building.

The following table shows the costs of two plans for amortizing $100,000 worth of bonds at 2¼%, based on the present valuation. From this table you can easily compute the cost in terms of the tax rate by multiplying the rates in the table by the multiple of the estimated cost. Thus, a million dollar project would cost ten times the figures in the table.

The following table indicates the tax rate per $1,000 of assessed valuation to pay off a bond issue of $100,000 at 2¼% per cent interest in twenty years.

	Equal Principal Payments			*Decreasing Principal Payments*		
Year	Principal	Interest	Tax Rate Per $1000	Principal	Interest	Tax Rate Per $1000
1	$5,000	$2,250.00	31 cents	$6,000	$2,250	35 cents
2	5,000	2,137.50	30 cents	6,000	2,115	35 cents
3	5,000	2,025.00	30 cents	6,000	1,980	34 cents
4	5,000	1,912.50	29 cents	6,000	1,845	33 cents
5	5,000	1,800.00	29 cents	6,000	1,710	33 cents
6	5,000	1,687.50	29 cents	6,000	1,575	32 cents
7	5,000	1,575.00	28 cents	6,000	1,440	32 cents
8	5,000	1,462.50	28 cents	6,000	1,305	31 cents
9	5,000	1,350.00	27 cents	6,000	1,170	31 cents
10	5,000	1,237.50	27 cents	6,000	1,035	30 cents
11	5,000	1,125.00	26 cents	4,000	900	21 cents
12	5,000	1,012.50	26 cents	4,000	800	21 cents
13	5,000	900.00	25 cents	4,000	720	20 cents
14	5,000	787.50	25 cents	4,000	630	20 cents
15	5,000	675.00	24 cents	4,000	540	19 cents
16	5,000	562.50	24 cents	4,000	450	19 cents
17	5,000	450.00	23 cents	4,000	360	19 cents
18	5,000	337.50	23 cents	4,000	270	18 cents
19	5,000	225.00	22 cents	4,000	180	18 cents
20	5,000	112.50	22 cents	4,000	90	17 cents
	$100,000	$23,625.00		$100,000	$21,375	

IN CONCLUSION

Throughout the nation community after community is now facing the problems of school plant rehabilitation, replacement, and extension. In very few places is there no need of school plant extension, for the dislocations and shifts in population and the increased birthrates have been quite universal. Characteristically lagging in the discarding of unsafe, obsolete, or poorly located school buildings, communities are facing now an accumulation of pressures representing the merging both of neglect and of scientific developments in the field of school housing. This amassing of unmet needs during the war years, and the subsequent plant retardation due to shortages and prices, are bringing home to citizens the meaning of seven or eight years of getting behind.

Very critically communities, everywhere, face these problems—and especially the pressures created by an increased young population. Furthermore, they face them too often when they are unready structurally, with respect to school district development, and conceptually, with respect to an advanced design of educational need.

Keene is no exception. It is typical in many respects. To the school plant problems of Keene this survey has addressed itself, not traditionally, but realistically, in the light of lessons learned and conditions now clear. The survey has pointed out a course of action in certain respects that Keene really ought to act upon at once.

The survey has raised the important problem of school organization for Keene, and this question should be settled before any extensive physical plant development is undertaken.

The steps recommended in the report represent a prudent and sound plan for the development of the school facilities of the district and will, it is hoped, provide a program upon which the school board and the citizens of Keene will act.

Description of Sites for Potential Parking Lots

(See also figure 33 page 105)

East of Main Street and North of Railroad

(1) Behind City Hall, area about 20,000 square feet at present occupied by Public Works Department which is planning on new location. Capacity 90 cars. Access to Washington Street and Roxbury Street.

(2) Old residential estate (Dickinson) 45,000 square feet, 300' frontage on Roxbury Street. Western part could be parking lot of 20,000 square feet, capacity 90 cars, joined together with City Hall parking lot. Whole lot would have access on both Washington Street and Roxbury Street.

(3) The 35,000 square foot plot lying between the Roebuck Used Furniture Store and the Elks' building, extended through to Church Street where there are some old commercial buildings. Capacity would be 160 cars, with direct access from Roxbury and Church Streets.

(4) Two plots of about 25,000 sq. ft. each, lying between Church Street and Railroad Street (as shown on figure 33 page 105). Both would entail razing old wooden commercial and residential structures, which are in poor condition. Capacity of either of these lots would be 100 cars.

West of Main Street and North of the R.R.

(5) Old Central Junior High School site, area about 32,000 sq. ft., potential capacity 140 cars. Would have very good street access (on three sides) leading to Central Square one block distance. Would be located on proposed Central Circle, one block from its junction with West Street.

(6) Any one of several lots lying west of Sentinel building, each about 20,000 sq. ft. in size, capacity 90 cars. Would have rear access to Railroad Square, in addition to fronting on West Street. The old buildings are now used by a church and an inn.

(7) Vacant lot in rear of Latchis Theatre. Size 5,600 sq. ft., capacity about 25 cars.

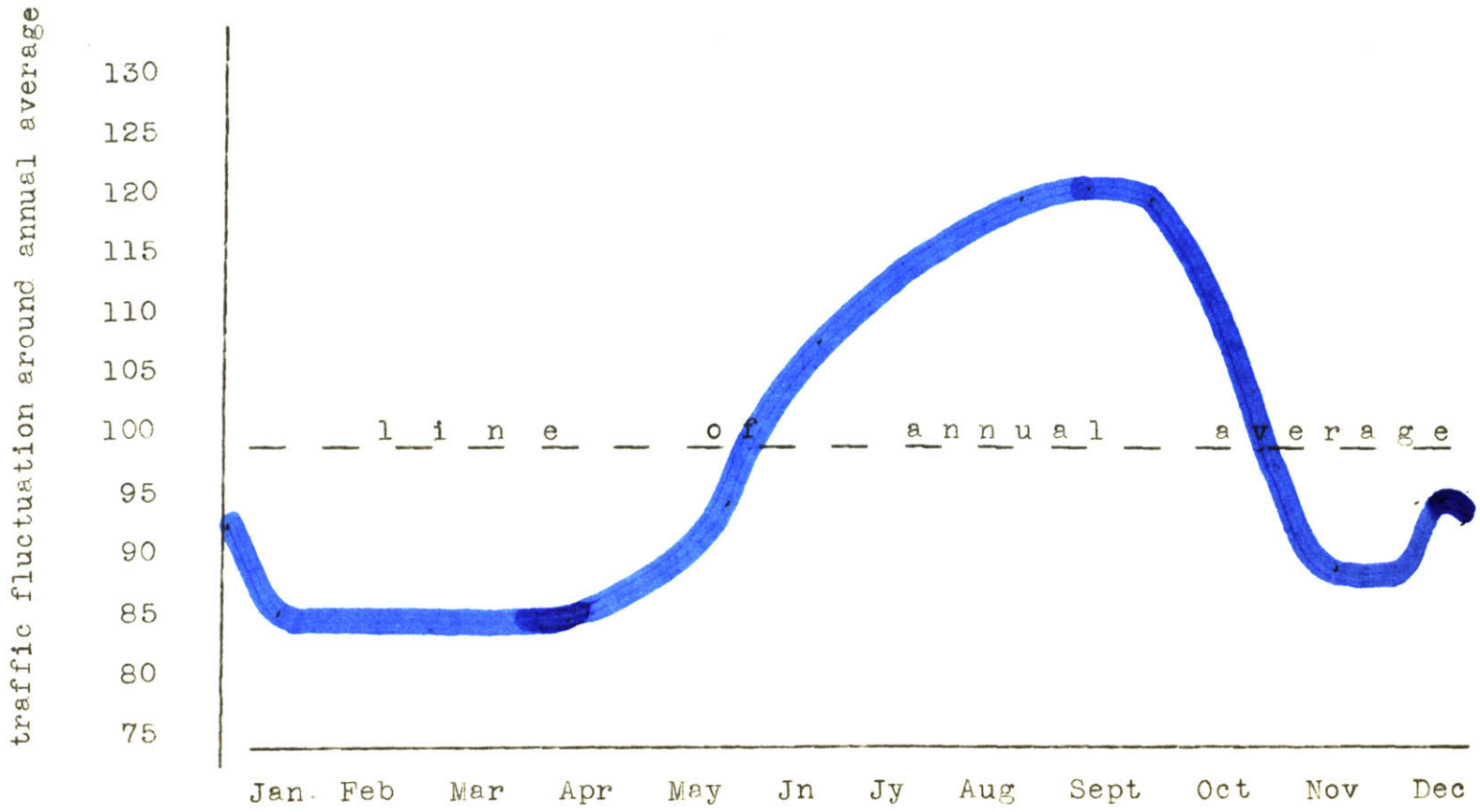
South of Railroad

(8) Area to rear of Scenic Theatre, containing old sheds and irregular open spaces, abutting railroad spur tracks. Size about 43,000 sq. ft., capacity 180 cars. Good access from Main Street, via Eagle Court and Cypress Court, which is serving as a loop street. This street would be paved, and provide over 800' of new business frontage facing on the parking lot and backing on railroad spur tracks, ideal for such stores as hardware and farm implements, department store, food market and fruit market, grain and feed store, wholesaling outlet.

