

# ACTON MASTER PLAN UPDATE

December 1998



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# ACTON MASTER PLAN UPDATE

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# INTRODUCTION AND OVERVIEW

## Introduction

Planning is a continuous process. We constantly react to changing social, economic and environmental conditions, and adjust our policies and actions accordingly. Generally, these incremental adjustments and changes are a normal part of our lives; occasionally we must step back from our routine, take stock, and our direction. The Town of Acton is at such a point.

In 1989, the Town began to prepare of a town-wide Master Plan. Ultimately, the planning process took two years; involved dozens of meetings and hundreds of residents; and resulted in a comprehensive inventory and analysis of conditions, trends and issues, with over one hundred action recommendations.

Since the Master Plan was completed in 1991, many of its recommendations have been adopted or implemented, including wide-ranging zoning changes affecting much of the Town. Also during this period, the conditions facing the Town have altered. With the booming regional economy of the late 1980s, townspeople were concerned about managing the impacts of rapid commercial growth. Soon after the Master Plan's completion, the region suffered a sharp recession, the recovery from which was led by residential, rather than commercial, construction. Based on these changed conditions, and the Town's progress in implementing the recommendations of the 1991 Master Plan, the Planning Board determined that the time was right to revisit the Plan, update its data and analyses, and make warranted adjustments to policies and strategies. Moreover, the 1991 Master Plan had called for an update every 5 years in accordance with sound planning practice.

Unlike the original Master Plan process, the development of the Master Plan Update has been a strategic process with a relatively brief time span. Rather than starting from scratch, this process reviewed and updated the information in the previous document, refined goals and objectives consistent with public input, and identified ways to refocus strategies and actions to address community needs and values more accurately. The entire planning process has taken less than a year, including three sets of public meetings to assist the Planning Board in identifying goals and objectives and to provide input on the Plan's recommendations.

## How Have Economic Changes Affected the Master Plan Update?

The 1991 Master Plan was completed in 1989-90, at a time of rapid economic growth but moderate residential growth, and just before the recession hit the region. The recession and subsequent recovery have undercut many assumptions made in the Plan, and growth forecasts have been modified accordingly.

Acton fared very well during the recession and afterwards. Although there were some job losses in Acton firms and a depressing of residential real estate prices, the housing

construction market remained solid and was poised to take off as the recovery emerged. The total number of firms remained stable. Compared to surrounding towns, Acton has a larger portion of its tax base supported by commercial and industrial properties, and its housing, though high in value compared to the state as a whole, is relatively affordable within the region.

The analysis of changes since the 1991 Master Plan reveals few areas where policy or actions might be reconsidered. There are no major changes in traffic volumes or patterns, or population growth. However, the following should be noted:

- (1) A more detailed look at residential and commercial buildout suggests lower ultimate development levels than estimated previously. This may suggest less need for expansion of capital facilities.
- (2) School enrollment grew more quickly than forecast, forcing a need for school expansion. This is addressed by the School Building Study.
- (3) Acton still lags in the provision of affordable housing, even in comparison to surrounding communities with similar or higher average incomes and residential values.

## Data and Analysis

This report provides updates to data and analyses contained in several planning studies prepared over the past decade. These studies, and the data and information that have been updated, are:

- Acton's 1991 Master Plan: demographics, natural resources, buildout, housing, economic development and employment, municipal facilities, and traffic and transportation;
- "Kelley's Corner Specific Area Plan" (1995): employment; tax base; construction, absorption and supply of nonresidential space; supply and demand for continuing care facilities;
- "Kelley's Corner Business District – Final Circulation Plan" (1997): traffic and circulation;
- "Economic Development in the MAGIC Subregion – A White Paper" (1995): regional employment, tax base, and available nonresidential building space.

This update also provides additional details in several areas, including land use, housing values, affordable housing, and employment.

After the first section (Demographics), the rest of this report correspond to functional elements of a Master Plan as set forth in State Law, i.e., Land Use, Housing, Economic Development, Natural and Cultural Resources, Open Space and Recreation, Services and Facilities, and Transportation and Circulation. Although a departure from the

organizational structure of the 1991 Master Plan, this provides a convenient framework for combining updates to related data from a variety of sources (for example, economic development data from the 1991 Master Plan, the Kelley's Corner study, and the MAGIC White Paper). Also, it provides links from this information to the Goals & Policies and Implementation recommendations to be developed in later stages of the planning process.

# THE PLANNING PROCESS

## Relationship to the 1991 Master Plan

The 1991 Master Plan addressed in greatest detail those issues uppermost in the minds of Acton's residents at the time: traffic, commercial growth management, environmental protection, and affordable housing. The Master Plan contained innovative strategies for managing commercial development and channeling it into existing village centers and a limited number of new growth centers, and for preserving open space via promotion of cluster development.

The 1998 Master Plan Update is based on the 1991 Master Plan. It is intended as an update of the 1991 Plan rather than a completely new document. It is important to note that the 1998 Update preserves and refines the underlying themes of the 1991 Plan, including its two underlying and complementary objectives of promoting and enhancing village centers as growth areas and preserving open space.

However, while retaining the essential direction of the 1991 Master Plan, the 1998 Update contains significant differences in its scope, structure, and detailed recommendations. With respect to its scope and structure, the new is designed to be consistent with the definition of master plans that is set forth in state law (Massachusetts General Laws, chapter 41, section 81D). Accordingly, the Master Plan Update addresses a wider range of issues, and has a new structure based on the seven functional elements prescribed in the state statute: land use, housing, economic development, natural and cultural resources, open space and recreation, services and facilities, and transportation and circulation.

The 1998 Master Plan Update also includes strategies and recommended actions that address a wider range of issues than the 1991 Master Plan, and refinements to the original strategies based on review of progress and community input.

## Public Participation in the Planning Process

Public participation was invited at three stages. To start, a series of meetings with Town officials and two public workshops were held to review the Master Plan and to receive guidance on priorities, goals and objectives to be considered in the Update process. Next, a meeting was held with invited community leaders to review the project status and solicit responses to the draft goals, objectives and strategies that had been developed. Finally, two public workshops were held toward the end to receive comments on the Draft Master Plan Update before finalizing the document.

## Identifying Issues and Formulating Goals

### Purposes of this phase

The first phase of public participation launched and provided focus for the 1998 Master Plan Update project. Outreach and deliberations during December 1997 and January 1998 allowed townspeople and officials the opportunity to review key aspects of the 1991 Master Plan, consider them in light of what has happened since 1991, and suggest where and how the Master Plan might be updated to reflect the community's altered situation and priorities. The emergent themes of general agreement during these deliberations provide a context for considering the updated data that were being compiled by the project. This preliminary consensus also provided a basis for the subsequent review of the goals, objectives, & actions of the 1991 Master Plan. As a first reading of public thought, this Report on the First Phase of Public Participation can be regarded as "raw data" to be considered into subsequent project deliberations.

### How the community provided guidance

On December 16, 1997, the outreach effort began with discussion with Town department heads to gain their guidance.<sup>1</sup> The officials who attended the meetings considered the growth management-related problems or questions confronting them, the decisions they expect the Town must make in the future, whether the 1991 Master Plan has been a helpful policy guide, whether there have been problems interpreting the Plan, and what the 1998 Master Plan Update might accomplish to help officials better meet their responsibilities. The meetings ended discussing specific questions that the officials would like townspeople to address at the January 1998 workshops. Input from these discussions shaped the questions that were the focus of the January workshops.

The Planning Board convened town-wide workshops on January 22 and January 27, 1998. The workshops covered identical material. The choice of different nights on different weeks was offered in the hopes that all interested residents would be able to make one of the workshops. Approximately 100 townspeople attended the two workshops. The workshops began with an overview of changes since 1991, a "report card" on accomplishments since the 1991 Master Plan, and policy questions that arise in light of Acton's current situation. Participants were then asked:

1. The costs of financing Town services and facilities will continue to grow due to the increase in population. What do you think might be promising ways to pay for the quality services townspeople expect?
  - Expand the Town's business base with resulting increase in net tax revenue?
  - Generate new revenue through user fees at a municipal golf course or other public facility?
  - Acquire undeveloped land in order to remove it from the market and avoid service costs associated with its development for houses?

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<sup>1</sup> Detailed notes from these meetings are appended to this report.

- Other suggestions?

Which, if any, of these options should be emphasized over the others?

*[Guidance needed: strategies the community should pursue other than raising tax rates to meet the increasing costs of amenities and services]*

2. An underlying theme of the 1991 Master Plan was to limit business development and to focus it in clearly defined areas. Should we now also consider promoting business growth in order to broaden the tax base, provide local job opportunities, and expand the range of services available to residents? If so . . .

What kinds of business growth should we consider?

- industrial parks?
- office buildings?
- general retail [such as department stores]?
- specialty retail [small shops]?

What areas of town might be appropriate new places for business growth?

*[Guidance needed: whether the Master Plan Update should revisit the question of what role townspeople want business to play in the future of the community]*

3. Growth in and around Acton will continue to increase the number of cars flowing through town. What kinds of new transportation alternatives would you be likely to use, and where should they be located?

- Trails and walkways
- Bike paths
- Additional public transit

*[Guidance needed: whether the Master Plan's transportation component should be expanded to consider aspects of transportation other than vehicles]*

4. Are we successful in getting the kind of residential development that we want? What varieties of housing merit special consideration by the 1998 Master Plan Update?

- Homes affordable to working families & first time homebuyers?
- Alternatives for seniors and elders, for example assisted living?
- Open space residential [with conserved open space & clustered homes?]
- Other choices?

*[Guidance needed: whether to consider adjusting the types and patterns of residential construction that are allowed or encouraged in Acton]*

Small discussion groups addressed these questions, assisted by volunteer moderators and recorders. Then the groups compared their moderators' notes on points of general

agreement.<sup>2</sup> Clear themes of general agreement emerged. Participants also raised a number of questions and requests for information relating to some of the issues raised by the workshops. These themes and requests for information are summarized in the following section.

### Themes of general agreement that emerged from townspeople's and officials' deliberations

There was clear overall support for the Master Plan's strategies. However, townspeople and officials want to assess components to see why they have not worked as anticipated, and examine adjustments and refinements. Townspeople and officials want the Master Plan Update to take a more assertive, proactive approach to economic development in Acton. Whereas the transportation component of the 1991 plan concentrated on vehicular traffic, workshop participants agreed that the Update should consider ways for townspeople to get around town without their cars. Diversity and a range of housing choices continue to be a priority, and the workshops generally supported the Master Plan's housing strategies. Participants, however, want the Update to consider adjustments to achieve desired forms of housing and patterns of development. Finally, the workshops began deliberations about how Acton might pay for the rising costs of providing services and facilities that residents expect. Participants were open to new approaches to generating Town revenue, and suggested questions that need to be answered in order for townspeople to endorse new strategies.

1. *The Master Plan Update should consider how to encourage business development that would fit in Acton and contribute to the community's life and fiscal stability.*
  - a. Support the concept of Villages by encouraging businesses of appropriate scale that will contribute to a lively mix of activities.
  - b. Place priority on infill and redevelopment of existing business zones, especially reuse of empty buildings and sites that are eyesores.
  - c. Maintain strong protection of Acton's natural resources, aesthetics, character.
  - d. Site clean, attractive, high value industrial parks & office parks in areas with access to Route 2, but removed from residential areas.
  - e. Expand the non-residential tax base to reduce the tax burden on homeowners, while considering the environment, sense of place, and increased traffic. Gain the best tax value for the resulting disruption.
  - f. Be more business-friendly.
    - Designate a person in Town Hall to serve as advocate and coordinator for business.

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<sup>2</sup> Detailed transcriptions of the workshop groups' deliberations are appended to this report.

- Evaluate signage regulations, use restrictions, and the permit process to see whether they present undue obstacles to new and expanding businesses.
  - Plan for mixed types of housing [such as apartments and townhouses] in or near villages, a sidewalk system, and shuttles to bring people to village businesses.
  - Provide incentives for developing or redeveloping in areas where change is desired
- g. Avoid malls, superstores, big box, and other large retail.
  - h. Encourage desired types of business that are in short supply here, such as mid-sized retail and family restaurants.
  - i. Reserve space for business. Do not allow residential development to encroach into areas where business development is desired.
  - j. Help townspeople understand the advantages and the trade-offs of expanding the local economic base.
2. *The Master Plan Update should consider how to achieve a mix of homes that enhances Acton's town character and provides needed choices for our residents.*
    - a. Seek cluster development providing choices in the cost and size of homes *and* conserved open space that is useful and accessible to townspeople.
    - b. Emphasize meeting seniors' needs for services to stay in their current homes, and for alternative types of homes meeting their physical and financial circumstances.
    - c. Seek diversity among residents, including age, income, type of household, and background. Help townspeople understand the fiscal consequences and the benefits of affordable housing.
  3. *The Master Plan Update should consider how to increase the ways to get around town without having to use a car.*
    - a. Acton should invest in a carefully planned and designed sidewalk system that connects people with key activity centers such as the villages, schools, recreation areas, conservation areas, and train station. *[Such a sidewalk system was an especially high priority among workshop participants, who saw it as contributing to various aspects of the community's desired quality of life.]*
    - b. A network of bike paths should connect residents with in-town destinations and should link into the regional network of bike paths.
    - c. The Town should explore how a shuttle might connect the village centers & schools, and provide access to the train station.

- d. Traffic calming strategies should be considered to counter the impacts of local and regional traffic.
  - e. The villages and other business areas should be more pedestrian-friendly.
  - f. The Town should improve access to the train station – either additional parking or shuttle service to off-site lots.
4. *The Master Plan Update should consider how to pay for the services and amenities desired by residents.*
- a. Townspeople are open to alternative ways of gaining revenue, but want clarity regarding potential costs and benefits, and assurance that new strategies are feasible.
  - b. Townspeople see that an expanded non-residential tax base can generate significant net tax revenue, but not at the expense of Acton’s quality of life.

**Summary of the guidance received**

Officials and townspeople agree that the Master Plan is generally on the right track. Adjustments and improvements that the Update Project should examine include:

1. *Increase the potential and vitality of the Villages.*
  - More flexible approach to allowed business uses so as to take better advantage of market demands.
  - Mix of housing types in and near the Villages [e.g. apartments over stores, higher density developments nearby].
  - Coordinated sidewalk system and possibly a shuttle service to bring people into the Villages and make it easier to walk among businesses and other attractions.
2. *Shift to a proactive stance regarding economic development.*
  - Development and redevelopment in special areas.
  - Being more business-friendly.
  - Working for the most benefits for the least disruption resulting from an expanded business base.
3. *Expand the ways to get around town without a car.*
  - Continuous, coordinated sidewalk system.
  - Bike paths for local and regional travel.
  - Parking strategies for the train station.
  - Potential of shuttle service among key points.

4. *Consider how to be more effective in gaining desired diversity in the cost and types of homes being constructed.*
  - Give priority to programs and housing choices for seniors.
  - Document what's been gained through cluster developments to see whether the cluster provision is working.
  - Evaluate the potential for – and fiscal implications of – increased incentives for more affordable housing for seniors and for families.
5. *Research and suggest new strategies to pay for Town services and facilities.*
6. *Place the issue of planning for the public sewerage system in the context of town-wide land use planning.*

### Mid-Project Review by Community Leaders

On June 30, 1998, the Planning Board held a workshop for community leaders to review the draft goals, objectives and strategies of the Update and to receive suggestions as to how the Master Plan could be most useful to the Town. The meeting was attended by 42 representatives of Town boards and departments, local and regional civic groups, and other area organizations. In preparation for the workshop, participants were provided with summary documents comparing the 1991 and 1998 goals, objectives, actions and strategies.

The workshop began with a brief review of what had emerged so far from the planning process, including:

- The Town has made significant progress on many of the 1991 Plan's goals, objectives and actions, including adoption of many zoning recommendations and completion of detailed studies of village centers and Kelley's Corner; but progress has lagged in providing affordable housing and redirecting commercial growth from Route 2A into village centers.
- Based on community input, the Master Plan Update reaffirms the basic goals and objectives of the 1991 Plan, including the importance of village centers, concern about sprawl development, and protection of the environment.
- Residents and Town officials are concerned that Acton's future growth should be balanced. Changed regional economic conditions and demands for municipal facilities and services have led to a refocusing of priorities. In particular, the concern about how to finance Town services has resulted in more support for business development because of its potential tax base benefits, and support limiting the rate and amount of residential development.
- The Update also reflects increased concern for maintaining the character of the Town and its neighborhoods. This relates to preserving historic areas, ensuring that new

development fits in with Acton's traditional New England town character, minimizing the impacts of new development on the character of established neighborhoods, and preserving existing open space.

- Finally, there is broad concern that planning and regulation in Acton should be simplified and focused. Goals, objectives and strategies that are not properly the concern of a Master Plan (especially departmental management and coordination issues) should be eliminated from the Plan; and regulations affecting commercial and industrial zoning districts should be streamlined without causing potential detriment to the Town.

Participants were then asked to comment on the draft goals, objectives and strategies: which were on target; which might need adjustment; and what important issues might have been missed in the analysis. The following points highlight the participants' open-ended discussion:

- Economic Development:
  - There was concern about the loss of focus on environmental concerns and protection. Several participants felt that the earlier language had been "watered down" without justification.
  - Conversely, it was suggested that the strategy of "maintaining" diversity of commercial enterprises would be better expressed as "increasing" diversity, since participants felt that the Town lacks a variety of retail and service opportunities.
- Services and Facilities:
  - Participants focused on the issue of cultural (in addition to educational) opportunities, and in particular the need for members of the community to have access to cultural services.
  - There was concern about the apparent "demotion" of education as a result of creating a broader "Services and Facilities" section.
  - Concern for senior citizens was expressed in the recommendation to add "elder care" to the objective regarding day care services and facilities.
- Transportation:
  - The application of technology to community services was noted as a possible direction, with the example of cameras at key intersections to monitor traffic congestion.
- Land Use:
  - Participants felt that this section needed to give more emphasis to residential growth management.

- Water:
  - It was noted that all development is approaching a de facto limit on water withdrawal, established by Massachusetts Department of Environmental Protection at 1.8 million gallons per day (average), and recommended that the Master Plan consider this limitation in its forecasts.
  
- Affordable Housing:
  - It was suggested that there is no buildable municipal or state land available for housing development, so the strategy regarding such land should be clarified.
  - Recommended strategies for providing affordable housing included tradeoffs for ease in obtaining approvals, and Housing Authority acquisition (and possibly relocation) of existing housing.

Finally, participants were asked to identify those goals, objectives or strategies of particular importance. The three priorities that emerged, with a fairly strong consensus, were:

- Slow residential growth
- Encourage economic development
- Protect the environment

Other items mentioned in this discussion included:

- Municipal sewerage and watershed-based trading
- Paying for town services
- Creating affordable housing
- Expanding and upgrading school facilities
- Fiscal responsibility and tax stabilization
- Encouraging bicycle use
- Purchasing open space as an effective way to limit housing development (rather than spurring more rapid development in reaction to restrictive zoning actions)
- Providing a fund for purchasing open space
- Wastewater management and water supply protection (including possible increases in minimum lot areas to avoid Title 5 problems)
- Traffic congestion
- Accessibility for the disabled to all recreational and cultural services and facilities
- Addressing traffic bottlenecks
- Enabling the elderly to live independently
- Preserving the Town's remaining farmland
- Ensuring that Town government actions are consistent with the Master Plan

Based in part on this meeting, many of the goals, objectives and strategies were adjusted to better reflect community concerns and priorities.

## Responses to the Plan's Recommendations

A final set of public workshops was held on October 22 and 27, 1998, to present key findings and recommendations of the Draft Master Plan Update. Based on the sign-in lists from the workshops, 13 residents participated in the first meeting and 33 attended the second one. The number of participants in the workshops was therefore not large enough to be considered a representative sample of Town residents, but the input received in the two sessions was considered in the final revisions to the Master Plan Update.

The purposes of these workshops were:

- to review the Master Plan Update process;
- to summarize some key issues, findings and recommendations;
- to provide an opportunity for commenting on the key recommendations; and
- to begin to identify priorities for action.

Representatives of the Planning Board and the consultant team began the workshops with an overview of the planning process and some of its important conclusions. They noted that many goals and policies of the 1991 Master Plan were carried forward into the Master Plan Update: important continuing priorities include preserving Acton's town character, protecting the Town's natural resources, and providing high-quality education. It was stressed that the workshops would not look at continuing goals and strategies that enjoyed general support in the community; rather, the purpose of the workshops would be to look at changes that might represent major shifts in policy or direction, in order to gauge the level of community agreement with such shifts.

## Key Objectives and Actions

The consultant team then presented selected objectives, issues, findings, and recommendations under four broad theme areas: villages and community centers; residential development; economic development; and circulation. The presentation focused on six objectives:

- Strengthen Acton's villages and existing business centers
- Slow overall residential construction
- Increase diversity of housing types and costs
- Promote economic development
- Expand the ways to get around town without a car
- Provide a transportation system that is environmentally sound, safe and convenient

The "key action recommendations" presented under each heading were as follows:

## Villages and Community Centers

- Increase allowable densities in the East Acton and North Acton village districts, and revise zoning to encourage small mixed-use centers
- Provide physical improvements in village centers, including sidewalks, street trees, and pedestrian-scale lighting and benches
- Create design guidelines to encourage the desired type of development in villages
- Promote redevelopment in Kelley's Corner by allowing increased height and intensity, and adjusting standards for building setbacks, parking lot design and landscaping
- Consolidate business zoning districts in the area of Powder Mill Road (Route 62) and High Street

## Residential Development

- In new subdivisions, allow only 10 new homes to be built per subdivision per year
- Consider establishing a Town Social Services Department to support older residents living in their own homes
- Simplify and adjust the Affordable Housing Overlay District regulations to make them easier to understand and to promote their use
- Consider allowing greater density in the village districts for mixed-use developments that include affordable housing

## Economic Development

- Simplify business regulation along Great Road by removing the Transfer of Development Rights provisions and associated parking limitations, and reducing the maximum floor area ratio (FAR)
- Increase the allowable intensity of development in several districts, including Kelley's Corner, the Auto Auction area, and the Post Office Square area
- Consider providing financing incentives to attract businesses to designated areas

## Circulation

- Develop a town-wide traffic calming program
- Conduct studies of the Route 27 and Route 2A corridors
- Build sidewalks and bikeways to South Acton and Commuter Rail
- Construct sidewalks in West Acton Village
- Provide funding and support for Assabet River Rail-Trail
- Support rail-with -trail along Fitchburg line right-of-way

- Incorporate bicycle considerations in zoning regulations for off-street parking
- Provide public bicycle facilities in village areas, at all public buildings, and at all recreation areas
- Support increased MBTA service for towns to the west of Acton
- Encourage driveway connections between off-street parking lots for improved circulation off the public ways
- Promote the use of shared off-street parking to limit the size and number of curb cuts

### Comments and Questions on Four Focus Areas

Following each segment of the presentations, participants were invited to comment on the recommended actions and to ask questions about related aspects of the Master Plan Update. These comments and questions were transcribed and are listed below.

#### Villages and Community Centers

- What about a “Y” or similar recreation facility? Pool?
- Need local public transportation
- Need to help senior citizens with tax burden (reflect their lower demands on town services)
- Sidewalks *to* villages (not just within them)
- Need more emphasis on (attention to) the traffic impacts of villages and centers
- What is the trade-off between eliminating TDR and parking regulations vs. increased development potential in the villages? Can the additional development potential granted to some owners be justified?
- SM district in North Acton: concern about reduction in minimum lot size and impact this might have on increased total development.
- Shift in economic development focus is more significant than is stated on page 33
- Too many zoning districts
- Districts are too inflexible: don’t provide for home occupations; new types of uses
- Economic Development Committee recommends that village zoning for North Acton and East Acton be reconsidered – change to business districts.
- North Acton/Route 27: change from Limited Industrial to Business or Village to encourage uses more compatible with residential development?

#### Residential Development

- Why not 2-acre zoning?
- Require developers to submit cluster development plan with all subdivision plans
- Don’t give density bonus for cluster
- Define “affordable housing”
- Define “seniors”/“elderly”/“handicapped” and explain why they are grouped together
- Land conservation trust can be an important partner in growth management – education, negotiation, funding

- Suggested new Social Services Department: impact on tax rate (from adding more staff) needs to be addressed
- Lot sizes changed by subdivision phasing requirements?
- Is rapid subdivision growth a realistic concern that needs to be addressed in this way? Need more specific information.
- Concern about increasing densities in West Acton Village
- Social Services Department – What needs are not being met that this would address?
- Address minimum lot sizes and setbacks for well/septic separations in developing areas.
- Front yard increases, encouraging septic systems to be placed in the front yards, will make for easier sewer connections in the future
- Tear-downs (mansionization): address densities on residential lots
- Consider the impacts of sewers in villages: new structures, new uses, residential growth
- Is there a conflict between residential growth management and affordable housing promotion (smaller lots leads to more density)?
- Higher priced homes are fiscally beneficial to the Town

#### Economic Development

- Streamlining permit processing
- Special permit vs. site plan only
- Increase variety of businesses – how?
- North Acton industrial area (Wickes) – what are the plans?
- Review zoning in areas to be sewered: new uses (e.g., restaurants) will become possible – make sure that zoning doesn't get in the way
- Simplify sign bylaw
- Encourage re-use of vacant buildings before accommodating growth in new areas
- Economic Development Committee recommendations:
  1. Consider rezoning residential land to commercial or industrial for fiscal benefits
  2. In the long term, aim for a 75/25 split between residential and commercial/industrial land use (was 80/20 in 1990; now is up to 85/15)
  3. Create a database of businesses
  4. Create a marketing plan
  5. Establish an Economic Development Office or officer
  6. Require a fiscal impact analysis for any new development
  7. Provide infrastructure improvements (sewer, roads) to attract and support commercial development
- Will providing tax incentives and other financial incentives defeat the purpose of attracting new businesses–i.e., will we get impacts without net tax base benefit?
- Are the Master Plan's ideas based on any sort of benchmarking? Are they based on successful experiences from other towns?
- Revisit the sign bylaw: it is difficult to interpret and administer and needs major revision

#### Circulation

- Commuter shuttles between rail station and employment areas
- Sidewalks *to* villages (Summer Street is a cut-through for commuters to/from the rail station)
- Can we alleviate the needs for traffic signals?
- Provide directional signals at 27 and 2A/111 (under way)
- Drive-through restaurants – a traffic issue? litter?
- What is “traffic calming”?
- Truck exclusions on local roads?
- Plan for traffic impacts of sewer construction for several years into the future
- How will sewers fit into circulation changes in Kelley’s Corner?
- Bikeways ( i.e., separated from sidewalks) to recreation areas, etc.
- Identify problem areas – e.g., with high frequencies of accidents
- Railroad right-of-way in North Acton (Lowell-Sudbury line) – bikepath potential?

### Beginning to Establish Priorities

Finally, participants were invited to help the Planning Board begin to set priorities for implementing the recommendations of the Master Plan Update. In order to do that, “voting” sheets were placed in the meeting room listing the key action recommendations that were highlighted in the presentations. Each participant was given four green dots and one red dot for voting: the green dots would indicate actions which the participant felt were high priorities for implementation, while the red dot would represent an individual action which the participant either was cautious about or did not think was a good idea (in other words, a red dot could represent either opposition, concern or confusion about a particular action). The vote tallies from this exercise are presented in Appendix 3.

As noted earlier, the number of participants in the workshops was not large enough to be considered a representative sample of Town residents, and the “voting” process was an informal exercise designed to elicit general responses to the new action recommendations. However, the results of this exercise were considered in the final revisions to the Master Plan Update.

### Themes from the Discussions

The comments and questions on the four subject areas covered a wide range of issues and topics, and no single issue or viewpoint dominated the discussions. However, several general themes emerged from the comments:

1. There is a concern about the residential growth rate.
2. Members of the Economic Development Committee strongly urged actions to encourage business and tax base growth.
3. Regulations affecting businesses need to be simplified.

4. Traffic continues to be a major concern, and should be addressed in connection with any proposal for increasing the Town's development potential.
5. Residents are very interested in getting improved pedestrian and bicycle connections between their neighborhoods and both village and recreational areas.

# COMMUNITY PROFILE

## Regional Setting

Acton is an upper middle class suburban community, located approximately 25 miles west of Boston.

Commercial activity is concentrated in the two historic village centers of West Acton and South Acton; around Kelley's Corner at the junction of Main Street (Route 27) and Massachusetts Avenue (Route 111); along Great Road (Routes 2A/119); and along Powder Mill Road (Route 62). These areas provide stores, offices and services that are used by residents of Acton, Westford, Littleton, Carlisle, Stow, Boxborough, Concord, Maynard and Sudbury.

## Regional Transportation System

Acton is located between the Boston region's two circumferential highways: Interstate 95 (Route 128) to the east, and Interstate 495 to the west. Route 2 bisects the town, and serves as a major commuting route into Boston for residents of Acton and towns located to the west and north. The MBTA commuter rail runs through West Acton and South Acton. A train stop and parking facility are located in South Acton.

## Population

This section examines Acton's population growth and population characteristics. This information was provided in the 1991 Plan and has been updated for the 1998 Plan. Many of the tables present changes since the preparation of the 1991 Plan comparison.

### Overview

Actual population growth has occurred just barely below the rate projected in 1991. However, housing growth was much more rapid than predicted in 1990. The 1990 projections of 175 persons per year were based on annual housing growth of 52 dwelling units and an average of 3.364 persons per dwelling unit (a figure based on regional multipliers but significantly higher than the town's 1990 average household size). Actual growth has been 92 dwelling units per year according to 1991-1997 building permits issued, but the average population increase has been only 169 persons per year in the same period, suggesting an average of 1.837 persons per dwelling unit of new housing. The current overall population and housing levels represent an average household size of 2.63 persons per unit. Most recent observations indicate that the number of persons per dwelling unit is on the rise due to younger families with children moving into Acton.

The 1990 Master Plan estimated that the Town's population in 2020 would be 23,000 at the then-current growth rate, with higher assumptions leading to 2020 populations of between 25,000 and 31,000. The analysis conducted for the Update projects a housing

stock of between 8700 and 9600 dwelling units in 2020, and a population of 26,500 to 29,600, assuming that the average number of persons per housing unit increases from 2.6 in 1990 to 3.1 in 2020.<sup>3,4</sup> Assuming a continuation of the long-term growth rate of 72 dwellings per year, the housing stock in 2020 would be about 9,000 units and the population could be 28,000. In short, the Master Plan Update projects more rapid rate of housing growth than did the 1991 Master Plan, but this is balanced by a lower estimated average household size, with the result that the updated population projection for 2020 is close to the 1991 Plan.

## Recent Population Growth

Acton experienced its greatest growth between 1950 and 1970. Population quadrupled from 3,510 to 14,770 (Table 1). While many communities in the western Boston metropolitan area experienced unprecedented population growth in the 1970s and 1980s, Acton's slowed: after doubling during the 1960s, the town's population grew by 18.7 percent between 1970 and 1980, and by only 2 percent between 1980 and 1990. The recent growth rate is higher than in the 1980s but is not approaching the high rates of previous decades: the December 31, 1997, Town Census indicates a 7% population increase since 1990.

Population in a community changes through two factors: natural increase (births minus deaths) and net migration (in-migration versus out-migration). In-migration reflects community growth primarily through development of individual vacant parcels of land and secondarily through conversion of already developed land to new, or more intensive uses. Population increases are also a function of increasing family size.

Most of Acton's rapid growth from 1950 to 1970 was due to high in-migration. Zoning changes in the 1970s resulted in larger minimum lot sizes; hence in-migration and population increases slowed. Since these zoning changes, natural increase has been the major contributor to Acton's growth as seen in Table 1. Prior to 1970, the ten-year natural increase was never more than 30 percent of total population growth, reflecting continuing growth in housing stock and the accompanying influx of new residents. Since 1970, in contrast, natural increase has represented over 60 percent of the total population increase.

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<sup>3</sup> This assumes that the current baby "boomlet," as discussed later in this section, will continue to be reflected in the population over time. Note that an average household size of 3.1 persons would be somewhat higher than the average household size in the mid-1980s, but would be well below the 1970 level of 3.5 persons per household.

<sup>4</sup> These population projections are considerably higher than those of state and regional agencies, which assume much slower housing growth and/or continuation of the trend toward smaller household sizes. As noted later in this section, Acton's current population has already exceeded MISER's projection for 2010 and MAPC's projection for 2000.

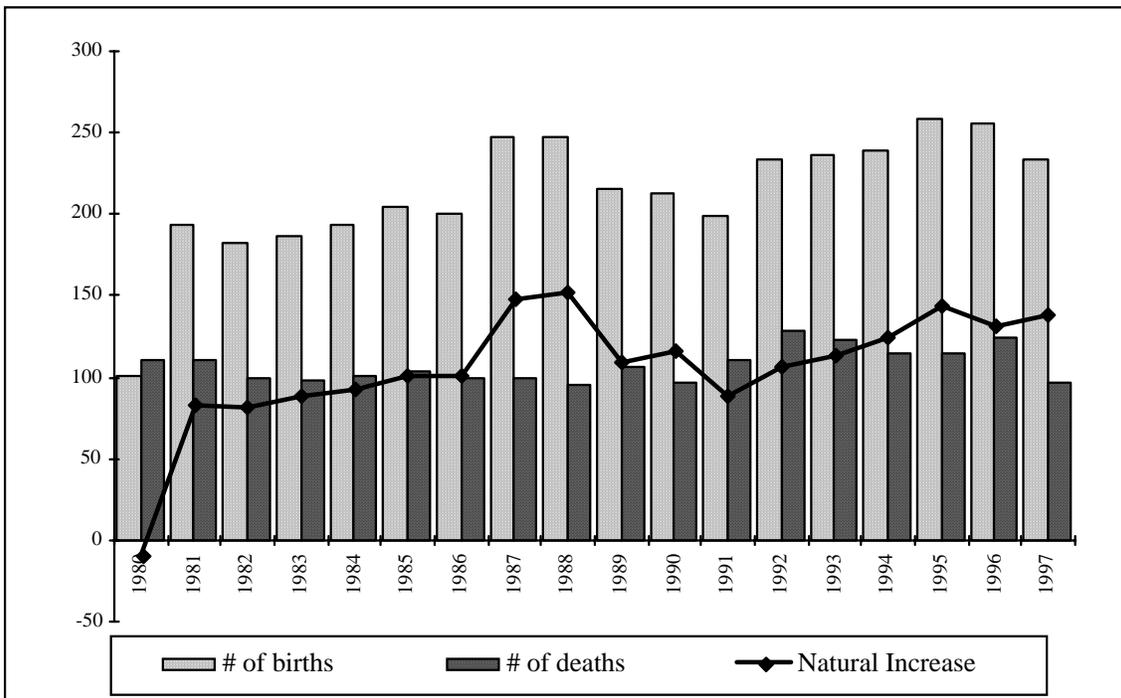
**Table 1: Components of Acton's Population Increases**

Year	Population	% Change	Natural Increase	% of Total Increase	Net Migration	% of Total Increase
1940	2,701					
1950	3,510	30%	275	34%	534	66%
1960	7,238	106%	937	25%	2,791	75%
1970	14,770	104%	1,673	22%	5,859	78%
1980	17,544	19%	1,792	65%	982	35%
1990	17,872	2%	1,064	324%	-736	-224%
2000	18,325	3%	934	206%	-481	-106%

Sources: 1940-1980 - MAPC; 1990 - U.S. Census; 2000 - MISER projection

Births in Acton have increased in the past few years (Figure 1). The 1991 Master Plan projected the increase in births to continue into the 1990s as women of childbearing age in the baby boom generation continue to have babies. This trend has proven true with a 20% increase in births from 1990 to 1996, reflecting the national trend.

**Figure 1: Acton's Births, Deaths and Natural Increase, 1980-1997**



Population changes since 1980 may be attributable to the recession experienced by New England in the early 1990s. During the 1980s, the rate of development and cost of housing peaked. Employment in construction and real estate rose by 50% between 1984 and 1988. Although a small portion of New England's economy, the number of jobs added in these sectors accounted for 25% of the region's overall job growth. The rapid expansion was due to a surge in home building and nonresidential construction.

By 1987, construction activity slowed but sales remained high and housing prices continued to rise. By 1989, sales were slowing, prices were weakening and construction

in both housing and nonresidential building was declining. Construction employment fell 15% between 1988 and 1990 and real estate employment dropped 6%.<sup>5</sup>

This rise and fall in the economy may account for the substantial out-migration of Acton residents between 1980 and 1990 as many had to leave in search of job opportunities outside the region. Home sales between 1990 and 1991 increased by 46.9%, another indication of the large out-migration. There were 77 residential building permits issued in 1991 but there were 467 home sales. The high rate of home sales continued through 1993 while new residential buildings remained a small proportion of this total. The increasing number of births in Acton has continued, balancing out-migration and resulting in a relatively stable population figure.

