

# **Chapter 1**

# **DEMOGRAPHICS, HOUSING, AND GROWTH MANAGEMENT**

The Demographics, Housing, and Growth Management chapter of the Durham Master Plan provides an analysis of the population of Durham, an inventory of housing stock, and recommendations on how to manage growth in population and housing development. Selected population characteristics are presented to identify growth patterns and future demand for housing.

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## **DEMOGRAPHICS**

### **CURRENT POPULATION AND HISTORIC POPULATION GROWTH RATE**

The population of Durham is unique in comparison to other communities in the region. Durham is home to the University of New Hampshire (UNH). Therefore the population consists of both year-round residents and UNH students living on and off campus. Consequently, over half of the population of Durham falls within ages 18 to 24 (see Table 1.1), and Durham's population is very susceptible to fluctuations in the enrollment of the University.

Table 1.2 gives the population breakdown for Durham based on housing types. From this table, one can estimate the number of full-time, year-round residents living in Durham, as opposed to the more transient student population. If an assumption is made that all occupants of "group quarters," that is dormitories and Greek Housing, and of multi-unit

residences are UNH students, then Durham’s full-time, year-round resident population is estimated to be between 5,000 to 6,000 people (a very rough approximation). Thus, approximately 62% of Durham’s population is University students, leaving a relatively small population base to support the level of services provided in the community.

**Table 1.1. AGE DISTRIBUTION IN DURHAM: 1990**

Age Group	Number of Residents	Percent of Population
under 5 yrs	305	3%
5 to 17 yrs	928	8%
18 to 24 yrs*	6,905	58%
25 to 34 yrs	858	7%
35 to 44 yrs	942	8%
45 to 54 yrs	682	6%
55 to 64 yrs	521	4%
65 yrs and older	677	6%
<b>Total</b>	<b>11,818</b>	<b>100%</b>

\*Due to UNH Students

Source: 1990 Census

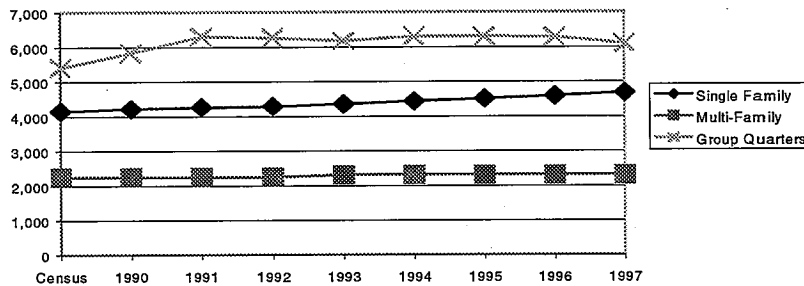
The Town of Durham has experienced steady growth since 1990. The 1990 Census recorded the population of Durham at 11,818; however this total is based on data collected prior to the end of 1990. Using the Office of State Planning’s methodology, the estimated population for Durham at the end of 1990 was 12,294. The Planning Department estimates that Durham’s population in 1998 was 13,265. This figure was reached using the NH Office of State Planning’s model, which factors housing unit totals from the 1990 Census and building permit data from the Durham Annual Reports. The estimated household populations and vacancy rates for single-family and multi-unit housing from the 1990 Census were multiplied by the number of units to determine the population in traditional housing. The group quarters populations were obtained from UNH and added to the total to factor in the on-campus and the fraternity and sorority population.

Durham has experienced an annual population increase of 1.0% since the 1990 Census. However, the table and graph below show that the increase in Durham’s population that has occurred in group quarters (UNH students) during this eight year period is less than 1%. Excluding the

group quarters population growth, the growth rate in Durham from 1990 to 1997 is 1.2%, as compared to the regional average of 0.8% for that time period. Regional figures for 1998 were not available at the time this chapter was prepared.

**Table 1.2. DURHAM'S POPULATION BY HOUSING TYPE**

	1990 (year end)	1991	1992	1993	1994	1995	1996	1997	1998	Annual Increase
Group Quarters	5,826	6,297	6,261	6,174	6,306	6,297	6,285	6,094	6,141	0.7%
Manufactured	11	11	11	11	11	11	11	11	11	0%
Multi-Unit	2,248	2,248	2,248	2,309	2,309	2,309	2,309	2,309	2,309	0.3%
Single Family	4,210	4,263	4,291	4,355	4,431	4,515	4,588	4,680	4,804	1.8%
<b>Total</b>	<b>12,294</b>	<b>12,819</b>	<b>12,811</b>	<b>12,849</b>	<b>13,057</b>	<b>13,132</b>	<b>13,193</b>	<b>13,094</b>	<b>13,265</b>	<b>1.0%</b>



**Table 1.3. DURHAM POPULATION AND UNIVERSITY ENROLLMENT GROWTH**

Years	Durham		UNH	
	Population Percent Increase	Average Annual Growth Rate	Enrollment* Percent Increase	Average Annual Growth Rate
1950 - 1960	16.6%	1.7%	13.6%	1.4%
1960 - 1970	61.1%	6.1%	119.4%	11.9%
1970 - 1980	20.1%	2.0%	24.0%	2.4%
1980 - 1990	15.4%	1.5%	4.6%	0.5%
1990 - 1998	7.9%	1.0%	3.4%	0.3%

Source: U.S. Census, Durham Planning Population Est., UNH Institutional Research

\*Enrollment is a "head count" of bachelors, associate/special, and graduate degree candidates, not Full-Time Equivalent (FTE)

Durham's recent population growth rate is similar to, and in fact less than, Durham's historic growth rates as shown in Table 1.3.

## POPULATION PROJECTIONS FOR DURHAM

Population projections for any community are a difficult task, but it is made much more difficult for Durham due to the transient and fluctuating University population. Thus, several methods were used to estimate the potential future population for Durham.

The first population projection method uses Durham's average annual growth rate in building permits since 1980 (2.39%) and continues this rate over time. The result is shown in Table 1.5. As seen in Table 1.5, Durham's population has been projected to increase to over 14,000 people in 2005, to over 15,000 people in 2012, and to over 16,000 people in 2017. Using the current zoning as a baseline, a complete build-out of the community would occur around the year 2028 (see Durham Build-Out Map and Table 1.4), and at this build-out there are projected to be an additional 1,768 housing lots.

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**Table 1.4. RESIDENTIAL BUILD-OUT PROCESS AND ASSUMPTIONS**

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The Durham Build-Out Map is an estimate of how the Town of Durham may look if all parcels were developed to their full potential under current regulations. The subdivisions were determined by taking into account Durham's zoning districts and subdivision regulations, and shoreline and wetlands setbacks. The wetlands were determined using the Strafford County Soil Survey. Site specific soil surveys may show more or less wetlands on a particular parcel.

There is a total of 1768 new single family units possible, 1508 of them in new subdivisions. These numbers are only an estimate. None of the subdivisions have been approved, and there is no guarantee that any of these subdivisions could be approved exactly as shown.

**Assumptions:**

- ◆ Landlocked parcels have an easement allowing access for 1 dwelling.
- ◆ Driveways can be built over poorly drained soils, not over very poorly drained soils.
- ◆ Pork-chop lots can be created at the end of new cul-de-sacs in the R and RC zones.
- ◆ 25% of minimum lot size can be poorly drained soil, therefore, in R and RC zones up to 30,000 sq.ft. of the minimum lot size can be poorly drained soil.
- ◆ Development of parcels with continuous ownership in Newmarket or Lee will be approved by the respective Planning Boards.