(9) Open area behind Colonial Theatre, containing old wooden building which houses Keene Glass Company. If this were cleared out, total area would be about 40,000 sq. ft., capacity 170 cars. Access from Main Street and Emerald Street. The various businesses would be much benefitted by a modern parking lot.

TRAFFIC FLUCTUATION DURING THE YEAR

taken as a composite of State Highway Dept. traffic volume counts in Keene during 1948



Present Method of Subdivision Review in Keene

Chapter 52.

Regulations for Plans for Subdivisions of Lands and Acceptance of Highways.

Section 1. Any person, firm or corporation proposing to cut into lots any tract of land in the City of Keene for the purpose of selling the same, either publicly or primately, shall before such sale prepare and submit a plan of said tract of land to the City Engineer of the City of Keene. Such plan shall plainly show the number, size, and location of lots; the location and width of all proposed highways, and the location of the tract of land with reference to an existing public highway, and such plan shall also show present and proposed elevations at fifty foot stations along the center lines of all proposed highways. The location of said tract of land shall also be plainly marked on the ground by suitable stakes. If the plan shall meet with the approval of the said City Engineer, it shall be his duty to plainly mark the plan "approved," so that intending purchasers shall have knowledge of the said approval. In case the City Engineer shall disapprove of the proposed plan, he shall mark said plan "Disapproved" and shall file a statement of the reasons of such disapproval with the City Clerk for the use of the Board of Aldermen of the City, and shall transmit a like statement to the applicant. In such case the applicant may submit a revised plan in accordance with the requirements of the City for approval.

Section 2. No highway shall be laid out by the Board of Aldermen of the City of Keene until such plan has been submitted to the City Engineer and approved by him as provided in Section 1; but it shall not be obligatory upon said Board of Aldermen to lay out any highway because of the approval of any such plan by said City Engineer.

Section 3. In case the Board of Aldermen refuse to accept and lay out any such highway, appeal may be taken to the superior court in the same manner as is now provided by law in the laying out of highways.

ENABLING LEGISLATION
in New Hampshire

Relating to

COMMUNITY PLANNING
COMMUNITY ZONING
AIRPORT ZONING
MUNICIPAL BUDGETING

INFORMATION LEAFLET, NO. 3

Prepared by
THE STATE PLANNING AND DEVELOPMENT COMMISSION
Concord, New Hampshire

November, 1949

THE STATE PLANNING AND DEVELOPMENT COMMISSION

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* * * *

Table of Contents

Community Planning 3
Community Zoning 14
Airport Zoning 18
Municipal Budgeting 21

COMMUNITY PLANNING ENABLING ACT

Chapter 53, Sections 1-15, Revised Laws of New Hampshire, 1942

AN ACT

TO PROVIDE FOR CITY, TOWN, VILLAGE DISTRICT AND REGIONAL PLANNING

Definitions

1. **Terms.** For the purpose of this chapter certain terms are defined as provided in this section. Wherever appropriate the singular includes the plural and the plural includes the singular.

I. "Municipality" or "municipal" means, includes and relates to cities, towns and village districts.

II. "Mayor" means the chief executive of the municipality, whether the official designation of his office be mayor, city or town manager, or otherwise.

III. "Council" means the chief local legislative body of the municipality, whether it be officially designated council, mayor and council, board of mayor and alderman, commission, village district, town meeting or by other title.

IV. "Selectmen" means the board of selectmen of a town.

V. "District commissioners" means the board of commissioners of a village district or precinct.

VI. "Planning board" means, relates to and includes city, town, village district and regional planning boards, established under the provisions hereof.

VII. "Street" means, relates to and includes street, avenue, boulevard, road, lane, alley, viaduct, highway, free way and other ways.

VIII. "Subdivision" means the division of a lot, tract, or parcel of land into two or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale or of building development. It includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or territory subdivided.

MUNICIPAL PLANNING BOARDS

2. **Grant of Power to Municipality.** Any municipality is hereby authorized and empowered to create by ordinance a planning board and to make available to it the powers and duties herein prescribed.

3. **Designation of Planning Boards.** The planning board of a city shall be designated city planning board; of a town or village district, town or village district planning board; and of a region, regional planning board.

4. **Personnel of a Planning Board.** In the case of cities, the planning board shall consist of nine members, namely the mayor, one of the administrative officials of the municipality who shall be selected by the mayor, and a member of council who shall be selected by it, as members ex officio, and six persons who shall be appointed by the mayor, if the mayor be an elective officer, otherwise by such officer as the council may in the ordinance creating the planning board designate as the appointing power. In the case of towns, the planning board shall consist of either seven or five members, at the option of the town meeting, including in either case one selectman who shall be chosen by the selectmen to act as ex-officio member, and four or six persons depending upon whether the entire planning board includes five or seven members, respectively who shall be appointed by the selectmen. In the case of village districts, the planning board shall consist of either seven or five members, at the option of the village district meeting, including in either case one district commissioner who shall be selected by the district commissioners to act as ex-officio member, and four or six persons, depending upon whether the entire planning board includes five or seven members, respectively, who shall be appointed by the district commissioners.

5. **Qualifications and Terms of Members.** All members of a planning board shall serve as such without compensation, and the appointed members shall hold no other muni-

cipal office, except that one of such appointed members may be a member of the zoning board of adjustment and provided also that any of such appointed members may be members of a budget committee in a town or a justice of the municipal court. The terms of ex-officio members shall correspond to their respective official tenures, except in the case of cities that the term of the administrative official selected by the mayor shall terminate with the term of the mayor selecting him. The term of each appointed member shall be six years in the case of nine-member planning boards, five years in the case of seven-member planning boards and four years in the case of five-member planning boards, except that the respective terms of five of the members first appointed to a nine member or a seven-member planning board shall be one, two, three, four and five years; and in the case of five-member planning boards that the respective terms of the four members first appointed shall be one, two, three and four years.

6. **Removal of Members of Planning Board.** Members of a planning board other than the members selected by council may, after public hearing, be removed by the mayor for inefficiency, neglect of duty, or malfeasance in office. Council, selectmen or district commissioners may for like cause remove the members selected by them. The mayor or the council, selectmen or district commissioners, as the case may be, shall file with the city or town clerk, or clerk of the board of district commissioners, whichever is appropriate, a written statement of reasons for such removal.

7. **Filling of Vacancies in Membership.** Vacancies in the membership of a planning board occuring otherwise than through the expiration of term shall be filled for the duration of the unexpired term by the mayor, selectmen or district commissioners in the case of members selected or appointed by them, by council in the case of the councilmanic member, and by the appointing power designated by the council in municipalities in which the mayor is not an elective officer.

8. **Organization, Meetings, Rules.** The planning board shall elect its chairman from the appointed members and create and fill such other offices as it may deem necessary for its work. The term of chairman shall be one year, with eligibility for re-election. The planning board of a city shall hold at least one regular meeting in each month and the planning board of a town or village district shall hold at least one regular meeting every three months. The planning board shall adopt rules for the transaction of business and shall keep a public record of its resolutions, transactions, findings, and determinations.

9. **Staff and Finances.** The planning board may appoint such employees as it may deem necessary for its work, whose appointment, promotion, demotion and removal shall be subject to the same provisions of law as govern other corresponding civil employees of the municipality. The planning board may also contract with city planners, engineers, architects, and other consultants for such services as it may require. The expenditures of the planning board, exclusive of gifts, shall be within the amounts appropriated for the purpose by council, or precinct commissioners, as the case may be, who are hereby authorized and empowered to provide such funds, equipment, and accommodations as they may deem to be necessary or advisable for the planning board's work.

MASTER PLAN OF THE MUNICIPALITY

10. **Purposes of Master Plan.** It shall be the function and duty of any planning board established under the provisions of this chapter, to make and to perfect from time to time, so far as funds appropriated by council for such purpose will permit, a master plan for the development of the municipality, including any areas outside of its boundaries which, in the planning board's judgment, bear relation to the planning of the municipality. Such master plan, with the accompanying necessary map, plats, charts and descriptive matter, may be designed with the intention of showing as fully as is possible and practical the planning board's recommendations for the desirable development of the territory, legally and logically within the scope of its planning jurisdiction, including, on that basis, among

other things, the general location, character, and extent of streets, viaducts, subways, tunnels, bridges, waterways, water fronts, boulevards, parkways, roadways in streets and parks, playgrounds, squares, parks, aviation fields, and other public ways, places, grounds and open spaces, sites for public buildings and other public property, routes of railroads, omnibuses and other forms of public transportation, and the general location and extent of public utilities and terminals, whether publicly or privately owned or operated, for water, light, heat, sanitation, transportation, communication, power and other purposes; also the acceptance, removal, relocation, widening, narrowing, vacating, abandonment, change of use of or extension of any of the foregoing ways, grounds, places, open spaces, buildings, properties, utilities, or terminals, and other planning features; as well as a zoning plan for the control of the height, area, bulk, location, and use of private and public structures, buildings and premises and of population density; the general location, character layout, and extent of community centers and neighborhood units and the general character, extent, and layout of the replanning of blighted districts and slum areas.