In the late 1990s, the pattern has changed again. With the resurgence of the regional economy, the outmigration of the previous decade has reverted to renewed in-migration. MISER had projected that Acton would experience a natural increase of 934 and a net out-migration of 481 persons between 1990 and 2000. However, according to the Town Clerk's office the natural increase between 1990 and 1997 was 845, and the town population as of December 31, 1997 was 18,878. Thus there was a net immigration of 161 over this period.

### Projected Population Growth

Population forecasts for the Acton area are provided by the Massachusetts Institute of Social and Economic Research (MISER) and the Metropolitan Area Planning Council (MAPC). As shown in Table 2 and Figure 2, both sources project only a slight population increase.<sup>6</sup> MISER shows a growth rate of 2.5% from 1990 to 2000 and MAPC projects growth of 4.4%. While both sources project a leveling off of the population, MISER projects a 1% decrease in population from 2000-2010 while MAPC projects a 3% increase. MAPC projects the population to stabilize between 2010 and 2020 with only a 1% rate of growth. These projections indicate that Acton's future growth will continue to be primarily through natural increase. Acton will not experience the rapid growth of the pre-1970 period unless there are significant changes in Acton's zoning or in the state's economy.

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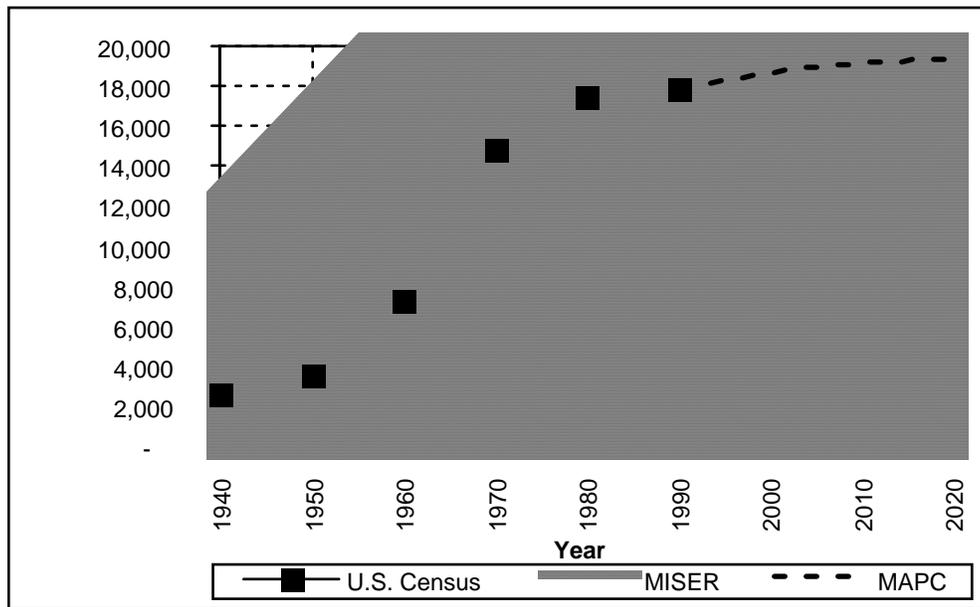
<sup>5</sup> "Why New England Went the Way of Texas Rather Than California," *New England Economic Review*. Jan./Feb. 1992.

<sup>6</sup> The projected population numbers for the year 2000 from both sources are lower than Acton's own 1997 Census count. The MISER projections for the year 2010 are also lower than Acton's own 1997 Census and MAPC's projection is fairly close to the current population figure. According to the MAPC, Town census counts always tend to be higher than the state's or MAPC's because of different counting methods. Note that MISER and MAPC projections in the 1991 Master Plan bracketed the actual 1990 population count (MISER was less than 1% low while MAPC was 2% high). Also note that the 1990 actual population was about 5% less than the Town Census figure for 1988. Therefore, MISER is probably a good figure to use.

**Table 2: Acton's Projected Population Increases**

	U.S. Census	MISER	MAPC
1940	2,701		
1950	3,510		
1960	7,238		
1970	14,770		
1980	17,544		
1990	17,872	17,872	17,872
2000		18,325	18,659
2010		18,135	19,144
2020			19,365

**Figure 2: Acton's Population, 1940-2020**



## Regional Comparisons

Acton's population growth between 1980 and 1990 was slower than in many of the surrounding communities (Table 3). It was comparable to growth rates in Sudbury, Bolton, Harvard and Littleton, which grew by less than 3 percent during the decade. In contrast, Carlisle and Westford grew by 31 percent and 22 percent, respectively; while Lincoln, Maynard, Boxborough, Hudson and Concord grew between 5 and 8 percent.

During the 1990s the growth rate increased in many area communities, including Acton. Acton's 5.5 percent growth during this period represents a rate of about 0.9% per year, more than four times the 0.2% annual growth rate of the previous decade. However, this is still modest. Meanwhile, the adjacent communities of Carlisle and Westford continued to outpace Acton's growth, and growth in Stow, Littleton and especially Boxborough was also greater than in Acton.

In general, growth rates in the communities closer to Route 128 are slowing down because of the lack of remaining buildable land. Regional growth is moving to the I-495 area and beyond, where there is still substantial land available for development. Acton falls in between these two growth rings and seems to have more in common with the Route 128 corridor than the I-495 area.

Based on population projections developed by state and regional agencies, Carlisle and Westford (near I-495) will continue to lead the region in the total percentage population growth over the next two decades, but Lincoln and Concord (more closely associated with the Route 128 area) are expected to slow. Acton is projected to have one of the lowest percentage increases in population within the region. MISER projects that, generally, the population in the surrounding communities will stabilize by 2010.

**Table 3: Population Change, 1980-1996, by Community**  
(sorted by 1980-1990 growth rate)

Community	April 1, 1980	April 1, 1990	Change (#)	Change (%)	July 1, 1996	Change (#)	Change (%)
Carlisle	3,306	4,333	1,027	31.1%	4,599	266	6.1%
Westford	13,434	16,392	2,958	22.0%	18,642	2,250	13.7%
Lincoln	7,098	7,666	568	8.0%	7,899	233	3.0%
Maynard	9,590	10,325	735	7.7%	10,412	87	0.8%
Boxborough	3,126	3,343	217	6.9%	3,979	636	19.0%
Hudson	16,408	17,233	825	5.0%	17,695	462	2.7%
Concord	16,293	17,076	783	4.8%	17,792	716	4.2%
Stow	5,144	5,328	184	3.6%	5,731	403	7.6%
Sudbury	14,027	14,358	331	2.4%	15,130	772	5.4%
ACTON	17,544	17,872	328	1.9%	18,851	979	5.5%
Bolton	3,470	3,517	47	1.4%	3,279	145	4.6%
Harvard	12,170	12,329	159	1.3%	11,590	-739	-6.0%
Littleton	6,970	7,051	81	1.2%	7,695	644	9.1%
Bedford	13,067	12,996	-71	-0.5%	13,676	680	5.2%

Source: U.S. Bureau of the Census (1996 estimates released November 18, 1997)

MAPC's projections for the surrounding communities (Table 5) are higher than MISER's. The most notable difference is the projected population for Boxborough which is 1700 greater than the MISER projections.<sup>7</sup> The remainder of the communities are expected to follow similar trends as projected by MISER but at more rapid rates.

<sup>7</sup> The Boxborough Town Planner confirmed that MAPC's projections are fairly accurate. The current population is estimated to be 4,800. Buildout population is expected to be approximately 6,600 and reached by 2030.

**Table 4: MISER Population Projections by Community**  
(sorted by 1990-2000 projected growth rate)

	2000	2010	% Change 1990-2000	% Change 2000-2010
Carlisle	4,944	5,360	14.1%	8.4%
Westford	18,387	19,829	12.2%	7.8%
Maynard	11,070	11,383	7.2%	2.8%
Stow	5,710	5,805	7.2%	1.7%
Bolton	3,724	3,747	5.9%	0.6%
Boxborough	3,524	3,558	5.4%	1.0%
Hudson	18,128	18,254	5.2%	0.7%
Littleton	7,384	7,439	4.7%	0.7%
Sudbury	14,971	14,888	4.3%	-0.6%
Bedford	13,456	13,408	3.5%	-0.4%
Concord	17,655	17,597	3.4%	-0.3%
Harvard	12,685	12,819	2.9%	1.1%
ACTON	18,325	18,135	2.5%	-1.0%
Lincoln	7,848	7,827	2.4%	-0.3%

**Table 5: MAPC Population Projections by Community**  
(sorted by 1990-2000 projected growth rate)

	2000	2010	2020	Change 1990-2000	Change 2000-2010	Change 2010-2020
Boxborough	5,281	6,351	7,153	58.0%	20.3%	12.6%
Carlisle	4,731	5,064	5,342	9.2%	7.0%	5.5%
Lincoln	8,265	8,508	8,793	7.8%	2.9%	3.3%
Sudbury	15,469	16,404	17,222	7.7%	6.0%	5.0%
Littleton	7,564	7,997	8,383	7.3%	5.7%	4.8%
Bolton	3,759	4,183	4,587	6.9%	11.3%	9.7%
Stow	5,662	5,883	5,990	6.3%	3.9%	1.8%
Bedford	13,663	14,088	14,288	5.1%	3.1%	1.4%
Hudson	18,095	18,643	18,900	5.0%	3.0%	1.4%
ACTON	18,659	19,144	19,365	4.4%	2.6%	1.2%
Maynard	10,678	10,880	10,965	3.4%	1.9%	0.8%
Concord	17,594	17,279	17,065	3.0%	-1.8%	-1.2%
Harvard*						
Westford*						

\* Not in MAPC region

### Population Density and Distribution

In 1990, Acton's population density was 894 persons per square mile, generally, clustered in West and South Acton. According to the 1990 Census, 15,496 people, or 87 percent of the population, are outside rural areas and the remaining 2,376 (13%) are in rural areas. This is a 2,316 person increase in the number of people living in "urban" areas since 1980 and a 1,988 decrease in the number of people living in "rural" areas.

Much of this shift can be attributed to continued growth where rural areas have been developed to the extent that they are now classified “urban.”

Population distribution in 1980 and 1990 by Census tract gives another picture of Acton (see Table 6 and Figure 3). Although the tracts do not directly match clustering of population in West and South Acton, Table 6 indicates that the bulk of Acton’s population does live west of Route 2A (Great Road). Census Tract 3631.02 (north of Great Road to the Town line) experienced a 16.3% population increase from 1980 to 1990 while Tract 3632.02 and 3632.01 (between Route 2 and Great Road, east of Route 27) remained relatively unchanged, and tract 3631.01 experienced a 2.8% decrease.

**Table 6: Acton’s 1980 and 1990 Population by Census Tract**

<b>Census Tract</b>	<b>1980</b>	<b>1990</b>	<b># Change</b>	<b>% Change</b>
3631.01	8,133	7,909	-224	-2.8%
3631.02	3,265	3,797	532	16.3%
3632.01	2,792	2,824	32	1.1%
3632.02	3,354	3,342	-12	-0.4%
<b>TOTAL</b>	<b>17,544</b>	<b>17,872</b>	<b>328</b>	<b>1.9%</b>

Source: U.S. Census

## Socio-Economic Characteristics

### Households

#### Number of Households

The number of households in Acton has been growing faster than the population (Table 7). This is most evident from 1970 to 1980 when the number of residents grew by 18.7 percent, while the number of dwelling units increased by 50.4 percent, from 4,195 to 6,309. This was the period in which many of the apartments and condominiums in Acton were constructed.

As the rate of multifamily housing construction dropped, the relationship between housing and population growth became closer again. In 1997, there were an estimated 7,494 dwelling units (estimated based on building permit data), a 9% increase since 1990. The population increased by 7% during this period, from 17,872 to 19,056.

**Table 7: Population and Housing Overview**

<b>Year</b>	<b>Population</b>	<b>% Change from Prior Period</b>	<b>Dwelling Units</b>	<b>% Change from Prior Period</b>	<b>Average # Persons per Dwelling Unit</b>
1960	7,238				
1970	14,770	104%	4,195		3.5
1980	17,544	19%	6,309	50%	2.8
1990	17,872	2%	6,891	9%	2.6
1997	19,056	7%	7,494	9%	2.5

Sources: 1960-1990 U.S. Census, 1997 Town Clerk and estimates from building permits

#### Household Size

Following national trends, Acton's average household size declined significantly during the 1970s and 1980s: in 1970 there were 3.5 persons per household in Acton; the comparable 1990 figure was only 2.6. Just over half of Acton's households were comprised of one or two people in 1990, up from 47.8% in 1980. Households with 4 or more persons decreased by approximately 8% between 1980 and 1990 (Table 8).

**Table 8: Acton Household Size, 1980 and 1990**

<b>Number in Household</b>	<b>Number of Households</b>		<b>% of Total</b>	
	<b>1980</b>	<b>1990</b>	<b>1980</b>	<b>1990</b>
1 person	1,129	1,363	19.0%	20.7%
2 people	1,709	2,055	28.8%	31.3%
3 people	1,041	1,251	17.5%	19.0%
4 people	1,206	1,284	20.3%	19.5%
5 people	554	502	9.3%	7.6%
6+ people	300	119	5.1%	1.8%
<b>TOTAL</b>	<b>5,939</b>	<b>6,674</b>		

Source: U.S. Census

Smaller household size reflects several social trends—smaller families, single persons living alone, persons delaying or foregoing marriage, higher divorce rates and the elderly living independently longer. Smaller household size has implications for the type of housing demanded now and in the future. Homes built for larger families may become a financial burden for a small family and lead to greater demand for accessory apartments.

In the United States, average household sizes are declining. These long term trends are reflected in the populations of Acton and surrounding towns. Acton’s household size of 2.6 persons is somewhat smaller than nearby communities, as shown in Table 9. Boxborough and Maynard are the only surrounding communities that had smaller average household sizes than Acton in 1990. Harvard had the largest average household size in 1990 at 3.23 while Boxborough had the smallest at 2.45. In comparison, Middlesex County was similar to Acton with 2.57 persons per household.

**Table 9: Average Household Size by Community**

<b>Community</b>	<b>Average # Persons per Dwelling Unit</b>
Harvard	3.23
Westford	3.07
Sudbury	3.00
Bolton	2.98
Carlisle	2.97
Lincoln	2.90
Hudson	2.70
Concord	2.69
Littleton	2.69
Stow	2.69
Bedford	2.66
Acton	2.59
Maynard	2.55
Boxborough	2.45

Source: 1990 U.S. Census

Since the late 1970s another national trend has emerged that is again transforming demand for community services. The “baby boomlet” is a surge in the number of children born to baby boomers. These “echo boomers” were born between 1977 and 1994, and range in age from 4 to 21. Nationally, the peak years for births were in the early 1990s, and these children are now entering the schools.

Acton has participated in this trend toward higher birth rates. Moreover, the resurgent housing market in Acton has resulted in more households, compounding the impact of higher birth rates. As shown in Figure 1, the high annual number of births has continued through the 1980s and 1990s.

## Household Composition

In 1990, 62.7% of Acton's households were comprised of married-couple families, down from 64.1% in 1980 (Table 10). Non-family households as a percentage of total households decreased between 1980 and 1990 but the number of single-parent households has increased significantly.

The rise in single-parent families increases the need for programs and such as day care facilities and after school programs. Female-headed single-parent families are especially vulnerable since they tend to have lower incomes.

**Table 10: Acton Household Composition, 1980 and 1990**

Type of Household	Number of Households		% of Total		County
	1980	1990	1980	1990	1990
Single-Person Household	1,229	1,363	20.7%	20.7%	25.1%
Married-Couple Family	3,808	4,120	64.1%	62.7%	54.3%
Single-Parent Family	415	707	7.0%	10.8%	13.0%
Non-Family Household	487	384	8.2%	5.8%	7.6%

Source: U.S. Census

Acton has more married couple families as a percentage of total households than the average for Middlesex County, but Acton's overall distribution is fairly similar to the county.

## Age

### Age Distribution

The age profile of a population is an important determinant of the services a community needs to provide. More children require increased school expenditures, while an aging population needs more elderly services.

Since the turn of the century, birth rates have cycled dramatically in the United States reflecting varying economic and social conditions. During the Depression and World War II, birth rates were very low. The post war "baby-boom" of unprecedented birth rates was followed by a rapid decline of births in the 1960s and 1970s. As a result, age groups have grown at vastly different rates, causing dramatic growth and declines in the population of their cohort groups. Changes in the sizes of age groups demand continual anticipation and adjustment of institutions. Many social and economic needs can be linked to fluctuation in cohort size.

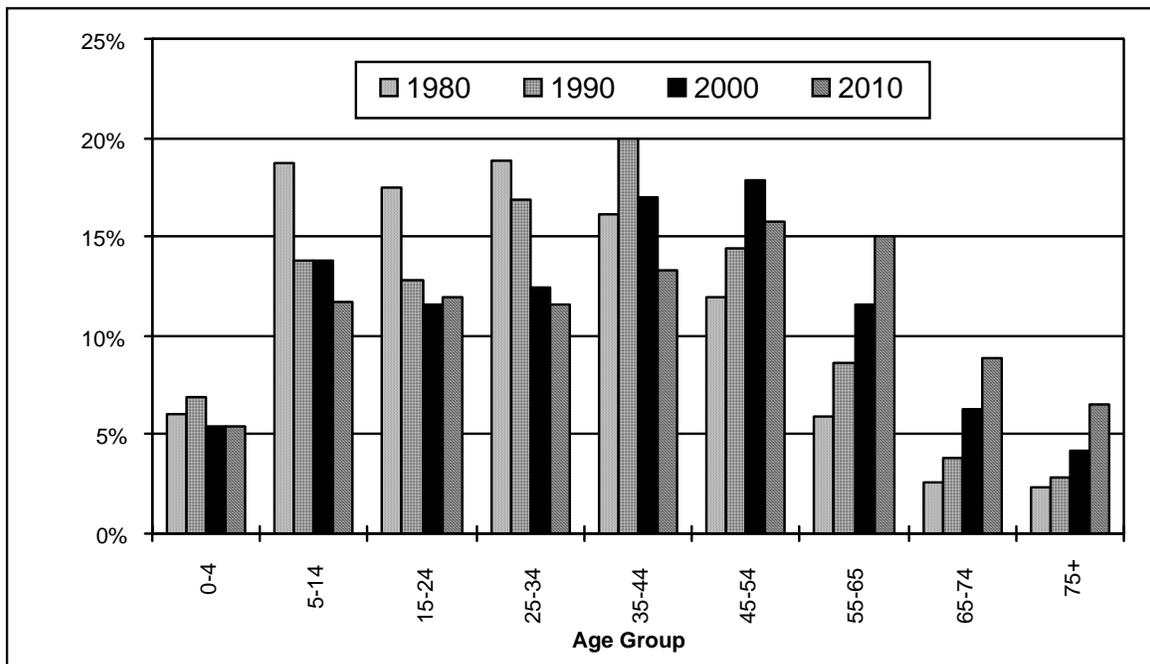
Table 11 and Figure 4 illustrate Acton's age group distribution, showing Acton's population by percentage of age group from 1980 to 2010. The baby-boom generation (born between 1946 and 1960) dominates the graph.

**Table 11: Acton Age Distribution**

Age Group	1980		1990		2000		2010	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-4	1,056	6%	1,240	7%	987	5%	988	5%
5-14	3,268	19%	2,461	14%	2,529	14%	2,121	12%
15-24	3,047	17%	2,295	13%	2,111	12%	2,160	12%
25-34	3,297	19%	3,008	17%	2,272	12%	2,094	12%
35-44	2,829	16%	3,575	20%	3,121	17%	2,405	13%
45-55	2,080	12%	2,570	14%	3,271	18%	2,854	16%
54-65	1,044	6%	1,537	9%	2,119	12%	2,729	15%
65-74	457	3%	682	4%	1,154	6%	1,601	9%
75+	406	2%	504	3%	761	4%	1,183	7%
Totals	17,484		17,872		18,325		18,135	

Source: 1980 - CACI, Inc.; 1990 - U.S. Census; 2000 & 2010 - MISER

**Figure 4: Acton Age Distribution, 1980-2010**



As the baby boomers age, the number of persons between 25 and 34 is declining. This cohort will drop from 17 percent of the population in 1990 to 12 percent by 2000 and 2010.<sup>8</sup>

Population in the 0-4 and 5-14 cohorts should remain stable through 2010. As discussed in the population section, there has been an increase in births since 1987. This “baby

<sup>8</sup> Note that this projected decline is not as steep as expected when the 1991 Master Plan was prepared.

boomlet" will recede by 2000 as the baby boomers age and the number of women of childbearing age declines.

The proportion of population over 65 changed little from 1980 to 1990 but is projected to increase slightly from 2000 to 2010. Increased life expectancy will be balanced by retirees moving to the Sunbelt. Significant increases in the number of elderly will not occur until the baby-boomers begin to reach 65 in 2010.

In 1990, the median age in Acton was 35.0 compared with 33.7 in Middlesex County. The median age was 23.7 in 1970 and 29.7 in 1980, younger than the County median of 28.3 and 30.9, respectively. In 1990, people over 65 comprised 7% residents in Acton and 12.5% in Middlesex County. Children under 4 comprised approximately 7% of the population for both Acton and the County.

### School-Age Population

The MISER projections in Table 11 indicate that the number of children in the age groups between 5 and 14 will drop from 19 percent of the population in 1980 to around 14 percent through 2010. This decrease in the percentage of children has been reflected in Acton's school enrollment. Between 1980 and 1986, there was a 25% decline in public school enrollment in Acton.

Since 1987, however, there has been a gradual increase in students. Enrollment projections indicate that total school enrollment will increase by 3% per year through 2001 before leveling off (annual change of between +1% and -1%) from 2002 through 2005.

**Table 12: Actual and Projected School Enrollment**

PUBLIC SCHOOL ENROLLMENT PROJECTIONS									
Elementary School Acton, MA: 1994-2008									
Year	K-12	K	1	2	3	4	5	6	Total
1994*	3,422	292	329	311	318	295	272	274	2,091
1995*	3,509	312	293	328	315	309	299	264	2,120
1996*	3,633	311	329	310	329	318	326	309	2,232
1997*	3,751	294	337	334	323	327	327	326	2,268
1998*	3,963	336	319	355	346	334	325	337	2,352
1999	4,125	335	356	325	362	349	337	328	2,394
2000	4,252	338	355	363	332	366	353	341	2,448
2001	4,368	351	358	363	371	335	369	356	2,503
2002	4,467	324	372	365	370	374	339	373	2,516
2003	4,520	318	343	379	373	366	378	342	2,498
2004	4,542	307	337	350	387	376	370	382	2,508
2005	4,545	298	326	343	357	390	380	373	2,468
2006	4,550	291	316	332	350	361	394	384	2,429
2007	4,534	284	309	323	339	354	364	398	2,371
2008	4,504	282	309	315	329	342	357	368	2,303
Uses new forecasted birth data									
Junior School Acton, MA: 1994-2009				High School Acton, MA: 1994-2010					
Year	7	8	Total	Year	9	10	11	12	Total
1994*	251	218	469	1994*	218	227	216	201	862
1995*	272	249	521	1995*	213	209	227	219	868
1996*	267	271	538	1996*	237	214	192	220	863
1997*	316	271	587	1997*	259	234	199	204	896
1998*	336	307	643	1998*	260	268	237	203	968
1999	344	336	680	1999	292	260	260	239	1051
2000	335	344	679	2000	319	292	252	263	1126
2001	348	335	682	2001	327	319	283	255	1183
2002	364	348	711	2002	318	327	310	286	1240
2003	381	364	744	2003	330	318	317	313	1278
2004	349	381	729	2004	345	330	309	320	1304
2005	389	349	738	2005	362	345	320	312	1339
2006	381	389	770	2006	331	362	335	323	1351
2007	392	381	772	2007	370	331	351	338	1390
2008	402	392	794	2008	362	370	321	354	1407
2009	372	402	774	2009	372	362	359	325	1417
				2010	382	372	351	362	1467

Excludes choice

\* Actual data

Shaded area indicates enrollment data based on children who are already born.

NOTE: This scenario is a result of utilizing 8 **year averages** for the kindergarten to births and grade to grade ratios.

Sources: Acton-Boxborough School System  
Metropolitan Area Planning Council  
Enrollment Subcommittee

## Race and Ethnicity

In the 1980 Census, 97.5 percent of Acton residents were white. In 1990, the population was still primarily white but decreased to 93% of the total. Persons classified as minorities (including non-white and white Hispanics) were 3.2 percent of the population in 1980. The Boston SMSA population in comparison was 10 percent minority in 1980.

Table 13 presents a detailed breakdown of Acton's 1990 population by race and ethnicity, by census tract.

**Table 13: Acton Residents by Race and Census Tract, 1990**

<b>Race</b>	<b>3631.01</b>	<b>3631.02</b>	<b>3632.01</b>	<b>3632.02</b>
White	7,547	3,514	2,704	3,226
Black	80	68	29	23
American Indian, Eskimo or Aleut	13	9	-	-
Asian or Pacific Islander	269	156	91	71
Other Race	-	50	-	22
<b>Hispanic (all races)</b>	<b>104</b>	<b>149</b>	<b>17</b>	<b>62</b>

Source: U.S. Census

There have been significant percentage increases during the 1980s in some minority groups (particularly Hispanic, Asian Indian, Chinese, Black and Korean), but the numerical totals are still small in comparison to the total population (see Table 14).

**Table 14: Acton Residents by Ethnic Group, 1980-1990**

<b>Ethnic Group</b>	<b>Number of persons</b>		<b>Change</b>
	<b>1980</b>	<b>1990</b>	<b>1980-1990</b>
White	17,107	16,991	(116)
Black	127	200	73
Japanese	17	34	17
Chinese	63	189	126
Filipino	4	6	2
Korean	51	98	47
Asian Indian	66	221	155
Vietnamese	11	14	3
Hawaiian	3	-	(3)
Mexican	31	46	15
Puerto Rican	21	32	11
Cuban	30	24	(6)
Other Hispanic	74	230	156
Others	77	72	(5)

Source: U.S. Census

## Income

Income has increased significantly since 1980 for Acton's residents. Annual median household income rose from \$27,323 in 1979 (1980 U.S. Census) to \$61,384 in 1990, or 125%. This is the 23rd highest median household income in the state. The median income in the state was \$17,575 in 1980 and \$36,952 in 1990, an increase of 110%. Therefore, income in Acton has increased relative to state averages.

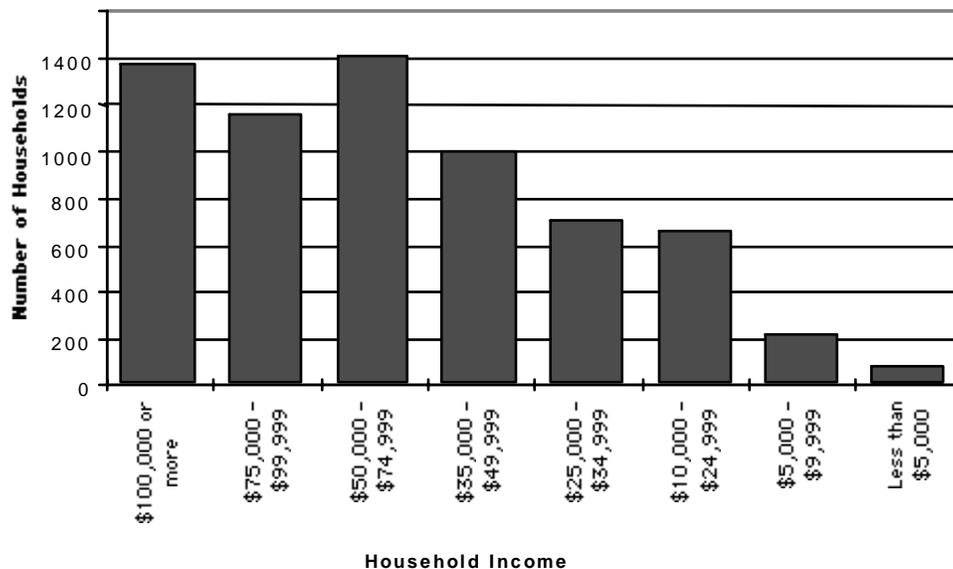
Per capita income increased in Acton from 1980 to 1990, from \$10,522 to \$25,792 (27th in the state). About 3% of households in 1980 earned incomes over \$75,000. By 1990, 17.5% of households earned between \$75,000 to \$99,999 and 20.8% of households had annual incomes exceeding \$100,000.

**Table 15: 1990 Income Distribution**

Household Income	Number of Households	Percent of Total
\$100,000 or more	1,373	20.8%
\$75,000 - \$99,999	1,152	17.5%
\$50,000 - \$74,999	1,405	21.3%
\$35,000 - \$49,999	995	15.1%
\$25,000 - \$34,999	703	10.7%
\$10,000 - \$24,999	661	10.0%
\$5,000 - \$9,999	213	3.2%
Less than \$5,000	72	1.1%

Source: U.S. Census

**Figure 5: 1990 Income Distribution**





or 2.3% of the population in 1990, significantly lower than the State averages of 9.4 % and 8.9%, respectively.

## Education

Acton’s residents are well educated. Of persons 18 years and older, 55 percent in 1990 were college graduates, up from 47.3% in 1980.

**Table 18: Educational Attainment, Persons over 18, by Census Tract**

Education Level	Census Tract				TOTAL	% of Total
	3631.01	3631.02	3632.01	3632.02		
Less than 9th grade	65	75	21	34	195	1.5%
9th to 12th grade, no diploma	165	190	164	143	662	4.9%
High School graduate	875	421	332	437	2,065	15.4%
Some college, no degree	973	524	266	360	2,123	15.8%
Associate degree	432	238	139	179	988	7.4%
Bachelors degree	2,120	950	623	688	4,381	32.6%
Graduate or professional degree	1,282	619	552	552	3,005	22.4%
Total	5,912	3,017	2,097	2,393	13,419	100.0%

Source: 1990 U.S. Census

Acton residents have attained more education than residents in many surrounding communities. While most comparison communities have close to 90% of residents with a high school degree, Acton is one of only four communities where 55% or more residents have earned a bachelors degree or higher.

**Table 19: Educational Attainment by Community**

	<b>% of Population with a High School degree or higher</b>	<b>% of Population with a Bachelors degree or Higher</b>
Acton	93.6%	55.0%
Bedford	92.8%	39.7%
Bolton	93.3%	44.2%
Boxborough	93.5%	51.5%
Carlisle	95.8%	62.0%
Concord	91.4%	52.1%
Harvard	96.9%	31.5%
Hudson	77.9%	21.6%
Lincoln	95.7%	57.4%
Littleton	89.8%	31.8%
Maynard	86.4%	26.5%
<i>Metro Boston</i>	56.0%	14.0%
Stow	91.4%	46.4%
Sudbury	95.2%	59.4%
Westford	89.7%	36.3%
Massachusetts	50.0%	11.0%

Source: 1990 US Census. Metro Boston figure from MAGIC White Paper

## Occupation

The majority of Acton residents are employed in the service, manufacturing, or wholesale & retail trade industries. The labor force in 1990 equaled 10,508 up 13% since 1980. Approximately 3.3% were unemployed in 1990, far less than the 6.7% unemployment rate for the state.

**Table 20: 1990 Occupations**

<b>Occupation</b>	<b># Employed</b>	<b>Percentage</b>
Agriculture	65	0.6%
Mining	4	0.0%
Construction	465	4.6%
Manufacturing	2,797	27.4%
Transportation & Communication	290	2.8%
Wholesale & Retail Trade	1,689	16.6%
Finance, Insurance, Real Estate	749	7.3%
Government	259	2.5%
Services	3,884	38.1%
Total	10,202	100.0%

Source: 1990 U.S. Census

## Summary

Population trends are the basis for establishing reasonable projections of future demands on the Town. Town officials can interpret this information to provide for efficient and timely provision of community services.

Acton experienced its greatest population growth between 1950 and 1970 when population quadrupled to 14,770. Most of this growth (78 percent) was due to immigration. Zoning changes in the 1970s slowed Acton's growth. Since then, population growth has occurred primarily through natural increase. Recently, the number of births have increased. Population trends are expected to continue. Acton's population will probably grow between 0.1 percent and 0.3 percent annually in the next few years. Therefore, Acton should not face significant capital expenditures for additions to municipal facilities and services to accommodate future growth (although investments may be needed to address recent growth or long-term maintenance).

The age of the population is an important determinant of the type of services a community must provide:

- From 1970 to 1990, Acton's median age increased significantly from 23.7 to 35.
- Children between 5 and 14 comprised 19 percent of the 1980 population, but decreased to 14 percent by 1990. The number of children under five has remained relatively stable as a percentage of total population since 1980.
- The elderly population (over 65) will increase from 1990 to 2010. Significant increases in the number of elderly persons will not occur until after 2010 when baby-boomers begin to reach 65.

These population trends mean Acton has to make careful utilization of its educational facilities a priority. Also, while providing additional services or facilities for the elderly will not become a critical concern until 2010, providing services to keep the elderly in their homes is important to the overall social health of the community.

Households have been growing faster than population:

- From 1970 to 1980, population grew by 18.7 percent while dwelling units increased by 50.4 percent.
- From 1980 to 1990, population grew by 2% while the number of dwelling units increased by 9%.

Social changes such as single persons living alone and the increased divorce rate has increased the number of dwelling units. This housing demand appears to be continuing, although future housing units will not need to be as large.

Household composition has changed:

- Households are smaller with 3.52 persons per household in 1970, 2.78 in 1980, and 2.5 in 1990.
- The majority of households (52 percent) were married couple families.
- There has been a significant increase in the number of single-parent households which comprised 10.8% of all households in 1990 compared with 7.0% in 1980.

Income has increased significantly in Acton since 1979. Annual median income rose from \$27,323 in 1980 to \$69,384 in 1990. The median income ranks 23rd in the state but is comparable to surrounding communities.

# GOALS AND OBJECTIVES

## Background

This section updates the goals and objectives contained in the 1991 Master Plan (Part I—Action Plan). The *goals* are overarching statements of the general directions the Town wishes to pursue. The *objectives* define the Town’s position on individual issues, and can be used to guide public and private decision making. Subsequent elements of the Master Plan Update contain *strategies* and *actions* that support the goals and objectives. The *strategies* are general approaches to attaining the goals and objectives; while the *actions* are specific steps that the Town can take to achieve its objectives. Strategies and associated actions are listed in the subsequent chapters (Land Use through Transportation and Circulation).

The Master Plan’s goals and objectives address many aspects of Acton’s activities, including land use and growth management policies, provision of municipal services and facilities, public safety, and environmental protection. Local officials and residents should consult the Master Plan, especially the goals and objectives, when making decisions about policies, actions and funding of these activities.

## Relationship to 1991 Goals, Objectives and Actions

The goals and objectives of the 1991 Plan are largely unchanged: the input from the public and Town officials, and the consultants’ review of the data and analysis update, reaffirmed the 1991 goals and objectives with minor adjustments. In contrast, many of the issue statements and recommended actions have been significantly updated to reflect progress and changes since 1991.

The material in the Master Plan Update has been reformatted consistent with the statutory requirements for master plans (Mass. General Laws, chapter 41, section 81D). Specifically, goals and objectives are now organized according to the seven functional elements mandated for master plans, and subsequent chapters of this Update correspond to these seven elements (see Table 21). While this reorganization complicates comparison of the 1991 and 1998 Plans, it ensures that the entire 1998 Master Plan Update is consistent with the Commonwealth’s statutory requirements.

**Table 21: Elements of the Master Plan**

- 
- |                        |                                |
|------------------------|--------------------------------|
| • Land Use             | • Natural & Cultural Resources |
| • Housing              | • Open Space & Recreation      |
| • Economic Development | • Services & Facilities        |
|                        | • Traffic & Circulation        |
-

Yet it is important to recognize that the boundaries between these elements are not absolute, and many issues addressed in this document cross over between categories. For example, many “Natural, Cultural and Historic Resources” issues are addressed through actions just as easily discussed in the “Services and Facilities” section; and the rural character protection concerns described in the “Land Use” section are equally important to the “Open Space and Recreation” element. This interdisciplinary aspect makes the Master Plan at once challenging and, if carefully considered, of immense importance to the management of the town.

## Land Use

**Goal:** Preserve those elements or features which contribute to Acton’s New England town character as a suburban residential community with strong rural and historic roots.

Objective: Strengthen Acton’s traditional pattern of village centers.

Objective: Maintain Acton’s rural and historic elements.

Objective: Provide incentives and aid to preserve and revitalize historic structures and places.

Objective: Preserve natural and human-made features that contribute to Acton’s character such as open fields, woodlands, ponds, country roads, and stone walls.