# Durham Master Plan 2000

## Durham Build-Out Map



### Town of Durham Residential Buildout Analysis Estimate

This buildout analysis is an estimate of how the Town of Durham may look if all parcels were developed to their full potential under current regulations. The subdivisions were determined by taking into account Durham's Zoning Ordinance and Subdivision Regulations. The wetlands were determined using the Strafford County Soil Survey. Site specific soil surveys may show more or less wetlands on a particular parcel.

There is a total of 1,765 new single family lots shown, 1,508 of them in new subdivisions. These numbers are only an estimate. None of the subdivisions have been approved, and there is no guarantee that any of these subdivisions could be approved exactly as shown.

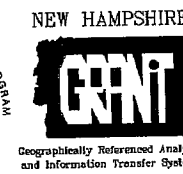
**Assumptions:**

- 1 additional parcel has an easement allowing access for 1 dwelling.
- Driveways can be built over poorly drained soils, not over very poorly drained soils.
- Porchstep lots can be created at the end of new cul-de-sacs in the R and RC zones.
- 25% of minimum lot size can be poorly drained soil; therefore, in R and RC zones up to 30,000 sq. ft. of the minimum lot size can be poorly drained soil.
- Development of parcels with continuous ownership in Newmarket or Lee would be approved by the respective Planning Boards.

Prepared by the Department of Planning and Community Development - Marsh, 1999



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**Table 1.5. PROJECTED GROWTH FROM NEW, SINGLE-FAMILY CONSTRUCTION**

**Assumptions**

Average annual growth rate	2.39%
Average family size	3.0
1998 Housing unit total	1,714
OR students generated per unit Based on Build-Out Map	0.73

Year	Units per Year	Total Additional Units Since 1998	Total Units	Running Total Population Increase	Projected Total Population	Additional O.R. Students	Running Total O.R. Students
1999	41	41	1,755	123	13,218	30	30
2000	42	83	1,797	249	13,344	31	61
2001	43	126	1,840	378	13,473	31	92
2002	44	170	1,884	509	13,604	32	124
2003	45	215	1,929	645	13,740	33	157
2004	46	261	1,975	783	13,878	34	190
<b>2005</b>	<b>47</b>	<b>308</b>	<b>2,022</b>	<b>924</b>	<b>14,019</b>	<b>34</b>	<b>225</b>
2006	48	356	2,070	1,069	14,164	35	260
2007	49	406	2,120	1,218	14,313	36	296
2008	51	457	2,171	1,370	14,465	37	333
2009	52	509	2,223	1,526	14,621	38	371
<b>2010</b>	<b>53</b>	<b>562</b>	<b>2,276</b>	<b>1,685</b>	<b>14,780</b>	<b>39</b>	<b>410</b>
2011	54	616	2,330	1,848	14,943	40	450
2012	56	672	2,386	2,015	15,110	41	490
2013	57	729	2,443	2,186	15,281	42	532
2014	58	787	2,501	2,361	15,456	43	575
<b>2015</b>	<b>60</b>	<b>847</b>	<b>2,561</b>	<b>2,541</b>	<b>15,636</b>	<b>44</b>	<b>618</b>
2016	61	908	2,622	2,724	15,819	45	663
2017	63	971	2,685	2,912	16,007	46	709
2018	64	1,035	2,749	3,105	16,200	47	755
2019	66	1,101	2,815	3,302	16,397	48	803
<b>2020</b>	<b>67</b>	<b>1,168</b>	<b>2,882</b>	<b>3,504</b>	<b>16,599</b>	<b>49</b>	<b>852</b>
<b>2028</b>	Build-Out	<b>1,768</b>	<b>3,482</b>	<b>5,304</b>	<b>18,399</b>	<b>438</b>	<b>1,29</b>

**Notes:**

- \* Growth rate based on 1980-1998 Durham building permits.
- \* Average family size based on 1990 Census data.
- \* Full build-out of Durham does not occur until 2028, but areas within the utility service areas will presumably be developed before outlying areas.
- \* Population estimate assumes UNH population in Town stays at 1998 levels.

A second population projection methodology is one developed by the NH Office of State Planning (OSP), which prepares population projections for communities throughout the State. However, the base data for these projections is the population estimates prepared by the OSP, which Durham has found in the past to be quite erratic due to inconsistencies in the population estimated in group quarters. The population projection prepared by the Office of State Planning is shown in Table 1.6. The population estimated for Durham in the year 2000 by the OSP is actually lower than the population shown in the 1990 Census. Based upon the known growth in building permits and the increase in UNH students living on campus, this projection does not appear to be accurate. In addition, if one were to project the changes in the ORSD enrollment based upon this projection, it would show a decrease in enrollment from Durham rather than the increase that has been experienced since the early 1990s.

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**Table 1.6. OFFICE OF STATE PLANNING POPULATION PROJECTIONS FOR DURHAM**

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<u>Year</u>	<u>Population</u>
2000	11,805
2005	12,483
2010	12,737
2015	13,285
2020	13,894

*Source: Office of State Planning, October 1997*

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A final method for projecting Durham's population is to utilize the historic population trends for the community and project these trends over time using a logarithmic regression model. The results of this projection can be seen in Table 1.7.

The logarithmic projection shows a large increase in the Town's population in the near years, and a leveling out of the increase in the later years. Since this method estimates such an unrealistically large projected population increase in the near years, a projection of the impact on the ORSD student population from Durham was not prepared.

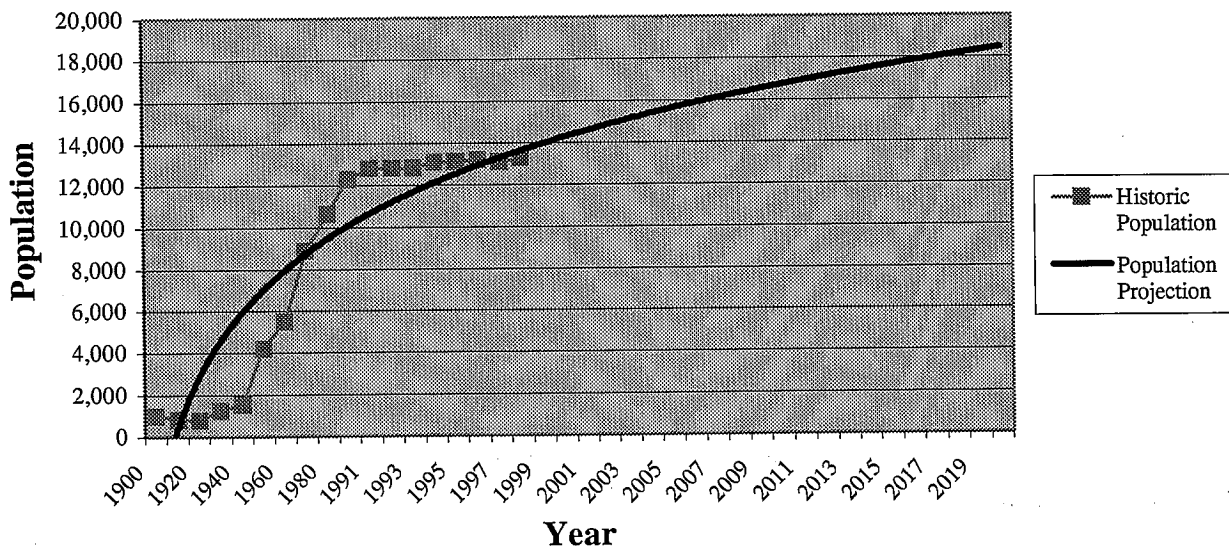
The OSP projection and logarithmic projection use past population increases to project future increases, and thus include population changes in Durham caused by increases in the UNH student population. The building-permit methodology assumes the University population will stay constant, and shows an increase only based upon year-round residents.