11. **Preparation of the Master Plan.** In the course of the preparation of such master plan the planning board may make careful and comprehensive surveys and studies of existing conditions and of data and information relative to the probable future growth of the municipality and its environs. The master plan shall be made with the general purpose of guiding and accomplishing a co-ordinated, adjusted, and harmonious development of the municipality and its environs which will, in accordance with existing and probable future needs, best promote health, safety, morals, order, convenience, prosperity, or the general welfare, as well as efficiency and economy in the process of development; including, among other things, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements.

12. **Adoption and Amendment of Master Plan.** The planning board may adopt the master plan as a whole by a single resolution or may by successive resolutions adopt successive parts of the plan, said parts corresponding with major geographical sections or divisions of the municipality or with functional subdivisions of the subject matter of the plan, and may adopt any amendment or extension thereof or addition thereto. Such master plan shall be a public record, but its purpose and effect shall be solely to aid the planning board in the performance of its duties. The adoption of the master plan or any amendment thereof shall be by resolution carried by the affirmative votes of not less than a majority of all the members of the planning board. The resolution shall refer expressly to the maps, descriptive matter, and other matters intended by the planning board to form the whole or part of the plan, and the action taken shall be recorded on the adopted plan or part thereof adopted by the identifying signature of the chairman or secretary of the planning board, and a copy of the plan or part thereof shall be certified to council.

13. **Miscellaneous Powers and Duties of a Planning Board.** The planning board shall have power to promote public interest in and understanding of the master plan and of the official map of the municipality as hereinafter described and to that end may publish and distribute copies of the master plan, or of the aforesaid official map, or of any report and may employ such other means of publicity and education as it may deem advisable. Members of the planning board, when duly authorized by the said planning board, may attend city planning conferences or meetings of city planning institutes or hearings upon pending city planning legislation, and the planning board may, by resolution spread upon its minutes, pay the reasonable traveling expenses incident to such attendance. The planning board shall have authority to make such investigations, maps and reports, and recommendations in connection therewith, relating to the planning and development of the municipality, as seem desirable to it. The

planning board may, from time to time, report and recommend to the appropriate public officials and public agencies programs for the development of the municipality, for the erection of public structures and improvements and for the financing thereof. It shall be part of the planning board's duties to consult and advise with public officials and agencies, public utility companies, civic, educational, professional, research, and other organizations, and with citizens with relation to the protecting or carrying out of the master plan, and to make recommendations relating to the development of the municipality. The planning board shall have the right to accept and use gifts for the exercise of its functions. All public officials shall, upon request, furnish to the planning board, within a reasonable period of time, such available information as it may properly require for its work. The planning board, its members, officers, and employees, in the performance of their functions, may be authorized by ordinance to enter upon any land and make such examinations and surveys as are reasonably necessary and place and maintain necessary monuments and marks thereon. In general, the planning board may be given such powers as may be necessary to enable it to fulfill its functions, promote municipal planning, or carry out the purposes hereof; provided the total expenditures of said board shall not exceed the appropriation for its expenses.

14. **Zoning Powers of a Planning Board.** The planning board shall have all powers heretofore granted by law to the zoning commission of a municipality, and, from and after the creation of a planning board in such municipality, all powers and records of the zoning commission shall be transferred to the planning board; provided, however, that in the event that the existing zoning commission shall be nearing the completion of its zoning plan, council may, by resolution, postpone the said transfer of the zoning commission's powers until the completion of such zoning plan, but such postponement shall not exceed a period of six months.

15. **Authority to Recommend Amendments of Zoning Ordinance.** The planning board may, from time to time, recommend to council amendments of the zoning ordinance or zoning map or additions thereto to conform to the board's recommendations for the zoning regulation of the territory comprised within approved subdivisions.

AUTHORIZATION FOR ESTABLISHMENT OF OFFICIAL COMMUNITY MAP

Chapter 53, Sections 16-18, Revised Laws of New Hampshire, 1942

Note: Under the provisions of the following Sections 16 through 18, the Legislature authorizes any New Hampshire town, city or village district to establish an official map, accurately locating all streets, parks and other publicly-owned areas, as well as all proposed street improvements. Hundreds of communities throughout the country have established such official maps.

OFFICIAL MAP OF THE MUNICIPALITY

16. **Mapping of Street Lines by Planning Board.** At any time after a planning board established under the provisions hereof shall have adopted a master plan of the municipality which includes a major street plan or shall have progressed in its master planning to the stage of the making and adoption of a major street plan, council may authorize said planning board to make or cause to be made from time to time, surveys for the exact locating of the lines of new, extended, widened, or narrowed streets in the whole or in any portion of the municipality, and, council may empower the planning board to make and certify to council, when completed, a plat of the area thus surveyed on which are indicated the locations of the lines recommended by the planning board as the planned or mapped lines of future streets, street extensions, street widenings. or street narrowings. The making or certifying of a plat by the planning board, under such authorization by council, shall not in and of itself constitute or be deemed to constitute the opening or establishment of any

street or the taking or acceptance of any land for street purposes.

17. **Establishment of Official Map.** Provided that the planning board of any municipality shall have adopted a master plan, as provided herein, which includes a major street plan or shall have progressed in its master planning to the stage of the making and adoption of a major street plan, and shall have certified a copy of such major street plan to council, as provided in section 16, council is hereby empowered and authorized to establish an official map of the municipality showing the location of the exterior lines of streets of the whole or of any parts of the municipality theretofore existing laid out and established by law as public streets, and may also show the location of the exterior lines of parks. Such official map is to be deemed to be final and conclusive with respect to the location and width of streets and the location of parks shown thereon. Such official map as may be established pursuant to the terms hereof is hereby declared to be established to conserve and promote the public health, safety, convenience or general welfare. The ordinance establishing or adopting such official map shall provide that a certificate, signed by the city or town clerk, the clerk of the district commissioners, or other duly authorized recording official, giving notice that the said municipality has established an official map, including the date of such establishment, shall forthwith be filed with the register of deeds of the county or counties in which the municipality is situated. Such certificates shall be accompanied by a certified copy of the official map as adopted or established. Whenever a municipality shall have established an official map and shall have filed a certificate to that effect, together with a copy of the said official map, with the register of deeds for the county or counties in which the municipality is situated, then no plat of a subdivision of land within said municipality shall thereafter be filed or recorded at the office of the said register of deeds until it shall have been approved by the planning board and such approval entered in writing on the plat by the chairman or secretary of the planning board.

18. **Amendments to Official Map.** Council is authorized and empowered, whenever and as often as it may deem it advisable or necessary for the public interest, to change or add to the official map of the municipality so as to establish the exterior lines of the new streets, or parks, or to widen, extend, relocate, narrow, vacate, abandon, or close existing streets or parks; and the acceptance of, change of use, acquisition of land for, or sale or lease of any street or other public way, ground, place, property or structure. No change shall become effective until after a public hearing shall have been held in relation thereto, at which parties in interest and citizens shall have had an opportunity to be heard. At least fifteen days' notice of such a public hearing shall be published in a newspaper of general circulation in said municipality and by posting a notice to the same effect at the city or town hall, or in whatever place other notices required by law in connection with municipal affairs are posted or customarily displayed. Before making such addition, amendments or change, council shall refer the matter to the planning board for report thereon; but if the planning board shall not make its report within thirty days of such reference, it shall be deemed thereby to have forfeited the right further to suspend action. In the event that the planning board disapprove the proposed addition, amendment or change, council shall not have the right to overrule such decision, unless by vote of not less than two thirds of its entire membership in case of a city, or by majority vote of the legal voters present and voting at a regular or special town or district meeting in the case of a town or district. Such additions, amendments, and changes when adopted shall become a part of the official map of the municipality, and shall be deemed to be final and conclusive with respect to the location of the streets and parks shown thereon. The locating, widening, narrowing, or closing, or the approval of locating, widening, narrowing or closing of streets and parks by the municipality under provisions of law other than those contained in this chapter shall be deemed to be a change or addition to the official map, and shall be subject to all the provisions hereof.

AUTHORIZATION FOR COMMUNITIES TO REGULATE NEW SUBDIVISION OF LAND

Chapter 53, Sections 19-29, Revised Laws of New Hampshire, 1942. As amended by Chapter 138, Laws of 1949.

REGULATION OF SUBDIVISION OF LAND

19. **Grant of Power to Regulate.** A municipality may by ordinance or resolution authorize and empower the planning board, to approve or disapprove, in its discretion, plats showing new streets, or the widening thereof, or parks, and the ordinance or resolution thus empowering the planning board shall make it the duty of the city clerk, town clerk, clerk of district commissioners or other appropriate recording official to file with the register of deeds of the county in which the said municipality is situated a certificate or notice showing that the said planning board has been so authorized, giving the date of such authorization.