Objective: Promote a sense of community.

**Goal:** Direct new residential development to protect Acton’s natural environment and other resources, to be consistent with Acton’s New England town character, and to encourage diversity in Acton’s population.

Objective: Encourage new residential development to preserve open space.

Objective: Promote residential village environments that are consistent with Acton’s character.

Objective: Encourage a variety of neighborhood design alternatives for residential development.

Objective: Promote pedestrian circulation within and between residential developments.

Objective: Adjust the intensity of residential development to protect Acton’s environmental resources and to remain within the limitations of its infrastructure.

## Housing

**Goal:** Encourage diversity in Acton's population by achieving a mix of homes that enhances Acton's town character and provides needed choices for our residents.

**Objective:** Preserve the character of Acton's established residential neighborhoods.

**Objective:** Promote a range of economic diversity in housing including low and moderate income housing.

**Objective:** Promote a range of choice in the types of homes to allow for residents' changing capacities and preferences.

## Economic Development

**Goal:** Promote current and new commercial development within the context of the Master Plan by strengthening the tax base to reduce the tax burden on residential taxpayers.

**Objective:** Support commercial and industrial growth that will fit in Acton and contribute to the community's quality of life and fiscal stability.

- Encourage commercial and industrial development
- Attract new businesses
- Increase the diversity of commercial enterprise
- Increase Commercial, Industrial and Personal Property (C/I/P) revenues share to 20% within the next 5 years

**Objective:** Support the concept of village and business districts by encouraging businesses of appropriate scale that will contribute to a mix of activities.

## Natural, Cultural and Historic Resources

**Goal:** Protect and sustain Acton's natural environment and resources.

**Objective:** Strictly enforce federal, state and local environmental laws, and supplement them with additional Town regulations if necessary.

**Objective:** Ensure the restoration of polluted environmental resources.

**Objective:** Protect the quality and quantity of Acton's water supply.

Objective: Promote environmentally sound solid waste and wastewater management.

Objective: Pursue regional solutions to environmental problems.

Objective: Establish environmental standards for new development.

**Goal: Preserve Acton's historic and cultural resources.**

Objective: Provide incentives and aid to preserve and revitalize historic structures and places.

## Open Space and Recreation

**Goal: Preserve the remaining elements of Acton's rural character.**

Objective: Protect and maintain Acton's remaining farmland, and promote active farming in the Town.

Objective: Conserve open space parcels that have been identified as key remaining elements of Acton's rural character.

Objective: Create greenbelts of conserved lands along waterways, to include key wildlife habitats.

Objective: Manage and enhance resource opportunities at Acton's conservation lands.

**Goal: Provide a variety of recreational opportunities for all Acton residents.**

Objective: Provide water recreational opportunities beyond existing facilities.

Objective: Preserve open spaces which have value as aesthetic, recreational, wetland, water, and wildlife resources.

Objective: Improve access to and between recreation and conservation areas.

Objective: Develop, maintain, and encourage the use of Acton's recreational resources.

Objective: Provide recreational opportunities for families with young children.

Objective: Encourage entertainment opportunities for teenagers.

## Services and Facilities

**Goal:** Provide high quality services, facilities, and administration within the fiscal capacity of the Town.

Objective: Plan for new and expanded facilities as needed to serve the community.

Objective: Construct new, and expand and renovate existing school facilities at the local and regional levels to meet the needs of increased school enrollment.

Objective: Enhance the level of services that the Town can provide by continually seeking operational efficiencies and by using federal, state, and private funding sources to supplement Town funds.

Objective: Consider alternative ways of generating local revenues to pay for services and amenities desired by residents.

Objective: Explore and develop strategies to reduce reliance on the residential property tax to fund services and facilities, particularly for senior citizens and those on fixed incomes.

**Goal:** Provide a variety of high quality educational opportunities.

Objective: Maintain the excellence of the public school system.

Objective: Provide educational facilities and resources to support the increased student enrollment at the local and regional levels.

Objective: Encourage day-care facilities.

Objective: Provide a variety of continuing education programs.

Objective: Sustain and promote Acton's excellent library services.

Objective: Encourage the use of conservation areas and historic resources for educational purposes.

Objective: Provide services and facilities to enable the elderly and persons with disabilities to live independently in Acton.

Objective: Encourage greater access for all residents to cultural events, opportunities and services.

**Goal:** Continue to mitigate the impact of development upon natural resources

Objective: Work with Acton Water Supply District to maintain adequate supply and quality of water and to address the state water withdrawal limit.

Objective: Continue working to avoid and alleviate pollution resulting from failed septic systems.

Objective: Continue planning and implementing a sewerage system as needed to protect water resources and service desired development

## Transportation and Circulation

**Goal:** Provide a transportation system that meets the mobility and access needs of the community, is environmentally sound, safe and convenient, and reduces dependency on the automobile.

Objective: Regulate the amount and intensity of new growth as one measure to control traffic.

Objective: Establish transportation system capacity limits to be consistent with Acton's character and with the roadway's functional classification system.

Objective: Minimize Town expenditures for road improvements by maximizing the use of federal and state funds, and private mitigation efforts.

Objective: Promote local and regional public transportation.

Objective: Provide facilities that will encourage walking and bicycling, including on-road bicycle access.

Objective: Encourage regional and public/private cooperation in transportation planning.

Objective: Provide adequate vehicle carrying capacity on the major traffic corridors to maintain mobility, safety and access to land and minor roads.

Objective: Make improvements at hazardous locations while maintaining the scenic character of Acton's roads.

Objective: Improve parking availability in the village centers consistent with village plans and community design standards.

Objective: Improve connectivity and circulation between and within residential neighborhoods, and between and within business districts.

# LAND USE

## Overview

Acton is a suburban community with strong roots in its historic past. While it contains highway-oriented commercial areas, it also retains traditional village centers in West and South Acton, and its rural town common in the center.

The town is predominantly residential: nearly half of the town's land is in residential use, and only about 7 percent is used for commercial or industrial purposes. Single-family homes comprise about three-fifths of all dwelling units and more than four-fifths of the residentially developed land. About one-fourth of the town's land is in public ownership (most owned by the Town), and about 15 percent is vacant.

Under existing zoning regulations, the town has the theoretical capacity to absorb another 3,400 dwellings, a potential increase of about 46 percent. The likely buildout level is somewhat lower – estimated at 9,900 dwellings, or a 36% increase. At Acton's residential growth rate over the past two decades, there is enough land for nearly 40 years of residential growth.

Maximum nonresidential (i.e., commercial and industrial) buildout is about 9.7 million square feet of floor area, more than twice the current level, of which about 30 percent could occur on vacant land. The remaining buildout potential represents land currently developed at a lower intensity than permitted by zoning.

## Land Use Goals and Objectives

**Goal:** Preserve those elements or features which contribute to Acton's New England town character as a suburban residential community with strong rural and historic roots.

Objective: Strengthen Acton's traditional pattern of village centers.

Objective: Maintain Acton's rural and historic elements.

Objective: Provide incentives and aid to preserve and revitalize historic structures and places.

Objective: Preserve natural and human-made features that contribute to Acton's character such as open fields, woodlands, ponds, country roads, and stone walls.

Objective: Promote a sense of community.

**Goal:** Direct new residential development to protect Acton’s natural environment and other resources, to be consistent with Acton’s New England town character, and to encourage diversity in Acton’s population.

**Objective:** Encourage new residential development to preserve open space.

**Objective:** Promote residential village environments that are consistent with Acton’s character.

**Objective:** Encourage a variety of neighborhood design alternatives for residential development.

**Objective:** Promote pedestrian circulation within and between residential developments.

**Objective:** Adjust the intensity of residential development to protect Acton’s environmental resources and to remain within the limitations of its infrastructure.

## Historic Development Patterns

Community character is shaped by natural, historical, and cultural features. The traditional settlement pattern which has defined Acton’s character consists of compact development clustered in village centers, surrounded by open spaces and rural residential neighborhoods.

Acton’s historic village centers create a sense of history and special community character which make the Town a desirable place to live. The Town’s historic buildings, farms, and stone walls are tangible links with the community’s past which provide a sense of identity and shape Acton’s special character.

As local development pressures intensify, the implementation of conventional zoning techniques tends to transform this community character. During the 1970s and 1980s, a new pattern of development emerged in the outer suburban ring around Boston (the belt defined by Interstate 495), consistent with the pattern across the United States. This new pattern, based on new types of businesses and access to highways, is characterized by a lower development density of spread over a larger area than historical New England development. This trend manifests itself in the retail and personal service sectors by the emergence of “strip” commercial corridors, industrial and office parks, and conventional residential subdivisions.

While classic New England landscapes are still found in Acton, it is changing – from farms and fields to subdivisions and shopping centers. Acton, like many New England communities, is experiencing escalating land prices and shrinking open space. Residential and commercial development is expanding westward from greater Boston and resulting in a new pattern of development in Acton – residential and commercial

sprawl. Portions of Route 2A/119 in North Acton are densely developed with commercial, office, and multi-family residential development. These uses cause traffic congestion and visual chaos. Acton's rural residential landscapes are being transformed into suburbia.

However, the village centers retained their strong historic character and the Town has protected significant open space. The following sections describe those land use features preserved over time, such as Acton's village centers and scenic open spaces, as well as the residential, commercial, and industrial land use patterns which have more recently emerged.

## Village Centers

Acton is the product of centuries of growth. The Town is comprised of three distinct village centers, each with unique features and character, that provide resources for the whole Town. The villages, especially West Acton, have a mix of residential, commercial, public, and semi-public uses at a scale and density promoting pedestrian circulation and social interaction. Portions of all three villages have been designated Local Historic Districts by action of a Special Town Meeting in November 1990.<sup>9</sup>

West Acton village, and to a lesser degree South Acton village, are the most successful areas of town in creating and maintaining a sense of place. This important role is made possible by a variety of uses within a compact area, which attracts people to its center and allows them to circulate on foot within the center. These features create a human-scale sense of community that many Acton residents wish to preserve. This pattern of development enables people to live, work, and shop within a community setting, creating a sense of place.

### West Acton

West Acton Village is the most cohesive and active of Acton's villages containing a mixture of historic structures including the Baptist Church as well as modern retail establishments. Commercial buildings to the south define a narrow streetscape reminiscent of earlier times while small businesses provide a scale appropriate to a small town center. Buildings north of Massachusetts Avenue attempt to echo the "town green." The streetscape character erodes east of the railroad crossing. Further eastward, the beautifully restored stucco church (currently used as office space) revives the spirit of place and sets the scale for the residential buildings further east. Preservation of the historic West Acton Center, and managing traffic congestion and parking, are concerns.

Based on a recommendation of the 1991 Master Plan, the Town began a two-year planning process in December 1991 resulting in the West Acton Village Plan in March 1994. It's zoning recommendations were adopted by the 1994 Annual Town Meeting. In October 1995 West Acton Village was designated by the Metropolitan Area Planning

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<sup>9</sup> For a detailed historical and architectural description see *Acton Historic District Study Committee, Final Study Report*, November 1990.

Council as a Concentrated Development Center, making it a priority area for regional infrastructure improvement funding.

### South Acton

South Acton village has retained much of its historic substance in a mix of residential, commercial, and civic buildings and land uses. Some historic buildings provide visual amenities and vital community activities (for example, the Children's Discovery Museum, the Faulkner House and Jones Tavern). The new Mill Corner development adds a residential component to this section of Town. The commuter rail line through South Acton serves a vital function for the community and could be an important element in South Acton's revitalization efforts. Parts of South Acton are declining (for example, the historic Exchange Hall), while others are being restored, revitalized or rebuilt (for example, the new Main Street Bridge, Norman Lake Memorial Bridge).

Beginning shortly after the adoption of the 1991 Master Plan, the Town undertook a multi-year effort to develop a Village Plan for South Acton. The final plan was completed in March 1995, and its recommended zoning actions were approved at the 1995 Annual Town Meeting. South Acton has also been designated by MAPC as a Concentrated Development Center.

### Acton Center

Acton Center, located on Main Street (Route 27), retains the character of a small, rural New England town. Through preservation of the Town Common and the historic structures lining it, the Town Center remains spacious, with plenty of green space. At the same time, a sense of "townscape" is preserved by the spacing and scale of buildings. Homes are interspersed among civic buildings. The lack of commercial activity precludes traffic congestion problems and the need for extensive parking facilities and signage. The effect of this mix of residential and civic uses makes Acton Center an active, yet tranquil, place reminiscent of the rural town Acton was. Since 1983, the Acton Center area is listed on the National Register of Historic Places.

### East and North Acton

A fourth village center once existed in East Acton along Great Road between Pope Road and Concord Road. This village has lost its distinction and has been absorbed in the general commercial growth of the Great Road Corridor. However, the adoption of the 1991 Master Plan and related zoning district changes has put new focus on this area and a potential new North Acton village area along Route 27 north of Route 2A.

### **Suburban Residential Development**

Acton's village centers are surrounded by residential neighborhoods. Single family residential development is the predominant land use in Town. Residential subdivisions dominate most areas except North Acton.

Much of Acton exhibits a typical pattern of incremental development. Frontage lots containing older single-family dwellings of all eras and architectural types face the street and provide an “edge” punctuated by newer roads ending in cul-de-sacs, creating holes in the fabric of the established street. These newer roads are often long and needlessly wide, and give access to large homes of similar design. This type of residential subdivision can be found anywhere in the country and erodes the rural New England landscape, once characterized by narrow roads, stone walls, and large trees.

Multi-family development is scattered throughout Town, but is most visible along Great Road (Route 2A/119) in North Acton. With some exceptions (for example, Nagog Woods), the architecture and site planning has done little to mitigate the impacts of the increased density and scale of development.

### Commercial and Industrial Areas

The original 18th and 19th centuries mill industries have been replaced by a wide range of modern industrial and commercial enterprises. Today’s businesses, range in scale from adaptive re-use of residences in village centers to large scale developments such as Nagog Office Park.

Commercial development is most dense in the village centers of West and South Acton, at Kelley’s Corner, along the Route 2A/119 corridor in North Acton and along Route 2 in South Acton. Industrial and office development is scattered throughout the Town, but is concentrated in North Acton (Nagog Office Park), East Acton, several locations along Route 2 in the southeast portion of Acton, and just north of Acton Center.

Strip commercial development of Route 2A has resulted in traffic conflicts. Residents recognize that Route 2A is the epitome of suburbia. The proliferation of curb cuts along Route 2A generates such traffic congestion that residents compare this road to Route 9 in Framingham and Natick. This area, once the most rural section of the Town, has become a hub of commercial, industrial, office, and multi-family residential activity. The 1991 Master Plan implemented several zoning district changes and regulatory amendments designed to control this commercial sprawl and manage development more carefully.

Kelley’s Corner, the business area surrounding the intersection of Main Street and Massachusetts Avenue, has dense, recent, auto-oriented development. The intersection of Routes 2, 111, and 27 created an opportunity for commercial development, resulting in extensive gas station, fast-food, and chain department store development. Except for the law office and the historic Hosmer House on the northwest corner, no sense of history or streetscape remains. Beginning with the 1991 Master Plan, which created a new zoning district for Kelley’s Corner, the Town has undertaken a serious effort to manage this vital area as a community commercial development. This has included two planning studies<sup>10</sup> and several zoning changes, of which some have been adopted and others are under consideration.

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<sup>10</sup>*Kelley’s Corner Specific Area Plan* (June 1995) and *Kelley’s Corner Business District Final Circulation Plan* (February 1997).

## Rural and Scenic Areas

Farms, fields, stone walls, and scenic country roads which dominated Acton's landscape are now scarce resources to be preserved and protected. Many citizens feel that these features are some of Acton's most important assets and have made a commitment to preserving the Town's natural and cultural resources and open spaces. Acton now has more than 1,500 acres of town-owned conservation and forest land providing scenic and recreational opportunities and sometimes buffers commercial and residential uses.

Fortunately, scenic roads still abound in Acton and serve as much needed buffers to development. Nagog Hill Road is an excellent example of a scenic, rural road. It has farms, conservation land, and attractive single family development. Typical of rural roads in the past, farms, open fields, and woods are replaced by more densely placed homes as the road approaches the town center. The characteristics of Nagog Hill Road are important to preserve and use as an example of the compatibility of incremental development and open space preservation.

## Current Land Use Plan

### Master Plan

The 1991 Master Plan contained a comprehensive package of regulatory recommendations designed to guide growth more effectively and implement the town's land use goals and objectives. The land use plan was designed to preserve and build on Acton's historic pattern of development – a mix of uses in compact village centers, surrounded by open space, farms and low-density residential neighborhoods. The land use plan also confronted the problems of residential and commercial sprawl, development patterns which consume land without providing important values and qualities desired by residents.

Thus, the land use plan was designed to refocus future development into compact villages in order to preserve and enhance Acton's special community character, restrict further "strip" commercial development, and achieve related objectives regarding the mixing of uses, mitigation of traffic impacts, and creation of a strong sense of place through appropriate design controls. All of the recommendations listed below were adopted at Town Meetings in April and November 1990.

### Open Space Preservation Zoning

Because the Town's character would be eroded if all the developable land were fully built out in conventional subdivisions, and the trees and stone walls were stripped from Acton's scenic roads, the plan included several recommendations relating to open space preservation zoning.

- Density Incentives for Cluster Development

The Town provides an "Open Space Residential Development" option for subdivisions, which permits clustering of single-family homes on smaller lots than

otherwise required, in return for the provision of large contiguous areas of common open land. The plan recommended that the R-8/4 and R-10/8 districts be established in order to permit as an incentive higher densities for open space developments than for conventional subdivisions. For example, in the R10/8 district, open space developments are allowed at a density of one house per 80,000 square feet of land area (the density that was allowed by the previous R8 zoning); but conventional subdivisions require lot sizes of at least 100,000 square feet. Thus, only four lots can be developed in a conventional subdivision for every five lots permitted under the open space development approach. The clear goal of these two districts is to preserve large tracts of open space by giving landowners a strong financial incentive to cluster development on smaller portions of their properties.

- Revisions to Open Space Development Standards

The plan also recommended amendments to the standards contained in the “Common Open Space” provision of the “Open Space Development” option to emphasize the importance of “large, contiguous parcels” and restrict the use of “strips or narrow parcels” of open space. The purpose was to reinforce the preservation of significant tracts of open space in such developments, to protect the rural character of existing undeveloped areas of Acton.

### Commercial Growth Management

- Village Districts

Prior to the 1991 Master Plan, Acton’s Zoning Bylaw already recognized two “Village” zoning districts, South Acton Village (SAV) and West Acton Village (WAV). These zoning districts reflect the historic development pattern of Acton’s traditional commercial centers, with small lots, building setbacks, and mixed-use structures. The Master Plan recommended that two new village districts – the North Acton Village (NAV) and East Acton Village (EAV) – districts be established to reinforce and extend this historic development pattern. The new village districts are intended to refocus future development into compact “villages” and to achieve related objectives regarding mixing of uses, mitigation of traffic impacts, and creation of a sense of place through appropriate design controls.

- Limited Business District

The Master Plan recommended establishment of a new Limited Business (LB) District for most parcels along Great Road that were in non-residential use and zoned General Business. The Limited Business district would be similar to the General Business district, but with lower permitted intensity of commercial development. Also, a number of changes were made to dimensional regulations and permitted uses. In particular, building setbacks were increased to minimize commercial strip appearance and to better protect abutting residential land.

The Master Plan also proposed that certain parcels (and portions of parcels) along Great Road be rezoned from General Business to residential zoning districts. These

parcels, although zoned for business, were vacant or in residential or agricultural use. Rezoning these parcels to the zoning of the adjacent residential district limited the expansion of the commercial “strip” and redirected commercial growth to the remaining commercially-zoned land, including the proposed “Village” districts.

- Parking and Landscaping Standards

The Master Plan recommended the Town adopt new landscaping and parking requirements and design standards for new non-residential uses. These new standards provided for improved landscaping and screening of new commercial developments. Also, this recommendation contained proposed restrictions on nonresidential high traffic generators.

- Transfer of Development Rights

The Master Plan recommended that Acton adopt a bylaw establishing mechanisms and procedures for the Transfer of Development Rights (TDR). This mechanism was to encourage compact development in the proposed North Acton and East Acton Village Districts (the receiving districts), while discouraging further commercial sprawl along Great Road (the sending district). In addition, the establishment of the TDR option within the receiving districts allowed more flexible planning and development within the new village districts to promote village design patterns while limiting overall traffic generation potential. Permitting the TDR from the sending district to the receiving districts promoted the Master Plan goals and objectives to shift in the pattern and location of future development in a way that retain the land equity of affected property owners at a higher level than could otherwise be achieved.

- Planned Unit Development

The Master Plan recommended that Planned Unit Development (PUD) be established as an alternative option for non-residential parcels larger than 15 acres. The PUD provisions were to provide for master planned developments, incorporating both residential and non-residential uses. The objectives included designing an integrated site that included the uses otherwise permitted in such zoning districts, and also residential uses and common open space.

This recommendation was developed with the “Acorn Park” site in mind. Other parcels in Acton could also benefit from the PUD option. For example, large non-residentially zoned parcels in both North and South Acton could be developed at a higher density than otherwise permitted if they comply with the mixed use and open space provisions of the PUD bylaw. The Town’s principal objectives in reducing total industrial and commercial density – minimizing traffic impact on local roads – would still be served by PUD development at a higher density, since the inclusion of residential uses would mitigate the most serious peak-hour traffic impacts, and the developer would be able to maximize floor area within the performance standards established for traffic generation from the site.

- Office Park Districts

The Master Plan recommended that two new zoning districts be established focusing on professional office uses:

- The Office Park 1 (OP-1) District comprises land located in Nagog Park which was for the most part zoned General Industrial before. The Office Park designation was more appropriate here because it reflected established uses. The development potential for remaining vacant or under-developed parcels at Nagog Park was reduced to one-half its potential resulting in a reduction of the traffic generation potential.
- The Office Park 2 (OP-2) District is located along the southerly side of Route 2 between Piper Road and Hosmer Street (i.e., the Discovery Way and Concord Auto Auction areas). Unlike Nagog Park, this district was in an ideal place for uses that generate higher peak hour traffic volumes due to its proximity to Route 2.

- Kelley's Corner District

The Master Plan recommended rezoning Kelley's Corner, the business area surrounding the intersection of Main Street and Massachusetts Avenue, from General Business to a separate Kelley's Corner zoning district to recognize the importance of continued vitality of the commercial activity in this area. Separating Kelley's Corner from other business districts has allowed the Town to further its Master Plan goals and objectives by better addressing the complex land use and zoning issues of this area without affecting other business districts. In addition the Master Plan recommended that planning be undertaken to address traffic, aesthetic, and other problems in this area. Kelley's Corner is currently being considered for designation as the third Acton Concentrated Development Center by MAPC.

### Industrial Growth Management

- Industrial Districts

- The Master Plan recommended that three new industrial districts be established:

- Light Industrial (LI-1) District: This zoning district included approximately 60 acres surrounding Post Office Square (formerly Technology Drive) just north of Acton Center. The maximum Floor Area Ratio (FAR) was halved to assist in controlling traffic congestion on Main Street.
- Industrial Park (IP) District: Approximately 180 acres in South Acton encompassing the Grace and Airco industrial properties was re-zoned to the IP District. The maximum FAR permitted in the IP District was reduced to .04, down from .20 permitted under General Industrial District standards. This reduction in permitted floor area allowed reasonable expansion of existing uses, but was designed to ensure that no drastic increase in development occurred. This

change was made because of existing traffic congestion and ground water contamination problems in the area.

- Small Manufacturing (SM) District: The SM District included about 140 acres in two parts of Acton – the first located in East Acton, and the second located along Main Street in North Acton. Both had been zoned General or Light Industrial and contained primarily industrial uses. The SM District was designed to preserve the small manufacturing uses in the area and ensure stronger site design controls.

Adoption of this recommendation increased the number of industrial zoning districts to five. The greater number of industrial districts was intended to permit greater flexibility in the Zoning Bylaw, responding to the varied circumstances encountered in the different districts, such as environmental concerns, roadway infrastructure limitation, proximity to residential neighborhoods, and existing uses.

### Ground Water Protection

Natural and man-made features such as open fields, woodlands, ponds, country roads, and stone walls contribute to Acton's character. The Master Plan made several recommendations designed to preserve open spaces for their aesthetic, recreational, and wildlife value and to protect the quality and quantity of Acton's water supply.

- The R-10 District

In reviewing the potential for future growth in various parts of Acton, the Planning Board realized that significant additional industrial and residential growth were programmed for areas within the most sensitive ground water protection areas surrounding Town wells in North Acton and South Acton. While the Town's aquifer protection regulations restrict the density of development that may occur in these areas, there was consensus that additional protection was appropriate. Therefore, about 130 acres of land within and adjacent to the Ground Water Protection District Zone 1 (GPD-Zone 1) was rezoned to a new R-10 district, permitting single-family dwellings on lots of 100,000 square feet (about 2 1/2 acres).

- Rezoning from Non-residential to Residential Uses

A significant amount of industrially-zoned land in North Acton, and in South Acton between Lawsbrook Road and Knox Trail, is located within Ground Water Protection Districts 1 and 2, and poses significant concerns relating to the preservation of the Town's water supply. It was determined that low-density residential use of these parcels was more appropriate than industrial use. This is especially true in the case of parcels that were vacant or underutilized. These rezonings were also prompted by concern that these areas were zoned for more industrial development than local roads could support and that such development would result in traffic congestion and negative impacts on community character. Shifting acreage from non-residential to residential zoning helped to preserve the balance between residential and commercial development.

## Preservation of Multi-Family Housing Stock

The Master Plan recommended establishment of a new zoning district to accommodate multifamily residential development. The purpose of the R-A district was to provide appropriate zoning for existing residential development (mostly along Great Road) zoned for General Business at a higher density than any of the existing residential districts would allow. Regardless of how the Town was to expand its housing stock, it was important to preserve the existing variety of housing. The establishment of the R-A district helped by eliminating the potential for conversion of existing apartments and condominiums to business uses. All parcels rezoned to this district were already used for multi-family use, and additional development was only possible in a few circumstances.

## Affordable Housing Incentive Zoning

- Development of New Affordable Housing

To encourage inclusion of affordable housing units in future residential construction in Acton, the Master Plan recommended creation of Affordable Housing Overlay Districts, where optional density bonuses could provide incentives to build affordable housing in addition to the market rate units. Thus, these Affordable Housing Overlay Districts provided another development option in addition to the existing zoning. The purpose of the Overlay Districts was to help Acton move toward a goal of 10 percent affordable housing, while recognizing specific local needs.

Two Affordable Housing Sub-Districts were created. In Sub-District A a development could qualify for a 25 percent density bonus if 10 percent of the housing in the development is affordable. Sub-District B allowed a higher density bonus equivalent to approximately 5 units per acre or 8,000 sq. ft. lots per house. This higher density allowance assumed that 30 percent of the units in the development are set aside as affordable.

## Land Use Decision Making and Authority

- Elimination of Provision Authorizing Use Variances

The Master Plan recommended that use variances be prohibited in all zoning districts because the allowance of use variances can be a source of new uses contrary to existing land use patterns and to desired future land uses as set forth in the Master Plan. Consequently, use variances are contrary to sound land use planning and can undermine the role of voters and Town Meeting in shaping future development of the Town. If the Town desires to change its land use plan, it can do so by amending the Zoning Map and Bylaw through a vote at Town Meeting after consideration of the Master Plan goals and objectives.

## Commercial Signage

- Revise Sign Bylaw

A number of revisions to the existing sign bylaw were recommended. The purpose of the recommendations was to improve the Town's ability to control the size, appearance, and location of signs and to better distinguish between signs in village centers and signs in other areas.

## Village Plans

During the 1990s the Town completed plans for three village areas: West Acton (March 1994), South Acton (July 1994), and East Acton (December 1995). The West Acton and South Acton Village Plans were prepared by planning committees representing residents and business owners in the respective villages, assisted by the Planning Department staff and Board. The East Acton plan was prepared by students from the Massachusetts Institute of Technology's Department of Urban Studies and Planning.

The village plans are supplements to the 1991 Master Plan and address goals, objectives and actions relating to village character, economic development, housing, traffic and transportation, and natural resources and open space.

The West Acton Village regulatory plan included four proposed amendments to the Town's Zoning Bylaw, adopted by Town Meeting in 1994.

- West Acton Village District: The plan recommended that the West Acton Village District be reduced to the core business center of West Acton Village, eliminating the northerly extensions of the district which are mostly residential. The plan also recommended that an isolated commercial area at the intersection of Central and Willow Streets be added to the District.
- Village Residential District: The plan recommended creation of a new "Village Residential District" to recognize the unique settlement pattern of the village homes adjacent to West Acton Village. The new district was tailored to West Acton's established development pattern which includes single family homes on small or narrow lots, duplexes, multifamily dwellings, large antique homes on small lots, and some homes with businesses.
- Parking in the Village: The plan proposed several special provisions for parking in the West Acton Village District, to permit parking lot designs, including landscaping, achievable in the tight space of a village setting rather than subjecting village properties to the same standards as large industrial parks and shopping centers. Lower required parking ratios were proposed for the Village, and shared parking facilities encouraged.
- Site Plan Special Permits in Village Districts: The plan recommended lowering the threshold for requiring site plan review, recognizing that small changes take on a relatively greater importance in the close knit mixture of buildings and uses in West

Acton Village. Also, an additional review criterion was recommended to ensure that additions and new construction in West Acton Village be compatible with the style, scale and proportions of existing buildings.

The South Acton Village regulatory program included a series of proposed zoning amendments, which were adopted by Town Meeting in 1995.

- South Acton Village District: The plan recommended an expansion of the South Acton Village District to include the commuter parking lot and several small industrial zoned areas to the east and south of the existing district, while reducing the area of the Village District along the north side of School Street.
- Use Regulations: The plan recommended modifications to the use regulations intended to promote a mix of land uses appropriate to a village setting. These included allowing certain apartment uses by right instead of by special permit; allowing businesses and residences in the same building by right; allowing veterinary facilities and theaters by special permit; and prohibiting commercial earth removal, gas stations, car washes, and commercial parking lots.
- Dimensional Regulations: The plan recommended eliminating of the minimum lot area, open space, lot frontage and lot width requirements; reducing the minimum setback and off-street parking requirements; lowering the maximum floor areas for certain uses; and establishing new requirements for maximum floor area ratio (FAR) and minimum building height. These changes were designed to preserve the existing development pattern in the Village. In addition, the plan recommended allowing transfer of development rights among lots in the South Acton Village district, to allow more flexibility while maintaining limitations on development intensity.
- Site Plan Review Thresholds and Criteria: The plan recommended lowering the threshold for site plan review with the Village, and adding a review criterion to ensure that new development would be consistent with the character of the Village.
- Public Parking Facility and Public Waste Water Treatment Facility: At the time of the plan's preparation, the Town was negotiating with the developer of Mill Corner, a 34-home Planned Conservation Residential Community, for the reservation of land for a community waste water treatment area and a public parking area. Both facilities would directly benefit the South Acton Village area but both would violate zoning. The plan recommends that the Town act, through a zoning variance or a zoning bylaw amendment, to resolve these zoning problems. Since then, the Town has pursued a larger sewer project with a treatment plant on the Assabet River, and therefore has not further pursued the option of a small package treatment plant at Mill Corner.

Unlike the West Acton and South Acton Village Plans, which stressed preservation and enhancement of existing traditional villages, the East Acton Village plan focused on transforming a highway-oriented area into a more village-like setting by increasing densities and improving the pedestrian environment. Consequently, many

recommendations dealt with physical improvements rather than land use planning. The following regulatory changes were proposed, but not yet adopted:

- Providing a density bonus as an incentive to preserve historically significant structures for uses consistent with traditional village-scale development.
- Changes to off-street parking regulations, including reducing the minimum required number of parking spaces (similar to the provisions in the West Acton Village and South Acton Village districts); allowing small car stalls in the Cinema Plaza; and allowing shared parking facilities.
- Extending the East Acton Village district to include several parcels on Keefe Road (including the Acton Indoor Sports Arena) currently in the Small Manufacturing district, to ensure long-term compatibility with the village in both uses and scale; and expanding use regulations for the EAV district to allow certain small industrial uses.

### Kelley's Corner

One recommendation of the Master Plan was to prepare a planning study of the Kelley's Corner area, surrounding the intersection of Main Street (Route 27) and Massachusetts Avenue (Route 111). The Town began this process in 1994, completing the first phase (the Kelley's Corner Specific Area Plan) in June 1995. The Kelley's Corner plan included:

- In Kelley's Corner proper – the existing retail area surrounding the intersection of Main Street and Massachusetts Avenue – the plan recommended that permitted land use intensities be increased as an incentive to upgrading and infill, and to leverage private funds for infrastructure improvements.
- New development or redevelopment taking advantage of the increased development potential should be designed to enhance the visual appearance of the shopping district, to improve pedestrian circulation and access.
- The isolated single-family residential district on Main Street between the Hosmer House and the Redstone condominium development was designated for multifamily development. This will relieve pressure for converting these properties to commercial use and, by adding residents close to the business district, will also support the creation of a walkable shopping area.
- An increase in permitted development intensity was recommended for the Office Park district along the south side of Route 2 between Piper Road and Hosmer Street. This area contains the Concord Auto Auction site, the Concordian Motel, and two light industrial parcels. As in the retail center, this change was recommended to encourage additional development that could support the costs of needed public infrastructure, such as roadway improvements and community wastewater treatment.

- A large residentially zoned parcel on the west side of Piper Road was proposed for rezoning to Office Park use, consistent with the sites on the opposite side of the street. The purposes were to minimize land use and traffic conflicts by achieving compatible uses on both sides of Piper Road, to reduce the residential build-out in this area, and to expand the commercial/industrial tax base.
- Finally, the Plan recommended accommodating a proposed 90,000 square foot expansion of the Haartz Auto Fabrics facility by rezoning a portion of the Haartz site that was zoned for residences. This would reduce the potential residential build-out in this area.

A package of zoning bylaw amendments implementing most of these recommendations was developed by the Planning Department and adopted by Town Meeting.

Subsequently, the Town moved to the next phase in the planning process, the development of a Kelley's Corner Circulation Plan to accommodate projected growth while furthering the urban village character of the area. This plan, completed in February 1997, included the development of an Urban Village Concept Plan, representing further modifications of the recommended land use pattern for Kelley's Corner. The Concept Plan calls for a more intensive use of land than permitted by the zoning regulations. Specifically, the Circulation Plan recommended increasing the maximum allowable floor area ratio from 0.4 to 0.6, increasing the maximum building height from 36 to 40 feet, and reducing the minimum front yard requirement. Implementation of this phase is still primarily further study and review.

## Current Development Status

The update of land use and buildout potential is based on data from the Assessors' database, as of January 1, 1997. The database contains 6,555 records representing 6,547 parcels. Properties are assigned a four-digit land use classification code and identified by location (atlas map and lot) and zoning district. As a result, it is possible to present profiles of the existing land uses and zoning districts, and to use the database as the foundation of a computerized buildout analysis.<sup>11</sup>

The information from the database and buildout analysis is summarized in two sets of tables in Appendix 4. The first set contains three 3-page tables presenting profiles of the Town's parcels organized by their current land use codes:

- The "Development Data" table (Table 66) lists the number of parcels for each land use, the total area and average lot size, the total number of existing dwelling units and average residential density, and total existing floor area and average

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<sup>11</sup> The Assessors' database contains information on individual parcels, and does not include areas such as streets and major water bodies that are not in parcels. Thus, the total area included in the database (11,816 acres, or 18.46 square miles) is less than the Town's total area (20.29 sq. mi.) or even the total land area (19.98 sq. mi.).

floor area ratio (FAR). (The existing land use information in Table 66 is also summarized in Table 22 on the next page.)

- The “Valuation Data” table (Table 67) presents total land and building valuation for each land use classification, average land value (per parcel and per acre) and average building value.
- The “Buildout Estimates” table (Table 68) tabulates the results of the buildout analysis (described below): existing and buildout dwelling units, and existing and buildout nonresidential floor area. (Note: the “existing floor area” shown in the nonresidential buildout section of this table includes only the floor area for existing nonresidential structures, whereas the “existing floor area” column of the Development Data table includes residences as well as commercial and industrial structures.)

The second set of tables, “Zoning District Profile” repeats the same data as the preceding tables, sorted by zoning district (Table 69, Table 70 and Table 71). The structure of the database makes it possible to delve deeper into the data, for example, looking at land use profiles of each zoning district or specific areas of the Town.

## Existing Land Use Profile

It is not surprising to note that Acton is a predominantly residential community: 78 percent of the parcels and 46 percent of the parcel area are in some form of residential use, while only 4 percent of the Town’s parcels, comprising 7 percent of the total parcel area, are used for commercial or industrial purposes (these totals exclude vacant land). Single-family homes represent 63 percent of all residential dwellings, 88 percent of the developed residential land area, and 41 percent of the total parcel area in Acton.