Thus, each of these methods is flawed in this, and many other ways. As noted earlier, the OSP population projection is far too conservative by showing a population decrease in Durham until the year 2000 and then a slow increase from that point forward. Thus, this is not likely a realistic scenario. The logarithmic projection is skewed to have a large increase in population in the near years that is not likely to occur, which then skews the population estimate for the later years to be higher than what is likely to occur. Thus, the most realistic estimate of the Town's population is likely to be the method that relies on the growth rate in building permits, even though this method does not include any growth caused by additional students at the University.

**Table 1.7. LOGARITHMIC POPULATION PROJECTION FOR DURHAM**

<u>Year</u>	<u>Population</u>
2000	14,200
2005	15,500
2010	16,700
2015	17,700
2020	18,400

**Logarithmic Population Projection for Durham**





The only information the Town has to estimate the impact by the University on the Town's population is the University's 1994 Campus Master Plan. In that Plan, UNH projected that its student enrollment would increase to 14,000 by the year 2010. This is a surprisingly small number, especially considering that the University is already at an enrollment of 13,472 in 1998 (see Table 1.8). Thus, projected growth by the University is likely to have little impact on the Town's population. However, the University is re-examining its Master Plan in the Year 2000 and the enrollment projections could be subject to change. Although the current projected enrollment growth is not likely to have a serious impact on Durham's population, the University's plans to house 60% of its enrollment in on-campus dorms is likely to have a greater impact on the Town's "group quarters" population. In 1998, the University housed approximately 41% of its enrolled students on-campus. Assuming a University projected enrollment of 14,000 students by 2010 and assuming that 60% of these students will be housed on campus, this would increase Durham's population within group quarters to 8,400. This is an increase of approximately 3,000 students in Durham's population from those housed on campus in 1998.

Durham should closely monitor the growth of the University enrollment and plan for impacts that may result from increased enrollments. UNH should keep the Town informed of changes in its enrollment projections so that coordinated planning can take place.

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**Table 1.8. UNH TOTAL FTE ENROLLMENT AND ON-CAMPUS OCCUPANCY**

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September	Semester I FTE Enrollment*	UNH On-Campus Capacity	UNH On-Campus Occupancy
1990	13,062	5,095	5,092
1991	13,513	5,435	5,647
1992	13,853	5,592	5,727
1993	13,905	5,580	5,640
1994	13,997	5,471	5,691
1995	14,182	5,605	5,678
1996	14,161	5,560	5,672
1997	13,899	5,583	5,564
1998	13,472	5,578	5,471

\* Full-Time Equivalent (FTE) calculation includes non-degree seeking students taking classes at UNH. 12 undergraduate credits or 9 graduate credits equal to 1 FTE student

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## **SCHOOL-AGE POPULATION**

Related to the change in population in the community, the Town's Oyster River School District (ORSD) enrollment has also increased. ORSD enrollment from the Town of Durham actually experienced a decrease from 1981 through 1988 (see Table 1.9). However, as the new families that moved into the Town during the mid-1980s matured and grew, so did Durham's school-age population, which has experienced a steady increase since the late 1980s. Durham's increase in students has been outpaced by the other two communities in the school district, Lee and Madbury (see Table 1.10). In contrast to Durham's enrollment, since 1980 Lee and Madbury have experienced average annual enrollment increases of 4.0% and 2.5%, respectively. Durham's rate of increase in the mid 1990s does raise some concern about facilities and costs; however, similar increases were also seen in the other towns. The percentage of ORSD students living in Durham was at an all-time high in 1980-1981 with 59.6% of the students from Durham, and it reached a low in 1996-1997 with 41.3% of the District's students living in Durham. Based on the population projections in the previous section, Durham is likely to see a steady increase in its ORSD student population.

**Table 1.9. DURHAM'S OYSTER RIVER SCHOOL DISTRICT ENROLLMENT**

Year	Number of Students	Number of New Students	Annual Change In Enrollment	Percent of Total Students
1955-1956	481	not available	not available	70.6%
1960-1961	604	123	5.1%	66.1%
1970-1971	1074	470	7.8%	71.1%
1980-1981	991	-83	-0.8%	59.6%
1981-1982	942	-49	-4.9%	59.1%
1982-1983	886	-56	-5.9%	57.8%
1983-1984	835	-51	-5.8%	55.5%
1984-1985	808	-27	-3.2%	54.1%
1985-1986	766	-42	-5.2%	50.7%
1986-1987	742	-24	-3.1%	50.0%
1987-1988	725	-17	-2.3%	49.0%
1988-1989	739	14	1.9%	47.9%
1989-1990	758	19	2.6%	46.3%
1990-1991	755	-3	-0.4%	44.2%
1991-1992	780	25	3.3%	43.6%
1992-1993	788	8	1.0%	42.2%
1993-1994	824	36	4.6%	42.0%
1994-1995	867	43	5.2%	41.6%
1995-1996	890	23	2.7%	42.1%
1996-1997	913	23	2.6%	41.3%
1997-1998	950	37	4.1%	42.8%
1998-1999	1005	55	5.8%	43.5%
1999-2000	1072	67	6.7%	45.5%

Source: Oyster River Long Range Planning Committee 07/31/98

**Table 1.10. OYSTER RIVER SCHOOL DISTRICT ENROLLMENT BY TOWN**

	Number of Students from Durham	Number of New Students from Durham	Change in Enrollment from Durham	Number of Students from Madbury	Number of New Students from Madbury	Change in Enrollment from Madbury	Number of Students from Lee	Number of New Students from Lee	Change in Enrollment from Lee
1980-1981	991	X	X	220	X	X	442	X	X
1981-1982	942	-49	-4.9%	215	-5	-2.3%	429	-13	-2.9%
1982-1983	886	-56	-5.9%	230	15	7.0%	411	-18	-4.2%
1983-1984	835	-51	-5.8%	232	2	0.9%	411	0	0.0%
1984-1985	808	-27	-3.2%	233	1	0.4%	422	11	2.7%
1985-1986	766	-42	-5.2%	248	15	6.4%	450	28	6.6%
1986-1987	742	-24	-3.1%	255	7	2.8%	450	0	0.0%
1987-1988	725	-17	-2.3%	240	-15	-5.9%	477	27	6.0%
1988-1989	739	14	1.9%	240	0	0.0%	524	47	9.9%
1989-1990	758	19	2.6%	257	17	7.1%	573	49	9.4%
1990-1991	755	-3	-0.4%	250	-7	-2.7%	650	77	13.4%
1991-1992	780	25	3.3%	264	14	5.6%	690	40	6.2%
1992-1993	788	8	1.0%	281	17	6.4%	732	42	6.1%
1993-1994	824	36	4.6%	290	9	3.2%	762	30	4.1%
1994-1995	867	43	5.2%	317	27	9.3%	813	51	6.7%
1995-1996	890	23	2.7%	319	2	0.6%	823	10	1.2%
1996-1997	913	23	2.6%	332	13	4.1%	876	53	6.4%
1997-1998	950	37	4.1%	336	4	1.2%	882	6	0.7%

Source: Oyster River Long Range Planning Committee 07/31/9

## EMPLOYMENT

Residents of Durham are primarily employed in two classes – State government workers (19.8% of the labor force), which is likely due to the University, and private, for-profit wage and salary workers (55.7% of the labor force). Of the labor force, the principal occupations are within the retail trade, 27.5% of residents (possibly due to the high student population), and educational services, 31.6% of residents (most of whom probably work for the University).