20. **Recording of Plats.** After the certificate or notice referred to in section 19 has been filed with the register of deeds of the county in which the municipality is located, no plat of a subdivision of land showing a new street or widening or narrowing thereof or park shall be filed or recorded in the offices of the said register of deeds until it has been approved by the planning board, and such approval has been indorsed in writing on the plat in such manner as the planning board may designate. After such plat is approved and filed, subject, however, to review by court as hereinafter provided, the streets and parks shown on such plat shall be and become a part of the official map of the municipality. The filing or recording of a plat of a subdivision without the approval of the planning board as required hereby shall be void.

21. **Subdivision Regulations; General.** Before exercising the powers referred to in section 19 hereof, the planning board shall adopt regulations governing the subdivisions of land within its jurisdiction. Such regulations may provide against such scattered or premature subdivision of land as would involve danger or injury to health, safety, or prosperity by reason of the lack of water supply, drainage, transportation, or other public services, or necessitate an excessive expenditure of public funds for the supply of such services. Such regulations may provide for the harmonious development of the municipality and its environs; for the proper arrangement and co-ordination of streets within subdivisions in relation to other existing or planned streets or with features of the official map of the municipality; for open spaces of adequate proportions and for suitably-located streets of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air, and access of fire-fighting apparatus and equipment to buildings, and be co-ordinated so as to compose a convenient system. The regulations of the board may require in proper cases that plats showing new streets or narrowing or widening thereof submitted to it for approval shall show a park or parks suitably located for playground or other recreational purposes; they may require that proposed parks shall be of reasonable size for neighborhood playgrounds or other recreation uses, and that the land indicated on plats submitted shall be of such character that it can be used for building purposes without danger to health; they may prescribe minimum widths, depths and areas of lots so as to avoid congestion of population and generally may include provisions which will tend to create conditions favorable to health, safety, convenience, or prosperity.

22. **Additional Requisites.** Such regulations of the planning board may stipulate, as a condition precedent to the approval of the plat, the extent to which and the manner in which streets shall be graded and improved and to which water, sewer and other utility mains, piping, connections, or other facilities shall be installed. The regulations or practice of the planning board may provide for the tentative approval of the plat before such improvements and installations have been constructed but any such tentative approval shall not be entered upon the plat. Such regulations may provide that, in

lieu of the completion of such work and installations previous to the final approval of a plat, the planning board may accept a bond, in an amount and with surety and conditions satisfactory to it, providing for and securing to the municipality the actual construction and installation of such improvements and utilities within a period specified by the planning board and expressed in the bond; and the municipality is granted the power to enforce such bonds by all appropriate legal and equitable remedies. Such regulations may provide, in lieu of the completion of such work and installations previous to the final approval of a plat, for an assessment or other method whereby the municipality is put in an assured position to do said work and make said alterations at the cost of the owners of the property within the subdivision. All such regulations shall be published as provided by law for the publication of ordinances in the said municipality, and, before adoption, a public hearing shall be held thereon. A copy of the regulations as adopted, signed by the chairman or secretary of the planning board, shall be filed with the register of deeds of the county or counties in which the municipality is located. Such regulations may be amended, changed, altered, added to or rescinded from time to time whenever this action is deemed necessary or advisable by the planning board, but only following public hearing on the proposed amendment, change, alteration, addition or rescission, and a statement, signed by the chairman or secretary of the planning board, indicating any variances thus authorized from such regulations as were previously filed, shall be transmitted to the register of deeds of the county in which the municipality is located.

23. **Board's Procedure on Plats.** The planning board shall approve or disapprove a plat within thirty days after the submission thereof to it; otherwise such plat shall be deemed to have been approved, and the certificate of the municipality, as to the date of submission of the plat for approval and the failure to take action thereon within such time, shall be issued on demand and shall be sufficient in lieu of the written indorsement or other evidence of approval herein required; provided, however, that the applicant for the board's approval may waive this requirement and consent to an extension of such period. The ordinance establishing the planning board or an ordinance amending such establishing ordinance shall specify the officer or employee of the municipality who shall issue in its behalf the certificate of failure on the part of the planning board to take action as aforesaid in this section. In case of disapproval of any plat submitted, the ground for such disapproval shall be adequately stated upon the records of the planning board. Any plat submitted to the planning board shall bear the name and address of the person to whom notice of a hearing shall be sent; and no plat shall be acted on by the planning board without affording a hearing thereon. Notice shall be sent to the said address by registered mail, with return of receipt requested, stating the time and place of such hearing, not less than five days before the date fixed therefor.

24. **Status of Plats, Approved.** Every plat approved by the planning board shall, by virtue of such approval, be deemed to be an amendment of or an addition to or a detail of the official map and a part thereof. Approval of a plat shall not be deemed to constitute or effect an acceptance by the municipality or the public of the dedication of any street or other ground or open space shown upon the plat.

25. **Improvements in Unapproved Streets.** A municipality which has established and recorded an official map, as provided in section 17, or has conferred upon a planning board platting jurisdiction in accordance with section 19 shall not thereafter accept, lay out, open, improve, grade, pave, or light any street or lay or authorize the laying of water mains, sewers, connections, or other facilities or utilities in any street, within any portion of the municipality unless such street (a) shall have been accepted or opened as, or shall otherwise have received the legal status of a public street prior to the conferring of platting jurisdiction upon the planning board, or unless such street (b) corresponds in its location and lines with a street shown

on the official map or with a street shown on a subdivision plat approved by the planning board or with a street on a street plat made by and adopted by the board. Council may, however, accept, locate and construct any street not shown on or not corresponding with a street on the official map or on an approved subdivision plat or an approved street plat, provided the ordinance or other measure for the accepting, locating, and construction of such street be first submitted to the planning board for its approval and, if approved by the board, be approved by a majority vote of the entire membership of council or, if disapproved by the planning board, be approved by not less than two thirds of the entire membership of council in case of a city or by majority vote of the legal voters present and voting at a regular or special town or district meeting in the case of a town or district. A street approved as provided in this section shall thereupon have the status of an approved street as fully as though it had been originally shown on the official map or on a subdivision plat approved by the planning board or had been originally platted by the planning board.

26. **Erection of Buildings.** From and after the time when a planning board shall expressly have been granted platting jurisdiction by a municipality, as described in section 19, no building shall be erected on any lot within any part of such municipality nor shall a building permit be issued therefor unless the street giving access to the lot upon which such building is proposed to be placed (a) shall have been accepted or opened as or shall otherwise have received the legal status of a public street prior to that time, or unless such street (b) corresponds in its location and lines with a street shown on the official map or with a street on a subdivision plat approved by the planning board or with a street on a street plat made by and adopted by the planning board or with a street located and accepted by council, after submission to the planning board, and in case of said planning board's disapproval, by the favorable vote required in section 25. Wherever the enforcement of the provisions of this section would entail practical difficulty or unnecessary hardship, and where the circumstances of the case do not require the building, structure or part thereof to be related to existing or proposed streets, the applicant for such permit may appeal from the decision of the administrative officer having charge of the issue of permits to the board of adjustment in any municipality which has adopted zoning regulations, in accordance with chapter 51 of the Revised Laws of New Hampshire, or, in municipalities where no board of adjustment exists, to council, or to a board of appeals, whichever is appropriate, in accordance with the provisions of sections 32 and 33, including the requirement for a public hearing. In passing on such appeal the board of adjustment, council or board of appeals may make any reasonable exception and shall have the power to authorize or issue a permit, subject to such conditions as it may impose, where the issuance of the permit would not tend to distort the official map or increase the difficulty of carrying out the master plan upon which it is based. Any such decision made in this connection by a board of adjustment, council or by a board of appeals pursuant to the provisions of this section and of sections 31, 32, and 33, shall be subject to review by certiorari in the manner described in section 34.

27. **Penalties for Transferring Lots in Unapproved Subdivisions.** Whoever, being the owner or agent of the owner of any land located within a subdivision, transfers or sells or agrees to sell or negotiates to sell any land by reference to, or exhibition of, or by other use of, a plat of a subdivision, before such plat has been approved by the planning board and recorded or filed in the office of the appropriate register of deeds shall forfeit and pay a penalty of one hundred dollars for each lot or parcel so transferred or sold or agreed or negotiated to be sold; and the description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the transaction from such penalties. Said municipality, through its solicitor or other official designated by its council may enjoin such transfer or sale or agreement and may recover the said penalty by civil action.

28. **Duties of Register of Deeds.** A register of deeds of any county where plats of subdivisions shall be recorded as provided in section 20, who files or records a plat of a subdivision without the approval of a planning board where required by law shall be deemed guilty of a misdemeanor and shall be fined not less than one hundred nor more than five hundred dollars.

29. **Status of Existing Platting Statutes.** From and after the time when a planning board shall expressly have acquired platting jurisdiction in the manner described herein such jurisdiction shall be exclusive and all statutory control over plats or subdivisions of land granted by other statutes shall so far as is in harmony with the provisions hereof be deemed transferred to the planning board as herein authorized and described, and, so far as the regulations of such statutes are inconsistent with such of the powers herein granted by this act as have expressly by ordinance been adopted by a municipality and wherever made available to a planning board according to the provisions hereof, they are hereby declared to have no application, force or effect so long as the said powers conferred hereby shall continue to be exercised by a municipality.