On the nonresidential side, Acton has 554 acres of developed commercial land, 252 acres of developed industrial land, and 798 acres of agricultural land. Public and nonprofit uses total 2,971 acres (25 percent of the Town’s land area), of which all but 418 acres are owned by the Town of Acton.

**Table 22: Existing Land Use Summary**

	Parcels		Acres		Dwelling Units	
	Number	Percent	Total	Percent	Total	Percent
Residential						
• Single-Family	4,597	70.0%	4,821	40.8%	4,556	62.7%
• Other Residential	496	7.6%	655	5.5%	2,644	36.4%
Commercial	234	3.6%	554	4.7%	6	0.1%
Industrial	44	0.7%	252	2.1%	0	0.0%
Agricultural	51	0.8%	798	6.7%	1	0.0%
Recreation	2	0.0%	21	0.2%	0	0.0%
Public & Non-Profit						
• Town of Acton	269	4.1%	2,553	21.6%	1	0.0%
• Other	79	1.2%	418	3.5%	53	0.7%
Vacant Land						
• Developable	140	2.1%	555	4.7%	4	0.1%
• Potentially Developable	156	2.4%	350	3.0%	0	0.0%
• Undevelopable	497	7.6%	849	7.2%	1	0.0%
TOTAL	6,565	100.0%	11,826	100.0%	7,266	100.0%

In addition to comprising the great majority of the land area of the Town, residential parcels have a somewhat higher average land value than commercial and, especially, industrial parcels. The average value per acre of developed residential land (excluding the three categories of “developable,” “potentially developable” and “undevelopable” residential land) is approximately \$115,000, compared to \$113,000 per acre for developed commercial land and \$91,000 per acre for developed industrial land. However, when the value of improvements is added, the three land use types have similar values: residential parcels average about \$266,000 per acre in total valuation, commercial parcels average \$267,000 and industrial properties average \$262,000 per acre.

## Buildout Analysis

The methodology for the buildout analysis is comparable to that used for the 1991 Master Plan. The analysis assumes that individual parcels will develop to their maximum potential under existing zoning:

- For a parcel in a residential zoning district, the analysis estimates the maximum number of dwelling units that could be constructed based on the minimum lot area for the district;
- For a parcel in a nonresidential district, the analysis estimates the maximum floor area that could be constructed based on dimensional regulations including the developable site area, maximum allowed building height and floor area ratio, and minimum required open space and off-street parking.

The analysis is based on the primary zoning district listed in the database (that is, it does not include separate analyses for parcels that are split into more than one district and does not account for variations in development densities due to the presence of overlay districts).

## Residential Buildout Estimates

Acton's estimated residential buildout is approximately 10,600 dwelling units, a net increase of about 3,400 units over the current housing stock.<sup>12</sup> The Residence 2 zoning district accounts for the largest portion of this potential growth, with 2,157 dwellings (64% of the total potential development). The total buildout estimate incorporates the loss of 202 dwellings in nonresidential zoning districts (shown as negative numbers in Table 71), since the analysis assumes that all available nonresidentially-zoned land will be converted to nonresidential use.

This raw estimate of buildout is subject to an important qualification. Sixty-eight percent of the estimated potential housing growth represents the subdivision of existing single-family lots (see Table 23). Thus, based solely on minimum lot area requirements (that is, not taking into account the dimensions, shapes or soil conditions of individual lots), the buildout calculations estimate that additional development on existing single-family lots in Acton could increase the Town's housing stock by 31.9%.

In contrast, development of open land plays a much smaller role in the buildout estimates. Land currently classified as "developable residential land" or "potentially developable residential land" is estimated to support the construction of fewer than 500 dwelling units. Another important component of the buildout is land currently assessed for forestry under Chapter 61. There are currently 37 parcels in Acton in the Chapter 61 assessment program, totaling about 662 acres. The analysis estimates that these parcels can support 432 new dwelling units.

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<sup>12</sup> This estimate is very close to the 1989 buildout estimate of 11,010 dwelling units. The two estimates were derived using similar methodologies, and the slight decrease is most likely attributable to a combination of two factors: some land, considered developable in 1989, may have been preserved for open space, rezoned, or otherwise removed from the supply of residential land; and some parcels may have been developed at a lower density than estimated in the previous buildout.

**Table 23: Estimated Buildout of Parcels with Existing Dwelling Units**

Existing Units	Units Added	No. Of Parcels	Total Area (Acres)	Average Parcel Size	Existing Dwelling Units	Average Units Per Acre	Buildout Dwelling Units	Potential Increase
1	1	518	806.11	1.56	518	0.64	1,036	518
1	2	138	318.29	2.31	138	0.43	414	276
1	3	76	232.57	3.06	76	0.33	304	228
1	4	39	168.95	4.33	39	0.23	195	156
1	5	25	87.04	3.48	25	0.29	150	125
1	6-10	60	368.13	6.14	60	0.16	519	459
1	>10	29	504.03	17.38	29	0.06	568	539
2	1	1	1.70	1.70	2	1.18	3	1
2	>1	4	8.89	2.22	8	0.90	17	9
>2	1	3	6.48	2.16	11	1.70	14	3
>2	>1	2	35.35	17.68	33	0.93	52	19
All developed lots with potential for additional lots		895	2,537.54	2.84	939	0.37	3,272	2,333

These characteristics of the estimated buildout lead to two important observations about Acton’s future residential growth. First, although most residential growth in the next 10 to 15 years is likely to occur on land that is now vacant, the total supply of raw land available for residential development is limited: the database contains only 216 vacant parcels, with a total area of 1,231 acres, that could support residential growth under existing zoning. These parcels have a total development potential of approximately 1,100 dwelling units. By itself, this supply of open land would support 15 years of growth at an average rate of 72 new homes per year (the median for the 1980-1997 period).

The second point is related to the first: as open land disappears, most of the potential growth in Acton will come from infill development, whether through individual splits of smaller single-family lots or through creation of new subdivisions on land that is currently occupied by a single-family home but has significantly more land area than is required by the Zoning By-Law (older units may also be replaced but this is unlikely to effect the overall buildout). This means that the actual ultimate buildout will probably be significantly lower than the maximum number computed in this analysis: many homeowners, particularly in an affluent community like Acton, will prefer to retain their larger lots rather than split off a new house lot; and many other properties, while having the required minimum area for another dwelling, will be constrained from further development by other factors such as topography, access and the shape of the lot.

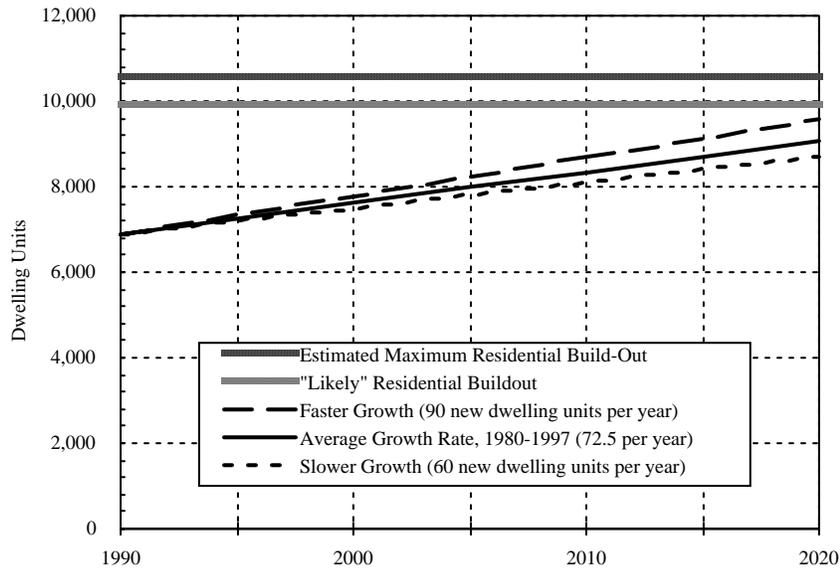
It is not feasible to analyze each lot individually to determine how extensive these limitations on development might be. However, by making a few assumptions we can estimate a “likely” buildout number that is lower than the theoretical maximum buildout. These assumptions concern the likelihood of infill development on existing residential parcels, and are simply rough guesses about owners’ behavior. For example,

we may assume that the owner of a parcel with an existing single-family dwelling will be more likely to subdivide the lot if more than one additional dwelling can be accommodated: the expected higher return more likely justifies the effort and cost, and the impacts on the existing dwelling. We may also assume that the more existing units there are on a site, the more difficult it will be to separate additional lots for new units. Based on these assumptions, we assume that the portion of all parcels with estimated growth potential that will actually be divided to create additional dwelling units may approximate the following percentages:

Existing dwelling units and computed development potential	Assumed percentage of buildout potential that will be realized
Lots with one dwelling unit, with sufficient area for:	
• One additional unit	25%
• Two additional units	50%
• Three to five additional units	75%
• More than five additional units	100%
Lots with two dwelling units, with sufficient area for:	
• One additional unit	0%
• More than 1 additional unit	25%
Lots with more than two dwelling units, with area for one or more additional units	
	0%

Based on these assumptions, Acton’s “likely” residential buildout would be approximately 10,200 dwelling units, or about 400 units less than the estimated maximum buildout. At the long-term growth rate of 72 new units per year, this potential will accommodate approximately 40 years of continued residential growth in Acton (see Figure 6). Assuming that the average household size remains the same as in 1990 (3.12 per unit for single-family homes, and 2.69 per unit for all housing types), this implies a total population of about 24,500 in the year 2020, and about 29,300 at buildout.

**Figure 6: Estimated Residential Buildout and Possible Growth Rates**



### Nonresidential Buildout Estimates

The nonresidential buildout analysis estimates the maximum floor area that can be developed on a parcel, comparing the results of two computations. The first is the developable site area multiplied by the maximum floor area ratio for the zoning district, which in most cases is the controlling factor on the amount of development that can occur. The second computation is based on the minimum open space requirement, maximum building height, and required off-street parking ratio.<sup>13</sup>

The nonresidential buildout is estimated at 8.38 million square feet (MSF) of floor area, an increase of 3.68 MSF (78%) above the current 4.70 MSF. More than half of this potential growth is in four zoning districts: the Kelley's Corner district (561,902 square feet of estimated growth potential), the Office Park 1 district (542,254 sq. ft.), the General Industrial district (451,385 sq. ft.), and the Limited Business district (436,161 sq. ft.). The buildout estimate also includes the conversion of approximately 141,000 sq. ft. of floor area in residential districts to residential use (shown as negative numbers in Table 71).

<sup>13</sup> This is the same methodology as was used in the 1989 analysis, with two significant exceptions. First, based on an analysis of some recent developments in the region, the total amount of land allocated for parking and circulation areas was increased (to 450 sq. ft. per parking space, rather than 350 sq. ft.), which reduces the buildout estimates by reducing land area available for building development. However, for most if not all zoning districts and land uses in Acton the floor area ratio computation actually controls the maximum development level, so that this change has little effect.

Second, the total lot area served as the basis to calculate the maximum floor area ratio for the 1991 figures. For the 1998 update, the developable site area was used rather than the total lot area, resulting a lower overall figure for the buildout potential.

The estimated buildout is comparable to estimates made in 1989 for the 1991 Master Plan, which ranged from 8.9 MSF to 12.6 MSF depending on assumptions made about a number of parcels grandfathered from recent zoning changes. Assuming all of those zoning change protections have now expired, the actual buildout based on the 1989 analysis would be below the lower end of the estimated range (8.9 MSF). In addition, the use of the developable site area rather than the total lot area results in a lower buildout figure. However, since 1991 the Town has increased the maximum floor area ratio in four zoning districts, increasing the total development potential of these districts. The development potential in the Kelley’s Corner and Office Park 1 districts has increased significantly while the increase in the FAR for the South Acton and West Acton Village Districts had a lesser effect.

In similar fashion to the residential buildout analysis, open land represents about 31 percent of the estimated nonresidential growth potential, as follows:

Developable <sup>14</sup> residential land	187,656 sq. ft.
Potentially developable residential land	48,002
Developable commercial land	83,107
Potentially developable commercial land	87,142
Developable industrial land	352,692
<u>Potentially developable industrial land</u>	<u>365,913</u>
Total	1,124,512 sq. ft.

The remaining 2.6 MSF of nonresidential growth potential consists of more intensive use of existing commercial and industrial sites (1.68 MSF) and conversion of existing residentially-used parcels to nonresidential use in conformity with their zoning (592,015 sq. ft.).

## Summary

The conclusions of the buildout analysis based on 1997 conditions are similar to those made in 1989 for the 1991 Master Plan. The estimated residential buildout of approximately 10,660 dwelling units is very close to the 1989 estimate of 11,010 units. This represents a 47 percent increase in the number of dwelling units in the Town, with nearly 70 percent of the increase coming as infill or subdivision of existing single-family residential properties. Only about 30 percent of the potential residential growth is attributable to development of open land.

The nonresidential buildout estimate of 8.38 million square feet is somewhat less than the earlier estimate of 8.9 million square feet. The estimated buildout represents a 78% increase from current levels (3.68 MSF); however, 45 percent of the potential increase (1.67 MSF) is represented by expansion of development in existing developed

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<sup>14</sup> The classification of vacant land as “developable,” “potentially developable” or “undevelopable” is made by the Assessors based on a number of factors, which could include existing access as well as environmental features or parcel shape. For the purposes of the buildout analysis, land classified as “undevelopable” was assumed not to be developable; and no distinction was made between “developable” and “potentially developable” parcels.

properties, and another 15 percent (0.56 MSF) by conversion of existing residential parcels to commercial or industrial use. “Greenfield” development – new construction on vacant parcels – accounts for only 40 percent of the Town’s potential nonresidential growth (1.45 MSF).

The buildout analysis highlights two important points about Acton’s future growth. First, in the short term the Town has sufficient open land to support residential and nonresidential development: the buildout estimates for existing vacant land are about 1,100 dwellings and about 1.45 million square feet of nonresidential floor area. This is enough capacity to absorb about 15 years of residential growth and a much longer period of nonresidential growth, at recent growth rates.

Second, over the long term redevelopment of existing sites will play an increasingly important role in Acton’s residential and nonresidential growth. As existing open land is used, development pressure will shift to underutilized sites, increasing the intensity of use by adding more dwelling units to large residential lots and more nonresidential floor area to existing structures.

## Comparison of Current Development Status with 1991 Master Plan Recommendations and Projections

The 1991 Master Plan projected growth based on recent trends, as follows:

Housing growth	52 dwelling units per year (1980–1988 average)
Population growth	175 persons per year (52 units per year x 3.364 persons per household)
School enrollment:	
	K-6 24.9 students/year (52 units/year x 0.526 students/household x 90.86% public school enrollment)
	7-9 8.3 students/year (52 units/year x 0.176 students/household x 90.40% public school enrollment)
	10-12 6.6 students/year (52 units/year x 0.138 students/household x 91.38% public school enrollment)

The following table compares the 1998 projections based on the above trends and assumptions with the actual values according to the most recent available data:

	1991 Projection (for 1998)	1998 Actual	Difference
Housing Units	7,147	7,266	+ 1.5%
Population	20,083	19,056	- 5.1%
School Enrollment:			
K-6	1,905	2,352	+ 23.5%
7-12	1,477	1,613	+ 9.2%

Note: School enrollment figures are projections contained in the October 1998 Report of the Enrollment Subcommittee of the Advisory Building Committee.

Thus, housing growth has been more rapid, but the Town's population has increased more slowly, than expected based on forecasts in the 1991 Master Plan. School enrollment levels show the greatest divergence between projections and actual numbers.

The lower than expected population indicates that average household sizes in Acton have been smaller than the 3.364 average used in the projections. However, it is important to note that a regional average was used for the projections, and that Acton's actual 1990 average household size was 2.69 persons. On the other hand, the higher than expected school enrollment indicates that the average number of children per household in Acton has grown since the 1980s, reflecting the national "baby boomlet."

## Land Use Issues and Strategies

### Issue: Community Character

Despite the extensive residential and commercial development occurring in Acton, the 1991 Plan observed that the town retains many elements of its rural and historic past. Acton's rural character is visually defined by farmlands, open fields, and forested lands linked by narrow country roads. The large shade trees bordering stone walls and the historic New England village centers of South Acton, Acton Center, and West Acton recreate the picturesque New England towns of the past and shape the rural qualities which contribute to Acton's attractiveness as a community. However, with increasing development pressure, the future of these resources depends upon active preservation efforts. The 1991 Plan sought to devise and implement planning strategies to protect areas vulnerable to development to help insure that Acton remained a desirable place to live.

A balanced mixture of homes and businesses clustered in villages or hamlets and separated by open spaces helps define distinct areas within a community and more efficiently utilizes natural and town resources. This pattern of development enables people to live, work and shop within a community setting, creating a sense of place. In such a setting, public and retail services are easily accessible. Compared to highway areas and extensive suburban commercial and industrial development, cars are fewer and travel at lower speeds, and pedestrian and other non-vehicular traffic can be safely accommodated at lower cost.

Subsequent to the 1991 Master Plan, the Town revised its land use regulations to facilitate clustered residential development to provide a village feeling and preserve the pattern of settlement interspersed with open space. The Town also decreased the required road width for standard subdivisions.

The rate of residential growth has become a prime concern for the Town recently. It has resulted in lost open space and increased demand for services. At the Community Leaders meeting there was consensus that slowing the rate of residential growth, and if possible lowering the ultimate level of residential growth, should be a central focus of the Town's efforts, because of the potential implications for community character, traffic congestion, municipal finances, and the environment.

*Strategy LU1 Control and lower the rate of residential development in order to protect the character of the community and the Town's ability to provide needed facilities and services.*

*Strategy LU2 Encourage residential open space developments, clustering single family homes and preserving contiguous open space as an alternative to conventional single family home subdivisions; and monitor benefits gained.*

*Strategy LU3 Continue to seek average density zoning.*

*Strategy LU4 Continue to discourage further strip development along Route 2A/119 and to encourage village center developments.*

### Issue: Village Centers

The Land Use provisions of the 1991 Plan were patterned on the traditional New England pattern of focused settlements with intervening open spaces. Based on this concept the Town subsequently adopted zoning provisions encouraging the focusing of residential and business activity so that intervening areas would be preserved or more lightly developed. Village plans were prepared for South and West Acton and a Specific Area Plan for Kelley's Corner was completed in two phases. Plans for sewer service are focused upon these villages.

During the community deliberations of the 1998 Master Plan Update townspeople voiced strong support for increasing the potential and vitality of Acton's villages, which residents regard as centers of town life.

*Strategy LU5 Continue to enhance the visual appearance of village centers.*

*Strategy LU6 Complete the series of plans for Acton's traditional and proposed villages. Strive to implement the plans, updating them as needed.*

*Strategy LU7 Continue to provide zoning bonuses and incentives for small business in the village districts and Kelley's Corner, to encourage revitalization and rehabilitation.*

- Strategy LU8 Enact a more flexible regulatory approach to business uses in the Village Districts to take better advantage of market opportunities.*
- Strategy LU9 Continue to encourage a mix of housing types in and near the villages—for example, apartments over stores, and higher density housing nearby.*
- Strategy LU10 Encourage private efforts to improve and beautify village centers.*
- Strategy LU11 Continue to monitor availability of state and federal aid for revitalizing and rehabilitating historic village centers.*
- Strategy LU12 Continue to encourage a mixture of residential and commercial uses in existing village centers and where new village-type development is appropriate.*

### Issue: Zoning District Complexity and Specificity

The 1991 Master Plan created additional industrial and office park zoning districts designed to apply to specific situations. There are now five industrial districts, and two Office Park districts that contain similar provisions. There is concern that the specificity of the existing zoning districts, and the narrow range of uses permitted in them, may represent “micromanagement” of land use and economic development. There may be development opportunities that the Town is missing because its land use regulations prohibit the establishment of some uses in particular areas, either by intent or because of outdated definitions or standards for certain uses. The Town should review its districts and use regulations to determine where it is possible to provide more flexibility without compromising the balance between accommodating economic development and protecting community and environmental resources.

Also as a result of the Master Plan, the Town adopted some innovative planning tools such as transfer of development rights, traffic-based land use intensity regulations in the Limited Business district, and town-wide trip generation limitations for nonresidential development. These approaches were designed to address specific issues identified during the planning process, but have been of limited usefulness: the TDR option has not been used while creating some administrative difficulties, the traffic-based intensity standard is difficult to administer, and the trip generation limitation is seen by some as an unwarranted limitation on economic development. These approaches should be reviewed to determine whether they should be retained, modified or replaced.

- Strategy LU13 Provide more flexibility in the Town’s zoning districts and use regulations without compromising the balance between accommodating economic development while protecting community and environmental resources.*

- Strategy LU14 Strive to create a simple, clear, and direct regulatory approach.*

## Issue: Regulatory Simplification and Flexibility

There are questions about the extent to which the zoning regulations can or should be simplified to ease the regulatory burdens on applicants and Town departments. For example, many uses are currently regulated through the special permit process, which allows Town boards to review them on a site by site basis, imposing specific conditions appropriate to each. It may be possible to allow some of these uses “by right” in certain districts, or to convert site plan review from a special permit process to an administrative process.

On the other hand, there may be a case for wider application of the special permit process. For example, special permits may be used to provide more flexibility in dimensional standards, lessening the need for dimensional variances.

*Strategy LU15 Enact a more flexible regulatory approach to business uses allowed in the village districts and Kelley’s Corner, to encourage revitalization and rehabilitation.*

*Strategy LU16 Simplify the Town’s zoning regulations where possible, in order to encourage desired types of development, facilitate administration by Town staff, and minimize unnecessary burdens on applicants.*

## Land Use Action Recommendations

### Managing the Rate of Residential Growth

Suggestions to moderate the rate of residential growth provided by residents and some Town officials include:

- rezoning all remaining vacant residential land to business or industrial uses;
- “downzoning” residential land;
- purchasing undeveloped residentially zoned land;
- limiting the building permits issued each year;
- adopting a moratorium on residential development; or
- removing the density bonus options for cluster development.

Each option would impact the total amount or rate of residential growth, but each also has disadvantages. The following paragraphs provide brief reviews of these approaches in order to highlight which are considered most suitable given Acton’s situation and long-term goals.

#### Rezoning vacant land

As a result of the 1991 Master Plan, a number of parcels were rezoned from nonresidential to residential districts, to reduce the impacts on traffic and community character resulting from continued rapid commercial growth. The reasons for those rezonings still apply—in particular, the concerns about commercial strip development along Route 2A.

This Master Plan Update process has reaffirmed the Town's objective of promoting development in village centers and limiting sprawl development. Therefore, the rezoning of vacant residential land to commercial or industrial use does not appear to be supported by the thrust of the goals and objectives expressed in the Update.

While it may be feasible to rezone some vacant residential land to nonresidential uses, a rezoning of all vacant land would change the semi-rural character of Acton and add to traffic congestion. It would also reverse the direction provided in the 1991 Master Plan, and no sentiment for such a reversal was evidenced in the public participation process. Rezoning additional vacant land is also inconsistent with the Town's goals of emphasizing development in village centers and encouraging reuse of existing properties.

Some individual parcels may be appropriate for rezoning to nonresidential use. For example, a small expansion (estimated 5 to 7 acres) of the Nagog Park OP-1 district is proposed later in this document. However, such changes are not large enough to impact the Town's residential build-out significantly.

#### Downzoning residential land

Acton's residential zoning districts range in allowable density from a minimum lot area of 20,000 square feet in the R-2 district, to 100,000 square feet in the R-10 district. One way to reduce the ultimate build-out potential is to increase the minimum lot area in some or all districts, thereby limiting the number of dwellings that each lot could support.

Table 71 (Zoning District Profile - Buildout Estimates) presents the estimated residential and nonresidential buildout by zoning district. As this table indicates, most of the Town's zoning districts have limited capacity for additional growth. Even a significant downzoning in one district would have only a marginal impact on the Town's ultimate buildout. For example, if the maximum density in the R-10/8 district were reduced by 20 percent, from one home per 80,000 square feet of lot area (for a cluster development) to one home per 100,000 square feet, the estimated buildout drop by 109 dwelling units, or only about 3 percent of the total estimated potential residential growth. Downzonings in most other residential districts would have even less impact.

The only zoning district within which a downzoning might result in any significant reduction in buildout is the R-2 district. This is by far the largest zoning district in Acton, covering 4,016 acres of parcel area, or 34 percent of the total in the Town. The district contains 4,020 existing dwelling units and could absorb about 2,160 additional homes. (However, only 520 of these potential new units would be created on existing vacant lots; the remainder represent subdivision of parcels containing existing dwellings and have sufficient area under existing zoning to create additional units.) If the minimum lot area in this district were increased from 20,000 sq. ft. to 30,000 sq. ft., the theoretical residential growth potential would fall from about 2,160 dwelling units to about 980 units. This reduction represents 35 percent of the total potential residential growth in all districts, as estimated by the buildout analysis.

Given the substantial reduction in potential buildout, why not increase the minimum lot area within the R-2 district? Two important factors have to do with community character and equity. Although it has no high-density neighborhoods, large areas of Acton have developed with the moderate, village-scale density represented by the 20,000 square foot minimum lot area. Nearly 70 percent of the lots in the R-2 district are single-family lots with no additional development potential, and these have an average area of approximately 23,500 square feet. Thus, a 50 percent increase in minimum lot area could have a significant impact on the character of Acton's traditional neighborhoods, and potentially reduce housing affordability by raising the cost of land for new homes.

Increasing the minimum lot area in established neighborhoods also raises the issue of unequal treatment of different properties in the same neighborhood. The neighborhoods in the R-2 district include about 400 lots with single-family homes and enough area to support one additional dwelling unit (i.e., by splitting the lot in two). Whether these oversized lots are eventually developed will depend on several factors, including the availability of frontage, whether the lot contains wetlands, ledge or steep slopes that would make further development difficult, the location of the existing house on the lot, and the owner's interest in preserving open space and privacy. To enact an across-the-board increase in minimum lot area for the R-2 district might penalize a small number of owners who have not developed their land to the same density as their neighbors.<sup>15</sup>

An alternative to an across-the-board increase in minimum lot area might be to identify specific areas of the town or tracts of land that could be rezoned from the R-2 district to (for example) the R-4 district. However, this would have a very limited effect: there are only 9 developable parcels in the R-2 district that are larger than 10 acres in area, and they represent only 248 potential new dwelling units.

#### Purchase of residential land for open space protection

There are approximately 230 parcels of land zoned for residential use that are as yet undeveloped but are classified as developable or potentially developable. One strategy that could potentially decrease the amount of future residential development is to buy these parcels for open space protection.

In the short term, this approach hurts the Town's finances. On the expenditure side, the Town must pay for the purchase of the land (including interest payment for any associated bonds); while on the revenue side, the purchase of the land removes it from the tax rolls and shifts costs to other taxpayers.

However, the purchase of open space provides long term fiscal benefits. As the Town reaches buildout, there will be a long term cost savings as expenditures associated with servicing residential parcels – especially educational costs – will be averted. The Town

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<sup>15</sup> Similar equity issues (although affecting a much smaller number of property owners) would be raised by downzonings in the R-8/4 district: this district was created by rezoning largely undeveloped land in the R-4 district to encourage cluster development, and reducing the allowable density might unfairly single out the owners of land in this district compared to the owners of land that was left in the R-4 district.

will also realize open space and recreational resources for residents in the future. It is important to note, however, that these cost savings will not be realized until buildout, which is not expected to occur for another 40 years. In the meantime, the Town will feel the negative fiscal impacts of buying the land and removing it from the tax rolls.

Thus, the purchase of key open space parcels should be pursued as an option for environmental protection, recreation, and strategic growth management; but it is not a realistic way to control municipal expenditures within the time frame of this Master Plan.

#### Building moratoria and building permit caps

Building moratoria and limiting building permits are growth management tools that can be adopted by a community for a limited time while the town investigates methods to absorb new growth. However, the Town is currently involved in a detailed update of the Master Plan, and has recently completed a school assessment conducted by the Office of Michael Rosenfeld, Inc. (OMR) and a number of other planning studies; therefore, it could be difficult to justify the need for the additional time that these growth management strategies would provide to study the growth issue.

Furthermore, a challenge to enacting a moratorium or significant growth limitations through zoning is that such actions often spur an increase in growth as landowners and developers race to build while they can. To protect their land from a proposed zoning change, landowners and developers can submit subdivision plans preserving the pre-existing zoning for eight years. Then, to take advantage of this protection, they must build out the subdivision within the eight-year period. Consequently, the zoning change indirectly leads to premature development of land.

#### Open space zoning provisions

The Open Space Development (OSD) and the Planned Conservation Residential Community District (PCRC) options in the Bylaw allow clustering of homes to protect open space. These options also allow the developer to make use of density bonuses in return for conserving open space. Concern has been expressed that the Town's open space zoning provisions have not yielded the desired results and questions have been raised regarding the benefits of this type of development compared to standard large lot development.

Since the adoption of the open space zoning provisions, the number of dwelling units approved and built in these types of projects is slightly below the number that standard zoning would have allowed, and is far below what would have been possible with the full utilization of the cluster options (see Table 39: Residential Units Permitted Under PCRC or OSD Special Permits). Thirteen residential developments have been created under the open space zoning provisions, three of which were approved prior to the density bonus option. In total, 406 units have been constructed on 668 acres of land when the maximum number of units under standard zoning would have allowed for the development of 417 units. Due to the option to cluster housing on smaller lots, 434 acres

of open space have been preserved which would not have occurred under standard zoning (see Table 38: Land Preserved Through PCRC or OSD Special Permits).

If the three developments constructed prior to the density bonus provision disregarded, 176 units on 279 acres of land have been added using the open space zoning provision and density bonus offer. This has resulted in 37 more homes than possible under standard, large lot zoning. However, the full bonus potential of 75 additional units was not reached and 180 acres of open space have been preserved. Therefore, while there has been an addition in the number of homes, the goal of preserving open space has been accomplished.

The open space zoning provisions are beneficial to the town due to the amount of open space preserved with no acquisition cost to the town and the reduction in maintenance costs associated with shorter road lengths from more compact development. The tradeoff is that the density bonus offer has increased the number of homes beyond what would have occurred under standard zoning. This leads to an increase in the cost of services to the town. However, the town has saved the cost of open space acquisition in the process.

Finally, it is important to note that minimum lot areas above two acres are uncommon in Massachusetts and are approved primarily where shown to be necessary for environmental protection – growth management has not generally been accepted as a valid reason for three-acre zoning. Acton’s R-10 district, for example, was created to protect groundwater in North Acton, and was applied only to parcels immediately around Town wells. The R-10/8 district, in contrast, covered a much broader area to protect significant tracts of open space by encouraging cluster development; and it probably was approved by the Attorney General’s office because the original density (one dwelling per 80,000 square feet) was preserved. Eliminating the cluster bonus would push the minimum lot area up to 100,000 square feet, and might not be approved without detailed environmental studies supporting the need for lower density.

In short, the density increases available to cluster developments are valuable tools for preserving open space, while eliminating them would not clearly reduce the number of dwelling units or the rate of residential growth.

### Growth management

Residents are concerned about the rate of growth because of two issues: the impact that growth has on the town character and the ability to maintain school services as school enrollment levels increase. To protect the town character, some of the town’s best options are to pursue more aggressive open space acquisition and protection efforts and to continue to provide options to the traditional subdivision. Both efforts have already proved successful in preserving open space in Acton.

While the open space zoning provisions have proved successful, they have resulted in a modest increase in the number of housing units. This is one instance where the concern related to preserving the town character and open space may conflict with the concern regarding school growth.

One option the Town could pursue to ease the impact on the school system is to limit the number of new residential units that are constructed *per subdivision* within a given year through a Subdivision Phasing Requirement. This would provide a way to moderate the potential impact of large subdivisions, while leaving the smaller developments and individual house lots unaffected. However, the downside of phasing subdivision development is that projects take longer to complete. This is a concern as ongoing erosion issues may become a problem, the street will remain in private ownership for a longer time, and phasing often upsets new residents in the developments as the inconveniences associated with construction are drawn out over a longer period of time.

*Action LU-1*      Develop a program to control residential growth.

### Strengthening and Enhancing Village Centers

A key element of the Town's land use pattern is the presence of village centers. The Town has continued the 1991 Master Plan recommendations of creating Specific Area Plans for the village centers. Plans for South Acton, West Acton and Kelley's Corner have been completed: progress should be monitored, and the plans should be updated and adjusted as necessary. Village centers have been proposed for the East Acton and North Acton areas and the basic zoning is in place, but formal studies and strategies have not been completed.

Strategies for encouraging the village pattern of development in all locations include continuing to encourage a mix of businesses and housing types, encouraging private sector involvement to improve the villages, and pursuing state and federal funding for rehabilitation efforts.

### Development Intensity in North Acton and East Acton Villages

The 1991 Master Plan recommended that two new village districts – East Acton Village and North Acton Village – be established. The intention of these districts is to reinforce the historic development pattern of the town by refocusing future development in the section of Acton north of Route 2 into compact villages, encouraging mixed uses, mitigating traffic impacts, and creating a strong sense of place through design controls. The dimensional requirements for the NAV and EAV, although differing from the WAV and SAV regulations, encourage compact development consistent with village planning while respecting existing land uses. However, some residents have expressed difficulty in envisioning these areas as villages or small mixed use centers.

This Update of the Master Plan reaffirms the village development strategies of the 1991 Master Plan and subsequent village studies. To promote these strategies, several modifications to the village zoning regulations are recommended. The most significant change relates to the allowable density of development. Currently, the maximum floor area ratio (FAR) allowed as of right is 0.20; but this may be increased to a maximum FAR of approximately 0.36 through a special permit for a transfer of development rights

(TDR) from parcels along Great Road.<sup>16</sup> However, the TDR provisions have not proven useful, and it is recommended that they be replaced with a more straightforward approach (see discussion beginning on page 86). Therefore, it is also recommended that the maximum floor area ratio allowed as of right in the EAV and NAV districts be increased to 0.40. This would support the objective, stated in the 1991 Master Plan and the Zoning By-Law, of a 0.30 target FAR for these districts without the complexity and additional developer costs of the TDR provisions. (It should be noted that this recommendation should be enacted with the changes to the LB district recommended elsewhere in this element, in order to balance increases and reductions in allowable nonresidential development potential.)

Other recommended zoning changes for the village districts include:

- To encourage flexible development options and a pedestrian environment, the parking regulations for the NAV and EAV districts should be revised. The only special provisions discussed in the existing regulations for these two districts address the location of parking not located upon the same lot as the associated use and require that parking must be located behind the front line of the building. The WAV, SAV and Kelley’s Corner districts also have these requirements but provide additional provisions such as connection of parking between uses, a 70% reduction in the number of required spaces, shared parking facilities among various businesses and design requirements and landscaping.
- Hotels and motels should continue to be allowed by special permit while inns and bed & breakfasts should be allowed by right under the proposed revised definitions for these uses (see “Updating the Table of Use Regulations and the Permitting Process” on page 92).
- Funeral homes are allowed by right in the SAV and WAV but are not permitted in the NAV or EAV. It is unclear why this distinction is present, and consideration should be given to revising the use table to permit this type of use in all village districts.
- Veterinary care facilities are allowed by special permit in the SAV and WAV but prohibited in the NAV and EAV. Again, it is unclear why this distinction is present, and consideration should be given to permitting this use in all village districts.
- Light manufacturing is allowed by special permit in the SAV and WAV districts but prohibited in the NAV and EAV districts. The definition of “light manufacturing”

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<sup>16</sup> The maximum allowable FAR in these two districts varies by a formula based on the mix of residential and nonresidential floor area on the parcel, as illustrated by the following examples:

Nonresidential Floor Area	Residential Floor Area	Maximum FAR
25%	75%	0.3625
50%	50%	0.3250
75%	25%	0.2875

should be re-evaluated and appropriate uses determined for each of the village districts.

- Action LU-2*      Increase the maximum Floor Area Ratio for the East Acton Village and North Acton Village districts to 0.40.
- Action LU-3*      Complete the East Acton Village Plan. Take steps toward implementing it, giving special attention to actions identified as having high priority.
- Action LU-4*      Prepare a North Acton Village Plan. Take steps toward implementing it, giving special attention to actions identified as having high priority.
- Action LU-5*      Update the West Acton and South Acton Village Plans. Take steps toward implementing them, giving special attention to actions identified as having high priority.
- Action LU-6*      Revise the parking regulations for the EAV and NAV districts to reflect the provisions provided in the other village districts.
- Action LU-7*      Revise the zoning of the EAV and NAV districts to encourage small mixed use centers. Allow similar uses that are permitted in other village districts.