**Table 1.11. CLASSES OF EMPLOYMENT AMONG DURHAM RESIDENTS**

Classes of Employment	Number of Employees	Percent of Total
Private, for-profit wage and salary workers	3,009	55.7
Private, not-for-profit wage and salary workers	530	9.8
Local government workers	329	6.1
State government workers	1,070	19.8
Federal government workers	150	2.8
Self-employed workers	293	5.4
Unpaid family workers	18	0.3
<b>Total</b>	<b>5,399</b>	

Source: 1990 Census estimates

In 1994, the State Occupational Information Coordinating Committee (SOICC) estimated that 46.6% of Durham’s labor force works in Durham, with the remainder commuting outside of Town. This is consistent with, and within the margin of error for, the 1998 Master Plan Survey, which found that 40.3% of the labor force works within Durham. According to the Master Plan Survey, Portsmouth and Dover are the top two communities to which Durham’s labor force commutes, with 7.6% and 6.3% of the work force commuting to these cities, respectively.

Durham’s unemployment rate of 2.5% for the months of August through September of 1998 is slightly higher than the state and regional averages for this time period which are 2.0% and 2.1%, respectively (source: NH Employment Security). This slightly higher unemployment rate is likely due to UNH students looking for work. The stable employment rate for year-round Durham residents correlates with the high median household and median family incomes for Durham, compared to the rest of Strafford County (see Table 1.13). Durham’s low per capita income compared to the region is due to the significant population of UNH students

**Table 1.12. OCCUPATIONS OF DURHAM RESIDENTS**

<b>Occupations</b>	<b>Number of Employees</b>	<b>Percent of Total</b>
Agriculture, Forestry, and Fisheries	126	2.3%
Mining	0	0%
Construction	130	2.4%
Manufacturing, non-durable goods	154	2.9%
Manufacturing, durable goods	271	5.0%
Transportation	72	1.3%
Communication and other public utilities	66	1.2%
Wholesale trade	61	1.1%
Retail trade	1,485	27.5%
Finance, insurance and real estate	225	4.2%
Business and repair service	108	2.0%
Personal services	105	1.9%
Entertainment and recreation services	104	1.9%
Professional and related services		
Health services	309	5.7%
Educational service	1,708	31.6%
Other professional related services	387	7.2%
Public administration	88	1.6%
<b>Total</b>	<b>5,399</b>	

Source: 1990 Census Estimates

living within the community. Many of the students are either not employed or work in relatively low-wage jobs, thus significantly reducing Durham's per capita income.

**Table 1.13. INCOME FOR DURHAM RESIDENTS AND REGION**

INCOME ESTIMATES:	DURHAM	STRAFFORD COUNTY
<i>1990 Census</i>		
Median household income	\$42,477	\$32,812
Median family income	\$60,157	\$38,148
Per capita income	\$12,774	\$13,999
<i>1996 OSP Estimate</i>		
Per Capita Income	\$18,151	\$22,575
<i>HUD 1998 Estimates</i>		
Median Family Income	\$72,862	

## HOUSING

### HOUSING VISION

The overall vision for housing is to maintain the quality of Durham's existing housing stock, promote the provision of affordable housing for local residents, and continue to encourage healthful, safe, convenient, and attractive neighborhoods for all residents.

## SINGLE-FAMILY HOUSING

### BACKGROUND

Durham has traditionally provided a diverse mix of housing types to accommodate both the University and the general community. Single-family developments represent approximately 62% of the total housing stock in Durham and continues to increase. Multi-unit housing accounts for 38% of total housing units with UNH students occupying a majority of this multi-unit housing. According to the 1998 Master Plan Survey, 77% of Durham residents own their own home and 23% rent. In 1995, the median gross rental rate in Durham was \$452 per month.

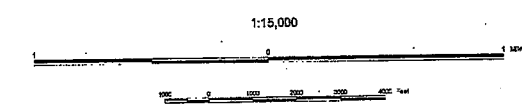
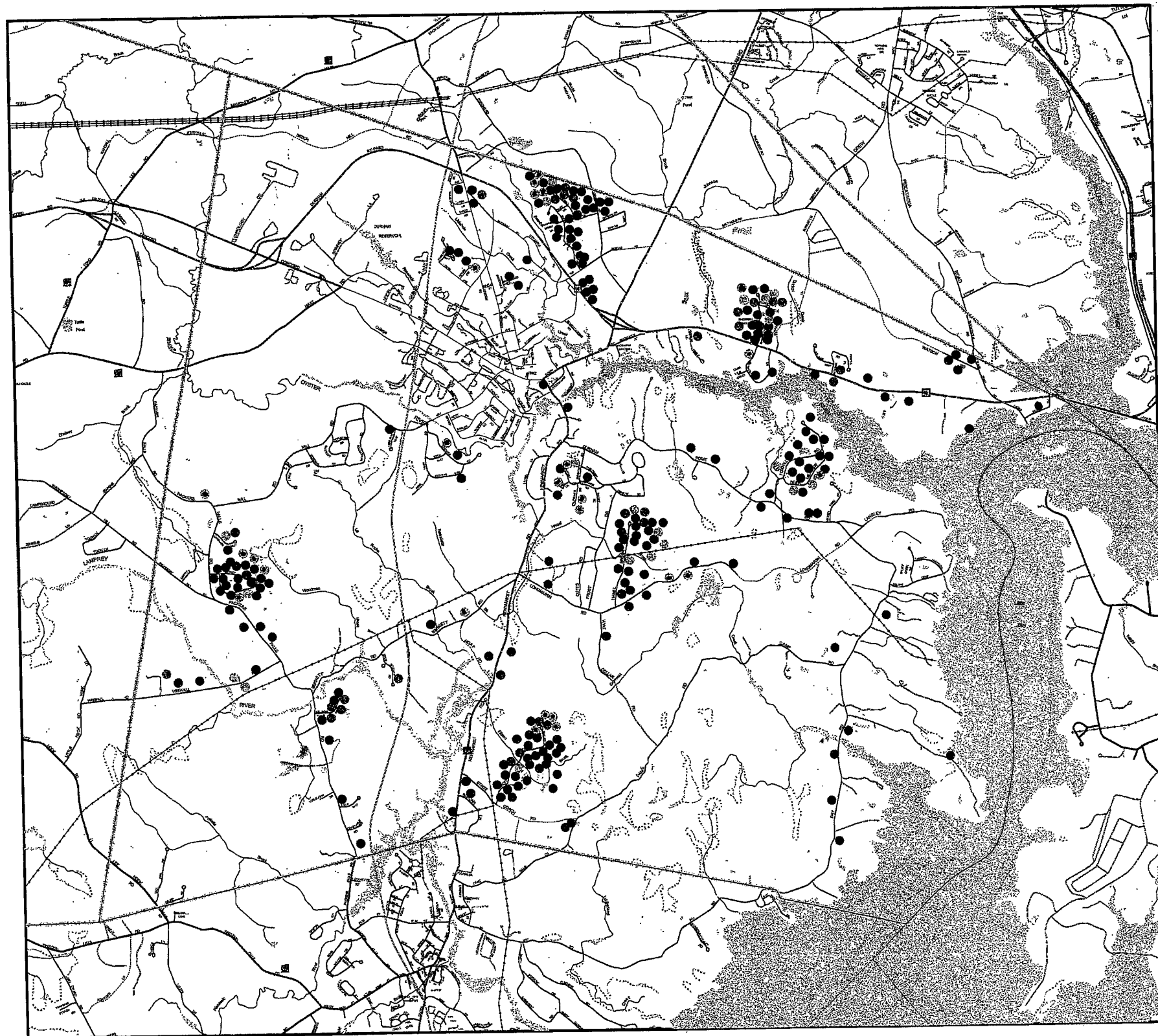
Durham's growth can be primarily attributed to an increase in single-family housing. In the mid-1980s, Durham experienced a high growth rate that reached a peak in 1986 (see Table 1.14). Durham is currently experiencing another significant increase in single-family homes that reached 2.6% in 1998; however, the average annual growth in the 1990s is still below the average growth experienced in the 1980s.