PROVISIONS FOR THE PROTECTION OF THE OFFICIAL COMMUNITY MAP, FOR ENFORCEMENT OF SUBDIVISION REGULATIONS, AND FOR PUBLIC HEARINGS AND APPEALS

Chapter 53, Sections 30-36, Revised Laws of New Hampshire, 1942

REGULATIONS OF BUILDINGS WITHIN BED OF MAPPED STREETS

30. **Refusal of Permit.** A municipality which has established and recorded an official map, as provided in section 17, may for the purpose of preserving the integrity of such official map provide by ordinance that from and after the time of such recording no permit shall be issued for any building or structure or part thereof, in the bed of or on any land located between the mapped lines of any street as shown or laid out on such official map except as provided in the following subdivision:

APPEALS AND COURT REVIEW

31. **Appeals: Where There Is a Zoning Ordinance.** Any ordinance adopted pursuant to the provisions of section 30 shall provide that the board of adjustment created under a local zoning ordinance in accordance with the provisions of chapter 51 and having the power to make variances or exceptions in zoning regulations shall have the further power, in specific cases and by vote of a majority of its members, upon an appeal filed with it by the owner of any such land, to grant a permit based on considerations of justice and equity for a building or structure or part thereof, in such mapped-street location in any case in which such board of adjustment finds, upon the evidence and arguments presented to it upon such appeal, (a) that the property of the appellant of which such mapped-street location forms a part will not yield a reasonable return to the owner unless such permit be granted, or (b) that, balancing the interest of the municipality in preserving the integrity of the official map and in not increasing too greatly the cost of later opening such street, and the interest of the owner in the use and benefits of his property, the grant of such permit is required by considerations of justice and equity. In the event that the said board of adjustment decides to authorize or issue a building permit in such case, it shall have the power to specify the exact location, ground area to be used or occupied, height, and other reasonable details and conditions of extent and character, and also the duration of the

building, or part hereof, permitted. Such requirements shall be designed to promote the health, convenience, safety or general welfare of and shall inure to the benefit of the municipality. Such board of adjustment shall refuse a permit where the applicant will not be substantially damaged by placing his building outside the said mapped-street location.

32. **Appeals: Where No Zoning Ordinance Exists.** In any municipality, other than a town, in which there is no such board of adjustment, council until such time as a board of adjustment may be appointed as a result of the adoption of a zoning ordinance shall have the same powers as a board of adjustment to act but only under the circumstances and in such special cases as are specified in sections 26 and 31, and shall be subject to the same restrictions as apply to such a board of adjustment. For this purpose council is hereby authorized to act as a discretionary administrative or quasi-judicial body. When so acting it shall not sit as a legislative body but in a separate meeting, and with separate minutes kept. In any town or village district in which there is no such board of adjustment, the chief local legislative body is hereby authorized to designate a board of appeals to be composed of five members, serving as such without compensation, which shall have the authority of, and shall be subject to the same restrictions and regulations as apply to such board of adjustment but which shall have the power to act only under the circumstances and in such special cases as are specified herein and only until such time as such board of adjustment may be appointed as a result of the adoption of a zoning ordinance.

33. **Appeals: Public Hearing.** Before taking any action authorized in sections 26, 31 and 32, the board of adjustment, or council, or said boards of appeal, according to whichever of them is designated by ordinance as the body to which appeals may be made as provided herein shall give a hearing at which parties in interest and others shall have an opportunity to be heard. At least fifteen days' notice of the time and place of such hearing shall be published in a newspaper of general circulation in such municipality and by posting a notice to the same effect at the city or town hall or in whatever place notices required by law in connection with municipal affairs are posted or customarily displayed.

34. **Court Review.** Any persons aggrieved by any decision of the planning board concerning a plat or subdivision or building permit may present to the superior court a petition, duly verified, setting forth that such decision is illegal in whole or in part, specifying the grounds of the illegality. Such petition shall be presented to the court within thirty days after the filing of the decision in the office of the planning board. Upon presentation of such petition the court may allow certiorari order directed to the planning board to review such decision and shall prescribe therein the time within which return thereto shall be made and served upon the petitioner's attorney, which shall not be less than ten days and may be extended by the court. The allowance of the order shall stay proceedings upon the decision appealed from. The planning board shall not be required to return the original papers acted upon by it, but it shall be sufficient to return certified or sworn copies thereof, or of such portions thereof as may be called for by such order. The return shall concisely set forth such other facts as may be pertinent and material to show the grounds of the decision appealed from and shall be verified. If, upon the hearing, it shall appear to the court that testimony is necessary for the proper disposition of the matter, it may take evidence or appoint a referee to take such evidence as it may direct and report the same to the court with his findings of fact and conclusion of law, which shall constitute a part of the proceedings upon which the determination of the court shall be made. The court may reverse or affirm, wholly or partly, or may modify the decision brought up for review. Costs shall not be allowed against the municipality, unless it shall appear to the court that the planning board acted in bad faith or with malice in making the decision appealed from.

MISCELLANEOUS PROVISIONS

35. **Building Inspector.** Council may provide for the enforcement hereof by means of the withholding of building permits, and for this purpose a municipality which has not already designated an administrative official charged with the issuance of building permits is authorized to establish and fill the position of building inspector. From and after the establishment of such position and the filling of same, it shall be unlawful to erect, construct, or alter or reconstruct any building or other structure without obtaining a building permit from such building inspector; and such building inspector shall not issue any permit unless the requirements hereof are complied with.

36. **Other Measures of Enforcement and Remedies.** Any building erected, constructed, altered or reconstructed in violation of any ordinance enacted under authority hereof shall be deemed an unlawful structure, and the building inspector or other administrative officer, charged with enforcement of the ordinance, or the solicitor of the municipality, may bring action to enjoin such erection, construction, alteration or reconstruction, or cause such structure to be vacated or removed or both. It shall be unlawful to erect, construct, alter or reconstruct any building or structure or part thereof in violation of this chapter. In case any building or structure or part thereof is or is proposed to be erected, constructed, altered or reconstructed, or any land is or is proposed to be used in violation hereof, the administrative official charged with the issuance of building permits, or the solicitor of the municipality, or the owner of any adjacent or neighboring property who would be specially damaged by such violation, may, in addition to other remedies provided by law, institute injunction, mandamus, abatement, or other appropriate action or proceeding to prevent or enjoin or abate or remove such unlawful erection, construction, alteration or reconstruction.

AUTHORIZATION OF CO-OPERATIVE REGIONAL PLANNING

Chapter 53, Sections 37-38, Revised Laws of New Hampshire, 1942

Note: Under the provisions of this section town, city and village district planning boards may form a regional planning board on a co-operative basis, in order to more satisfactorily study regional problems and needs, and to prepare plans for those phases of development which are broader than a single community in their importance.

CO-OPERATIVE REGIONAL PLANNING BOARDS

37. The planning boards of one or more municipalities are hereby empowered to co-operate in the creation of a regional planning board for the making of a regional plan for the region defined as may be agreed upon by the said municipal planning boards. The number of members of such regional planning board and their method of appointment shall be such as may be agreed upon by the said municipal planning boards. Within the amount appropriated by council expressly for this specific purpose, a municipal planning board, thus co-operating with others, may be authorized to assume and pay an appropriate share in the costs of maintaining such regional planning board and such of its proposed undertakings as council may instruct the municipal planning board to participate in financially as well as otherwise. Within these limitations, and others that may be established by the municipalities concerned, the said regional planning board shall have authority to maintain such office, to employ such employees or contract with such engineers and experts as it may deem necessary.

38. **Saving Clause.** The invalidity of any provision hereof shall not affect the validity of any other provision.

COMMUNITY ZONING ENABLING ACT

Chapter 51, Sections 50-71, Revised Laws of New Hampshire, 1942. Section 53 amended by Chapter 110, Laws of 1949. Sections 64 and 65 amended by Chapter 278, Laws of 1949.

ZONING REGULATIONS

Section 50. **Grant of Power.** For the purpose of promoting health, safety, morals, or the general welfare of the community, the legislative body of any city or town is empowered to regulate and restrict the height, number of stories and size of buildings and other structures, the percentage of lot that may be occupied, the size of yards, courts and other open spaces, the density of population and the location and use of buildings, structures and land for trade, industry, residence or other purposes.

Note: Your attention is called to line three of Section 50, "the legislative body of a city or town is empowered." The statute specifically excludes Village Districts (Precincts) from the authority to zone. Village Districts, in order to enact zoning, must first seek special enabling legislation from the General Court. Hanover, Rye Beach, Hampton Beach, Little Boar's Head and Meredith Precincts have been given such special authority.