### Village Design

Street trees and other landscaping between the sidewalk and the roadway or between the building frontage and the sidewalk helps avoid creating a sterile auto “strip” by defining the street edge, making a sense of enclosure and providing shade for pedestrians. Pedestrian amenities such as decorative lighting, benches and sidewalks further enhance and encourage an active village center.

The Town should consider developing design guidelines to complement existing regulations to provide suggestions for the types of development appropriate for these districts. The existing regulations provide the basic and secure requirements while the purpose of providing design guidelines is to supplement the Town’s bylaws by providing examples of desirable development features balancing protecting the Town’s assets with flexibility in development options. The guidelines would delve deeper into design details and suggest how to meet existing regulatory requirements. The guidelines should provide examples of building placement, landscaping, facade design and pedestrian accommodations.

A potential source of funding for new street trees in the villages is the Mass ReLeaf grant, administered by the Massachusetts Department of Environmental Management’s Urban Forestry Program. The grant program is designed to assist in purchasing trees for a community; and any municipality, nonprofit organization or local community tree volunteer group is eligible to apply. The maximum award amount is \$5,000, with a 1:1 match or in-kind service provided by the community. Trees purchased with the funding

may be planted by municipal staff, but it is preferable for community volunteers to do the planting.

- Action LU-8* Provide pedestrian scale lighting and benches in village centers.
- Action LU-9* Create design guidelines to encourage the desired type of development in village centers.
- Action LU-10* Apply for the Mass ReLeaf grant through the DEM Urban Forestry Program to purchase and plant trees in village centers.
- Action LU-11* If the TDR option is removed (see discussion, below), multifamily dwellings should be allowed by special permit in the NAV and EAV districts.

### Encouraging Commercial Development in the Kelley's Corner Area

The Kelley's Corner is defined by the intersection of Main Street (Route 27) and Massachusetts Avenue (Route 111), and is bounded on the north by Route 2. The 1991 Master Plan recommended that Kelley's Corner be designated for concentrated commercial development. Since then the Town has carried out two planning studies of Kelley's Corner (the Specific Area Plan and the Circulation Plan) and has begun implementing the recommendations of those studies.

Recommendations of the Circulation Plan include the following amendments to the Zoning Bylaw:<sup>17</sup>

- Adjusting the minimum required front setback;
- Increasing the maximum floor area ratio from 0.40 to 0.60, and the maximum building height from 36 to 40 feet;
- Requiring new development to reserve public street rights of way for widening of existing streets and creation of new ones, and to contribute to the costs of public transportation improvements;
- Modifying existing sidewalk construction and improvement standards for development projects;
- Establishing new driveway, parking lot design and landscaping requirements for development projects; and
- Exempting uses in the Kelley's Corner district from town-wide caps on peak and average daily traffic generation.

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<sup>17</sup> These recommendations are currently being reviewed by a working group in an effort to determine how best to proceed with them.

The Planning Board is reviewing these recommendations and the underlying assumptions of the Circulation Plan, with the purpose of defining what incentives will be both sufficient to induce desired development and acceptable to the Town.

*Action LU-12* Continue taking steps to refine and implement the Kelley's Corner Specific Area Plan and Circulation Plan.

## Simplifying Zoning Regulations in the Great Road Business Areas

### Limited Business District and Transfer of Development Rights

The 1991 Master Plan recommended an innovative approach, which Town Meeting adopted, for managing commercial growth in North Acton. It consisted of (a) tying development levels along Great Road to low traffic generation rates; and (b) establishing a transferable development rights program allowing owners of land along Great Road to limit the maximum floor area to be developed on their properties and to sell the excess development rights to owners of properties in the village centers.

During the process of updating the Master Plan, Town residents and officials have supported the Plan's goals of limiting commercial sprawl and concentrating growth in village centers. However, we must recognize that the approach of providing incentives to trade development credits from one part of town to another has not achieved its goals. While the parking limits may have contributed to a lower level of development along the Great Road corridor, the complementary TDR provisions have not been utilized to achieve growth in the village centers. As a result, many residents and officials believe that the zoning strategy reduced commercial growth rather than merely reallocating it from the "strip" to the villages.

The adoption of the TDR provisions did not result in the emergence of a market in development rights as anticipated, for three possible reasons. First, the Transfer of Development Rights (TDR) provisions are apparently too complex to be understood by most people. Second, the "sending" and "receiving" areas may not be large enough to provide the number of buyers and sellers to create an efficient market. Finally, the incentives offered through the TDR system may not be sufficient to overcome the uncertainties, risks and additional costs that a developer would face in the special permit application and review process. It seems that the only way to bring the TDR market to life is to give heavy incentives for its uses in the village districts, such as allowing the construction of double or triple the transferred floor area in the village centers. However, this tremendous increase in density would change the character of the village which is inconsistent with the goals of the Plan and the original basis for creating the TDR.

Another difficulty with the commercial growth management system established in the 1991 Master Plan is the method for limiting traffic intensity in the LB district. Although lots in this district have a maximum FAR of 0.20, the bylaw also sets a maximum of 1 parking space per 3,000 square feet of developable site area. This limitation was calibrated to be equivalent to the traffic generation of retail development at a floor area ratio of 0.10, while allowing higher FARs for developments generating less traffic. Thus,

building size is a function of the traffic generation potential of the land use. The purpose of this approach was to provide more flexibility than the inflexible relationship between building size and lot area represented by the FAR standard. However, Town officials have found it difficult to administer this more flexible approach, since changes in tenancy may lead to different parking requirements. In addition, it is difficult for the Town to deal with changes in use for pre-existing buildings that exceed the maximum FAR.

Town officials desire to amend the zoning so that the intensity regulations are less dependent on the use of a parcel, to make the regulations easier to administer and to encourage re-use of vacant buildings.

It should also be noted that the potential amount of development transferable through a TDR system is small in comparison to the existing level of floor area in the sending zone along Great Road. If all parcels were built out to their maximum potential under the 0.20 FAR (ignoring the impact of the parking density limitation), the LB district could accommodate approximately 436,200 square feet of additional floor area, 62% above the current total of 702,470 square feet. At the “target” FAR of 0.10, the potential increase in floor area would be 143,200 square feet. The difference between these two figures, approximately 293,000 square feet, represents the *maximum* transfer if the TDR provisions were used by all eligible parcels within the LB district. This amount of floor area is less than 4 percent of the Town’s estimated total commercial and industrial floor area potential (buildout).

Based on these considerations, it is recommended that the Town reaffirm its strategy of concentrated village development by moving from a system of incentives toward a simple, and more direct regulatory approach. This would include: eliminating the parking limitation in the LB district; reducing the maximum FAR in the LB district to 0.15 (which was described in the 1991 Master Plan as the target FAR for this district); and increasing the as-of-right FAR in the EAV and NAV districts to 0.40 (as recommended above, under “Development Intensity in North Acton and East Acton Villages”). The FAR changes would reduce the maximum development potential in the LB district by approximately 170,000 square feet,<sup>18</sup> and increase the potential floor area in the village districts by about 410,000 square feet. (Note that these estimates assume that every parcel will build out to its maximum potential, no matter how small the incremental floor area; therefore these estimates likely overstate the buildout somewhat.)

*Action LU-13*      Remove from the Zoning Bylaw the Transfer of Development Rights provisions and associated parking limitations (Section 5.4).

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<sup>18</sup> This estimated reduction in buildout potential is based solely on the existing 0.20 FAR in the LB district, and does not take into account the impacts of reducing the existing off-street parking limitation. Since the parking limitation effectively establishes an FAR for retail uses of about 0.04 to 0.05 and office of about 0.10, the proposed changes actually represent a significant *increase* in retail and office development potential in the LB district.

*Action LU-14*      Reduce the maximum Floor Area Ratio (FAR) in the Limited Business district from 0.20 to 0.15.

## Updating the Office and Industrial Zoning Districts

### Consolidating the Existing Districts

Recommendations of the 1991 Master Plan resulted in the Town adopting several new types of zoning districts to permit greater flexibility in the Zoning Bylaw. However, since that time, there have been revisions to dimensional requirements and the Town's objectives have changed. Consequently, the number and type of zoning districts should be re-evaluated to determine if the existing distinctions are still appropriate.

The Town currently has five industrial districts and two office districts. Table 24 and Table 25 list the use regulations and dimensional regulations that differ among these districts. There appear to be several areas where districts might be consolidated with few changes in use regulations.

### Industrial Districts

The LI and LI-1 districts are the smallest of the five industrial districts. The LI district consists of 17 parcels(41 acres), located in South Acton on River Street, School Street, Craig Road and Main Street. The LI-1 district includes 10 parcels totaling 60 acres on Post Office Square and Main Street. Both districts are essentially at buildout. The principal differences between the districts are the intensity of allowed development (the LI district allows a 0.20 FAR while the LI-1 is limited to 0.10), the open space requirement (higher in the LI-1 district), and the use regulations for several (primarily non-industrial) uses. Based on the minor differences between the districts and the limited potential for growth, it seems that these two districts could be consolidated rather easily.

**Table 24: Comparison of Industrial District Regulations**

Use/Dimensional Requirement	LI	GI	LI-1	IP	SM
Lodge or Club	N	Y	Y	N	Y
Veterinary Care	N	SPS	SPS	SPS	SPS
Commercial Kennel	N	SPS	SPS	SPS	SPS
Studio	N	N	Y	N	Y
Commercial Recreation	N	SPS (10)	SPS (10)	SPS (10)	SPS (10)
Amusement	N	SPS	N	SPS	SPS
Motor Vehicle Repair or Body Shop	N	N	N	N	SPS
Parking Facility	N	N	N	N	SPS
Transportation Services	N	SPS	N	SPS	N
Adult Uses	N	N	N	SPS	N
Warehouse	Y	Y	Y	Y	N
Mini-Warehouse	N	Y	Y	Y	N
Construction Yard	N	Y	N	Y	N
Lumber Yard	N	Y	N	Y	SPS
Heating Fuel Sales & Service	N	SPS	N	SPS	N
Minimum Lot Area	80,000	40,000	80,000	100,000	40,000
Minimum Lot Frontage	200	100	200	100	100 (8)
Minimum Lot Width	50	50	50	50	50
Minimum Front Yard	50	45	50	50	50
Minimum Side and Rear Yard	30 (2)	20 (2)	30 (2)	50 (2)	30 (2)
Side or rear setback if abutting a residential district	60 feet	100 feet	60 feet	200 feet	50 feet
Minimum Open Space	35%	35%	50%	50%	35%
Maximum Floor Area Ratio	.20	.20	.10	.04	.20
Maximum Height	40	40	40	40	36

- (2) If the lot abuts a Residential District ... the side and rear yards abutting the Residential District shall be increased as follows: IP - 200 feet; GI - 100 feet; LI or LI-1 - 60 feet; SM - 50 feet.
- (10) No special permit shall be required for Commercial Recreation facilities with a net floor area of less than 2,000 square feet.

The Small Manufacturing district (SM) is the most limiting of the five industrial districts in the range of traditional industrial uses permitted and has been identified as a district that should be considered for revision. This district is located in two areas:

- The larger area runs along Main Street north of Great Road(Route 214/119), and includes 36 parcels with 130 acres and about 600,000 square feet of existing non-residential floor area. The buildout analysis estimates that this area has the capacity under existing zoning for an additional 390,000 square feet of floor area.
- The second area contains 7 parcels totaling 17 acres, with 83,000 square feet of nonresidential floor area. This district extends along the south side of Great Road from Wetherbee Street to the Concord town line and includes several parcels on

Keefe Road. It has only about 5,300 square feet of additional growth potential under existing zoning. More than half of the acreage and three-fourths of the floor area is represented by the sports center (formerly Acorn Structures), which contains 8.8 acres and 61,300 square feet of floor area.

The two areas pose distinct issues. The north Main Street area could support a substantial increase in industrial floor area and valuation, and contains several sites readily developable either because they are vacant (for example, several parcels on Eastern Road) or can be easily cleared for redevelopment (the former Wickes Lumber site, which has an estimated buildout potential of nearly 100,000 square feet). The Town wants to encourage more diverse uses in the SM district but still discourage high traffic generators. However, the area is near a sensitive groundwater area, so use regulations should continue to recognize this. Consideration should be given to rezoning this area to the GI district, which has similar dimensional and intensity regulations to the SM district but a broader range of allowed uses. The analysis of this change should take into account the potential groundwater impacts of the expansion of allowed uses.

The SM district at Wetherbee Street and Keefe Road contains, in addition to the sports center, five small parcels with commercial and residential uses and one undevelopable parcel. The commercial uses include two motor vehicle repair shops and a small storage facility, but no true industrial uses. As noted above, there is little potential for expansion under existing zoning. The district abuts the East Acton Village district, and consideration should be given to expanding the EAV district to include this area. If the recommended increase in FAR in the EAV district is adopted, this could provide an incentive for redevelopment of parcels in this area consistent with the goals for the Village.

If these two recommended rezonings are adopted, it would be possible to eliminate the SM district altogether. With the consolidation of the LI and LI-1 districts, the number of industrial districts would fall from five to three.

*Action LU-15* Consider combining the LI and LI-1 districts.

*Action LU-16* Consider rezoning the SM district along north Main Street to the GI district, provided that groundwater protection will not be diminished.

*Action LU-17* Consider rezoning the SM district at Wetherbee Street and Keefe Road to the EAV district.

### Office Districts

The OP-1 district consists of 24 parcels totaling 134 acres, all in Nagog Park. The OP-2 district includes 46 parcels containing 137 acres, extending along the south side of Massachusetts Avenue and Route 2 from Kelley's Corner to Hosmer Street. The original distinction between the OP-1 and OP-2 districts was primarily development intensity: the floor area ratio for the Nagog Park area was capped at 0.10 while the Route 2 area had a maximum FAR of 0.20. However, the FAR for the OP-1 district was increased back

to 0.20, and the remaining differences between the two districts now relate to eight uses in the table of use regulations. As indicated in Table 25, there is no pattern to the differences in these use regulations.

These two districts could be consolidated by allowing these eight uses by special permit, as indicated in the last column of Table 25. However, the Planning Board has also proposed that the FAR in the OP-2 district be raised from 0.20 to 0.40 to encourage high-value office development in this area. This higher FAR would not be appropriate for the OP-1 district, because the potential traffic generation could not as easily be absorbed on the Route 2A corridor. Therefore, the determination as to whether to consolidate these two districts should be deferred until a decision has been made on raising the FAR in the OP-2 district.

**Table 25: Comparison of Office District Regulations**

Use/Dimensional Requirement	OP-1	OP-2	Suggested
Earth Removal	SPA	N	SPA
Restaurant	SPS (3)	SPS	SPS
Hotel, Inn or Motel	N	SPS	SPS
Building Trade Shop	Y	N	SPS
Commercial Recreation	Y	SPS (10)	SPS
Transportation Services	N	SPS	SPS
Adult Uses	SPS	N	SPS
Warehouse	Y	SPS	SPS
Minimum Lot Area	80,000	80,000	
Minimum Lot Frontage	200	200	
Minimum Lot Width	50	50	
Minimum Front Yard	50	50	
Minimum Side and Rear Yard	30 (7)	30 (7)	
Minimum Open Space	50%	50%	
Maximum Floor Area Ratio	.20 (14)	.20 (16)	
Maximum Height	36	40	40

- (3) Only as an accessory use
- (7) If the lot abuts a Residential District the minimum side and rear yard shall be 60 feet.
- (10) No special permit shall be required for Commercial Recreation facilities with a net floor area of less than 2,000 square feet.
- (14) On lots within the OP-1 District, which on April 3, 1995 were held in common ownership, the FAR may be calculated by dividing the sum of the net floor area of all buildings on such lots by the developable site area of such lots, whether or not such lots are contiguous or divided by a street.
- (16) Subject to certain provisions in Section 5.7, Special Provisions for the Office Park 2 District.

*Action LU-18* Move forward with proposal to raise the floor area ratio for the OP-2 district, in order to encourage office park development of the Auto Auction site and adjacent areas.

*Action LU-19* Consider consolidating the OP-1 and OP-2 districts if more intensive development in the OP-2 district is disapproved by Town Meeting.

## Updating the Table of Use Regulations and the Permitting Process

The Town should update the table of use regulations to reflect more modern uses and practices, provide more flexibility in industrial, business and village districts and protect community and environmental resources. Technological and societal changes have changed the character of many types of uses. For example, “printing plants” are included under the Zoning Bylaw’s definition of “light manufacturing;” but today a small printing operation may involve computers and printers similar to personal and office equipment, and the use may be comparable to a professional office or small service establishment. Indeed, the boundaries between many types of uses are being blurred.

### Definitions of Uses

To describe more accurately the type of development that is desirable in a particular area of town as well as reflect today’s business world, the use table should be revised. Some recommended changes are as follows:

- *Hotels* and *motels* should be regulated separately from *inns* and *bed and breakfasts* (B&B). The current zoning bylaw categorizes all four types of lodging establishments into one entry but places limitations on the number of rooms permissible per district. A more appropriate method to address this issue is to treat each as a separate use and revise the definitions accordingly. An inn generally contains 5 to 10 rooms, the maximum currently allowed in the village districts. Hotels and motels can consist of numerous rooms and may provide conference rooms or meetings for the general public and may not be appropriate in the village districts. In addition, bed and breakfasts differ from inns (but are included in the current definition) as a B&B is located within a primary residence where the owner/operator lives in the building. A B&B is typically smaller than an inn with usually no more than 4 rooms for rent with the primary purpose of furnishing overnight lodging and a breakfast meal. Hotels, motels and inns may provide up to 3 meals a day and could cater to both guests and the general public for meal service. Inns and B&B’s are appropriate uses for the village districts and should be permitted as of right while hotels and motels are more appropriate in business districts, and perhaps industrial districts, by special permit. B&B’s should also be permitted in residential districts by special permit.
- *Studio* is defined as “a facility used as a place of work by an artist, photographer or artisan.” This is appropriate for village districts where small scale, mixed uses are encouraged and should continue to be allowed as of right in these districts. The definition should also require that the intended use be a small work place with minimal display areas and low traffic generation. A sample definition could be “A one-room building or part of a building used as a working space and designed to accommodate the production of various forms of art, such as painting, sculpture or

photography.” In addition, a “studio” under the current definition within an industrial district (such as the LI-1 and SM districts where the use is allowed as of right) may result in a use much larger in scale than intended. For example, the current definition provides a “loophole” for businesses that may not be appropriate for industrial districts such as a commercial photography studio, craft supply store, poster shop or other uses that often locate within a commercial center or shopping mall and are high traffic generators. The current definition can also be used to describe dance studios, gymnastic facilities, martial arts, etc. If it is the intention of the Bylaw to include these types of uses in the industrial districts, a new definition should be created using the existing *commercial recreation* definition rather than *studio* (see below).

- *Commercial Recreation*. The existing definition is a “catch-all” for any facility operated as a business open to the public for a fee. The facilities that would be constructed for horseback riding versus aerobics are very different yet both fall within the same definition. This definition should split into two separate uses, providing guidance for outdoor and indoor recreation activities:

<u>Outdoor</u>	<u>Indoor</u>
Outdoor ice skating	Indoor ice skating
Swimming	Roller Skating
Horseback Riding	Indoor tennis
Skiing	Racquet ball
Ball games	Indoor Swimming
Golf	Body Building
Miniature Golf	Fitness training
Tennis	Steambaths/sauna
	Aerobics
	Yoga
	Instructional Dance
	Martial Arts
	Bowling

Concerns regarding the location of recreation uses are often related to the size of the facility and the volume of traffic generated. To address this, provisions could be added to allow recreation uses under a given size as of right and above that size by special permit.

- *Amusement Facility* generally implies an indoor or outdoor use ranging in size from a major amusement park to a small, local theater. Consequently, the existing definition should be revised. The existing definition implies that theaters and cinemas are the only intended uses and is stated as such for the SAV district. The current definition also includes video arcades. The definition does not clearly allow or disallow miniature golf, water slides or other “amusement facilities”. As these types of uses can generally be included in the commercial recreation section, it is recommended that *amusement facilities* be stricken from the definition section and a new definition for *theater* created. The definition should include provisions for the size of the

intended use so that small stage or one-two screen motion picture theaters are encouraged in the village districts and large scale, multiplex cinemas are prohibited.

- The existing definition for *retail stores* may be outdated for today's retail market. There is a trend toward the development of large department stores, referred to as the "big box retailer." The maximum floor areas for businesses and industries in the village districts will help preserve the character of these areas that large retailers threaten or destroy. However, the Town may consider adopting a definition for "Department Store" and specifically state where these types of uses are permitted.

Consideration should also be given to defining uses based on their impacts on the surrounding area, rather than on the specific activity on the parcel. Categories of impact could include traffic generation (total and truck), noise and vibration, and visual impact (including building scale and outdoor storage).

### Site Plan Review and Special Permits

Based on comments during public meetings for the Master Plan Update, there is a need for the Town to evaluate areas where regulations can be simplified to "streamline" the permitting process. Specific issues raised include revising the site plan review and approval process to be more of an administrative process rather than a discretionary special permit process, and eliminating duplicate jurisdictions such as permit provisions for floodplain areas by both the Zoning Board and Conservation Commission.

Acton has both a special permit process and a site plan special permit procedure. As of this writing, the site plan special permit process has never resulted in a denial of a special permit. Consequently, some question has been raised as to the necessity for having a special permit tied to a site plan review procedure. Perhaps a simplified site plan review process would be more appropriate. The Town would still have be able to shape a project through the site plan review process, which seems to meet the objectives of the Town better than actually regulating a specific use.

There is often confusion between site plan review and a special permit: the site plan review process only shapes a project while a special permit review may result in a denial. A use may be subject to site plan review under the community regulations but if the use is permitted as of right, site plan review cannot be used to approve or deny a project based on its use. It can only shape a particular proposal within the context of existing regulations. According to Massachusetts law, boards have the following powers associated with the site plan review process:<sup>19</sup>

1. to reject a site plan that fails to furnish adequate information required by the bylaw;
2. to impose reasonable conditions in connection with site plan approval (even at the expense of the applicant); and

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<sup>19</sup> *Prudential Insurance Co. of America v. Board of Appeals of Westwood*, 23 Mass. App. Court 278 (1986).

3. to reject site plans where “although proper in form, (the site plan) may be so intrusive on the needs of the public in one regulated aspect or another that the board would be tenable.” This would be the case where, despite best efforts, no form of reasonable conditions could be created to satisfy the problem with the plan.

In addition, the reviewing board does not have the authority to require yards, screening, parking or loading in excess of that stated in the zoning bylaw.

Site plan review is typically used for activities and uses such as:

- Construction, exterior alteration or exterior expansion of, or change of use within, a municipal, institutional, commercial, industrial, or multi-family structure above a specified size threshold;
- Construction or expansion of a parking lot;
- Grading or clearing more than a specified percentage of a lot (with certain exceptions, such as landscaping on a lot with an existing structure or a proposed single family dwelling, clearing necessary for percolation and other site tests, work incidental to agricultural activity, work in conjunction with an approved subdivision plan, or work pursuant to an earth removal project);
- Any use or structure available by special permit or variance (where the site plan review can be used to identify noncompliances with the zoning bylaw, or to establish conditions to be incorporated into the issuance of the special permit or variance).

A special permit may be used to deny a project based on the proposed use and associated impacts. The criteria for decision making and the balancing test to be used by the granting board must be clearly stated in the bylaw. The criteria section should include language that states that a special permit will be granted if the adverse effects of the proposed use will not outweigh its benefits to the town or the neighborhood. Factors that can be considered in considering a special permit include:

- Social, economic, or community needs served by the proposal;
- Traffic flow and safety, including parking and loading;
- Adequacy of utilities and other public services;
- Neighborhood character and social structures;
- Impacts on the natural environment; and
- Potential fiscal impact, including impact on town services, tax base, and employment.

#### Uses Allowed by Right vs. Uses Allowed by Special Permit

The Use Table of the Zoning Bylaw has been viewed as complex recently due to the number of uses and districts. Efforts to simplify the use table and removal of many special permit uses in favor of more uses allowed “by right” have been suggested. The

Town would still be able to shape a project through the site plan review process, which seems to meet the objectives of the Town better more than actually regulating a specific use. The following changes are recommended:

- *Lodges or clubs* are presently defined as “A facility used by a non-commercial organization which is characterized by formal written membership requirements.” This use is allowed by special permit in all four village districts and Kelley’s Corner and by right in the GB, LB, GI, LI-1 and SM districts. It seems unlikely that an establishment of this sort would locate in an industrial district and should therefore be prohibited in industrial districts.
- *Veterinary Care*. The current definition for this use excludes the boarding of animals other than for care incidental to medical or surgical treatment. The boarding of animals, such as a commercial kennel, would warrant the special permit provision but the current definition would result in development that would not cause greater impact to an area than most other service businesses. Veterinary care facilities are presently allowed by special permit in the VR, SAV, WAV, GB, LB, KC, GL, LI-1, IP and SM districts. It is recommended that the use table be revised to allow this use by right in the village and business districts, and to prohibit it in the industrial districts. *Commercial kennels* should remain as special permit uses in the areas currently indicating such use due to the variations that the scale of the business could result in significant visual, traffic and noise impacts to neighboring uses.
- Prior to the adoption of the town’s groundwater protection bylaw, it was determined that *heating fuel sales and service, motor vehicle stations* and *car washes* should only be allowed by special permit due to the vulnerability of the groundwater supply. Now that the Town has a groundwater protection bylaw regulating some of the potential adverse impacts of these uses, some feel that consideration should be given to permitting these uses as of right. It is felt that the special permit requirement delays the approval process and is unlikely to be used to approve or deny a project. However, motor vehicle service stations and car washes may have potential adverse traffic and visual impacts which may warrant the necessity for the extra review process under a special permit.
- Restaurant drive-up windows have not been allowed in Acton. Some feel that consideration should be given to whether the types of uses containing drive-up windows should be allowed by special permit.

*Action LU-20*      Revise the use table to address specific concerns:

- Separate hotels and motels from inns. Allow Inns and B&B’s in the village districts as of right and allow B&B’s in residential districts by special permit. Hotels and motels should be allowed in the business districts by right and perhaps industrial districts, by special permit.
- Revise the definitions for studio, recreation, and retail.
- Create new definitions for theaters and department stores.

- Action LU-21* Update the use table and definitions to provide more flexibility as the character and type of uses change over time.
- Action LU-22* Remove from the Zoning Bylaw the Site Plan Special Permit process and replace it with a simplified Site Plan Review procedure.
- Action LU-23* Review uses to determine whether any uses currently requiring a special permit should be allowed by right instead.
- Action LU-24* Review the Town's prohibition of restaurant drive-up windows and consider how they might be allowed.

## Adjusting Zoning District Boundaries

### Expansion of Nagog Park OP-1 District

A large parcel adjacent to Nagog Park at the Westford town line is split between the R10/8 residential district and the OP-1 office park district. In general, the Town has defined zoning district boundaries to follow parcel lines so that property is not divided into two or more districts; however, in this case the back portion of the lot was left in a residential district. If the back portion were rezoned to the office park district, access could be provided from Nagog Park. However, this change could impact nearby homes that would remain in the residential district.

The Nagog Park area is a successful example of a high-quality office park. It has high average land valuations (\$425,500 per acre, higher than any district except the LI-1 district at Post Office Square) and very high average building valuations (\$1.07 million, by far the highest of Acton's nonresidential districts). Its primary access on Route 2A and proximity to Interstate 495 give it good access to the regional highway system (better than the SM district along north Main Street) while minimizing impacts on nearby residential areas. (It should also be noted that access to the site over the private right-of-way from Quarry Road would be unlikely because it crosses through a residential zoning district: Massachusetts courts have ruled that private land may not be used to provide access to a use that is not permitted in the district in which the access route is located.)

In short, an expansion of the OP-1 district to include the entire parcel could provide a very effective way to support an expansion of the nonresidential tax base in this area of Acton meeting the economic development goals of this Update. Therefore, it is recommended that the Town consider rezoning the site from R10/8 to OP-1, while ensuring that a dense vegetated buffer remains to protect neighboring residential properties and define a firm edge to the office park. This rezoning would add sufficient area for about 90,000 square feet of additional floor space.

## Route 62

The commercial area along Route 62 (Powder Mill Road) is a mixture of GI and GB zoning due to the land uses at the time of an earlier zoning. The existing zoning pattern may not be applicable to the current conditions. Zoning districts in this area should be consolidated without creating non-conforming land uses to the extent possible.

A review of the parcel data for this area reveals the following:

- Of 53 nonresidentially-zoned parcels in this area, 39 parcels containing 75 acres are zoned GI, and 12 parcels containing 22 acres are zoned GB.
- Developed properties in both districts are predominantly commercial rather than industrial. However, the “commercial” parcels include uses not permitted in Acton’s business districts, including a trucking terminal and warehouses.
- Most of the remaining development potential is in the GI-zoned portion of the area: the buildout analysis estimates that 223,500 square feet of floor area could be added to GI-zoned parcels, and only 47,100 square feet could be added on GB-zoned parcels. However, only five parcels (four in the GI district) could add more than 10,000 square feet of floor area, indicating the small scale of any future development in this area.

A detailed study is needed to determine exactly the appropriate zoning for this area, but in general it is recommended that the zoning be consolidated as much as possible into the GB district. The frontage parcels along Powder Mill Road (Route 62) and High Street should be included in the GB district, while the land along Sudbury Road and Knox Road (which includes the three parcels with the largest development potential in the area) should remain in the GI district.

*Action LU-25* Consider expanding the Nagog Park OP-1 district to include a portion of the land adjacent to the Westford town line, but preserving a dense buffer area to protect the adjacent residentially-zoned property and define a limit to expansion of the district.

*Action LU-26* Consolidate zoning district boundaries in the area of Route 62 and High Street.

## Streamlining and Simplifying the Permitting Process

Acton has a sophisticated Zoning Bylaw providing detailed guidance and state-of-the-art land use controls for a variety of situations. Over time, the Bylaw has been adjusted to address specific uses and locations. Consequently, it has become more complex than the zoning regulations of some surrounding towns. This reflects the fact that Acton is a complex community, with its mix of semi-rural, suburban and village areas.

While Acton’s Zoning Bylaw provides great detail regarding the land use controls in the town, it can be cumbersome for applicants. Therefore, the Town should create an index

to the Bylaw so that users are directed to applicable sections for a given term or type of project.

The Planning Board and Zoning Board of Appeals have discussed the possibility of allowing some adjustment of dimensions by special permit rather than by variances, especially on issues of little town wide importance such as side or rear setbacks. This revision to the regulatory process is consistent with Master Plan objectives and should be adopted within reasonable limits. Special permits should be issued for dimensional requirements within a specified percentage of the dimensions stated in the Zoning Bylaw. Requests to expand or reduce a project beyond these standards inconsistent with surrounding structures or character of the original project should be denied.

Acton's Bylaws clearly state landscaping, screening and sidewalk provisions for development. However, there are situations where it would be appropriate to allow a proposed or existing development to deviate from the specifications due to unique site characteristics without jeopardizing the intent of the regulations. To accommodate these unique situations, consideration should be given to providing some flexibility.

Framingham is an example of a community which has allowed flexibility in regulations within the Highway Overlay District through a special permit process. The Planning Board may modify or waive strict compliance with standards and regulations by special permit if the waiver will not create conditions which are substantially more detrimental to the existing site and the neighborhood in which the site is located than if the waiver or modification were not granted. Factors which are considered in making this determination include the impact of the waiver on traffic; municipal services and facilities; the character of the neighborhood including environmental and visual features; and consistency with the objectives of the Highway Overlay District. The applicant must demonstrate that the waiver would accomplish the following design and performance objectives, as applicable:

- Landscaped buffer strips which create a strong impression of separation between developed areas and adjacent streets and/or residential areas;
- Landscaped parking areas and landscaped areas adjacent to buildings;
- Improved pedestrian circulation within the subject site and, where possible, create pedestrian access to adjoining sites;
- Maintenance of all landscaped spaces and buffer areas;
- Improved vehicular access, reduced curb cuts for access drives, improved on-site circulation.
- Improved building architecture and facade to achieve compatibility and harmony with the surrounding neighborhood;
- Improved site signage.

Note that while the Framingham model allows the desired flexibility in site planning requirements, the special permit process is inconsistent with Acton’s goal of streamlining and simplifying the permitting process by reducing the number of special permits required. Therefore, a decision must be made as to which is more important.

- Action LU-27* Create an index for the Zoning Bylaw in order to allow the document to be more user-friendly.
- Action LU-28* Allow for variations from the maximum or minimum dimensions (frontage, width, depth, height, etc.) by special permit rather than by variance.
- Action LU-29* Consider creating landscape and site design standards that are flexible enough to meet the needs of a specific site but are still consistent with the Town’s goals.

### Impacts of Recommended Zoning Changes on Nonresidential Development Potential

Several recommendations contained within this Master Plan Update will have significant impacts on the amount of commercial and industrial floor area that can be developed in the future. Specifically, the following changes in allowable floor area ratio (FAR) have been suggested:

District		Existing FAR	Proposed FAR
Village Districts	North Acton Village	0.20	0.40
	East Acton Village	0.20	0.40
Office Districts	Office Park 2	0.20	0.40
Business Districts	Limited Business	0.10 <sup>20</sup>	0.15
	Kelley’s Corner	0.40	0.60
Industrial Districts	Light Industrial 1	0.10	0.20

If adopted, these FAR changes would allow an estimated increase of nonresidential floor area of 5.25 million square feet, compared to the 3.37 million square feet allowed under existing zoning. Thus, the recommended zoning changes would result in a net increase in buildout potential of 1.88 million square feet of nonresidential floor area, or 56 percent. These changes are summarized by zoning district in Table 26 below.

<sup>20</sup> Note that the existing 0.20 FAR in the Limited Business District does not reflect the district’s true development potential because of the additional intensity regulation based on off-street parking restrictions (see page 77). A more accurate base comparison is with the “target” FAR of 0.10 for office development.

**Table 26: Estimated Impacts of Proposed Zoning Changes on  
Nonresidential Buildout**

Primary Zoning District	Existing Floor Area	Buildout - Existing Zoning	Buildout - Proposed Zoning	Difference
<u>RESIDENTIAL DISTRICTS</u>				
Residence 2 (R-2)	61,807	-	-	-
Residence 4 (R-4)	-	-	-	-
Residence 8 (R-8)	12,410	-	-	-
Residence 8/4 (R-8/4)	1,190	-	-	-
Residence 10 (R-10)	6,224	-	-	-
Residence 10/8 (R-10/8)	-	-	-	-
Residence A (R-A)	57,520	-	-	-
Residence AA (R-AA)	-	-	-	-
Village Residential (VR)	2,056	-	-	-
<u>VILLAGE DISTRICTS</u>				
South Acton Village (SAV)	70,082	134,808	134,808	-
West Acton Village (WAV)	117,664	257,772	257,772	-
North Acton Village (NAV)	101,918	289,665	528,222	238,557
East Acton Village (EAV)	111,007	231,471	402,887	171,416
<u>OFFICE DISTRICTS</u>				
Office Park 1 (OP-1)	724,619	1,266,873	1,266,873	-
Office Park 2 (OP-2)	284,932	779,853	1,531,240	751,387
<u>BUSINESS DISTRICTS</u>				
General Business (GB)	166,769	236,653	236,653	-
Limited Business (LB)	702,470	845,670	982,146	136,476
Kelley's Corner (KC)	310,122	872,024	1,266,018	393,994
<u>INDUSTRIAL DISTRICTS</u>				
Light Industrial (LI)	348,024	395,047	395,047	-
General Industrial (GI)	637,208	1,088,593	1,088,593	-
Light Industrial 1 (LI-1)	260,216	322,985	509,957	186,972
Industrial Park (IP)	40,008	273,845	273,845	-
Small Manufacturing (SM)	684,248	1,079,523	1,079,523	-
Totals, All Zoning Districts	4,700,494	8,074,782	9,953,584	1,878,802

# HOUSING

## Overview

Judged on such indicators as household income and housing values, Acton is one of the most affluent towns in Massachusetts. The Town's 1990 median household income ranked 23rd among the Commonwealth's 351 cities and towns, and its 1996 average valuation for single-family residences ranked 35th out of 338 communities for which data were available.

During the 1990s, Acton experienced rapid residential growth, issuing close to 100 permits for new residential units each year, and outpacing most of its neighbors. The overall growth rate since 1980 has been about 72 dwellings per year.

Despite strong regulatory actions taken as a result of the 1991 Master Plan, Acton has not been able to expand its percentage of affordable housing. The Town's 144 subsidized housing units represent 2.1 percent of Acton's 1990 year-round housing units, a lower percentage than most surrounding towns as well as most communities in the I-495 and Route 2 corridors.

## Housing Goals and Objectives

**Goal:** Encourage diversity in Acton's population by achieving a mix of homes that enhances Acton's town character and provides needed choices for our residents.