Durham's growth in single-family homes is consistent with that of the neighboring communities as shown in Table 1.15, with the exception of Rochester and Somersworth.

New homes constructed in Durham since 1988 have been primarily focused within approximately eight subdivisions, most of which are in the more "rural" areas of Town that lack public water and sewer services (see map of Location of Building Permits - 1988 - 1998).

# Durham Master Plan 2000

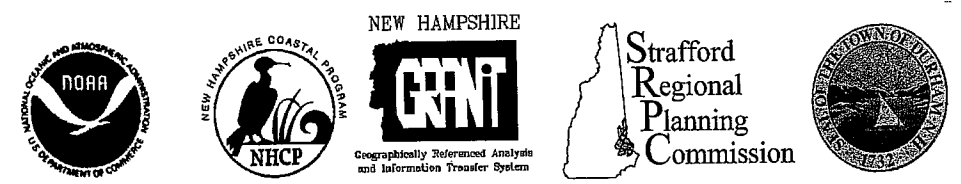
Location of Building Permits  
1988 - 1998



Base features are from USGS 1:24,000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center (CSRC), Durham, NH. Digital data in the NH GRANIT system represents the efforts of the contributing agencies to report information from the cited source materials. CSRC, under contract with the NH Office of State Planning (OSP), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. OSP, CSRC, and the cooperating agencies make no claim as to the validity or reliability or to any implied uses of these data.

SMARTMAP road data was provided by the New Hampshire Department of Transportation (NHDOT) Bureau of Information Technology Services on Jan. 23, 1997. This road data represents NHDOT mapping data as of the above date. Be aware that the data is still under development, and is NOT guaranteed to be complete or totally accurate, but is the best data available as of this date. Some roads and road names have been edited by the Strafford Regional Planning Commission (SRPC).

This project was funded in part by a grant from the Office of State Planning, New Hampshire Coastal Program, as authorized by the National Oceanic and Atmospheric Administration (NOAA), Grant Award Number NA87OZ0240.





**Table 1.14. GROWTH RATE OF SINGLE-FAMILY (S.F) DWELLINGS  
IN DURHAM, 1980 - 1998**

Year	S.F. Units at Start of Year	S.F. Permits Issued	S.F. Units at Year End	Growth Rate
1980	1178	12	1190	1.0%
1981	1190	15	1205	1.3%
1982	1205	12	1217	1.0%
1983	1217	22	1239	1.8%
1984	1239	32	1271	2.6%
1985	1271	43	1314	3.4%
1986	1314	58	1372	4.4%
1987	1372	46	1418	3.4%
1988	1418	35	1453	2.5%
1989	1453	27	1480	1.9%
1990	1480	22	1502	1.5%
1991	1502	19	1521	1.3%
1992	1521	10	1531	0.7%
1993	1531	23	1554	1.5%
1994	1554	27	1581	1.7%
1995	1581	30	1611	1.9%
1996	1611	26	1637	1.6%
1997	1637	33	1670	2.0%
1998	1670	44	1714	2.6%

**Average Annual S.F. Growth Rates**

1980 - 1998	2.4%
1980 - 1989	2.6%
1990 - 1998	1.8%

Sources: 1990 Census, Durham Annual Reports

New homes constructed in Durham are valued, on average, at approximately \$250,000 (including land). As seen in Table 1.16, there is some fluctuation in the median value of homes from 1990 to 1997, with the lowest equalized value occurring in 1996 (\$232,299) and the highest occurring in 1992 (\$266,494). With the exception of 1992, in which only 10 homes were built, the number of new homes constructed in Durham stayed generally in the range of 20 to 30 homes per year. The likely reason for the fluctuation in values is due to new subdivisions coming into Town that offered varied types of housing. As discussed in Chapter 8 – Tax Stabilization, even owners of these relatively high-value homes do not pay taxes in an amount equal to the services demanded, primarily due to the high cost of education.

**Table 1.15. GROWTH RATE OF SINGLE-FAMILY (S.F) DWELLINGS  
IN THE REGION, 1990 - 1997**

Towns	1990	1991	1992	1993	1994	1995	1996	1997	1998	Avg. Annual Growth Rate
Durham	1.5%	1.3%	0.7%	1.5%	1.7%	1.9%	1.6%	2.0%	2.6%	1.6%
Dover	0.8%	1.1%	1.1%	0.8%	1.2%	1.1%	1.1%	1.4%	1.5%	1.1%
Exeter	0.6%	0.5%	1.0%	0.6%	0.5%	0.4%	1.4%	1.9%	2.5%	1.0%
Lee	1.4%	0.8%	1.8%	2.0%	2.0%	1.5%	2.5%	2.0%	3.4%	1.9%
Madbury	2.4%	1.7%	1.4%	1.4%	0.8%	1.6%	1.1%	1.1%	2.6%	1.6%
Newmarket	2.3%	0.4%	1.1%	0.8%	1.9%	2.7%	1.7%	1.9%	4.3%	1.9%
Rochester	1.1%	0.7%	0.7%	0.4%	0.9%	0.6%	0.5%	0.6%	0.9%	0.7%
Stratham	1.9%	1.2%	5.3%	4.6%	4.0%	2.1%	2.6%	2.4%	3.1%	3.0%
Somersworth	0.7%	0.7%	0.3%	0.7%	0.7%	0.3%	0.6%	0.5%	0.9%	0.6%

Source: 1990 Census, OSP Building Permit Reports

**Table 1.16. MEDIAN EQUALIZED VALUE OF NEW HOMES CONSTRUCTED IN DURHAM, 1990 - 1997**

	1990	1991	1992	1993	1994	1995	1996	1997
Median Value	\$259,828	\$249,483	\$266,494	\$239,770	\$257,874	\$244,195	\$232,299	\$248,506

Median Value 1990 – 1997: \$248,994

Notes: All values are based on 1999 assessments. Values have been equalized to 1999 market rates. Values include land.

Source: Durham Tax Cards/Annual Reports

## SINGLE-FAMILY HOUSING ISSUES, GOALS, AND RECOMMENDATIONS

### ISSUE #1:

The Town will continue to grow. If this growth is not planned for and managed appropriately, it could significantly impact the fiscal and environmental health of the community.

### GOAL:

Plan for anticipated single-family growth so it will not adversely impact the fiscal and environmental health of the Town of Durham.

**OBJECTIVE:**

Explore school impact fees to offset the educational costs associated with new residential construction. Consider enactment of impact fees for Town services such as police, fire, and solid waste in order to ensure that new growth pays for the increase in service demand created by it.