Section 51. **Districts.** For any or all of said purposes the local legislative body may divide the municipality into districts of such number, shape and area as may be deemed best suited to carry out the purposes hereof; and within such districts it may regulate and restrict the erection, construction, reconstruction, alteration, repair, or use of buildings, structures, or land. All such regulations shall be uniform for each class or kind of buildings throughout each district, but the regulations in one district may differ from those in other districts.

Section 52. **Purposes in View.** Such regulations shall be made in accordance with a comprehensive plan and designed to lessen congestion in the streets; to secure safety from fire, panic and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements. Such regulations shall be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout such municipality. A regulation made under this subdivision shall not apply to existing structures nor to the existing use of any building, but it shall apply to any alteration of a building for use for a purpose or in a manner substantially different from the use to which it was put before alteration. A building used or to be used by a public service corporation may be exempted from the operation of any regulation made under this subdivision, if upon petition of the corporation the public service commission shall after a public hearing decide that the present or proposed situation of the building in question is reasonably necessary for the convenience or welfare of the public.

Section 53. **Method of Enactment.** The legislative body of such municipality shall provide for the manner in which such regulations and restrictions and the boundaries of such districts shall be determined, established and enforced,and from time to time amended. No such regulation, restriction or boundary shall become effective or be altered until after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. At least fifteen days' notice of the time and place of such hearing shall be published in a paper of general circulation, in such municipality; provided, however, that in cases where the legislative body is a town meeting, notices and hearings as provided in the two preceding sentences shall not be required if the warrant for the town meeting at which the matter is to be considered shall contain an article stating what regulations, restrictions and boundaries are to be acted upon.

Section 54. **Changes in Regulations, etc.** Such regulations, restrictions and boundaries may from time to time be amended or repealed. In case of a protest against such change, signed by the owners of 20 per cent either of the area of the lots included in such proposed change, or of those immediately adjacent in the rear thereof extending one hundred feet therefrom, or of those directly opposite thereto extending one hundred feet from the street frontage of such opposite lots, such amendment shall not become effective except by the favorable vote of three fourths of all the members of the legislative body of such municipality.

Section 55. **Zoning Commission.** Such legislative body shall appoint a zoning commission, to recommend the boundaries of the various original districts and appropriate regulations to be enforced therein. Such commission shall make a preliminary report and hold public hearings thereon before submitting its final report, and such legislative body shall not hold its public hearings or take action until it has received the final report of such commission.

Section 56. **Board of Adjustment.** Such local legislative body shall provide for the appointment of a board of adjustment, and in regulations and restrictions adopted pursuant to the authority hereof shall provide that the said board may, in appropriate cases and subject to appropriate conditions and safeguards, make special exceptions to the terms of the ordinance in harmony with its general purpose and intent and in accordance with general or specific rules therein contained.

Section 57. **Members of Board; Term, Vacancies.** The board of adjustment shall consist of five members. When the board is first organized, one member shall be appointed to serve for one year, one for two years, one for three years, one for four years, and one for five years, and thereafter the appointing authority shall annually appoint one member for a term of five years. Said members shall be removable by the appointing authority upon written charges and after public hearing. Vacancies shall be filled for the unexpired term.

Section 58. **Meetings of Board, etc.** The board shall adopt rules in accordance with the provisions of the ordinances. Meetings of the board shall be held at the call of the chairman and at such other times as the board may determine. Such chairman, or in his absence the acting chairman, may administer oaths and compel the attendance of witnesses. All meetings of the board shall be open to the public. The board shall keep minutes of its proceedings, showing the vote of each member upon each question, or, if absent or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall be immediately filed in the office of the board and shall be a public record.

Section 59. **Appeals to Board.** Appeals to the board of adjustment may be taken by any person aggrieved or by any officer, department, board, or bureau of the municipality affected by any decision of the administrative officer. Such appeal shall be taken within a reasonable time, as provided by the rules of the board, by filing with the officer from whom the appeal is taken and with the board a notice of appeal specifying the grounds thereof. The officer from whom the appeal is taken shall forthwith transmit to the board all the papers constituting the record upon which the action appealed from was taken.

Section 60. **Effect of Appeal.** An appeal stays all proceedings under the action appealed from, unless the officer from whom the appeal is taken certifies to the board of adjustment after notice of appeal shall have been filed with him that by reason of facts stated in the certificate a stay would, in his opinion, cause imminent peril to life or property. In such case proceedings shall not be stayed otherwise than by a restraining order which may be granted by the board or by the superior court on notice to the officer from whom the appeal is taken and cause shown.

Section 61. **Appeals to Board: Notice of Hearing.** The board of adjustment shall fix a reasonable time for the hearing of the appeal, give public notice thereof, as well as notice to the parties in interest, and decide the same

within a reasonable time. Upon the hearing any party may appear in person or by agent or attorney.

Section 62. **Powers of Board.** The board of adjustment shall have the following powers:

I. To hear and decide appeals where it is alleged there is error in any order, requirement, decision, or determination made by an administrative official in the enforcement hereof or of any ordinance adopted pursuant thereto.

II. To hear and decide special exceptions to the terms of the ordinance upon which such board is required to pass under such ordinance.

III. To authorize upon appeal in specific cases such variance from the terms of the ordinance as will not be contrary to the public interest, where, owing to special conditions, a literal enforcement of the provisions of the ordinance will result in unnecessary hardship, and so that the spirit of the ordinance shall be observed and substantial justice done.

IV. In exercising the above-mentioned powers such board may, in conformity with the provisions hereof, reverse or affirm, wholly or partly, or may modify the order, requirement, decision, or determination appealed from and may make such order, or decision, as ought to be made, and to that end shall have all the powers of the officer from whom the appeal is taken.

V. The concurring vote of three members of the board shall be necessary to reverse any action of such administrative official, or to decide in favor of the applicant on any matter upon which it is required to pass under any such ordinance, or to effect any variation in such ordinance.

Section 63. **Disqualification of Board Member.** No member of the board of adjustment shall sit upon the hearing of any question which the board is to decide in a judicial capacity who would be disqualified from any cause, except exemption from service and knowledge of the facts involved gained in the performance of his official duties, to act as a juror upon the trial of the same matter in any action at law. If a member shall be disqualified or unable to act in any particular case pending before the board the appointing authority, upon application of the board, shall appoint a member to act in his place upon said case.

Section 64. **Motion for Rehearing.** Within twenty days after any order or decision of the board of adjustment, or any decision of the legislative body of such municipality in regard to its plan of zoning, any party to the action or proceedings, or any person directly affected thereby, may apply for a rehearing in respect to any matter determined in the action or proceeding, or covered or included in the order, specifying in the motion for rehearing the ground therefor, and the board of adjustment, or the legislative body of such municipality, may grant such rehearing if in its opinion good reason therefor is stated in said motion. If the decision complained against is that made by a town meeting, the application for rehearing shall be made to the board of selectmen and upon receipt of such application, the board of selectmen shall call a special town meeting if in the opinion of said board good reason for a rehearing is stated in the motion.

Section 65. **Specifications.** Such motion shall set forth fully every ground upon which it is claimed that the decision or order complained of is unlawful or unreasonable. No appeal from any order or decision of the board of adjustment or legislative body of such municipality shall be taken unless the appellant shall have made application for rehearing as herein provided, and when such application shall have been made, no ground not set forth therein shall be urged, relied on, or given any consideration by the court, unless the court for good cause shown shall allow the appellant to specify additional grounds.

Section 65-a. **Action on Motion.** Upon the filing of such motion for rehearing the board of adjustment or the legislative body of a city shall within ten days either grant or deny the same, or suspend the order or decision complained of pending further consideration and any order of suspension may be upon such terms and conditions as the board of adjustment or legislative body of a city may prescribe.

In case the motion for a rehearing is against a decision of the legislative body of a town, and if the selectmen, as provided in section 64, shall have called a special town meeting within 25 days from the receipt of application for such rehearing, the town shall grant or deny the same or suspend the order or decision complained of pending further consideration and any order of suspension may be upon such terms and conditions as the town may prescribe.

Section 65-b. **Appeal.** Within thirty days after the application for a rehearing is denied, or, if the application is granted, then within thirty days after the decision on such rehearing the applicant may appeal by petition to the superior court.

Section 65-c. **Burden of Proof.** Upon the hearing the burden of proof shall be upon the party seeking to set aside any order or decision of the board of adjustment or legislative body to show that the same is unreasonable or unlawful, and all findings of the board of adjustment or legislative body of such municipality upon all questions of fact properly before it shall be deemed to be prima facie lawful and reasonable; and the order or decision appealed from shall not be set aside or vacated, except for errors of law, unless the court is persuaded, by the balance of probabilities, on the evidence before it, that said order or decision is unjust or unreasonable.

Section 65-d. **Parties.** Any person whose rights may be directly affected by said appeal may appear and become a party, or the court may order such persons to be joined as parties as justice may require.

Section 65-e. **Procedure.** Upon the filing of an appeal, the clerk of the court shall issue an order of notice requiring a certified copy of the record in the matter appealed from to be filed with the court.