**Objective:** Preserve the character of Acton's established residential neighborhoods.

**Objective:** Promote a range of economic diversity in housing including low and moderate income housing.

**Objective:** Promote a range of choice in the types of homes to allow for residents' changing capacities and preferences.

## Current Status of Housing Needs and Availability

### Structure Type and Tenure

Acton's housing stock consists primarily of owner-occupied, single-family units.

**Table 27: 1990 Housing Units**

	<b>Units</b>	<b>Percent</b>
Total units	6,891	
Total Occupied	6,600	
owner occupied	4,654	70.5%
renter occupied	1,946	29.5%
Total Vacant	291	
for sale	46	15.8%
for rent	163	56.0%
other vacant	82	28.2%
Owner Vacancy Rate		1.0%
Rental Vacancy Rate		7.7%
Median Value (owner occupied)	\$242,800	
Median Contract Rent (renter occ.)	\$685	

Source: 1990 U.S. Census

**Table 28: Type of Housing Unit**

	<b>Units</b>	<b>Percent</b>
Single Unit	4,675	67.8%
2-4 Units	415	6.0%
5 or more units	1,749	25.4%
Other	52	0.8%

Source: 1990 U.S. Census

### Housing Growth

Acton's most rapid residential growth was during the 1960s and 1970s. In the 1990 Census, 61 percent of housing units in Acton were built during those two decades. Although the residential growth rate has increased considerably during the 1990s, it is still less than half the growth rate of the 1960-1980 period.

**Table 29: Year Structure Was Built**

	<b>Units</b>	<b>Percent</b>
January-March 1990	37	0.50%
1980-1989	632	9.20%
1970-1979	2,179	31.60%
1960-1969	2,056	29.80%
1950-1959	973	14.10%
1940-1949	164	2.40%
1939 or earlier	850	12.30%

Source: 1990 U.S. Census

**Table 30: Housing Growth, 1980-1997**

<b>Year</b>	<b>Total Permits Issued for New Dwellings</b>	<b>5-Year Average</b>
1980	72	
1981	29	42 (3-year avg.)
1982	25	
1983	53	
1984	76	
1985	71	70.6
1986	94	
1987	59	
1988	68	
1989	48	
1990	73	68.4
1991	77	
1992	76	
1993	102	
1994	124	
1995	101	98.4
1996	64	
1997	101	

Source: Acton Building Department

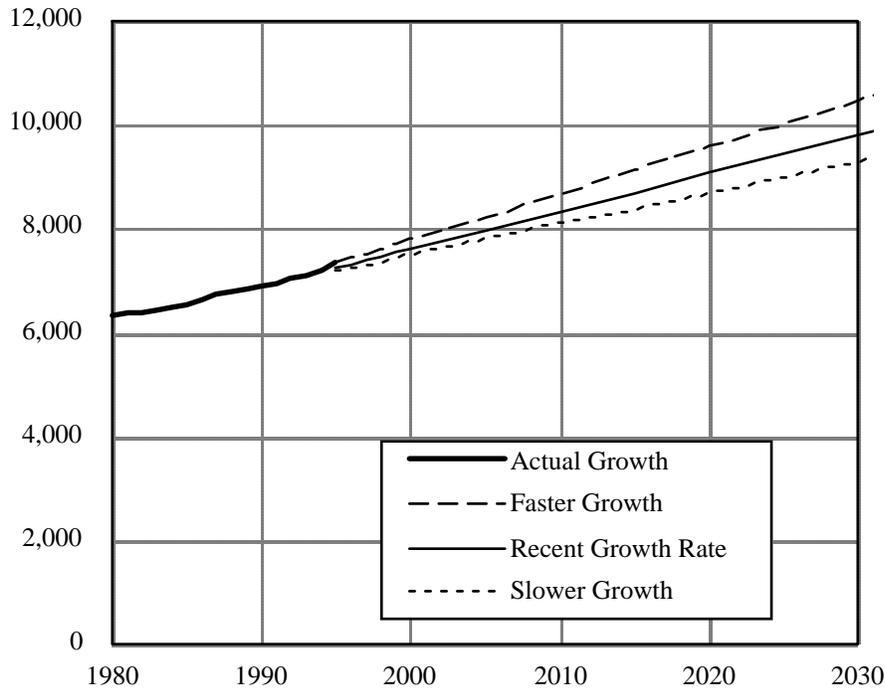
Figure 7 depicts the actual growth rate since 1980 (numbers of single-family building permits issued) and three projections based on recent trends. Although growth in the last five years has averaged more than 100 units per year, this is a peak in the building cycle and is not likely to continue in the long term, considering the limitations on open land available for subdivision, as noted in the buildout analysis. Therefore, several trend lines were drawn based on a longer, 18-year history of growth.

- The “recent growth rate” line is an extension of the 1980-1997 median growth rate of 72.5 new single-family dwellings per year.
- The other two lines represent the range within which housing growth rates for half of the years in the study period fell: the “faster growth” line represents the rate that

is higher than three-fourths of the years in the study period, or about 90 units per year; and the “slower growth” line represents the rate that is higher than one-fourth of the years in the period, or about 60 new dwellings per year.

These trends suggest that the Town will have between 8,700 and 9,600 dwelling units by the year 2020.

**Figure 7: Recent and Projected Housing Growth**



Acton was one of the fastest growing communities in its region during the early 1990s. Between 1990 and 1994 the Town issued 450 building permits for residential development. Only Westford had more permits. (These figures are for total residential permits, and the actual number of dwelling units will be higher for communities that granted permits for multifamily structures.)

**Table 31: Residential Building Permits, 1990-1994, by Community**

<b>Community</b>	<b>Total residential permits issued</b>
Westford	736
ACTON	450
Sudbury	298
Boxborough	283
Littleton	221
Hudson	208
Bedford	198
Concord	179
Stow	117
Maynard	111
Carlisle	106
Lincoln	102
Harvard	83
Bolton	71

### Housing Sales and Values

Table 32 shows that the housing market began to revive in 1991 in both number of sales and selling prices. After 1990, when annual housing sales dropped about 7% from 1989, the number of home sales have averaged between 450 and 500 per year. Sales prices have been increasing steadily since 1990.

**Table 32: Single-Family Home Sales and Median Sales Prices, 1990-1994**

<b>Year</b>	<b>Number of Sales</b>	<b>% Change</b>	<b>Median Sales Price</b>	<b>% Change</b>
1990	318	(6.70%)	\$175,000	(18.60%)
1991	467	46.90%	\$181,825	3.90%
1992	500	7.10%	\$191,500	5.30%
1993	498	(0.40%)	\$198,000	3.40%
1994	470	(5.60%)	\$216,000	9.10%

Source: Banker and Tradesman

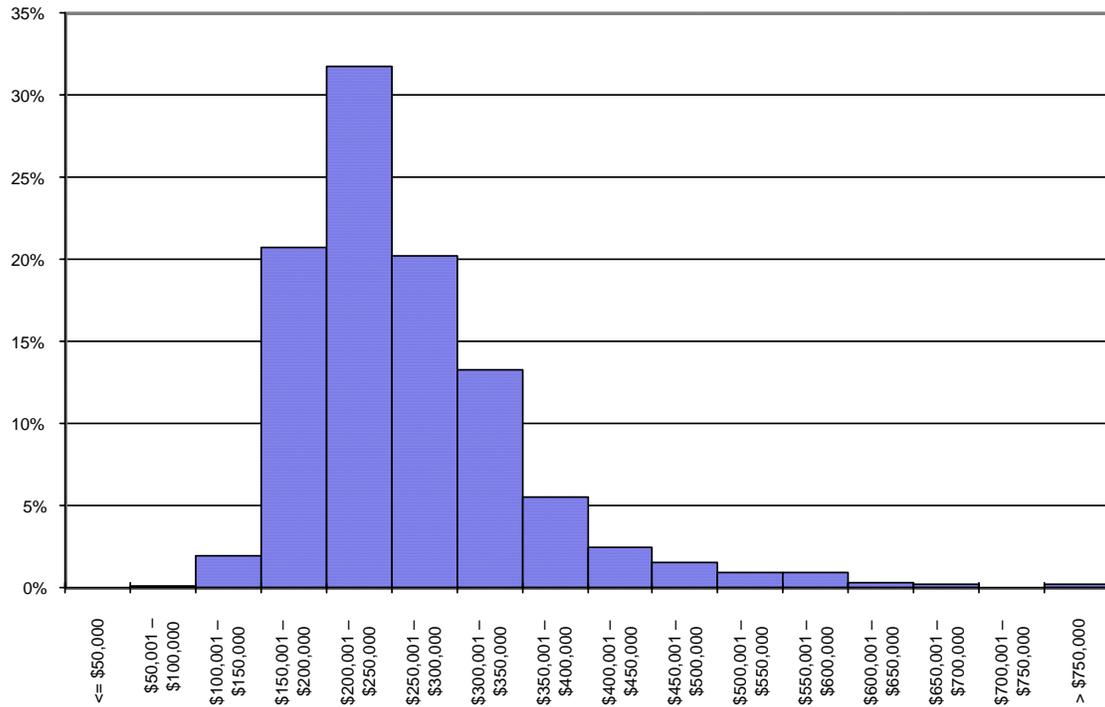
Acton's residential values are high compared with other Massachusetts communities. In FY 1996 the Town's average single-family valuation was \$235,204, ranking 35th out of 351 cities and towns. In Fiscal Year 1997 the average was \$238,990. Most single-family homes in Acton are valued between \$200,000 and \$250,000 (Table 33 and Figure 8).

**Table 33: Value of Single Family Homes in Acton**

<b>1997 Assessed Valuation</b>	<b>Number of Single Family Dwellings</b>
<= \$50,000	1
\$50,001 - \$100,000	5
\$100,001 - \$150,000	87
\$150,001 - \$200,000	951
\$200,001 - \$250,000	1,456
\$250,001 - \$300,000	928
\$300,001 - \$350,000	607
\$350,001 - \$400,000	252
\$400,001 - \$450,000	112
\$450,001 - \$500,000	69
\$500,001 - \$550,000	40
\$550,001 - \$600,000	40
\$600,001 - \$650,000	12
\$650,001 - \$700,000	11
\$700,001 - \$750,000	1
> \$750,000	10

Source: Assessors database Jan. 1, 1997

**Figure 8: Distribution of Housing Values in Acton, 1997**



Acton's average single-family residential valuation is moderate compared with the surrounding communities, but is high relative to the state as a whole: in FY 1996 the Town's average valuation ranked 35th in the state, 50 percent above the statewide average (Table 34).

**Table 34: Average Single Family Residential Valuation by Community, FY 1996**

<b>Community</b>	<b>Average Valuation</b>	<b>Rank in State*</b>
Lincoln	\$433,547	4
Concord	\$390,079	6
Carlisle	\$332,164	11
Sudbury	\$304,234	16
Harvard	\$260,094	21
Boxborough	\$239,069	32
ACTON	\$235,204	35
Bedford	\$230,095	37
Bolton	\$218,807	45
Stow	\$205,641	49
Westford	\$201,624	52
Littleton	\$152,948	125
Maynard	\$142,965	149
Hudson	\$136,315	175
State Average	\$156,212	

\*Out of 338 communities for which data were available.

Source: Massachusetts Department of Revenue

## Continuing Care Retirement Centers

The Kelley's Corner study included a review of the market for continuing care retirement centers, as one potential economic development strategy for the Town to pursue. The data sources for this topic have not since been updated.

There are ten Continuing Care Retirement Centers providing 1,626 independent living units in the Greater Boston area. Half of the facilities have nursing home beds and two have assisted living units (see **Error! Reference source not found.**).

**Table 35: Continuing Care Facilities in the Greater Boston Area**

Location	Name	Entrance Fee	Monthly Fee	Independent Living Units	Assisted Living Units	Nursing Home Beds
<u>Metro West</u>						
Bedford	Carlton-Willard	\$65K-250K	\$1100-2000	137	80	120
Concord	Newbury Court	\$195K-422K	\$1400-2890	75		
Lexington	Brookhaven	\$169K-371K	\$1100-3100	202		40
Newton	Lasell Village	Planned				
N. Andover	Edgewood Life Care	\$205K-490K	\$1200-1600	250		
Westwood	Fox Hill Village	\$170K-460K	\$1250-2500	356		70
<u>Metro South</u>						
Walpole	New Pond Village	\$144K-250K	\$1100+	167	32	90
Canton	Orchard Cove	\$182K-426K	\$1150-2200	NA		
Needham	North Hill	\$138K-385	\$1000-1600	340		72
<u>Boston Plain</u>						
Jamaica	Springhouse	\$99K-172K	\$1200-2800	99		
<b>Total</b>				<b>1,626</b>	<b>112</b>	<b>392</b>

Source: Kelley's Corner Specific Area Plan. Executive Office of Elder Affairs (updated information will not be available until Fall 1998)

In 1990, 15% of Acton's population was over 55 (see Table 36), compared with 20% for the MAPC region. Both MISER and MAPC expect that persons over 55 will comprise a larger proportion of the total population by the year 2000 and 2010. In 2000, the percentage of those over 55 will be similar to the MAPC region while in 2010, Acton is projected to have a higher percentage of persons over 55 than the region.

**Table 36: Growth in Population Over 55 in Acton and the Region, 1990-2010**

	<b>Acton (MISER)</b>	<b>Acton (MAPC)</b>	<b>MAPC Region</b>
1990 Persons Over 55	2,724	2,726	600,775
% of population	15.2%	15.3%	20.6%
2000 Persons Over 55	4,034	4,267	633,544
% Growth 1990-2000	48.1%	56.5%	5.5%
% of Population	22.0%	21.2%	21.4%
2010 Persons Over 55	5,513	6,193	737,072
% Growth 2000-2010	37%	45.1%	16.3%
% of Population	30.4%	29.3%	25.1%

Source: MISER and Kelley's Corner Specific Area Plan

## Affordable Housing

2.1% of Acton’s housing stock is considered to be affordable according to the definitions of M.G.L. Chapter 40B.<sup>21</sup> This is one of the lowest percentages within the I-495 corridor and surrounding communities. The average for the state is 8.53%.

**Table 37: Chapter 40B Subsidized Housing Unit Inventory by Community**

Community	1990 Year-Round Housing Units	Total Development Units <sup>22</sup>	Ch 40B Subsidized Units <sup>23</sup>	Subsidized as Percent of 1990 Base
Lincoln	1,742	247	175	10.05%
Milford	9,810	942	942	9.60%
Littleton	2,658	240	240	9.30%
Framingham	26,325	2,429	2,429	9.23%
Upton	1,882	163	163	8.66%
Clinton	5,629	486	486	8.63%
Hudson	6,668	542	522	7.83%
Maynard	4,206	314	314	7.47%
Franklin	7,675	645	531	6.92%
Berlin	829	72	72	6.69%
North Andover	8,220	529	529	6.44%
Stow	1,834	135	117	6.38%
Medway	3,386	222	208	6.14%
Lexington	10,816	630	629	5.82%
Attleborough	15,013	1,023	1,023	5.81%
Shrewsbury	10,007	559	559	5.59%
Uxbridge	3,952	214	214	5.41%
Wrentham	2,910	139	139	4.78%
Bellingham	5,163	324	245	4.75%
Bedford	4,588	240	210	4.58%

<sup>21</sup> For a housing development to be eligible for the Chapter 40B subsidized housing inventory, the following criteria must be met: (1) The development must have received final, written subsidy approval by the federal or state government under any program to assist the construction or substantial rehabilitation of housing which is affordable to people or families with incomes no higher than 80% of the median income for the metropolitan statistical area in which the unit is located; (2) 25% or more of the units in the development must be considered to be affordable and subject to use restrictions or re-sale controls to preserve affordability; (3) The development must be subject to an executed Regulatory Agreement between the developer and the subsidizing agency unless the subsidy program does not require such an agreement; (4) the development must be marketed with an Affirmative Fair Marketing Plan approved by the subsidizing agency.

<sup>22</sup> Total amount of housing that may be considered “affordable” within a community. This accounts for the units that are consistent with the definition for Chapter 40B as well as units subsidized by a Category II program. Programs under Category II include assistance programs such as the DHCD Alternative Housing Voucher Program, HUD Section 8 Rental Certificate Program and military housing.

<sup>23</sup> Number of housing units which count toward a municipality’s 10% goal for low or moderate income housing. This includes both subsidized affordable units and market-rate units in certain eligible subsidized developments.

Marlborough	13,976	607	592	4.56%
Ashland	4,809	232	215	4.49%
Grafton	5,027	218	218	4.34%
Sudbury	4,867	204	204	4.19%
Hopedale	2,055	80	80	3.89%
Chelmsford	11,796	631	452	3.83%
Westborough	5,754	220	209	3.63%
Groton	2,676	119	93	3.48%
Hopkinton	3,274	162	114	3.48%
Northborough	4,178	134	134	3.21%
Wayland	4,372	139	139	3.18%
Southborough	2,354	66	66	2.80%
Ayer	2,875	77	77	2.68%
Concord	5,903	139	139	2.35%
Westford	5,439	128	128	2.35%
Weston	3,482	76	76	2.18%
<b>Acton</b>	<b>6,871</b>	<b>144</b>	<b>144</b>	<b>2.10%</b>
Holliston	4,403	78	78	1.77%
Billerica	11,986	204	204	1.70%
Harvard	3,084	33	33	1.70%
Plainville	2,716	40	40	1.47%
Bolton	1,085	28	14	1.29%
Carlisle	1,491	18	18	1.21%
Boxborough	1,474			
State Total	2,381,241	206,064	203,098	8.53%

Source: Department of Housing and Community Development

## Available Methods to Increase the Affordable Housing Stock

### Regulatory Approaches

Accessory Apartments. This is a small apartment constructed in conjunction with a single family dwelling – either as an integral part of that dwelling or in a separate structure. Acton’s present Zoning Bylaw allows accessory apartments by right if certain requirements are met relating to the age of the single family dwelling, the sizes of the lot and apartment, and ownership. Acton should continue with this regulatory approach.

Shared Living Arrangements. Sometimes called “homesharing”, this is an arrangement where two or more unrelated persons or households share one unit. Usually only limited adaptations to existing housing stock are required – often a single room with access to kitchen and bath. Homesharing can expand the use of Acton’s existing housing resources, and is especially useful with large, older homes. As household characteristics and people’s needs change, older persons living alone or couples without children living with them may find themselves with “too much” space for their needs. Often, however, they do not want to move. A shared living arrangement can provide them with revenue, companionship, and assistance with daily maintenance. Homesharing can also provide housing opportunities for persons or households other than seniors who need low-cost housing or supportive services for independent living. Examples include: low or moderate income households seeking to reduce housing costs, single people without the

resources to afford a more conventional apartment, single-parent households needing inexpensive housing or child care services. The community can assist with shared living arrangements through non-regulatory efforts such as a matching service.

Acton could also facilitate shared living arrangements though revising the current definition of “family” in the Zoning Bylaw. At present the definition of “family” is “A person or number of persons occupying a dwelling unit and living as a single house-keeping unit, provided that a group of six or more persons shall not be deemed a family unless at least half of them are related by blood, marriage, or adoption, including wards of the state”.<sup>24</sup>

## Taxation Policies

Exemptions and Abatements. Acton’s 1989 Affordable Housing Study<sup>25</sup> reported that recently passed state laws [through local options] allowed communities new, tax-related strategies for providing more affordable housing. A municipality may grant residential improvement exemptions for the value of alterations or improvements to residential properties if the changes were necessary to provide housing for a person at least 60 years old who is not the owner of the premises. A municipality may defer some of the property taxes for elderly homeowners until their residences are sold. A municipality may grant hardship exemptions to homeowners who are “elderly, poor, or infirm.”

A municipality may also seek home rule authority to extend property tax deferrals to low and moderate-income homeowners or provide exemptions for owners who rent to low/moderate income tenants.

Assessment Practices. To reduce the property tax burden on existing affordable housing units, assessing practices can be structured to consider the lower resale value based on deed restrictions, rather than the potential market value of similar homes. The Town is currently using this approach.

Chapter 121A. Reduced tax agreements could be negotiated with limited-dividend developers of affordable housing, as authorized by state law.

## Alternate Ownership

Non-Profit Housing. Affordable housing can be developed and/or owned by non-profit groups, such as a community-based group or religious organization. Acton has available the services of the Acton Community Housing Corporation (ACHC).

Limited Equity Cooperatives. Affordable housing can be in tenure forms other than outright homeownership or rental housing. Limited equity cooperatives portray this “middle path”. Cooperative housing can be new construction, or single and multi-family homes can be bought by non-profit groups or tenants and converted into cooperatives.

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<sup>24</sup> *Town of Acton Zoning Bylaw*, April 1997, Section 1.3.6

<sup>25</sup> Community Opportunities Group, op cit.

In a limited equity cooperative, title to the property is held by a member-controlled corporation where resident is a shareholder. The resident members elect a board of directors to manage and operate the cooperative. The residents lease their units from the cooperative. To preserve the housing's affordability, the equity (i.e. the market appreciation) that members can accrue on the value of their shares is limited. The formula determining resale value is usually outlined in the corporation's bylaws. Depending on the cooperative's goals, the formula tries to provide a fair return on members' investments while keeping the resale value of the units in the price range accessible to low and moderate income members.

Limited equity cooperatives offer advantages over rental housing including security, tax deductions, and some equity build-up, while housing costs remain lower in the long run.

Limited Equity Homeownership. Limited equity homeownership restricts the resale prices of condominium or single family units similarly to limited equity cooperatives. This approach is required by some State programs and could also be built into any locally developed programs to preserve affordability. Unlike limited equity cooperatives, however, the deed restrictions used to limit equity can legally remain in place for only 40 years.

Community Land Trust (CLT). This mechanism can preserve affordability for perpetuity. CLT is an alternative tenure concept which separates ownership of a building from ownership of the underlying parcel of land. A CLT is a member-controlled non-profit organization owning the land and leasing its use to individual homeowners living in buildings on the land. Typically the lease is a 99 year ground lease. When owners sell their buildings, the CLT has the right to repurchase the dwelling according to a pre-established limited equity formula to keep it affordable to others, thereby permanently exempting such housing from speculative market forces.

In considering these alternative forms of ownership, an important issue is the potential impact on property tax revenues, especially where the development is to be owned by a not-for-profit entity.

## Public Land Donations

Many communities use the donation of town-owned land to encourage affordable housing by private developers, or to assist efforts of a local affordable housing group such as the ACHC. Accordingly, following the 1989 Affordable Housing Plan and the 1991 Master Plan, Acton examined the inventory of Town-owned land. Acton's undeveloped town-owned land was found to be conservation restricted, or unsuitable because of physical constraints to construction. The ACHC has monitored the Town's acquisitions of tax title land, but no opportunity as yet has come to construct affordable units.

## Alternative Revenue Sources

Most of the strategies above require capital for implementation. State and federal funding sources are appropriate for certain needs, but they are limited, and competition is stiff. A local housing plan can best be implemented with a continuous and flexible revenue stream. A real estate transfer tax is a funding mechanism that has been used by communities in Massachusetts to fund affordable housing and open space conservation. The proposed Community Preservation Act, under consideration by the Legislature, would provide a statewide model for real estate transfer taxes that could be adopted by towns as a local option. Acton Town Meeting has twice failed to adopt a real estate transfer tax which had been proposed to fund open space acquisition. As townspeople become more worried about the loss of open space and diminished economic diversity in the population, Town Meeting may be more open to this flexible, locally controlled financing mechanism.

## Intents of the 1991 Plan and Progress Since Then

The 1991 Master Plan and subsequent revisions to the Zoning By-Law placed emphasis on the creation of affordable housing to continue Acton's tradition of being a community where diverse individuals and families can build a good life. Higher density housing was desired near village centers as part of Acton's New England land use pattern of focused villages with more rural outlying areas. In outlying areas the allowed density was decreased for standard residential subdivisions. For conservation of open space and natural resources, the clustering of new homes was encouraged by allowing the number of units that would have been allowed at the previous density – in exchange for conserved open spaces that meet the Town's criteria.

### Single Family Residential Subdivisions

In the 1990s the market for residential construction continued strong in Acton, despite slowdowns elsewhere. The strong market for single family homes resulted in relatively expensive single family subdivisions, some clustered. The following tables show that: (1) Acton has achieved significant conservation of open space through the Planned Conservation Residential Community [PCRC] District, and Open Space Development [OSD] provisions; and (2) that this conservation of open space has been accompanied by *reduced* numbers of residential units.

**Table 38: Land Preserved Through PCRC or OSD Special Permits**

Development Name	Total Acres	Acres Conserved Open Space	Ownership	Particular Benefits of Conserved Open Space
Audubon Hill PCRC	71	49	private	Abuts Town conservation land and provides 1 new public access to it from Brewster Lane
Bellows Farm PCRC	238	160	119 acres public 41 acres private	Abuts Town conservation land and adds 2 new public access points to it from David Road & Wheeler Lane
Gregory Lane OSD	10	4	private	Abuts Town land. Buffers sensitive wetland areas from housing development
Handley Woods PCRC	29	19	17 acres public [proposed] 2 acres private	Abuts Town conservation land and provides 1 new public access to it from Harris Street. Also buffers sensitive wetland areas from housing development
Hearthstone Farm PCRC	42	32	public	Abuts Town conservation land and adds 1 new public access to it from Strawberry Hill Road/Jay Lane.
Lawsbrook Village PCRC	47	30	private	Creates buffers to abutting industrial site and to Fort Pond Brook. Also provides ball fields and playgrounds
Maple Creek Farm PCRC	46	33	private	Creates buffers and open space in densely settled area.
Marshall Crossing PCRC	41	25	13 acres public 12 acres private	Abuts Town land, creates public access, planned as part of the Bay Circuit Trail
Mill Corner PCRC	18	11	private	Abuts Town conservation/recreation land and provides 1 public access to it
New View PCRC	22	11	private	Abuts Town land & existing open space. Provides 1 public access to it
Norton PCRC	13	8	private	Abuts Town land
Stoneymeade Cluster	80	45	public	Abuts Concord conservation land, includes 1 new public access to it, maintains wooded buffer to Pope Road.

Tupelo Place OSD	11	7	public [proposed]	Abuts Town land and adds 1 public access to it.
<b>Totals</b>	<b>668</b>	<b>434</b>		

In addition, Acorn Park, which was permitted through the Planned Unit Development provision, conserved 20.17 acres. These abut another privately owned conservation area, and thus extend a greenbelt and provide wildlife habitat benefits.

**Table 39: Residential Units Permitted Under PCRC or OSD Special Permits**

Development Name	Total acres	Actual # of units built	Max. # of units under standard zoning *	Max # of units under PCRC/OSD/previous cluster options
Audubon Hill PCRC	71	70	131**	71
Bellows Farm PCRC	238	117	110	237
Gregory Lane OSD	10	3	4	9
Handley Woods PCRC	29	15	11	15
Hearthstone Farm PCRC	42	8	16	23
Lawsbrook Village PCRC	47	51	22	51
Maple Creek Farm PCRC	46	15	21	50
Marshall Crossing PCRC	41	16	15	23
Mill Corner PCRC	18	34	33	39
New View PCRC	22	24***	8	23
Norton PCRC	13	3	4	6
Stonemyeade Cluster	80	43	37	43
Tupelo Place OSD	11	7	5	12
<b>Totals</b>	<b>668</b>	<b>406</b>	<b>417</b>	<b>602</b>

Notes:

\* Number of units calculated on 85% of total acres to account for street, septic limitations and other inefficiencies.

\*\* Base zoning was R-2 (20,000 s.f. min. lot size); max. PCRC density was 1 unit/acre

\*\*\* Includes one affordable unit by way of bonus provision for affordable housing<sup>26</sup>

### Affordable Housing

In contrast to the strong market for construction of single family homes, no multi-family residences have been constructed since the 1991 Plan, and the 1990s have not seen

<sup>26</sup> Refer to the Land Use element for a discussion of cluster bonuses and growth management.

inflation of the costs of the multifamily housing—much of which was constructed during the previous decade. This has resulted in a continued supply of apartments and condominiums affordable to households with a range of incomes. Despite Acton’s best efforts, however, the strong market for more expensive homes meant that the incentives for constructing new affordable homes were not attractive enough to shift private development toward affordable units.

The Town’s Affordable Housing Overlay District is intended to provide a density bonus to induce developers to construct affordable units in new subdivisions. However, the formula for determining allowable density is complex, even to Town staff. In combination with the strong market for upscale housing, the complexities of the formula and the special permit process have prevented this approach from becoming an effective tool for producing affordable housing.

Local efforts had some success in gaining cooperation from developers of relatively expensive projects who have contributed to a fund for purchasing existing homes and reselling them at affordable prices.<sup>27</sup> In each case there was no density bonus, and the development could have proceeded without the donations. The strategy of using donations to purchase and convert homes to affordability works well to achieve affordable homes in scattered neighborhood locations near services and amenities. The number of units gained has been limited by the cost of buying homes in Acton, however. The Acton Community Housing Corporation is planning to apply the \$100,000 that currently remains in the housing fund toward such strategies as buying down mortgage rates to help homebuyers enter the market.

## Housing Issues and Strategies

### Issue: Neighborhood Character

As Acton approaches residential buildout, housing developments will consume much of the Town’s remaining open land, reducing the “breathing space” that currently contributes to Acton’s semi-rural character. Moreover, as the land value in the inner suburbs rises, Acton’s older residential neighborhoods may experience more intensive redevelopment, with larger homes replacing more modest structures. These two trends have the potential to change the character of Acton’s neighborhoods, in both physical scale and socioeconomic diversity.

It is unclear how significant these changes will be, or what options the Town has for managing them and preserving its diverse and stable neighborhoods. A number of towns closer to Boston already face the “mansionization” problem and are attempting to address it through a variety of zoning strategies. While there does not appear to be

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<sup>27</sup> Donations have been received from New View (\$100,000), Acorn Park (\$200,000), and Bellows Farms (\$672,000). Except in the case of New View, there was no density bonus.

immediate need for action in Acton, the Town should continue to follow developments to be prepared to respond if conditions warrant.

*Strategy H1 Monitor strategies that other communities are implementing to address the issue of “tear-downs” and “mansionization” in healthy neighborhoods.*

## Issue: Affordable Housing

The 1991 Plan observed that housing prices in Acton had risen beyond the reach of many first-time homebuyers. Without a range of housing choices, townspeople recognized that only those with higher incomes would be able to settle in Acton. Segments of the population that had been particularly hard hit by rising housing costs included first-time homebuyers, service employees, and the elderly on low and moderate incomes. The Plan recognized that assistance and cooperation was needed from residents and local business leaders in order to promote a range of housing opportunities in Acton.

Subsequently the Town adopted several zoning provisions to alleviate this pressing problem, including the Affordable Housing Overlay District, multi-family housing, eased controls for accessory apartments, eased and clarified rules regarding the conversion of older residential properties into multi-family dwellings, and incentives for the inclusion of affordable homes in residential developments. Unfortunately, these measures have not achieved the desired increase in affordability. During the deliberations of the 1998 Update townspeople expressed a desire to examine how the Town’s efforts and strategies might be refined to be more effective.

*Strategy H2 Seek opportunities to acquire buildable Town-owned properties that might be suitable for donations towards the development of affordable housing.*

*Strategy H3 Require some percentage of units accessible to persons with disabilities in affordable housing developments.*

*Strategy H4 Direct the focus of affordable housing initiatives to provide housing for the elderly, young families, and low and moderate income residents in our community.*

*Strategy H5 Continue to seek federal and state moneys for housing rehabilitation for lower income home owners and tenants.*

*Strategy H6 Examine how the Town’s current efforts and strategies might be refined, and how additional ways might be adopted, to be more effective in achieving a diversity of housing types with a range of affordability, including but not limited to:*

- *investigating the feasibility of a tax abatement program for owner-occupants who rent to eligible low and moderate income elderly;*

- *encouraging more affordable housing in, or in connection with, new residential developments through duplexes, through lot coverage limitations, by allowing smaller lots in the context of average density zoning, and by encouraging off-site affordable units;*
- *revising the condo conversion law to give the option for limited equity cooperatives and to establish linkage requirements (e.g., units to housing authority, construction of comparable rental housing stock, cash payments to housing trust fund);*
- *developing deed restricted moderate income home ownership opportunities;*
- *establishing a community land trust and/or housing trust fund to provide housing that is not subject to the speculative market forces;*
- *investigating the impact of tax rates on housing affordability in Acton and incorporating this issue in programs to provide affordable housing;*
- *evaluating the potential for—and fiscal implications of—increased incentives for more affordable housing for seniors and for families.*

## Housing Action Recommendations

### Rate of Residential Development

With continued residential growth through the 1990s, townspeople voice concern about the rate of residential construction, the loss of open space, and the sense of losing Acton's rural residential feel. Moderating the rate of residential development is part of balancing the pattern of land use. For a discussion of options, see the Land Use Element's subsection "Managing the Rate of Residential Growth."

*Action LU-1*      Develop a program to control residential growth.

### Helping Seniors Stay In Their Homes

Since Acton has dwindling amounts of developable acreage, the future resale of existing homes will attract more new residents than new construction. Changing household characteristics due to this "turnover" can eventually significantly impact the demand for Town services—for example, when a couple nearing retirement sells to a young family. From this perspective the continued residence of a household whose children have grown and moved on helps delay an added demand for such town services as schools and certain recreation facilities.

If Acton is to remain the home of older citizens, however, attention must be paid to their needs. For example, personnel from the Fire and Police Departments and the Council on Aging are currently putting time and resources into to meeting emergencies because there is no department available to help at-risk seniors (for example, a person developing Alzheimer's) before emergencies arise. Older residents may also have to consider moving from their home because of difficulties with maintenance, shoveling snow, transportation and similar demands.

*Action H-1*            Investigate costs and benefits of establishing a Town Social Services Department.

### Gaining More From Affordable Housing Strategies

Acton has good local capacity for management of affordable housing units. The Acton Housing Authority serves households whose incomes fall below 80% of median income. The Acton Community Housing Corporation (ACHC) serves households whose incomes range from 80% to 120% of local median income. The Town also has good review procedures in place to examine affordable housing proposals. The community's affordable housing effort needs:

1. Community-wide understanding of what affordability contributes to Acton's quality of life;
2. More effective strategies for gaining affordable units;
3. More funding to gain additional affordable homes and to maintain and rehabilitate existing affordable homes.

How many additional affordable homes are needed? As described in the Land Use Element's buildout analysis, Acton's likely residential buildout will be approximately 10,600 units. At the long term local growth rate, this buildout will be reached in approximately 45 years, and Acton will need 1,060 guaranteed affordable units to meet the Massachusetts mandate for 10% affordability. This is 916 more units than the current 144, almost a six-fold increase. Currently, market-rate apartments and condominiums are relatively affordable. Social services, first-time homebuyer programs, and low interest home improvement loans could in effect maintain a supply of "open market" affordable choices. If it is assumed that the open market provides half of the required 10%, Acton could set the other 5% (530 units) as a target for the number of units with guaranteed affordability. Meeting this target of 5% would require an increase of 386 units, or 267% of the present number.

Where must these additional guaranteed affordable homes come from? The Land Use Element's buildout assessment shows that more than two-thirds of the estimated remaining potential housing lots will result from infill in existing neighborhoods – the dividing of new lots from existing single-family lots larger than the minimum required for that zoning. Such small projects will require different incentives for affordability than larger scale development of open land. Housing types such as accessory apartments, duplexes, and "ECHO" homes (Elder Cottage Housing Opportunity -

temporary cottages for elderly relatives) offer the most promise in existing neighborhood settings. These strategies complement efforts to help seniors stay in their own homes.

If the gain in affordable homes is located proportional to the projected location of additional homes at buildout, Acton would need to gain approximately 165 units from open land development (location of one-third of the remaining development potential ) and approximately 220 units from infill and redevelopment in existing neighborhoods. The community may choose to shift the proportional distribution of additional guaranteed affordable units, but either way Acton will need to move decisively to achieve 5% guaranteed affordable homes at buildout.

*Action H-2* Update the 1989 *Affordable Housing Study*. Include in the study broad-based community discussion of how maintaining affordability will contribute to Acton’s quality of life. Concentrate on identifying and adopting satisfactory and effective strategies for gaining affordable homes from both the development of open land and infill within existing neighborhoods.

*Action H-3* Consider increasing the permitted FAR in village districts for mixed use developments that include guaranteed affordable units.

*Action H-4* Simplify the formulas and processes in the Affordable Housing Overlay District so that density bonuses can be easily determined and attained, and provide options for satisfying the affordable housing requirements with off-site housing units.

*Action H-5* Consider adopting a zoning provision that requires the inclusion of affordable units in new developments.

*Action H-6* Create a set-aside fund for rehabilitation of current Housing Authority units, and low interest home improvement loans for seniors and other populations of concern.