**RECOMMENDATIONS:**

1. Examine the costs associated with the development and maintenance of a municipal impact fee program for single family and multi-unit development, and assess whether the growth in Durham warrants the costs associated with running an impact fee program. If impact fees are found to provide a strong economic benefit to the community, implement through recommendations two and three a program for the appropriate Town services.
2. Work with the Oyster River School District to develop a long-range capital improvements plan that will accommodate projected growth in the district. This is required in order to develop a school impact fee system.
3. Implement a school impact fee system based on the Oyster River School District capital improvements plan. Assess the one-time impact fee on a per-bedroom basis for all new construction and additions. Senior housing reserved for ages 62 or older should be exempt.

**ISSUE #2:**

Durham has a high quality housing stock and numerous neighborhoods that create the small-town atmosphere cherished by Durham residents.

**GOAL:**

Preserve and enhance the integrity and quality of existing residential neighborhoods.

**RECOMMENDATIONS:**

1. Encourage developers to work extensively with surrounding neighborhood residents (e.g., through neighborhood meetings) to resolve the community's concerns prior to formalizing development plans and going before the Planning Board.

2. Design traffic circulation systems to reduce speeding, commuter routes or cut-through traffic that adversely affect street use in or the character of existing residential neighborhoods (see Transportation Chapter recommendations).
3. Encourage infill development in the community rather than new development that sprawls into the countryside. Infill development is a term used to describe development, which sometimes includes subdivision, of existing lots of record in an already established neighborhood area. In this case the term infill does not include any recommendation for an increase in density above that of the surrounding area. Infill development should be in established neighborhoods and should be compatible with existing land use, compatible in scale with the surrounding area, and adequately supported by public utilities and the transportation system.
4. Use land use regulations and ordinances to stabilize residential neighborhoods adjacent to commercial and multi-unit uses through the establishment of transitional yards, vegetative buffers, and/or architectural screens and the control of vehicular access.
5. Regulate the amount of noise and light produced by nonresidential land uses to minimize impacts on nearby residential properties. This should be done by revising the Town's current noise ordinance and adopting a town lighting ordinance or regulation.

### **ISSUE #3:**

Due to the size of the more rural portion of Durham, it is likely that this area will continue to outpace the more developed core of the Town with respect to new housing construction. However, if efforts are not made to direct housing into the community core in which services and infrastructure are available, and if the zoning for the rural portion of the Town promotes “cookie-cutter” style development, the rural service area of Town will lose the characteristics that are so valued by the community.

### **GOAL:**

Plan for areas of new housing development so that the development maximizes the use of existing infrastructure and minimizes the need for new Town roads and public facilities.

**RECOMMENDATIONS:**

1. New housing development should be directed through the Zoning Ordinance to occur on already approved lots and in the core areas of the developed portion of town, defined as north of the Oyster River and Mill Road and west of Johnson Creek, excluding lands which are to be retained for conservation and restricted from development. This area is defined as the “community core.”
2. Conservation-based development design (see Land Development Regulations chapter - Chapter 9) should be required under the Town's Zoning Ordinance and land use regulations for future subdivision proposals, particularly for the less developed portions of Town for which growth is not desirable due to resource and infrastructure constraints (i.e., areas south of the Oyster River and Mill Road and east of Johnson Creek). This area is defined as the “rural service area.”
3. Allow for private developers, at their cost, to extend water and sewer within the community core described above (see map of Future Water and Sewer Service Areas), so long as the utilities are properly sized for the long-range development needs of the community and the developer proves there is adequate capacity in the system. Since development typically follows facility improvements, utility extensions in the rural service area should not be permitted unless good cause is shown, for example, fire protection needs or failing wells or septic systems.
4. Consider permitting higher densities and the use of the conservation development design approach (see Land Development Regulations chapter - Chapter 9) for sites served by municipal water and/or sewer so as to minimize roads and infrastructure, reduce housing costs, and concentrate growth within the community core. The use of the conservation development design approach does not require an overall increase in gross density. Implementation of this recommendation must be performed carefully and in concert with the previously stated goal of preserving the integrity of existing neighborhoods.

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## **MULTI-UNIT HOUSING**

The majority of multi-unit housing in Durham is occupied by UNH students. The current Zoning Ordinance does not list multi-unit housing as a permitted use in any of the zoning districts. The Ordinance does permit multi-unit housing as a conditional use in two zoning districts, the Central Business District and the Office Research District. In addition to the minimum lot size in these two districts, the density of the multi-unit housing is limited by a required increase in lot size for each additional dwelling unit. These requirements seemingly encourage construction of large units to maximize the number of bedrooms per unit. In the case of the Central Business District, the Ordinance seems to encourage persons to construct boarding houses that have up to ten occupants using shared kitchens and bathrooms. The encouraging factor is that a boarding house use is a permitted use, rather than a conditional use. Boarding houses are further encouraged in the Central Business District since there is no increase in lot size for this use. Boarding houses result in greater management difficulties for the owner, a higher likelihood for mass gatherings, and can also lead to unsanitary conditions due to the shared facilities.

Multi-unit housing has a minimal impact on schools, but a disproportionately large impact on police and fire services, especially if the units lack on-site or strong management. When the fiscal benefit of two existing multi-unit dwellings in Durham were compared, one with strong management, the other without, it was found the one with strong management provided the Town with a fiscal benefit of approximately \$10,000 per year, and the one without cost the Town \$3,500 in services per year. This difference was almost entirely due to the number of emergency services calls.

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## **MULTI-UNIT HOUSING ISSUES, GOALS, AND RECOMMENDATIONS**

### **ISSUE:**

Well-managed and well-designed (including external features and internal floor plans) multi-unit housing can both provide the community with a variety of housing types and also be a fiscal benefit to the community.

However, if the development of this housing type is not carefully planned for, the impacts on town services and the community can be significant.

***GOAL #1:***

Encourage a variety of multi-unit housing that serves the needs of the community and minimizes impact on town services.

***OBJECTIVE:***

Encourage construction of units with few bedrooms per unit in new multi-unit developments.

***RECOMMENDATION:***

After examining each zoning district individually, modify the Zoning Ordinance to control density through the total number of bedrooms or habitable rooms per acre instead of total units per acre.

***GOAL #2:***

Allow for an adequate supply of private-sector based, multi-unit housing in Durham while minimizing the negative impacts on the community that are often associated with multi-unit housing occupied by students.

***RECOMMENDATIONS:***

1. Identify desirable locations for new private-sector based, multi-unit housing in Durham. Locations should be near the UNH campus and provide adequate buffers from other residential areas.
2. Require on-site property managers for large multi-unit developments that will cater to the student population.
3. Clarify via the Zoning Ordinance, strictly enforce, and monitor the existing Ordinance requirement that essentially limits occupancy to a family plus two unrelated individuals or no more than three unrelated individuals per dwelling unit. This will preserve residential neighborhoods, insure safe and sanitary housing conditions, and help control overcrowding of housing units.

4. Remove the provision for boarding houses within the Zoning Ordinance. This is an antiquated use that is not appropriate in Durham and the market is better served by multi-unit dwellings, bed & breakfasts, and inns.

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## **SENIOR HOUSING**

There is an inadequate supply of housing for senior citizens in Durham. In addition to the high cost of housing in Durham, there is a heavy tax burden. As a result of the high taxes, seniors often choose to leave Durham and sell their homes to families with children who impact the school system.

At the present time, there are two subsidized senior housing complexes in Durham, Church Hill Apartments and Bagdad Woods Apartments. These two senior housing developments account for 2.7% of Durham's housing units. The proportion of senior housing is expected to change dramatically with the onset of several senior housing projects proposed in the community.