Section 65-f. **Injunction.** The filing of an appeal shall not stay proceedings upon the decision appealed from, but the court on application and notice, on good cause shown, may grant a restraining order.

Section 65-g. **Evidence, How Considered.** All evidence transferred by the board of adjustment or legislative body of such municipality shall be, and all additional evidence received may be, considered by the court regardless of any technical rule which might have rendered the same inadmissible if originally offered in the trial of an action at law.

Section 65-h. **Judgment.** The final judgment upon every appeal shall be a decree dismissing the appeal, or vacating the order complained of in whole or in part, as the case may be; but in case such order is wholly or partly vacated the court may also, in its discretion, remand the matter to the board of adjustment or legislative body of such municipality for such further proceedings, not inconsistent with the decree, as justice may require.

Section 66. **Appeals to Court: Certifying Record.** An order of court to send up the record may be complied with by filing either the original papers or duly certified copies thereof, or of such portions thereof as the order may specify, together with a certified statement of such other facts as show the grounds of the action appealed from.

Section 67. **Appeals to Court: Hearing, etc.** The court may take evidence or appoint a referee to take such evidence as it may direct and report the same with his findings of fact and conclusions of law.

Section 68. **Appeals to Court: Costs.** Costs shall not be allowed against the board unless it shall appear to the court that it acted with gross negligence, or in bad faith, or with malice in making the decision appealed from.

Section 69. **Speedy Hearing.** All proceedings under this subdivision shall be entitled to a speedy hearing.

Section 70. **Remedies for Violations.** In case any building or structure is erected, constructed, reconstructed, altered, repaired, converted, or maintained, or any building, structure, or land is used in violation hereof or of any ordinance or other regulation made under authority conferred hereby, the proper local authorities of the municipality, in addition to other remedies, may institute any appropriate action or proceedings to prevent such unlawful action to restrain, correct, or abate such viola-

tion, to prevent the occupancy of the building, structure or land, or any illegal act or use in or about such premises.

Section 71. **Conflicting Provisions.** Whenever the regulations made under the authority hereof differ from those prescribed by any statute, ordinance, or other regulation, that provision which imposes the greater restriction or the higher standard shall govern.

AIRPORT ZONING ACT

Chapter 51, Sections 78-87, Revised Laws of New Hampshire, 1942. As amended by Chapter 53, Laws of 1949.

78. **Definitions.** As used in this subdivision unless the context otherwise requires:

I. "Airport" means any area of land or water designed for the landing and taking-off of aircraft and utilized or to be utilized by the public as a point of arrival or departure by air.

II. "Airport hazard" means any structure or tree which obstructs the aerial approaches of a publicly-owned airport.

III. An airport is "publicly-owned" if the portion thereof used for the landing and taking-off of aircraft is owned by a governmental body, political subdivision, public agency, or other public corporation.

IV. "Director" means the New Hampshire aeronautics commission.

V. "Person" means any individual, firm, co-partnership, corporation, company, association, joint stock association or body politic, and includes any trustee, receiver, assignee, or other similar representative thereof.

VI. "Structure" means any object constructed or installed by man, including such objects although regulated or licensed by other provisions of law.

VII. "Tree" means any object of natural growth.

79. **Airport Hazards not in Public Interest.** It is hereby found and declared that an airport hazard endangers the lives and property of users of the airport and of occupants of land in its vicinity, and also, if of the obstruction type, in effect reduces the size of the area available for the landing, taking-off and maneuvering of aircraft, thus tending to destroy or impair the utility of the airport and the public investment therein, and is therefore not in the interest of the public health, public safety, or general welfare.

80. **Preparation of Airport-Approach Plans.** The director is hereby empowered and directed to formulate and adopt, and from time to time as may be necessary revise, an airport-approach plan for each publicly-owned airport in the state. Each such plan shall indicate the circumstances in which structures and trees are or would be airport hazards, the area within which measures for the protection of the airport's aerial approaches should be taken, and what the height limits and other objectives of such measures should be. In adopting or revising any such plan, the director shall consider, among other things, the character of the flying operations expected to be conducted at the airport, the nature of the terrain, the height of existing structures and trees above the level of the airport, and the practicability of lowering or removing existing obstructions, and all other material matters, and the director may obtain and consider the views of the agency of the federal government charged with the fostering of civil aeronautics, as to the aerial approaches necessary to safe flying operations at the airport.

80-a. **Privately-owned Airports.** The director is hereby empowered and directed to formulate and adopt, and from time to time as may be necessary revise, an airport approach plan for such airports as are privately owned but which have been licensed for commercial operation, have facilities available for public use and are necessary in the opinion of the director for the maintenance of an effective airway system in the state. Every privately-

owned airport so designated by the director is hereby declared to be eligible for zoning protection and for the purposes hereof shall be deemed to be a publicly-owned airport for the purposes of airport zoning, as provided in sections 78 to 87, inclusive.

81. **Adoption of Airport Zoning Regulations.**

I. Every town having within its territorial limits an area within which, according to an airport-approach plan adopted by the director, measures should be taken for the protection of airport approaches, shall adopt, administer, and enforce, under the police power and in the manner and upon the conditions hereinafter prescribed, airport zoning regulations applicable to such area, which regulations shall divide the area into zones, and, within such zones, specify the land uses permitted, and regulate and restrict the height to which structures and trees may be erected or allowed to grow, as may be necessary to effectuate the director's approach plan for the airport.

II. In the event that a town has adopted, or hereafter adopts, a general zoning ordinance regulating, among other things, the height of buildings, any airport zoning regulations adopted for the same area or portion thereof under this subdivision, may be incorporated in and made a part of such general zoning regulations, and be administered and enforced in connection therewith, but such general zoning regulations shall not limit the effectiveness or scope of the regulations adopted hereunder.

III. Any zoning or other regulations applicable to any area within which, according to an airport-approach plan adopted by the director, measures should be taken for the protection of airport approaches, including not only any airport zoning regulations adopted under this subdivision but any zoning or other regulations dealing with the same or similar matters, that have been or may be adopted under authority other than that conferred by this subdivision, shall be consistent with, and conform to, the director's approach plan for such area, and shall be amended from time to time as may be necessary to conform to any revision of the plan that may be made by the director.

IV. All airport zoning regulations adopted hereunder shall be reasonable, and none shall require the removal, lowering, or other change or alteration of any structure or tree not conforming to the regulations when adopted or amended, or otherwise interfere with the continuance of any non-conforming use, except as provided in paragraph I of section 82.

V. If any city or town fails to adopt within a reasonable time airport zoning regulations the director may, for the protection of the public safety, adopt and from time to time as may be necessary amend or repeal such regulations for such city or town until airport zoning regulations herein provided for are adopted by such city or town.

82. **PERMITS AND VARIANCES**

I. **Permits.** Where advisable to facilitate the enforcement of zoning regulations adopted pursuant to this subdivision, a system may be established for granting permits to establish or construct new structures and other uses and to replace existing structures and other uses or make substantial changes therein or substantial repairs thereof. In any event, before any non-conforming structure or tree may be replaced, substantially altered or repaired, rebuilt, allowed to grow higher, or replanted, a permit must be secured from the administrative agency authorized to administer and enforce the regulations, authorizing such replacement, change or repair. No such permit shall be granted that would allow the structure or tree in question to be made higher or become a greater hazard to air navigation than it was when the applicable regulation was adopted; and whenever the administrative agency determines that a non-conforming structure or tree has been abandoned or more than eighty per cent torn down, destroyed, deteriorated, or decayed: (a) no permit shall be granted that would allow said structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations but a permit shall be issued as of right if the structure as erected or altered is in conformance

with the regulations or will not constitute a greater hazard than the structure that is replaced or altered; and (b) whether application is made for a permit under this paragraph or not, the said agency may by appropriate action compel the owner of the non-conforming structure or tree to lower, remove, reconstruct, or equip such object as may be necessary to conform to the regulations. Except as indicated, all applications for permits for replacement, change or repair of non-conforming uses shall be granted.

II. **Variances.** Any person desiring to erect any structure, or increase the height of any structure, or permit the growth of any tree, or otherwise use his property, in violation of airport zoning regulations adopted hereunder, may apply to the board of appeals, as provided herein, for a variance from the zoning regulations in question. Such variances shall be allowed where a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest but do substantial justice and be in accordance with the spirit of the regulations.

III. **Obstruction Marking and Lighting.** In granting any permit or variance under this section, the administrative agency or board of appeals may, if it deems such action advisable to effectuate the purposes hereof and reasonable in the circumstances, so condition such permit or variance as to require the owner of the structure or tree in question to permit the political subdivision, at its own expense, to install, operate, and maintain suitable obstruction markers and obstruction lights thereon.

83. **PROCEDURE.**

I. **Adoption of Zoning Regulations.** No airport zoning regulations shall be adopted, amended, or changed hereunder except by action of the legislative body of the town in question, after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. At least fifteen days' notice of the hearing shall be published in an official paper, or a paper of general circulation, in the political subdivision.