*Action H-7* Search out parcels with problematic titles that the Town could clear through eminent domain and turn over to ACHC for use in developing affordable homes. Explore with owners who can be identified the potential options for satisfactory resolution.

*Action H-8* Examine the costs and benefits of a Real Estate Transfer Tax, and consider how such a tool might assist Acton in achieving objectives relating to both affordable housing and conservation of natural resource areas.

*Action H-9* Remove the Affordable Housing Overlay District from areas zoned industrial or business. Develop alternative mechanisms to offset any resulting loss of affordable housing potential.

# ECONOMIC DEVELOPMENT

## Overview

Economic development is the process of building a community's capacity for shared and sustainable improvements in the economic well-being of its residents. Such development must be sustainable, must not sacrifice overall quality of life, and must serve the needs of all residents.<sup>28</sup>

The 1991 Master Plan was completed in 1989-1990. At that time, Massachusetts General Law Ch. 41 S. 81-D, Master or Study Plan, did not require an economic development component in a Master Plan. Therefore, issues pertaining to economic development were interwoven throughout the 1991 Master Plan and reflected townspeople's concern about excessive and ill-considered business development. Section 81-D of Chapter 41 of the Massachusetts General Law was amended in March 1991, to require an economic development element "which identifies policies and strategies for the expansion or stabilization of the local economic base and the promotion of employment opportunities."<sup>29</sup>

As a result of the 1991 Master Plan, residential buildout was maintained and non-residential buildout was reduced. Zoning amendments to implement the 1991 Master Plan included reductions in the extent of business and industrial districts, and rezoning of portions of the Route 2A corridor to prevent commercial sprawl. At the same time, the Bylaw amendments sought to reinforce a traditional New England pattern of focal village centers and intervening more rural landscapes. Village scale businesses and mixed uses are seen as important components in the vitality of Acton's villages.

Subsequently, the tax burden has relied more and more heavily on residential property owners which is evidenced in Acton's economic experience during the 1990s. The percent of commercial and industrial tax levy in Acton dropped from 22% to 13%, one of the largest drops of all of the towns and cities along the I-495 technology corridor. In addition, while the total number of land parcels in Acton increased by 6%, the number of parcels zoned for commercial and industrial use decreased by 15%, the second largest decrease of all the communities along the I-495 technology corridor. Acton's 1998 property tax rate is the 5<sup>th</sup> highest in the corridor<sup>30</sup> and the 15<sup>th</sup> highest in the Commonwealth.

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<sup>28</sup> "Asking the Right Questions: A Guide to Assessing Your Local Economy", Executive Office of Communities and Development, 1994

<sup>29</sup> Commonwealth of Massachusetts, Executive Office of Communities and Development, Improved Methods of Municipal Planning, Massachusetts General Laws, Chapter 41, Sections 81A-81J, p. D-1

<sup>30</sup> The I-495 Initiative: Regional Overview (Draft), by Menashi/Steinfeld for Mass. Technology Collaborative, 10/14/98

## Economic Development Goal and Objectives

**Goal:** Promote current and new commercial development within the context of the Master Plan by strengthening the tax base to reduce the tax burden on residential taxpayers.

**Objective:** Support commercial and industrial growth that will fit in Acton and contribute to the community's quality of life and fiscal stability.

- Encourage commercial and industrial development
- Attract new businesses
- Increase the diversity of commercial enterprise
- Increase Commercial, Industrial and Personal Property (C/I/P) revenues share to 20% within the next 5 years

**Objective:** Support the concept of village and business districts by encouraging businesses of appropriate scale that will contribute to a mix of activities.

## Economic Development

### Issues, Strategies and Action Recommendations

#### Issue: The Role of Economic Development in Town Life

In 1998 townspeople feel that progress has been made in safeguarding natural and cultural resources, and that business can play a positive role in community life. The 1998 Master Plan Update reflects a shift to a proactive stance regarding business development so as to take advantage of benefits that can be gained from business activity, while still protecting natural resources and mitigating adverse impacts. This approach will require continued collaborative teamwork between the Town and the business community. Such teamwork may require increased organizational capacity to bridge the traditional gap between the public and the private sectors.

At the same time, while townspeople may be more aware of the potential benefits of business development, the community still places high priority on the protection of natural and cultural resources. Townspeople are also very sensitive to the potential for increased traffic due to business development. There is a need for an on-going effort to engage townspeople in economic development discussions so that they may be informed about and participate in deliberations that weigh the trade-offs involved in balancing the community's desires for economic development and resource preservation.

## Issue: Working with the Business Community

The Board of Selectmen created a 10 point set of business-friendly goals to establish a more favorable receptivity of commercial and industrial enterprise. In 1997, the Board of Selectmen created an Economic Development Study Committee. In 1998, it converted the study committee to an Economic Development Advisory Committee, to advise the Selectmen on matters pertaining to Acton's ability to improve its economic well-being.

This Committee (EDC) is comprised of up to 11 residents or business owners representing various interest groups (Selectmen-2, Planning Board-2, Chamber-2, Finance Committee-1, at large-4) and supported by the Assistant Town Planner. The group established its mission to be: *"To enhance the value and desirability of our community by (1) supporting current commercial and industrial businesses, (2) encouraging the absorption of underutilized property, and (3) attracting new businesses that meet the long term needs of the Town."* As a catalyst to its direction, the EDC contracted with the Center for Economic Development at the University of Massachusetts to study and evaluate the Town's demographics, meet with and advise the EDC and create a suggested Economic Development Plan for Acton.

- Strategy ED 1*    *Actively promote and support commercial and industrial development*
- Strategy ED 2*    *Encourage the continued growth and development of entrepreneurial high technology companies*
- Strategy ED 3*    *Amend Zoning Bylaw*
- Strategy ED 4*    *Rezone to increase commercial and industrial development potential*
- Action ED 1*        Encourage commercial development to create a sustainable balance of land uses.
- Action ED 2*        Give special attention to development of the few remaining commercial/ industrial sites.
- Action ED 3*        Increase types of land uses allowed.
- Action ED 4*        Consider elimination of the "high traffic generators" cap in the Zoning Bylaw within the context of the Traffic & Circulation element of the 1998 Master Plan Update.
- Action ED 5*        Develop implementation plan with incentives that may include:
  - Provision of FAR density bonus in Village and Business Districts for business that began as home based business
  - Identification of Village and Business Districts as prime locations for incubator (start-up) businesses
  - Encouragement of home based business

	<ul style="list-style-type: none"> <li>• Encouragement of incubator (start-up) businesses.</li> </ul>
<i>Action ED 6</i>	Re-write sign bylaw to be less confusing.
<i>Strategy ED 5</i>	<i>Incentives for additional development</i>
<i>Action ED 7</i>	Increase FAR where appropriate.
<i>Action ED 8</i>	Evaluate whether the minimum open space requirement for non-residential zoning districts should be reduced from 50% to 35%.
<i>Action ED 9</i>	Combine the Light Industrial & Light Industrial 1 districts and increase FAR.
<i>Action ED 10</i>	Reduce the minimum lot requirement for the OP-1, OP-2, LI, LI-1 and IP districts.
<i>Action ED 11</i>	Remove the complexity relating to computation of allowed development density in the LB District based on number of parking spaces.
<i>Action ED 12</i>	Revise selected parking requirements.
<i>Action ED 13</i>	Rezone some residential land, in locations well served by infrastructure, to business, commercial and industrial districts.
<i>Action ED 14</i>	Remove Affordable Housing Overlay District from all commercial and industrial zoning districts while working to increase affordable housing options for residential zoned land.
<i>Action ED 15</i>	Prevent conversion/loss of commercial and industrial land to residential development.
<i>Action ED 16</i>	Consider restructuring the TDR provisions within the Zoning Bylaw to provide sufficient incentives for new development and redevelopment of selected areas.
<i>Action ED 17</i>	Establish clear design standards for all commercial and industrial districts.
<i>Strategy ED 6</i>	<i>Infrastructure Improvements</i>
<i>Action ED 18</i>	Aggressively pursue state and federal funding of important infrastructure improvements.
<i>Action ED 19</i>	Construct public sewers.
<i>Action ED 20</i>	Encourage traffic management, transportation improvements and enhancements (e.g. Route 2 overpass).

<i>Action ED 21</i>	Continue to advance the work of the Route 2 Corridor Advisory Committee.
<i>Action ED 22</i>	Continue to advance the work of the Route 2 Corridor Advisory Committee.
<i>Action ED 23</i>	Work to increase the water withdrawal cap.
<i>Action ED 24</i>	Work to ensure consistent utility service throughout Acton.
<i>Action ED 25</i>	Upgrade telecommunication capabilities.
<i>Strategy ED 7</i>	<i>Improve Permit Process</i>
<i>Action ED 26</i>	Simplify Rules & Regulations for all Special Permit/Site Plan processes.
<i>Action ED 27</i>	Amend Zoning Bylaw to simplify procedures.
<i>Action ED 28</i>	Re-write the Development Guide to be more informative and include charts to clarify permitting processes.
<i>Strategy ED 8</i>	<i>Develop a Marketing Plan</i>
<i>Action ED 29</i>	Establish an Ambassador Program within Acton to meet with prospective businesses.
<i>Action ED 30</i>	Evaluate the following: <ul style="list-style-type: none"> <li>• Appointment of an Ombudsmen</li> <li>• Hire of new town staff: Economic Development Director/official</li> <li>• Establishment of Commercial &amp; Industrial Development Commission or other such entity.</li> </ul>
<i>Action ED 31</i>	Develop and implement educational programs to inform voters of relationship between commercial and industrial property, quality of life and their tax burden.
<i>Action ED 32</i>	Consider using a newsletter and/or web site for economic development
<i>Strategy ED 9</i>	<i>Database of businesses and available commercial and industrial land</i>
<i>Action ED 33</i>	Maintain current and accurate inventory of businesses (update at least annually).

*Action ED 34* Complete database of available vacant, under-utilized commercial and industrial properties and developable land, include features (e.g. rail spur, loading docks).

*Action ED 35* Analyze and react to database.

### Issue: Assessed Value, Tax Rate and Tax Bill

Acton's property tax base is predominantly residential: in FY 1998, 85.1% of the Town's total valuation was classified as residential (see Table 40). This percentage decreased 3.3% in 1990, but has been increasing since. Residential properties comprised about 77% of total valuation in Fiscal Years 1990 through 1992, rising to about 80% in Fiscal 1994, 82% in FY 1995, and 84% in FY 1996. This pattern of residential valuations representing a growing share of total valuation has been common in most Massachusetts communities, because both residential values and residential construction rebounded from the 1990 recession more quickly than did commercial values and construction.

The following tables provide statistical information about tax base, valuation, and tax bills.

**Table 40: Acton's Property Tax Base, FY1998**

<b>Classification</b>	<b>Assessed Valuation</b>	<b>% of Total</b>
Residential	1,481,824,800	85.1%
Commercial	155,244,700	8.9%
Industrial	71,647,000	4.1%
Personal Property	34,207,058	1.9%
<b>Total</b>	<b>1,742,923,558</b>	<b>100.0%</b>

Source: Massachusetts Department of Revenue

Commercial, Industrial and Personal Property (C/I/P) make up a higher percentage of total assessed value in Acton than in many surrounding communities (see Table 41). Of the 14 comparison communities, only five (Bedford, Boxborough, Hudson, Littleton, Maynard) had higher percentages of nonresidential assessed valuation in FY 1998.

**Table 41: 1998 Assessed Value by Community**

<b>Municipality</b>	<b>Total Assessed Value in FY98</b>	<b>Residential &amp; Open Space as % of Total Assessed Values</b>	<b>C/I/P as % of Total Assessed Values</b>
Bedford	\$1,324,805,700	72%	28%
Boxborough	\$408,431,910	80.4%	19.6%
Hudson	\$1,042,295,840	77.1%	22.9%
Littleton	\$655,829,232	76.1%	23.9%
Maynard	\$614,800,731	82.4%	17.6%
<b>ACTON</b>	<b>\$1,742,923,558</b>	<b>85.1%</b>	<b>14.9%</b>
Bolton	\$396,396,631	86.2%	13.8%
Carlisle	\$611,509,482	97.6%	2.4%
Concord	\$2,288,809,124	89.8%	10.2%
Harvard	\$503,260,500	94 %	6%
Lincoln	\$991,078,310	95.7%	4.3%
Stow	\$469,909,641	89.4%	10.6%
Sudbury	\$1,890,635,780	93.3%	6.7%
Westford	\$1,589,071,866	85.5%	14.5%

Source: Massachusetts Department of Revenue

Table 42 below shows the average single family tax bills in the surrounding communities for FY 1988 and FY1998. Acton’s location in one of the state’s most affluent regions, with a population that demands high quality education and other public services, is reflected in this combination of a high statewide rank and a middle place among surrounding communities.

**Table 42: Average Single Family Tax Bills by Community, FY1988 & FY1998**

<b>Community</b>	<b>FY 88 Average Tax Bill</b>	<b>Rank in State*</b>	<b>FY 98 Average Tax Bill</b>	<b>Rank in State**</b>
Bedford	\$2,051	37	\$3,310	51
Bolton	\$1,957	48	\$4,103	23
Boxborough	\$2,037	38	\$5,044	10
Carlisle	\$3,287	5	\$5,721	4
Concord	\$2,992	12	\$5,263	9
Harvard	\$2,007	42	\$3,819	31
<b>ACTON</b>	<b>\$2,683</b>	<b>15</b>	<b>\$4,808</b>	<b>15</b>
Hudson	\$1,568	80	\$2,252	144
Lincoln	\$3,624	3	\$6,627	2
Littleton	\$1,602	75	\$2,636	100
Maynard	\$1,556	83	\$2,715	92
Stow	\$2,081	35	\$4,051	25
Sudbury	\$2,803	14	\$5,279	8
Westford	\$1,652	70	\$3,315	49

- \* out of 293 municipalities that reported
  - \*\* out of 340 municipalities that reported
- Source: Massachusetts Department of Revenue

The combination of the high tax rate and relatively low average assessed value results in a relatively moderate single family tax bill for Acton residents when compared to surrounding communities. However, Acton's average single-family tax bill is high relative to all communities in the state, ranking 15th in FY 1998.

In spite of its relatively high percentage of nonresidential tax base, Acton's residential tax rate is the 5th highest of the I-495 technology corridor communities (see Table 43). This can be attributed to two factors. First, the Town's average residential value is lower than in some of Acton's surrounding towns such as Concord, Carlisle and Sudbury, so that the tax rate necessary to support a similar expenditure level is higher. Second, several communities have split tax rates so they are able to assess non-residential property more heavily than residential.

**Table 43: Property Tax Rates by Community, 1990-1998<sup>31</sup>**

<b>Municipality</b>	<b>1990 Residential Tax Rate</b>	<b>1990 C &amp; I Tax Rate</b>	<b>1998 Residential Tax Rate</b>	<b>1998 C &amp; I Tax Rate</b>	<b>% Change Residential</b>	<b>% Change C &amp; I</b>
Ashland	13.31	17.39	17.91	21.29	29%	20%
Bellingham	10.64	10.64	15.07	15.07	34%	34%
Berlin	9.54	9.54	15.91	15.91	50%	50%
Bolton	8.87	8.87	16.99	16.99	63%	63%
Boxborough	11.60	11.60	18.50	18.50	46%	46%
Framingham	10.30	18.86	17.65	31.75	53%	51%
Franklin	9.85	9.85	13.80	13.80	33%	33%
Harvard	8.10	8.10	14.52	14.52	57%	57%
Holliston	11.65	11.65	17.08	17.08	38%	38%
Hopedale	11.98	19.68	18.26	27.03	42%	31%
<b>ACTON</b>	11.48	12.97	18.31	18.31	46%	34%
Hopkinton	9.11	11.56	14.37	16.62	45%	36%
Hudson	10.47	18.10	14.72	25.75	34%	35%
Littleton	10.62	12.88	14.38	22.90	30%	56%
Marlborough	9.86	20.15	16.93	29.50	53%	38%
Maynard	10.50	16.87	17.90	29.13	52%	53%
Medway	13.45	13.45	18.79	18.79	33%	33%
Milford	9.17	15.92	16.29	29.30	56%	59%
Millis	10.84	10.84	18.30	18.30	51%	51%
Northborough	11.62	11.62	15.40	15.40	28%	28%
Southborough	9.80	9.80	13.10	13.10	29%	29%
Stow	11.55	11.55	18.73	18.73	47%	47%
Sudbury	10.89	21.11	15.97	23.03	38%	9%
Upton	7.05	7.05	12.36	12.36	55%	55%
Westborough	11.10	11.10	16.96	16.96	42%	42%

**Issue: Fiscal Impact Analysis**

Both residential and non-residential projects can be evaluated through fiscal impact analysis. The Board of Selectmen recently incorporated a fiscal impact analysis model into a new set of rules & regulations for a new special permit, Full Service Retirement Community and Assisted Living Residence. It is likely that many existing rules &

<sup>31</sup> The I-495 Initiative: Regional Overview (Draft), by Menashi/Steinfeld for Mass. Technology Collaborative, 10/14/98

regulations will be amended in the near future to include a requirement for provision of a fiscal impact analysis of proposed development.

Simply put, the question to be answered when conducting a fiscal impact analysis is, "How much does this new project save or cost the existing taxpayers of Acton?" The "input" for the analysis is the various costs and revenues that are generated by any project and the "output" is the bottom line measure of whether the project costs the community more or less than the project generates in new tax and fee revenues.

Through the use of fiscal impact analysis, the Town can determine what the costs of any new project will be by examining the public costs of services provided to existing development in the community: for instance, the cost to schools, the cost of providing road maintenance, etc. Having determined how much it costs to provide services to existing development, the Town can then project the incremental cost of services for a new development. Against these costs, the analysis looks at how much tax and fee revenue will be generated from the project, based on an appraisal of the total value of the new development in the current market. The current assessment ratio is, of course, taken into account. The total costs of the project are then subtracted from the total revenues from the project. The result is the "bottom line" impact that produces the answer to this question: "Will the project reduce the overall tax paid by the average Acton resident or will the project increase it?"<sup>32</sup>

*Strategy ED 10 Develop a Taxation Strategy*

*Action ED 36* Require fiscal analysis of all proposed development.

*Action ED 37* Explore in concert with other mechanisms incentives for additional development such as tax abatements, Tax Increment Financing, special assessments, low-interest loans, employee training.

### **Issue: Strengthening Acton's Villages as Vibrant Centers of Town Life**

Businesses are a key component of Acton's traditional village centers, which in turn are key to Acton's New England land use pattern. The community wishes to continue the 1991 Master Plan's emphasis on small scale mixed uses in the villages. Some of the recommended strategies and actions for strengthening village centers are listed below.

### **Issue: Developing the Kelley's Corner Community Business Area**

Kelley's Corner has been identified as the most appropriate area in Acton to locate businesses and retail stores with regional attraction. This is due to the area's close proximity to Route 2 as well as the Town's desire to protect the character of Acton's more historic village centers and to control further commercial strip development.

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<sup>32</sup> Acton Economic Development Plan, prepared by UMass Center for Economic Development, 1998

Since the 1991 Master Plan, the Town has developed a Specific Area Plan (1995) and Circulation Plan (1997) for Kelley's Corner and has adopted a series of zoning bylaw amendments to begin to implement these plans. Additional zoning changes, as well as implementation of traffic management and a sewer system would be needed were this effort to move forward. The Planning Board is meeting on a regular basis with residents and representatives of Town boards and committees to review the options for additional development in the Kelley's Corner District.

*Strategy ED 11 Establish new business districts*

- Action ED 38* Establish a new zoning district for the business, commercial and industrial properties located on Powder Mill Road, High Street, Sudbury Street and Knox Trail.
- Action ED 39* Establish new village business districts in North Acton and East Acton.
- Action ED 40* Revise Zoning Bylaw to:
- Allow additional land uses to provide a good mixture of uses
  - Increase the FAR in the Village Districts
  - Allow transfer of development rights within village districts
  - Establish design guidelines
  - Establish parking requirements to encourage connectivity (e.g. consolidation and sharing of parking lots, interconnected parking lots behind existing commercial development, reduce curb cuts).

*Strategy ED 12 Update Village and Business District Plans*

- Action ED 41* Create Plans for North Acton Village Business District and East Acton Village Business District.
- Action ED 42* Evaluate further implementation of the Kelley's Corner Plan.
- Action ED 43* Update the West Acton Village Plan and South Acton Village Plan.

*Strategy ED 13 Diversify commercial enterprise*

- Action ED 44* Increase the diversity of goods and services available to residents by encouraging diversity of commercial enterprise.

### Issue: Simplifying Zoning Regulations in the Limited Business District

The zoning provision for the Transfer of Development Right (TDR) was an innovative strategy that attempted to decrease development pressures in outlying areas and focus development in desired areas of activity. The TDR strategy, however, has proven complex, and it has not had a positive impact on village development due in large part to market conditions and the locations selected. At the same time the corresponding limitations on development intensity in the Limited Business (LB) District are also complex and have proven difficult to administer over time. Therefore, several of the strategies and action recommendations noted above have been made in the spirit of both simplifying the zoning regulations and promoting economic development in village centers and concentrated business districts.

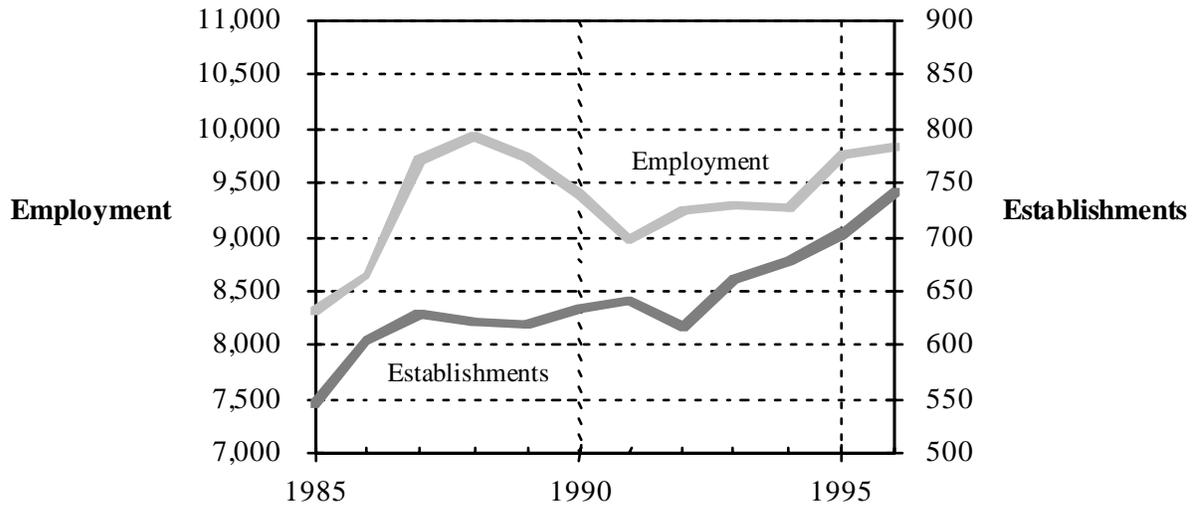
### Issue: Buildout Impacts of Proposed Zoning Changes

The proposed changes to allowable development intensity in several zoning districts will have a significant impact on Acton's commercial growth potential. Many of these are recommendations that require further analysis or evaluation; therefore, no buildout analyses have been conducted at this time.

### Issue: Current Local and Regional Economic Development Status

This section draws on data from the Massachusetts Department of Employment and Training (DET) to present a profile of employment in Acton and the surrounding area. The period from 1985 through 1996 (the latest year for which comprehensive data are available) encompassed the end of the economic boom of the 1980s, a significant recession in the early 1990s, and a resurgence in the economy in the mid 1990s. Over the course of this 11-year period, Acton experienced an increase in annual payroll, average annual wage and number of establishments (see Figure 9 and Table 49). During the recession, Acton's total employment decreased, but the number of establishments remained stable. Subsequent economic growth has nearly erased the job losses of the 1989-91 recession.

**Figure 9: Change in Employment & Number of Establishments, 1985-1996**



## Issue: Commercial Construction Activity

There were 44 fewer commercial building permits issued in Acton in 1994 than there were in 1990. This is consistent with the trends in most other communities. The only communities that experienced an increase in the number of commercial permits between 1990 and 1994 were Bolton, Boxborough, Littleton and Stow.

**Table 44: Commercial Building Permits by Community 1990-1994**

	<b>Commercial permits 1990</b>	<b>Commercial permits 1994</b>	<b>Number change</b>	<b>Percentage Change</b>
ACTON	48	4	-44	-92%
Bedford	4	2	-2	-50%
Bolton	19	21	2	11%
Boxborough	1	9	8	800%
Carlisle	16	10	-6	-38%
Concord	39	34	-5	-13%
Harvard	4	1	-3	-75%
Hudson	78	53	-25	-32%
Lincoln	14	13	-1	-7%
Littleton	30	34	4	13%
Maynard	6	5	-1	-17%
Stow	19	22	3	16%
Sudbury	32	19	-13	-41%
Westford	44	2	-42	-95%

## Issue: Real Estate Market Trends

Using MAPC employment forecasts available at the time, the Kelley's Corner study projected the future demand for industrial, R&D and office, and commercial floor space. Table 45 presents those forecasts, along with revised forecasts based on new, lower employment forecasts by MAPC.

**Table 45: Future Demand for Commercial Floor Space, Acreage in Acton 1990-2020**

<b>Kelley's Corner Report</b>					<b>1997 Update</b>				
	1990-2000	2000-2010	2010-2020	1990-2020		1990-2000	2000-2010	2010-2020	1990-2020
<u>Projected Employment Increase (no. of jobs)</u>					<u>Projected Employment Increase (no. of jobs)</u>				
Industrial	339	370	150	859	Industrial	11	(234)	46	(178)
R&D, Office	869	1,441	588	2,898	R&D, Office	526	569	356	1,452
Retail	328	492	200	1,020	Retail	146	91	109	346
Total	1,536	2,303	938	4,777	Total	683	426	511	1,620

<b>Kelley's Corner Report</b>					<b>1997 Update</b>				
	1990-2000	2000-2010	2010-2020	1990-2020		1990-2000	2000-2010	2010-2020	1990-2020
<u>Estimated Floor Space Required (SF)</u>					<u>Estimated Floor Space Required (SF)</u>				
Industrial	179,365	195,767	79,365	454,497	Industrial	5,820	(123,809)	24,339	(94,180)
R&D, Office	289,667	480,333	196,000	966,000	R&D, Office	175,333	189,667	118,666	484,000
Retail	655,647	983,471	400,673	2,039,792	Retail	291,843	181,902	218,367	691,929
Total	1,124,679	1,659,571	676,038	3,460,289	Total	472,997	247,759	361,372	1,081,750
Total Acreage Required	172	254	103	530	Total Acreage Required	72	38	55	166
Annual Acreage Required	17.2	25.4	10.3	17.7	Annual Acreage Required	7.2	3.8	5.5	5.5

Source: Kelley's Corner Specific Area Plan; MAPC Employment Forecasts 2/6/97

Table 46 shows data on the supply and demand for speculatively built office, R&D, and industrial space in 1990, 1992, 1995 and 1997 both in Acton and the entire I-495 North Market Area (Acton occupies the southeast corridor of the North Market Area). It should be noted that these figures do not include 100% owner-built structures.

Over the past decade, the major focus of speculative non-residential development in Acton has been Research and Development (R&D) which comprises roughly 75% of all spec space, compared with 55% in Acton's market area. The amount of space has increased since 1992 and has been absorbed by market demand, as indicated by the fairly low vacancy rates. Roughly 73% of all spec space in Acton is R&D space, compared with 55% in the North Market Area. However, the amount of available office space in Acton increased by slightly less than 60,000 square feet between 1995 and 1997

while there were only slight increases in each type of space within the larger Marker Area. In 1997, 72,000 square feet of office space was approved with an assessed value of \$5.1 million dollars. This year, 35,000 square feet of office space is under construction and another 524,000 square feet is currently in the approval process. The estimated assessed value of these developments is \$36 million dollars.

**Table 46: Supply & Demand for Spec-Built Office, R&D, Industrial Space in Acton and in the 495 North Market Area**

	Acton			495 North Market Area		
	Office	R&D	Industrial	Office	R&D	Industrial
Jan 1990						
Total Space	85,210	451,390	60,000	1,058,327	9,360,042	2,373,526
Vacant Space	35,400	66,100	60,000	212,973	2,310,950	1,523,470
Percent Vacant	41.5%	14.6%	100.0%	20.1%	24.7%	64.2%
Jan 1992						
Total Space	85,210	400,700	60,000	2,183,092	8,968,914	2,989,211
Vacant Space	13,915	96,447	60,000	305,004	2,674,829	1,567,425
Percent Vacant	16.3%	24.1%	100.0%	14.0%	29.8%	52.4%
Jan 1995						
Total Space	85,210	514,700	97,000	3,619,092	9,694,157	4,290,298
Vacant Space	0	28,186	0	1,198,504	2,689,858	1,632,910
Percent Vacant	0.0%	5.5%	0.0%	33.1%	27.7%	38.1%
Jan 1997						
Total Space	142,506	652,700	97,000	3,785,178	9,988,923	4,352,814
Vacant Space	59,632	107,800	-	841,933	1,021,747	1,373,060
Percent Vacant	41.8%	16.5%	0.0%	22.2%	10.2%	31.5%

Source: Spaulding & Slye Colliers, Greater Boston Market Reports

As of 1993, the MAGIC region had a total of 121 vacant commercial and industrial sites, totaling 3,213 acres and valued at over \$112 million. Of these sites, 73% are zoned for industrial use (see Table 47).

**Table 47: Vacant Commercial and Industrial Sites in the MAGIC region**

Community	No. of Sites	Area (acres)	Commercial	Industrial	Assessed Value (\$1,000,000's)
Acton	12	203	1	11	13.2
Boxborough	24	650	16	8	10.7
Concord	5	147	2	3	8.8
Hudson	17	421	2	15	6.3
Littleton	10	264	1	9	10.1
Marlborough	39	1086	5	34	55.9
Maynard	2	67	0	2	2
Stow	8	342	4	4	3.8

Sudbury	4	33	2	2	1
<b>TOTAL</b>	<b>121</b>	<b>3213</b>	<b>33</b>	<b>88</b>	<b>112</b>

Source: MAPC vacant site survey in MAGIC White Paper, 1993

Table 48 presents more recent information on available space for economic development in the Acton area, compiled by the Massachusetts Alliance for Economic Development. (Note that this information is not directly comparable to the MAPC site survey information presented in Table 47 due to different sources and methodologies.)

**Table 48: Available Land and Buildings in the Acton Area**

<b>Community</b>	<b>Address</b>	<b>Available Land (Acres)</b>	<b>Available Buildings (Sq. Ft.)</b>
Acton	20 Main Street		61,000
Acton	31 Nagog Park		58,000
Acton	531 Main Street		80,000
Acton	65 Knox Trail	9	
Acton	80-82 Nagog Park		115,000
Acton	886 Main Street		51,348
Acton	976 Main Street		190,000
Acton	Hosmer Road	65	
Acton	Hosmer Road		450,000
Acton	One Nagog Park Dr.	6	
Boxborough	330 Codman Hill Road		45,231
Boxborough	4 Summer Road		6,280
Boxborough	Route 111	56	
Boxborough	Swanson Road	275	
Concord	300 Baker Avenue		220,000
Concord	Main Street	85	
Littleton	194 Ayer Road		4,800
Littleton	53 Ayer Road		201,500
Littleton	59 Porter Road		20,000
Littleton	Great Road	91	
Maynard	146 Main Street		368,000
Maynard	Clock Tower Place		1,020,000
Maynard	Thompson Street		365,500
<b>TOTAL</b>		<b>587</b>	<b>3,256,659</b>

Source: Mass. Alliance for Economic Development 12/22/97

An alternative way to look at employment change over time is to compare the average annual change by sector during the recession period (see Table 49). Acton experienced a significant loss in employment in the agriculture, construction and manufacturing industries during the recession (years 1988-1993) while the transportation, communication and utilities sector and the services sector increased during the same

period. These dramatic differences among sectors resulted in an overall average annual change that was relatively modest (-1.3%) for the recession period.

**Table 49: Employment in Acton, 1985-1996**

<b>Year</b>	<b>Total Annual Payroll</b>	<b>Average Annual Wage</b>	<b># of Establishments</b>	<b>Total Employment</b>	<b>Agriculture, Forestry, Fishing</b>	<b>Government</b>
1985	\$157,831,000	\$19,006	544	8304	95	795
1986	\$183,487,000	\$21,273	603	8625	110	783
1987	\$232,540,000	\$23,921	628	9721	128	886
1988	\$248,972,906	\$25,045	621	9941	147	898
1989	\$244,818,809	\$25,092	618	9757	77	996
1990	\$252,430,810	\$26,869	633	9395	65	1061
1991	\$259,069,963	\$28,821	639	8989	51	859
1992	\$291,791,126	\$31,497	616	9264	62	978
1993	\$300,099,111	\$32,251	659	9305	79	988
1994	\$303,532,474	\$32,677	677	9289	77	1040
1995	\$331,948,627	\$33,987	704	9767	90	1097
1996	\$365,689,910	\$37,145	744	9845	104	1123

<b>Year</b>	<b>Construction</b>	<b>Manu- facturing</b>	<b>Transport., Communic., Utilities</b>	<b>Trade</b>	<b>Finance, Insurance, Real Estate</b>	<b>Services</b>
1985	525	3029	141	2275	252	1181
1986	613	2995	108	2545	266	1186
1987	545	3961	122	2539	298	1225
1988	546	3818	98	2767	307	1345
1989	417	3428	156	3003	287	1379
1990	295	3084	147	2929	257	1544
1991	285	2687	131	2715	256	1993
1992	293	2700	137	2669	300	2112
1993	293	2438	160	2552	374	2408
1994	321	2362	156	2584	362	2374
1995	304	2320	144	2883	342	2573
1996	354	2538	150	2549	391	2621

Source: Massachusetts Department of Employment and Training

**Table 50: Employment Change in Acton by Sector, 1984-1996**

	Employment				Average Annual Change			Total Change
	1984	1988	1993	1996	1984-1988	1988-1993	1993-1996	1984-1996
Agriculture	81	147	79	104	16.1%	-11.7%	9.6%	28.4%
Construction	512	546	293	354	1.6%	-11.7%	6.5%	-30.9%
Manufacturing	2,785	3,818	2,438	2,538	8.2%	-8.6%	1.3%	-8.9%
Transportation, Communication, Utilities	116	98	160	150	-4.1%	10.3%	-2.1%	29.3%
Wholesale & Retail Trade	2,096	2,767	2,552	2,549	7.2%	-1.6%	0.0%	21.6%
Finance, Insurance, Real Estate (FIRE)	243	307	374	391	6.0%	-4.0%	1.5%	60.9%
Services	1,251	1,345	2,408	2,621	1.8%	12.4%	2.9%	109.5%
Government	748	898	988	1,123	4.7%	1.9%	4.4%	50.1%
TOTAL <sup>33</sup>	7,832	9,926	9,292	9,830	6.1%	-1.3%	1.9%	25.5%

Source: Mass. Department of Employment and Training

For comparison purposes, an “Acton region” has been defined to include Acton and thirteen surrounding towns extending along both sides of the Route 2 corridor from Route 128 to Interstate 495 (Bedford, Bolton, Boxborough, Carlisle, Concord, Harvard, Hudson, Lincoln, Littleton, Maynard, Stow, Sudbury and Westford). Over the past decade Acton’s experience has in large part reflected regional trends, but there are also significant differences in specific sectors:

- Overall, Acton gained jobs while the surrounding towns lost employment. Moreover, both total payrolls and average wages increased more rapidly in Acton than in the region generally. However, the number of businesses in Acton grew more slowly than in the region as a whole.
- Acton’s job growth sectors included Finance, Insurance and Real Estate (FIRE); Services; and Government. In all three sectors Acton did better than its region: the surrounding towns lost employment in the FIRE sector, and gained Services and Government jobs more slowly than Acton.
- In contrast, Acton’s 1985-95 employment growth in the Transportation, Communication and Utilities sector was only 2%, compared to 69% growth in the region.

<sup>33</sup> Note the total employment does not include the mining category as it is classified as “confidential” due to the small number of employees that are included in this sector.

- Employment in Wholesale and Retail Trade increased during this period, but more slowly than in the surrounding towns.
- With very little employment in the Agricultural, Forestry and Fishing sector to begin with, Acton lost jobs in this sector while the surrounding region picked up a modest number of jobs.
- Employment in the Construction sector declined in the region, and Acton particularly: Acton's job loss in this sector represents two-thirds of the total regional reduction in employment.
- Employment in the Manufacturing sector declined in Acton over the ten-year period, but the rate of job loss was less in Acton than in the region generally (23% in Acton, compared to 42% in the region).