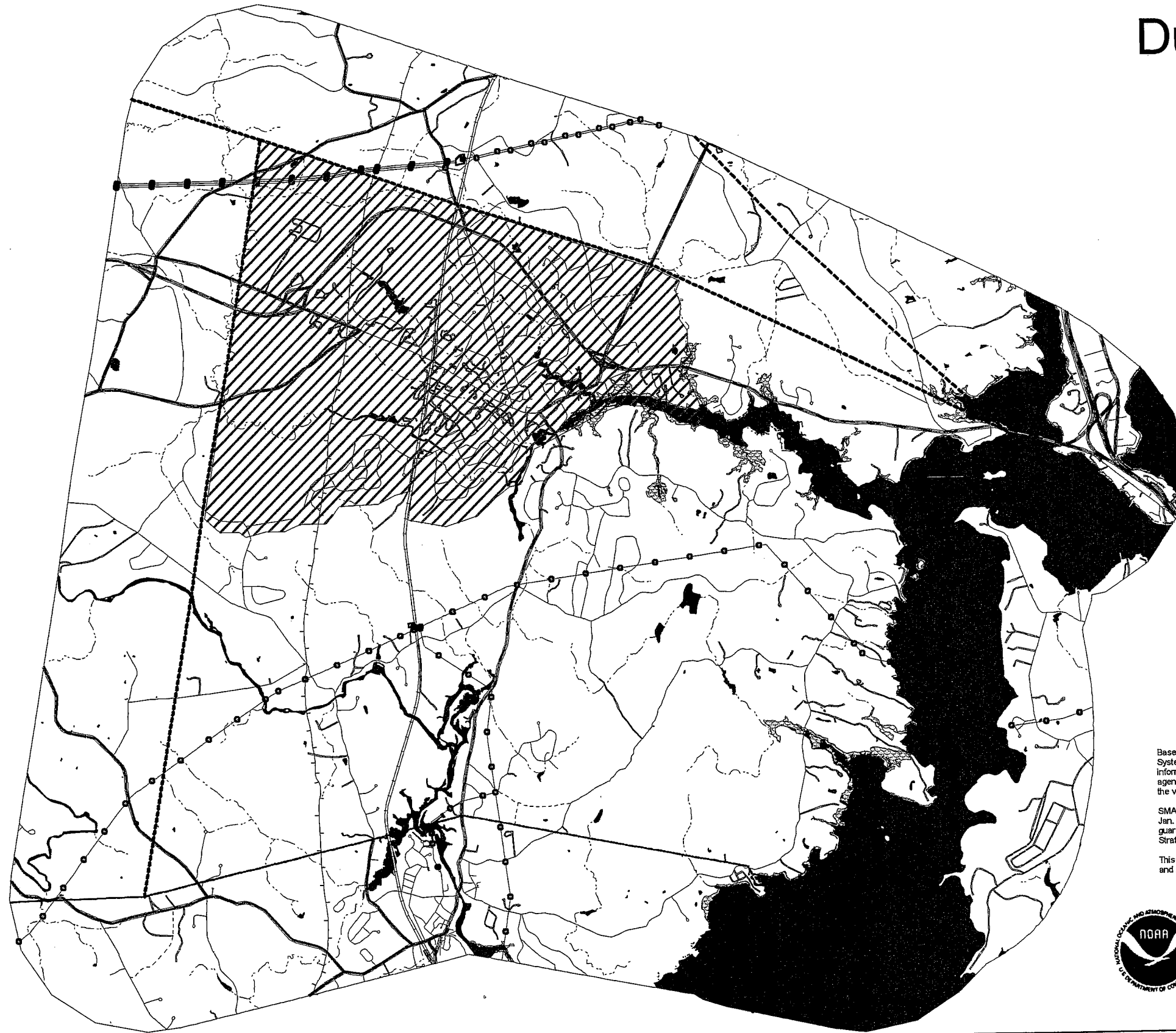
Of the current senior housing projects, Church Hill Apartments consists of 36 units, all of which are HUD subsidized. These apartments are available to persons age 62 and older, and handicapped persons of all ages. The income limits are \$17,000 for very low income, \$22,000 for low income, and \$25,000 - \$26,000 for middle income. Very low income and low income applicants must be considered first. Residents are charged 30% of their income (minus medical expenses if over 3% of income). There is a waiting list for this housing.



Bagdad Woods Apartments has 40 units, all are HUD subsidized. These units are available to persons age 62 and older, and handicapped persons of all ages. The income limits are \$17,000 for one person and \$19,400 for two persons. Residents are charged 30% of their income (minus medical expenses if over 3% of income). There is also a waiting list for this housing.










# Durham Master Plan 2000




## Future Water & Sewer Service Areas

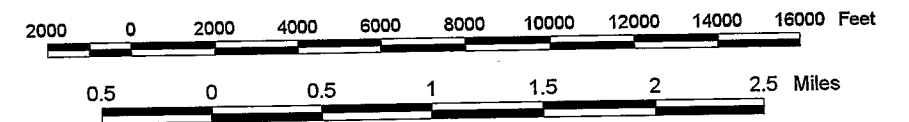


 Community Core  
 Future Water & Sewer Service Areas

**Durham Roads**  
 Class I (Primary Highways)  
 Class II (Secondary Highways)  
 Class III (Recreational Roads)  
 Class IV (Urban Compact)  
 Class V (Rural Highways)  
 Class VI (Not Maintained)  
 Railroad

 Salt marsh

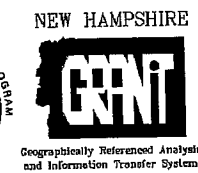
**Power and Telephone**  
 Power line  
 Substation  
 Telephone line



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## **SENIOR HOUSING ISSUES, GOALS, AND RECOMMENDATIONS**

### **ISSUE:**

There is an inadequate supply of housing for senior citizens in Durham.

### **GOAL:**

Develop and maintain an adequate supply of affordable senior housing.

### **OBJECTIVE:**

Encourage additional senior affordable (not necessarily subsidized, low-income) housing in town through incentives to developers.

### **RECOMMENDATIONS:**

1. Actively encourage senior housing development on lands most suitable for it. Examples include land located within walking distance to downtown, and serviced by Town water and sewer.
2. Do not charge school impact fees on properties reserved for seniors, age 62 and older.
3. Continue the current Zoning provision, or a similar incentive-based Zoning Ordinance provision, that allows for increased density for developments reserved for senior citizens.

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## **AFFORDABLE HOUSING**

Durham currently provides an adequate supply of affordable housing, primarily through the older housing stock in Town. However, there has been no new construction of affordable housing in Durham for over ten years.

## **CALCULATION OF AFFORDABLE HOUSING RANGE**

A mortgage is typically 2 - 2.5 times gross annual income. The 1998 estimated median family income in Durham was \$72,862.

- (2) x \$72,862 = \$145,724
- (2.5) x \$72,862 = \$182,155

The range of affordable housing in Durham is \$145,724 - \$182,155. The median value of an owner-occupied house in Durham for 1998 was \$171,168.

If one looks strictly at the figures relating to affordable housing provided by HUD, it appears that Durham provides adequate affordable housing (not including senior citizens), but this is primarily due to the existence of older housing stock. However, newly constructed homes are averaging over \$248,000 per house, well outside the affordability range. Thus, with the likely continuation of a trend toward housing well over \$200,000 in price, the rate of affordable housing units will continue to decline creating a serious affordable housing gap in Town. With this factor in mind, Durham needs to plan for the provision of affordable housing and take precautions that its Zoning Ordinance is not “exclusionary,” therefore, contributing to the high housing costs locally. Having affordable housing in the community will ensure that Durham stays a socially and culturally mixed community with diverse interests and backgrounds.