II. **Administration of Zoning Regulation; Administrative Agency.** The legislative body of any town adopting airport zoning regulations hereunder may delegate the duty of administering and enforcing such regulations to any administrative agency under its jurisdiction, but such administrative agency shall not be or include any member of the board of appeals. The duties of such administrative agency shall include that of hearing and deciding all permits under paragraph I of section 82, but such agency shall not have or exercise any of the powers delegated to the board of appeals.

III. **Board of Appeals.** Airport zoning regulations adopted hereunder shall provide for appointment of a board of appeals to have and exercise the following powers.

(a). To hear and decide appeals from any order, requirement, decision, or determination made by the administrative agency in the enforcement of this subdivision or of any ordinance adopted pursuant thereto;

(b) To hear and decide special exceptions to the terms of the ordinance upon which such board may be required to pass under such ordinance;

(c) To hear and decide specific variances under paragraph II of section 82.

Where a zoning board of adjustment already exists, it may be appointed as the board of appeals. Otherwise, the board of appeals shall consist of five members, each to be appointed for a term of three years and to be removable for cause by the appointing authority upon written charges and after public hearing.

84. **Applications of Laws.** The powers and duties of the board of adjustment as set forth in sections 58 to 68, inclusive, of this chapter, shall apply to the board of appeals hereunder and the procedure for appeals as set forth in said sections shall be applicable to appeals under the provisions hereof.

85. **Enforcement and Remedies.** Each violation of this subdivision or of any regulation, order, or ruling promulgated or made pursuant thereto, shall constitute a misdemeanor and shall be punishable by a fine of not more than twenty-five dollars or imprisonment for not more than sixty days or by both such fine and imprisonment, and each day a violation continues to exist shall constitute a separate offense. In addition, either the town within which the property is located or the director may institute in any court of competent jurisdiction, an action to prevent, restrain, correct or abate any violation hereof, or of airport zoning regulations adopted hereunder, or of any order or ruling made in connection with their administration or enforcement, and the court shall adjudge to the plaintiff such relief, by way of injunction (which may be mandatory) or otherwise, as may be proper under all the facts and circumstances of the case, in order fully to effectuate the purpose of this subdivision and of the regulations adopted and orders and rulings made pursuant thereto.

86. **Acquisition of Air Rights.** In any case in which: (1) it is desired to remove, lower, or otherwise terminate a non-conforming use; or (2) the approach protection necessary according to the director's airport-approach plan cannot, because of constitutional limitations, be provided by airport zoning regulations hereunder; or (3) it appears advisable that the necessary approach protection be provided by acquisition of property rights rather than by airport zoning regulations, the town within which the property or non-conforming use is located, the town owning the airport or served by it, or the governor and council, upon recommendation of the director, may acquire, by purchase, grant, or condemnation in the manner provided by law by which towns or the governor and council are authorized to acquire real property for public purposes, such an air right, easement, or other estate or interest in the property or non-conforming use in question, and so may acquire a substitute property, structure and easement and convey the same to anyone whose structures, easements and property are or may be a non-conforming use, as may be necessary to effectuate the purposes hereof.

87. **Severability.** If any provision of this subdivision or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end the provisions of this subdivision are declared to be severable.

MUNICIPAL BUDGET ACT

Chapter 52, Sections 1-6 Revised Laws of New Hampshire, 1942. Amended, Chapters 80, 159, Laws of New Hampshire, 1943.

1. **Adoption.** On petition of ten legal voters in any town, the selectmen of that town shall insert in the warrant for the annual town meeting the following article: "To see if the town will vote to adopt the provisions of the Municipal Budget Law." If the majority of those present and voting at said meeting vote by ballot for its adoption, the law shall remain in force until rescinded by a majority vote at a regular town meeting.

2. **Budget Committee.** The budget committee shall consist of three, six, nine or twelve members at large as the meeting adopting the provisions hereof shall by vote determine and one member chosen by the school board of each school district in said town and one member of the board of selectmen to be designated by said board. The members at large may either be appointed by the moderator or elected by the town meeting as said meeting may by vote determine. The majority of the members at large shall be property taxpayers. If said members at large are selected by election it shall be by a majority vote by ballot or acclamation of those present and voting. Where said members at large are appointive such appointment shall be made within thirty days after the adoption of this law by the town meeting. One third of the members at large so elected or appointed shall hold office for one year, one third for two years, and one third for three years and until their successors are elected and qualified. Vacancies shall be filled in accordance with the vote of the town. The members selected by the school board and the selectmen shall

hold office for one year and until their successors are elected and qualified.

3. **Preparation of Budget.** It shall be the duty of the budget committee to prepare a budget according to forms prescribed by the tax commission for town and school expenditures, and for this purpose to hold public hearings, notice of which shall be given at least seven days in advance. The budget committee shall consult the selectmen, school board, and other town officers and departments as to the costs of government, revenue anticipated, and services performed, and it shall be the duty of any town or school officer or employee to furnish information required by said committee. It shall also be the duty of all boards of selectmen and of school boards to prepare and submit to the budget committee of the town an itemized statement of expected receipts and expenditures for the ensuing year at such time as said budget committee shall fix. When completed the budget shall be printed in the town report or separately and distributed or published in some newspaper printed or circulated in said town at least one week before the town or school meeting. If any town, having adopted the provisions hereof, shall fail to elect or appoint a budget committee, the selectmen shall perform the duties of said committee.

4. **Limitation.** So long as the provisions of this chapter shall remain in force in any town the total amount appropriated at any annual meeting shall not exceed by more than ten percent the total amount specified in the budget for said meeting, and no appropriation shall be made for any purpose not included in said budget, provided, however, that the budget committee may also submit, without approval items which they do not wish to recommend but which they believe the voters should be allowed to consider and act upon, either favorably or unfavorably. Money may be raised and appropriated for such items, but not to an amount which would increase the total appropriations, as recommended by the budget committee, by more than the ten percent allowed hereunder.

5. **Exceeding Appropriations.** In towns adopting the provisions of this chapter, no board of selectmen, school board, or other spending agency shall pay or agree to pay any money or incur any liability involving the expenditure of money for any purpose for which an appropriation has not been made, or in excess of any appropriation or allotment made to it except for the purpose of paying judgments rendered against a town or school district, provided, however, that in case of sudden and unexpected emergency the selectmen may on application to the tax commission and the school board on application to the state board of education after hearing be given a certificate of emergency authorizing them to make such expenditure or incur such liability; provided, further, that in cases arising during the year following a town meeting where changes occur which make it unnecessary to use the amount appropriated for a specific purpose, an unexpended balance may be transferred by boards of selectmen or school boards from one appropriation to another, provided the total amount expended for all purposes does not exceed the total amount appropriated at town or school meetings for all purposes.

5-a. **Authority of Budget Committee.** In any town which has adopted the provisions of the municipal budget law, in addition to its other duties hereunder, the budget committee shall prepare a budget for any village district or precinct wholly within the boundaries of said town. The limitations upon town appropriations, provided by this chapter, shall apply to appropriations for said districts or precincts and the commissioners of any such district or precinct shall be subject to the provisions of this chapter as other spending agencies of said town. In case of sudden and unexpected emergency the commissioners may apply to the tax commission for a certificate of emergency, as selectmen may do in the case of a town.

6. **Penalty.** Any person or persons violating the provisions of the preceding section shall be subject to removal from office on proper petition brought before the superior court. Such petition shall take precedence of other actions pending in said court, and shall be heard and decided as speedily as possible.

COMMUNITIES IN NEW HAMPSHIRE WITH ACTIVE PLANNING BOARD OR WHICH HAVE ADOPTED ZONING ORDINANCE AS OF NOVEMBER 1949

Town	Planning Board	Zoning Ordinance
Amherst		X
Atkinson	X	X and Building Code
Berlin	X	
Bethlehem		X
Bradford	X	
Concord	X	X
Derry		X
Dover	X	X
Durham	X	X
Enfield	X	
*Fitzwilliam	X	
Franconia	X	X
Fremont	X	X
Gilford	X	
Goffstown	X	
Greenfield		X
Greenland		Building Ordinance
Hampstead	X	
Hampton	X	X
**Hampton Beach		X
Hanover	X	X
**Hanover Village Precinct		X
Hill	X	X
Hollis	X	X
Hudson	X	X
Jaffrey	X	
Keene	X	X
Laconia	X	X
**Lancaster		X
Lebanon		X
**Little Boars Head		X
Littleton		X
Madbury	X	
Madison	X	
Manchester	X	X
**Meredith	X	
Milford	X	X
Monroe	X	X
Nashua		X
Newbury		X
New Boston	X	
New London	X	
Newport	X	
North Hampton		X
Peterborough	X	
Plaistow		X
Portsmouth	X	X
Rindge		X
Rochester	X	
**Rye (Rye Beach District)		X
Seabrook	X	
Stratham	X	X
Walpole		X
Warner	X	X
Washington	X	
Wentworth	X	
Wilton	X	
Winchester	X	
Windham	X	
Wolfeboro	X	X

*Not an official town planning board.
**Created by Village District or Special Precinct by special legislative act.