In 1995, the median gross rent in Durham was estimated to be \$452 (Strafford County Community Action Committee, 1998). Assuming this represents one-third to one-fourth of a household’s monthly expenditure, the household would need to earn between \$1,356 and \$1,808 per month (or \$16,272 to \$21,696 a year) in order to rent a house or apartment. In 1990, Durham’s median household income was estimated to be \$42,477. The Census distribution of household income shows that, while this type of housing is affordable to many citizens, 23% to 30% of Durham’s households would be unable to afford such rental rates because their incomes are less than \$21,696. Of the households, 7% to 10% of the family households would be unable to afford Durham’s rental rates due to income limitations, while 50% to 61% of the non-family households cannot afford the rental rates. It is difficult to determine what proportion of these non-family households are students, many of whom have other sources of financial support.

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## **AFFORDABLE HOUSING ISSUES, GOALS, AND RECOMMENDATIONS**

### **ISSUE:**

The trend in Durham is toward construction of new housing that does not contribute to the Town's existing affordable housing stock.

### **GOAL:**

Provide an adequate supply of affordable housing in Durham, proportionate to affordable housing demand in the region.

### **RECOMMENDATIONS:**

1. Ensure Zoning provisions, such as density requirements, do not prevent affordable housing.
2. Support the creation of a non-profit housing trust to construct housing developments that provide affordable housing.
3. The Town should work with the New Hampshire Housing Finance Authority, or other similar agencies, to assist residents with limited financial means in obtaining decent, affordable housing. These agencies can also help the Town with programs that will encourage a mix of housing values in Durham.
4. Consider incentives, possibly through zoning density bonuses or other flexible means, to builders to include limited numbers of affordable housing units as part of a larger housing development.

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## **GROWTH MANAGEMENT**

### **BACKGROUND**

Throughout the Durham Master Plan update process, residents have expressed concerns about the rate of residential growth in Durham and the impacts that new development has on community services and the environment. Measures must be taken to ensure that new residential development occurs in an orderly manner and does not occur before services can be provided.

The concept of a growth moratorium was introduced at the public workshops throughout the Master Plan update process. Legally, a growth moratorium is difficult to implement. Under RSA 674:23, interim growth management regulations (such as a moratorium) can only be implemented in unusual circumstances and for the purpose of developing a growth management process, a master plan, or a capital improvement program. Growth moratoriums must last no longer than one year after adoption. Interim measures are intended to give municipalities time to address unusual circumstances, not to stop growth.

Under RSA 674:22, the Town Council may regulate and control the timing of development through a growth management ordinance in order to prevent scattered and premature development. Such an ordinance may be adopted only after the preparation and adoption by the planning board of a master plan and a capital improvement program. A growth management ordinance must assess and balance community and regional growth needs, and set a growth rate based on "careful study" of those needs. Furthermore, the Town must not set a growth rate that restricts it from absorbing its proportional share of growth in the region.

The New Hampshire Supreme Court has examined growth management and laid down guidelines for growth control ordinances. The Court has stated that growth control ordinances are valid only if they restrict normal growth no more than is necessary to allow for an orderly and good faith development of municipal services. They cannot discriminate against any social or economic group, and they "should be the product of careful study and should be reexamined constantly with a view toward relaxing or ending them" (*Beck v. Town of Raymond, 118 NH 793*). The court has said that growth control cannot be applied solely by a planning board, but must be legislative in nature. A planning board's authority to determine if development is scattered and premature applies only to individual proposed developments and cannot consider the effect of further development in general. Thus, the effect of individual developments on schools and municipal services in general cannot be used by the planning board to declare a proposed development scattered and premature (*Ettlingen Homes v. Town of Derry, 134 NH 434*). Furthermore, the Court has found that growth control ordinances must be based on considerations of:

*"the cost of extending municipal services, the capacity of the town's existing citizenry to adjust to the higher tax burden necessarily associated with an extension of municipal services, the probable use of the dwellings, the availability and suitability of undeveloped lands in neighboring towns, and the overall growth of the region in which the town is located" (Rancourt v. Town of Barnstead, 129 NH 45).*

In conclusion, growth control ordinances cannot be used to "pull up the drawbridge" and stop future development. They can only be utilized as a tool to maintain a growth rate that is consistent with the overall region and allow the town to provide municipal services in an orderly manner.

## GROWTH IN DURHAM

Taking out the fluctuations of Durham's population caused by the student population (group quarters), the population growth in Durham of 1.2% is not significantly above the regional average of 0.8% and is consistent with the surrounding communities. Although there is no stated percentage above the regional average to define when a community's growth is significantly greater than the region's, the cases in which growth management has sustained court challenges show that the difference in the community's growth rate versus the region's are whole percentage points, rather than a few tenths of a percentage point, as is the case with Durham.

**Table 1.17. REGIONAL POPULATION CHANGE; 1990-1997**

	1990	1997	Percent Change	Annual Change
<b>Durham</b>	<b>12,294</b>	<b>13,095</b>	<b>6.5%</b>	<b>0.9%</b>
<b>Minus Group Quarters</b>	<b>6,468</b>	<b>7,001</b>	<b>8.2%</b>	<b>1.2%</b>
Dover	25,042	26,323	5.1%	0.7%
Exeter	12,481	13,019	4.3%	0.6%
Lee	3,729	4,050	8.6%	1.2%
Madbury	1,404	1,532	9.1%	1.3%
Newmarket	7,157	7,625	6.5%	0.9%
Stratham	4,955	5,748	16.0%	2.3%
Strafford County	104,233	109,906	5.4%	0.8%
State	1,109,251	1,173,000	5.7%	0.8%

Sources: U.S. Census, OSP Population Estimates, Durham Planning Population Estimate

Single-family building permits in Durham have averaged approximately 1.5% of total single-family housing stock annually. This rate is on par with other communities in the region, which average a 1.4% annual increase.

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## **GROWTH MANAGEMENT ISSUES, GOALS, AND RECOMMENDATIONS**

### **ISSUE:**

Durham's recent growth rate has been comparable with the regional average. But, at any point in time, the rate of growth in the Town could begin to be well in excess of that experienced by the region. If this occurs, the Town is taking on more of a burden than required under State law and growth management provisions can be put in place.

### **GOAL:**

Recognize that Durham will continue to grow, but at a controlled and manageable rate that maintains a high quality of life and sense of community in Durham.

### **OBJECTIVE:**

Ensure that Durham is not accommodating a higher proportion of the population increase within the Strafford Region.

### **RECOMMENDATIONS:**

1. As part of its annual reporting procedure, the Planning Board should analyze the growth in Durham to ensure that the growth in the Town is not at a level significantly greater than the surrounding region.
2. A growth management ordinance, also known as timing of development ordinance, should be developed and adopted for the Town that, when triggered by growth rates well in excess of the regional average, places a limit on the timing and phasing of development.

3. If the Planning Board finds in its analysis that the Town is experiencing a growth rate significantly higher than the regional average and this growth is having a significant effect on Town services, then the provisions of the growth management ordinance should be enacted.
4. Pursue an economic development program that will not unduly accelerate population growth and generate more residential development than the tax revenue increases created by the economic development.