Thus, Acton has been outpacing the surrounding towns in payroll and wage levels, total employment growth, and growth in the Government, FIRE and Services sectors; while it has been lagging behind the region in Wholesale and Retail Trade, and Construction.

**Table 51: Change in DET Covered Employment by Community, 1985-1995**

	1985-1995 Change		% Change	
	Acton	Region	Acton	Region
Total Annual Payroll	\$ 174,117,627	\$ 958,568,308	110%	43%
Average Annual Wage	\$ 14,981	\$ 13,440	79%	54%
No. of Establishments	160	1,443	29%	41%
<u>Employment:</u>				
Total covered employment	1,463	(6,158)	+ 18%	- 7%
Agriculture, Forestry, Fishing	(5)	173	- 5%	+ 26%
Government	302	1,078	+ 38%	+ 10%
Construction	(221)	(320)	- 42%	- 13%
Manufacturing	(709)	(18,543)	- 23%	- 42%
Transportation, Communication, Utilities	3	559	+ 2%	+ 69%
Trade	608	4,932	+ 27%	+ 43%
Finance, Insurance, Real Estate (FIRE)	90	(322)	+ 36%	- 13%
Services	1,392	6,581	+ 118%	+ 43%

Source: Massachusetts Department of Employment and Training.

"Region" consists of Acton, Bedford, Bolton, Boxborough, Carlisle, Concord, Harvard, Hudson, Lincoln, Littleton, Maynard, Stow, Sudbury and Westford.

The data presented in the preceding tables include employment and income covered by unemployment insurance laws, and therefore do not include self-employment, a significant component of the economy. As indicated in Table 52, Acton ranks in the

middle of the surrounding region in terms of its percentage of households with self-employment income.<sup>34</sup>

**Table 52: Households With Self-Employment Income, 1990**

	Total Households (1990)	Households With Self-Employment Income	Percent With Self-Employment Income
Carlisle	1,457	497	34.1%
Concord	5,693	1,478	26.0%
Lincoln	2,632	653	24.8%
Boxborough	1,363	328	24.1%
Bolton	1,052	238	22.6%
Sudbury	4,762	978	20.5%
<b>ACTON</b>	<b>6,600</b>	<b>1,262</b>	<b>19.1%</b>
Bedford	4,479	845	18.9%
Harvard	2,977	553	18.6%
Stow	1,793	323	18.0%
Maynard	4,051	678	16.7%
Westford	5,316	884	16.6%
Littleton	2,562	336	13.1%
Hudson	6,362	814	12.8%
<b>Region total</b>			<b>19.3%</b>

Source: 1990 U.S. Census

The Kelley's Corner Specific Area Plan included a comparison of Acton's economy with those of Concord and Lexington. The following points update the information presented in that report (see Table 53 and Table 54).

Acton's employment growth exceeded that of Concord and Lexington, registering an average annual growth rate of 2.0% between 1984 and 1995, compared with a slight average annual gain of 0.2% in Lexington and a 0.8% decrease in Concord. However, the latter two communities experienced a greater gain in employment than Acton between 1993 and 1995 following significant losses between 1988 and 1993.

Total employment in Acton increased by 24.5% from 1984 and 1995 while the number of firms grew by 29.4%. Concord and Lexington realized similar growth in the number of firms but lost employment.

Acton had a greater number of small firms than the other two towns in 1985, but by 1995 the firms in Concord and Lexington were employing fewer people on average as compared to 1985, but not as compared to Acton. In Acton, the average firm employed

<sup>34</sup>Note that these figures cannot be directly compared with the number of employees: one household may include more than one member with self-employment income; and one individual may have income from both employment and self-employment.

15 people in 1985; by 1995, the average employment per establishment decreased slightly to only 14 workers. In Concord, average employment decreased from 20 to 12 and Lexington decreased from 19 to 15.

**Table 53: Employment Change in Acton, Concord and Lexington, 1984-1995<sup>35</sup>**

	<b>Acton</b>	<b>Concord</b>	<b>Lexington</b>
1984	7,844	11,994	17,377
1988	9,941	12,126	18,803
1991	8,989	10,784	16,823
1993	9,305	9,563	16,153
1995	9,767	11,009	17,838
<u>Average Annual Change:</u>			
1984-1988	6.1%	0.3%	0.2%
1988-1991	-3.3%	-3.8%	-3.6%
1991-1993	1.7%	-5.8%	-2.0%
1993-1995	2.5%	7.3%	5.1%
1984-1995	2.0%	-0.8%	0.2%

Source: Mass. Department of Employment and Training

**Table 54: Number of Firms and Average Employees per Business, 1985-1995**

	<b>Acton</b>	<b>Concord</b>	<b>Lexington</b>
<u>Number of Firms:</u>			
1985	544	613	951
1995	704	895	1,182
% Change	29.4%	46.0%	24.3%
<u>Average Number of Employees per Business</u>			
1985	15.3	19.5	19.4
1995	13.9	12.3	15.1
% Change	-9.1%	-37.1%	-22.2%

Source: Mass. Department of Employment and Training

<sup>35</sup>Note: These figures are slightly different than the total employment figures shown in Table 12 due to the inclusion of the mining category.<sup>36</sup> Middlesex County Massachusetts Interim Soil Survey Report, USDA Soil Conservation Service, Middlesex Conservation District, July 1995.

The Location Quotient compares the proportion of a local area's employment sector with the statewide averages. Acton's proportion of agricultural jobs is 149% higher than the state, manufacturing is 156% higher, and trade is 125% higher (see Table 55).

**Table 55: Employment Structure of Acton Compared with Massachusetts**

	Percent of Covered Employment		Location Quotient
	Acton	Massachusetts	
Agriculture	0.9%	0.6%	1.49
Construction	3.1%	3.1%	1.01
Manufacturing	23.8%	15.2%	1.56
Transportation, Communication, Utilities	1.5%	4.2%	0.35
Wholesale and Retail Trade	29.5%	23.6%	1.25
Finance, Insurance, Real Estate (FIRE)	3.5%	6.9%	0.51
Services	26.3%	33.4%	0.79
Government	11.2%	12.9%	0.87

The Kelley's Corner study presented employment forecasts developed from MAPC. At the time the report was completed, it was expected that Acton would experience an increase of 1800 jobs between 1990 and 2000 and a total increase of 5,600 jobs between 1990 and 2020 (the date of the data was not available). Data from February 1997 (see Table 56) indicates that the job growth is expected to be far less than the original estimate—a total of 800 jobs are estimated to be created by the end of this decade and only 1,900 by the year 2020.

**Table 56: Employment Forecasts for Acton by Type of Commercial Space Occupied, 1990-2020**

	Employment Forecasts				Increase			
	1990	2000	2010	2020	1990-2000	2000-2010	2010-2020	1990-2020
Industrial	3,372	3,383	3,148	3,194	11	(234)	46	(178)
R&D, Office	3,002	3,528	4,098	4,454	526	569	356	1,452
Retail	1,730	1,876	1,967	2,076	146	91	109	346
Village Service	1,396	1,514	1,588	1,675	118	74	88	279
<b>Total Jobs</b>	<b>9,500</b>	<b>10,300</b>	<b>10,800</b>	<b>11,400</b>	<b>800</b>	<b>500</b>	<b>600</b>	<b>1,900</b>

Source: MAPC forecasts 2/6/97; Sectoral breakdown estimated by percentages established by Cambridge Economic Research.

# NATURAL AND CULTURAL RESOURCES

## Introduction

Acton's environmental resources and character are important considerations when estimating the Town's future development potential. Environmental resources such as soils, ground water, surface water, vegetation, and wildlife add to Acton's character, provide recreational opportunities, and contribute to the quality of life which the Town can provide to its citizens. As a result, the natural resources of an area provide both opportunities and constraints for development. The following is a description and analysis of Acton's natural resources. This description is based on review of several town studies, site visits, and input from appropriate Town officials. Where applicable, these sources are cited in the report.

## Natural, Cultural and Historic Resources Goals and Objectives

**Goal: Protect and sustain Acton's natural environment and resources.**

Objective: Strictly enforce federal, state and local environmental laws, and supplement them with additional Town regulations if necessary.

Objective: Ensure the restoration of polluted environmental resources.

Objective: Protect the quality and quantity of Acton's water supply.

Objective: Promote environmentally sound solid waste and wastewater management.

Objective: Pursue regional solutions to environmental problems.

Objective: Establish environmental standards for new development.

**Goal: Preserve Acton's historic and cultural resources.**

Objective: Provide incentives and aid to preserve and revitalize historic structures and places.

## Topography and Geology

Acton is located approximately 20 miles from Boston and comprises 20.3 square miles. Topography in Acton is hilly. The general elevation is approximately 200 feet above sea level, with hills rising to approximately 330 feet.

Although hilly, the land is gently sloping and does not pose a significant limitation to development. Slopes greater than 15 percent are generally south of Routes 2 and 111. Steeper slopes present greater constraints to development. Development on steeper

slopes also contributes to the potential for increased runoff and erosion. Slopes greater than 25 percent are not recommended for development. However, with extensive engineering and financing, development is possible. Steep slopes are valuable visual and aesthetic qualities. However, they also pose some use restrictions and require special agricultural practices to prevent soil erosion, and special engineering consideration when developed for structural uses.

Much of Acton's topography reflects its glacial history. Although New England was glaciated often, only deposits of the final two glaciations were important in shaping today's landscape. The majority of the glacial deposits were formed during the last glaciation, beginning 26,000 years ago and ending about 13,000 years ago. Glacial processes affected the local surficial geology in two ways: the bedrock was scoured and pre-existing valleys were deepened; and the material eroded from the surface by glaciation became incorporated into the ice deposits elsewhere as till or stratified drift.

There are five major surficial geologic formations in Acton:

- *Bedrock outcrops* in Acton are composed of a metamorphic rock known as the Nashoba formation. Acton granite is found in parts of the Town and has been quarried on a small scale for building and ornamental stone. Bedrock outcrops present a constraint to development opportunities, primarily where septic systems are required. Blasting may be necessary for the erection of structural foundations and footings.
- Acton also has much *unstratified drift (glacial till)* comprised of ground moraine and drumlins. It is a mixture of unsorted rock fragments varying from clay to boulders. This mixture is relatively dense such that the assortment of rock sizes fit together, resulting in small pore sizes. Glacial till typically contains a condition known as "hardpan" – a layer of compacted material with extremely low permeability. This is important since soils of low permeability often do not provide sufficient percolation to allow expeditious use of septic systems, nor do these areas hold sizable supplies of ground water. After storms, water generally travels across this land surface with little infiltration into the soil. This results in greater volumes of stormwater runoff, less infiltration, and, in turn, less treatment of pollutants.
- Acton's *stratified drift* is composed of materials deposited as the glaciers melted and receded. These materials are more uniformly graded and typically consist of fine sand and gravel. Stratified drift deposits are composed of moderately to highly permeable soils, often providing suitable sources of ground water for public drinking water. Stratified drift can be so permeable that wastewater, such as from septic systems, is not sufficiently retained in the soil to ensure proper treatment. In areas where large quantities of ground water are present and soil permeability is high, attention to regulation and design of septic systems is required to ensure that ground water contamination is prevented.
- *Swamp deposits* occur along many of Acton's water courses. They are composed of relatively impermeable organic soils. These areas typically contain high water tables,

and may have water ponded at the surface. The Town's wetland resources are usually associated with these deposits.

- *Surface water bodies* such as kettle ponds are also created by glacial activity. Sinking Pond, Grassy Pond, Barker's Pond and Wills Hole are examples. These ponds provide important fish and waterfowl habitat. The Acton Arboretum has a kettle hole that has succeeded to raised bog characteristics – high acidity and associated plant communities.

## Soils

Soils develop from the interaction of climate on vegetation, topography, and surficial materials. Since the surficial materials of Acton are largely comprised of glacial till, the soils are predominantly moist and stony with many high water tables. Wet soils are found predominantly in the southern portion of town and along the stream valleys.

The soils information for this discussion is based upon surveys conducted by the U.S. Department of Agriculture Natural Resources Conservation Service (USDANRCS). The survey reports contain much useful information for planning such as evaluation of soil types for agriculture, development, septic tank suitability, wildlife management and other land uses. For the purposes of this plan, the soils are interpreted for agricultural and on-site sewage disposal suitability. Together, this information identifies areas which the Town may wish to preserve as farmland, or where ground water pollution is likely to occur if significant quantities of domestic sewage are disposed of through septic systems. For example, if relatively high density development is allowed in these areas, it should be serviced by public sewer.

## Important Farmlands

Acton was historically a farming community and still retains much rural flavor. In the past, Acton was especially well-known for its apple orchards. Acton is losing ties to its agricultural past, as farmland is utilized for suburban development, perhaps irreversibly. While it is clear that Acton is not likely to again be a rural farming community, the identification of those lands with high potential for agricultural use is important in the prioritization of lands to be protected from development. Although agriculture in Acton, in terms of economic return per unit of land, is a low-return use, it is important to remember the importance of agriculture for the community's overall well-being. Making long-term decisions solely on current sector economic conditions could prove to be short-sighted. Protection of lands currently utilized for agricultural purposes and which have soils of high agricultural value can ensure that one of Acton's most important assets, in terms of aesthetic quality, and perhaps long-term economic value, is preserved.

"Prime farmland" has been classified in Northeastern Massachusetts as land available for agricultural purposes (and currently not in urban use) with a favorable combination of physical and chemical characteristics for "producing food, feed, forage, fiber and oilseed crops." These soils are capable of producing high crop yields when suitably treated and managed according to accepted farming practices. The soils have an

adequate and dependable water supply, but do not flood frequently. These soils are not easily eroded and there is a favorable temperature, growing season, ph, salt or sodium content, and few rocks. Acton contains a relatively small amount of prime farmland, mostly in South Acton, especially south of the MBTA commuter rail tracks, and in an area roughly bounded by Routes 2, 27 and 2A/119. Much of Acton's most suitable farmland is no longer utilized for agricultural purposes and has been used for development purposes or allowed to reforest.

"State or locally important farmland" soils are those that "fail to meet one or more of the requirements of prime farmland, but are still important for the production of food, feed, fiber or forage crops. They include those soils that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods."<sup>36</sup> Acton has considerable state or locally important farmland, mostly in the northern portion of the town.

### Soil Potential Ratings for On-Site Sewage Disposal

Acton does not yet possess a public sewage disposal system. As a result, residents and businesses have used on-site disposal systems, and more recently package sewage treatment plants. Several factors make the use of septic systems undesirable in Acton including the poor suitability of the Town's soils for septic absorption fields, the existence of high density development in the older sections of Town, and the Town's reliance on ground water as its sole public drinking water supply. While the Town has experienced few problems with its seven existing package treatment plants,<sup>37</sup> the number of failed septic systems in some areas is substantial. During 1985, approximately 40 permits were issued for septic system repairs; in 1988 the number of repairs reached 70; and in 1990 there were 80 repairs. This number is expected to continue to rise sharply, since many septic systems are approaching the end of their lifespan.<sup>38</sup>

There are plans to establish a public sewage disposal system in the near future to serve the town. For the present, and in those areas that will not be served, new development continues to be served by on-site means; and most outlying, lower-density areas will always rely on septic disposal. The history of septic system failure and the lack of public sewage service makes it especially important that the environmental consequences of improper sewage disposal be considered when directing the type, location and density of new development.

The USDA Natural Resources Conservation Service has developed a rating system to provide town officials, planners and home buyers with a guide to indicate the relative potential of a soil for a septic tank absorption field to aid in site selection, community planning and subdivision design in Middlesex County.<sup>39</sup> Each soil was assigned a soil potential index based upon factors including the soil's "yield or performance level, the relative cost of applying modern technology to minimize the effects of any soil

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<sup>37</sup> Acton Board of Health, Phone conversation. 1989.

<sup>38</sup> Ibid.

<sup>39</sup> USDA SCS. 1985. Soil Potential Ratings for Septic Absorption Fields. Middlesex and Essex Counties, MA. 75 pp.

limitations, and the adverse effects of continuing limitations, if any, on social, economic or environmental values". Appropriate treatment measures are suggested and their relative costs assessed.

For each soil type, NRCS rates the soil's ability to serve as a septic absorption field, and has recommended measures to improve its ability to serve as a pollutant filter. NRCS also recommends mitigative measures where existing septic systems have failed. Further information about the rating system and recommended corrective measures is provided in the referenced document. The soil potential index represents its relative potential rating, classified as very low to very high, for use as a septic tank absorption field. NRCS defines the soils potential classifications as follows:

- Very High** *Performance is at or above 'standard' because soil conditions are exceptionally favorable to the construction and operation of a septic tank absorption field. Installation costs are low and there are no continuing limitations.*
- High** *Performance is at or above the 'standard'. Cost of measures for overcoming limitations are judged locally to be favorable in relation to the expected performance. Continuing limitations do not detract appreciably from environmental quality.*
- Medium** *Performance is somewhat below 'standard'. Costs of corrective measures are high. Continuing limitations detract from environmental quality.*
- Low** *Performance is significantly below 'standard'. Corrective measures are costly. Continuing limitations detract appreciably from environmental quality.*
- Very Low** *Performance is much below 'standard'. Corrective measures are very costly. Continuing limitations seriously detract from environmental quality.*

The soils potential ratings maps don't imply that areas of lower potential are "unsuitable" for the septic systems, but rather that the placement of such systems requires more engineering and greater selectivity of location of the absorption fields. This rating system should be used as one factor in broad, area-wide (as opposed to site-specific) decision making for undeveloped areas. For example, areas of town with a predominance of soil types having very high potential ratings may be appropriate for higher intensity land-uses assuming other factors, such as ground water protection, considered in the environmental analysis are also positive.

For planning, the most significant ratings concern those soils of "very low" potential (areas in which wastewater discharged to the ground should be of lower intensity), and those of "very high" potential (areas in which wastewater discharged to the ground could be of higher intensity).

As with the agricultural soils information, the soils potential rating is based on NRCS soils mapping, which was based on one field observation per acre, a fairly generalized

level of accuracy. The ratings are thus given as a guide and are not meant to be applied at a specific location without on-site investigation for design and installation. "Soil potential ratings are used with other resource information as a guide for making land use decisions. They are not recommendations for soil use."<sup>40</sup>

In particular, it should be noted that due to the variability of the Charlton-Hollis-Rock outcrop complex as a septic absorption field, this soil type has been shown here as very low potential for general planning purposes. According to the NRCS, this complex consists of well drained Charlton soils, somewhat excessively drained soils and rock outcrops that occur in such intricate patterns on the landscape that it is impractical to separate them at the scale of mapping used by NRCS. Major limitations are related to rockiness and slope and depth to bedrock in the Hollis soil.

Most soils in Acton are poorly suited for on-site sewage disposal. Corrective measures needed to assure their environmental safety are costly and the threat of future failure is high. Soils having "low" and "very low" potential for use as septic tank absorption fields are found throughout most of Acton. Soils in the northeast corner, west-central section, and southwestern part of Acton are almost exclusively rated as "very low". Limitations of these soils include at least one of the following: depth to bedrock, high water table, slow percolation rate, and occasional or frequent flooding.

Acton possesses few areas with soils rated "very high" or "high" for use as septic absorption fields. Soils with "very high" and "high" ratings are near Willow Street, and in a band running from Acton's northern border along Route 27, down along Route 2A/119 and through the south-eastern section of Town.

## Surface Water

Acton is located in the Merrimac drainage system and Concord River basin. It has five watershed areas. Fort Pond Brook and Nashoba Brook bisect the Town. Fort Pond Brook originates at Fort Pond in the Town of Littleton and flows southerly to its confluence with Inch Brook. From this point, it flows easterly across the southern portion of the Town of Acton. Guggins, Inch, and Grassy Pond Brooks are some of the tributaries to Fort Pond Brook. Nashoba Brook originates in a swamp in the Town of Westford and flows in southerly across the eastern portion of Acton. Butter, Nagog and Conant Brooks are some of the tributaries to Nashoba Brook. Fort Pond Brook and Nashoba Brook combine in Concord and flow into Warners Pond, which drains to the Assabet River in West Concord. Acton's brooks tend to meander due to their low descent rates, resulting in heavy siltation and broad flood plains.<sup>41</sup> Other major bodies of open water in Acton include Nagog Pond, Grassy Pond, Ice House Pond and a short segment of the Assabet River. Nagog Pond, half of which is in Littleton, serves as a reservoir for the Town of Concord.

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<sup>40</sup> Ibid

<sup>41</sup> "Patterns for the Future." Open Space and Recreation Plan for the Town of Acton, 1985-1990. P. 1-5 to 1-6

Water-related recreation in Acton is limited. The Town does not have any large ponds or lakes which have developed swimming areas open to the public, however, the Town is developing the North Acton Recreation Area (NARA) with a swimming pond, which is scheduled to open in 1999. Also, its rivers and ponds do provide fishing and boating, especially Ice House Pond which has recently been dredged. Public access to most waterways is limited to areas where streets cross water bodies.

The Massachusetts Division of Water Pollution Control has classified the state's surface waters according to their "best use" under 314 CMR 4.00. For each use class, minimum criteria for water quality must be met. Acton contains Class A and Class B surface waters. Class A waters generally include the state's highest quality inland waters, and are designated for use as a public water supply. Nagog Pond is the only water body in Acton with a Class A designation. Class B waters are designated for the protection and propagation of fish, other aquatic life and wildlife, and for primary and secondary recreation.<sup>42</sup> All of Acton's remaining surface waters are designated as Class B waters except for Sinking Pond. Criteria for parameters such as dissolved oxygen, temperature, ph, and fecal coliform bacteria must be met. Class A waters (Nagog Pond) must meet additional criteria for turbidity, total dissolved solids, chlorides, sulfates and nitrate.

Acton's waterways cross a broad spectrum of development densities. As the amount and density of development increases, it will be increasingly important that development controls, both during and after construction, be in place and enforced, to ensure that the present quality of surface water quality is maintained.

## Wetland and Flood Plain Areas

### Wetlands

Wetlands were classified and delineated by IEP, Inc. in 1980.<sup>43</sup> In, Acton had approximately 1,930 acres of wetlands comprising 14.8 percent of the Town. These wetlands are distributed throughout the Town's five watershed areas which correspond to its major streams including Nagog Brook, Nashoba Brook, Spencer Brook, Fort Pond Brook and the Assabet River. The wetlands tend to be concentrated in the southwest portion of Acton and along the Town's stream courses.

Wetlands possess several important resource values: they contribute significantly to the maintenance of water quality, they help maintain adequate surface water levels year-round, they provide fish and wildlife habitat, and they can moderate the severity of flooding.

Wetlands are exceptional water filters. By intercepting runoff and stream flow, wetlands filter nutrients, wastes (especially nitrogen and phosphorus) and sediment from the

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<sup>42</sup> Primary recreation includes contact sports such as swimming or waterskiing. Secondary recreation generally includes non-contact sports such as fishing or boating.

<sup>43</sup> IEP, Inc. February 1980. Wetlands mapping and Evaluation Project. Town of Acton, Massachusetts.

water. The rate of water movement usually slows in a wetland, allowing insoluble solids, silt and fine sand particles, and certain metals and organics to settle out. Plant and soil absorption of more soluble components, such as nutrients, also occurs. The moderating effect of wetlands on stream flow also lessens erosion and subsequent siltation and eutrophication of downstream wetlands, lakes and impoundments.

Wetlands provide important wildlife habitat. They serve as primary habitat for breeding, feeding and cover for many species including ducks, wading birds, songbirds, muskrats and beaver. Deer and other fur-bearing animals depend on wetlands for food and water. Wetlands can serve as nursery areas for fish. In general, wildlife productivity and diversity is related to the amount of vegetative diversity present within a wetland.

Wetlands are moderators of surface and ground water flow. During floods, some wetlands are capable of storing water through ground water recharge, bank storage and ponding. In droughts, this water is gradually released to streams and sometimes aquifers. This helps to ensure adequate year-round water flow and supply. This is particularly important in Acton since many of its small tributary streams arise through the surfacing of ground water flow, and because the Town's water supply depends on maintaining adequate ground water levels.<sup>44</sup> The water retention capability of wetlands also helps decrease the severity of floods. The paving or filling of wetlands and low areas and other activities which replace pervious with impervious surfaces increases runoff rates, reduces flood storage, and raises peak water flow, leading to greater storm damage.

Wetlands must be protected. The first effort should be to avoid impacting wetland resources in any way. Only the least environmentally damaging interferences should be permitted. Under extreme circumstances where avoidance and minimization efforts are exhausted, all lost wetland resource areas should be restored or replicated. The use of existing wetlands for mitigation or storm water storage is generally prohibited by the Department of Environmental Protection, as wetlands can be easily overloaded with silt or other pollutants, thereby destroying wetland values.

## Floodplains

Flooding frequently occurs in the spring from rapid runoff caused by rain and snowmelt or when there is heavy precipitation. When a water body can no longer accommodate increased discharge, water is carried on the flat valley floors or "floodplains" adjacent to the surface water areas.

A Flood Insurance Study was completed for the Town of Acton in 1988.<sup>45</sup> Hydrologic analysis determined the potential effect of each flooding source on the community. This information should help the Town of Acton update its existing flood plain regulations and further promote sound land use and flood plain management. The Massachusetts Wetlands Protection Act extends jurisdiction over the 100-year flood plain.

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<sup>44</sup> Ibid.

<sup>45</sup> Federal Emergency Management Agency. January 1988. Flood Insurance Study, Town of Acton, MA, Middlesex County.

Several large floods have occurred in Acton during the past 50 years (1927, 1938, 1955, and 1968), causing significant damage to buildings and highways.<sup>46</sup> According to the Federal Emergency Management Agency (FEMA) *Flood Insurance Study*, approximately 20 percent of the land area of Acton is developed, with development in flood plains limited to some single family residences and businesses.<sup>47</sup> The FEMA published Flood Insurance Rate Maps (FIRM) for the Town of Acton, dated January 6, 1988. The 100-year flood plain includes lands with at least a 1 percent chance of being flooded to a depth of one (1) foot or more in any year. These areas are subject to regulatory control under the Massachusetts Wetlands Protection Act (310 CMR 10) and Acton's zoning bylaw due to their presence in the 100 year flood plain. It should be noted that there are still areas of low-probability flood potential within the town, which are located outside of the mapped 100-year flood plain and remain unregulated. The FIRM maps identify 100-year flood plains in association with the following water bodies and water courses:<sup>48</sup>

<i>Muddy Brook</i>	<i>Pratt's Brook</i>
<i>Heath Hen Meadow Brook</i>	<i>Cole's Brook</i>
<i>Guggins Brook</i>	<i>Conant Brook</i>
<i>Inch Brook</i>	<i>Nashoba Brook</i>
<i>Grassy Pond Brook</i>	<i>Nagog Pond</i>
<i>Fort Pond Brook</i>	<i>Butter Brook</i>
<i>Grassy Pond</i>	<i>Assabet River</i>

Although a small portion of Acton falls within the 100-year flood area, flood plain protection measures are mandated by FEMA for property owners within a municipality to be eligible for federally subsidized flood insurance. The protection of wetland and flood plain areas through purchase, regulatory measures or restrictive covenants are a cost-effective means of protecting a Town's drinking water supply and protecting residents and property from flooding. There are several activities that should be encouraged for flood plains: recreation, limited agricultural practices, and parking areas can all be accommodated in flood hazard areas if they meet regulations.

## Groundwater

The Town of Acton relies solely on ground water for its municipal water supply. Because of the Town's reliance on ground water for its public drinking water supply, ground water quality be maintained. The Acton Water District is in charge of maintaining and distributing the Town's public water supply.

In 1988, Acton retained the firm of Goldberg-Zoino & Associates, Inc. to delineate aquifer protection zones for each of the four water systems in Acton. Subsequently,

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<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

<sup>48</sup> Includes Zones A and AE. See appropriate FIRM Maps for further detailed description.

Acton adopted a Ground Water Protection District as part of the Zoning By-Law, consisting of protection zones defined below:<sup>49</sup>

Well Protection Area: Zone 1

The “Cone of Depression” for the water supply well. The area in which ground water should travel to a pumping well within one year, based on average recharge conditions and anticipated future pumping.

Recharge Protection Area: Zone 2

The area within which ground water flows to the pumping well and is drawn to meet safe yield pumping rates during a 180 day drought. The Zone 2 area does not extend beyond the limits of sand and gravel/till boundaries. Zone 2 is bounded by glacial till upland or ground water divides, and ground water flow lines which intersect valley streams at the limits of the area of induced infiltration. This zone is based on DEP criteria for Zone II.

Aquifer Protection Area: Zone 3

Includes the area covered by stratified drift deposits based on the U.S. Soil Conservation Service’s Soil Map Field Sheets and Interim Soil Survey Report, and as delineated by Town staff.

Watershed Protection Area: Zone 4

Includes all areas of the Town which are not within Zones 1, 2, or 3.

The ground water protection bylaws limit the type and intensity of development which can occur in each protection zone, and the maximum coverage of impervious materials which can be placed on the surface of any parcels within the protection district.

## Vegetation and Wildlife

Acton contains a mixture of undisturbed habitats including deciduous and coniferous woodlands, open fields and meadows, wetlands, and watercourses. These habitats provide food, nesting and cover for wildlife. Wooded areas support varied wildlife including squirrels, grouse, raccoons, skunks, chipmunks, owls, deer and fox. Nagog Hill and the Acton Arboretum possess open fields, where rabbits, moles, mice and woodchucks are common. In addition, pheasants, garter and black snakes, and a variety of birds are found. Acton’s wetlands and waterways support a range of species including many types of fish and turtles. Waterfowl often use the Town’s ponds and wetlands as feeding areas. Great blue heron and owl have been sighted in Acton.

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<sup>49</sup> Goldberg-Zoino & Associates, Inc. 1989. Aquifer Protection Zones. Prepared for Town of Acton. p. 2.

The Massachusetts Natural Heritage Program was contacted to see if there have been reported sightings of rare, threatened, special concern species or ecologically significant habitats.<sup>50</sup> The Massachusetts Natural Heritage Program is only aware of a few rare species records in Acton. The Blue-spotted Salamander (*Ambystoma laterale*) was recorded in Acton in 1922. This salamander, which breeds in ephemeral ponds known as “vernal pools,” is a Special Concern species in Massachusetts. The Mystic Valley Amphipod (*Crangonyx aberrans*) has been recorded at two locations in Town. This freshwater invertebrate is listed as a Special Concern species in Massachusetts. Its presence is indicative of relatively clean, slow moving, cool water. The Small Yellow Lady’s-Slipper is the only plant species listed by the Natural Heritage Program which has been sighted in Acton. There are historical records of the Small Yellow Lady’s-Slipper (*Cypripedium calceolus* var. *parviflorum*) in the vicinity of Great Hill. This plant is currently listed as an Endangered species in Massachusetts. The Natural Heritage Program has also identified a bog known as Grassy Pond as “worthy of protection.”

A critical component of wildlife protection in Acton is the preservation of substantial open space. While there are numerous town-owned conservation areas, they are scattered throughout the town. For the enhancement of the wildlife protection value of these preserved open spaces, future acquisition of open spaces should be made with the goal of improving connectivity of these areas. The ultimate goal should be a ring or corridor of protected undeveloped land within the town. Plans for development should also be reviewed with the goal of wildlife enhancement in mind, as there are many mechanisms, such as cluster development, which can be utilized to retain areas usable for wildlife on developed parcels.

## Areas of Special Resource Concern and Sensitivity

The resource areas with sensitive resource values where development is seriously constrained or requires resource-sensitive design and development are: wetlands; 100-year flood plain; aquifer protection delineation zones 1 and 2; slopes over 25 percent; and soils with “very low” septic system potential ratings. These maps are generalized, and do not provide site specific accuracy. Therefore, not all highlighted sites have special resource concerns, and conversely sites not highlighted do not all have resource concerns. For site planning purposes, site investigations are required. This map provides a generalized impression of areas of Acton influenced by one or more areas of special resource concern. Knowing locations of sensitive resource areas is one “piece in the puzzle” in planning future growth and development of a community.

## Natural Resource Protection Needs<sup>51</sup>

Open space, recreation and conservation needs were key issues addressed in past planning studies. Residents have identified a need to protect wetlands and water

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<sup>50</sup> Copeland, Jay. Environmental Reviewer. Massachusetts Natural Heritage Program, Division of Fisheries and Wildlife. Written Correspondence. March 3, 1989.

<sup>51</sup> *Town of Acton Open Space & Recreation Plan 1996-2001.*

resources, through creation of greenbelts and/or purchase of additional open space. The need to preserve open space was also identified as an important means of maintaining Acton's rural character.

One primary environmental concern in Acton is protection of groundwater. The lack of a public wastewater collection and treatment facility and the resulting pollution from on-site septic systems is one of the most serious environmental problems facing Acton. Pollution caused by septic runoff hastens the eutrophication of water bodies and prevents residents from using parts of Fort Pond Brook for recreation. The USDA Natural Resources Conservation Service's rating system shows that most soils in Acton are poorly suited for on-site sewage disposal. The lack of public wastewater collection and treatment facilities remains a critical concern.

Acton's village and commercial centers are developed at higher densities than surrounding areas. These differences in land use intensities contribute to the town's character, but also raise two kinds of issues relating to natural resource protection. First, preservation of surrounding undeveloped land is important for maintaining the character of the villages. Second, infrastructure improvements (particularly wastewater collection and treatment systems) are necessary to protect the environmental quality of these centers.

The West Acton Village consists of a fairly densely developed center surrounded by significant amounts of undeveloped lands. Since little open land is contained within the villages, preservation of the surrounding open space is vital to maintain the character of the village.

The South Acton Village was the town's first commercial and industrial center. This area is densely developed but contains soils generally unsuitable for septic systems. The current use of septic systems presents public health risks and pollutes Fort Pond Brook. Therefore, the development of a public wastewater collection and treatment facility have been identified critical.

Fort Pond Brook and Mill Pond in the South Acton represent significant underutilized recreational opportunities. The brook is relatively clean above the Mill Pond and many residents feel that the banks of the Fort Pond Brook and the shore of Mill Pond would be valuable as a public park. However, access and pollution problems must be corrected before these areas can be targeted for increased recreational activity.

Although Kelley's Corner is a commercial center (as opposed to a village district), there are important open space and resource protection needs identified through the *Kelley's Corner Specific Area Plan*. They include maintaining the scenic character of the Route 2 corridor, addressing inadequate sewage treatment capacity for existing and planned development, and protecting the area's natural resources by retaining open space as buffers and for passive recreation. Residents also desire to maintain and improve access to Clear View Pond and a greenbelt along Cole's Brook. Trails and bikeways connecting this area from Hosmer Street to the Great Hill conservation area and the Kelley's Corner retail area would also be desirable.

The 1991 Master Plan included an Environmental Constraints map which depicts areas of Acton with sensitive resource values and where development is constrained or requires resource-sensitive design and development. The resource areas include wetlands, the 100-year floodplain, aquifer protection areas, slopes in excess of 25%, and soils with “very low” on-site wastewater treatment system potential ratings.

## Cultural Resource Protection Needs

The rural flavor of Acton is characterized by open spaces, narrow, tree-lined country roads, and by the scenic vistas visible from the roadway. Scenic roads must be preserved to retain Acton’s character.

Acton’s historic roots as a farming community can be seen in the few remaining farms in town. Many of Acton’s existing farms are either Prime Farmland or Farmland of State and Local Importance and should be preserved.

## Natural and Cultural Resource Issues and Strategies

### Issue: Wastewater Treatment

On-site septic disposal which are improperly maintained or obsolete, or located in unsuitable soils, can contribute significantly to ground and surface water contamination, and to the accelerated eutrophication of Acton’s open water bodies. Residents and businesses have relied on the use of on-site disposal systems and, more recently, package sewage treatment plants. Several factors make septic systems undesirable in many portions of Acton including the poor suitability of the Town’s soils for septic absorption fields and the existence of high density development in the older sections of Town. While the Town has experienced few problems with its seven existing package treatment plants, the number of failed septic systems in some areas is substantial.

The Town has made progress on this issue since the 1991 Plan. Town meeting has approved a \$11.5 million sewer project, recently increased to \$17 million, now being designed. It is anticipated that the first phase of service will begin in the year 2000, with phased increases in sewer capacity and usage over approximately 15 years. In addition, several developers have increased the system capacity to add existing homes and neighbors.

*Strategy NC1*     *Continue to require treatment plants for major new developments, and seek installation of extra capacities to service existing and future needs.*

*Strategy NC2*     *Construct adequate sewage treatment facilities for areas where septic systems are aging or failing, particularly where on-site replacement is not possible.*

*Strategy NC3    Conduct planning for and management of the public sewer system in the context of town-wide land use planning.*

### Issue: Tertiary Sewage Treatment

Tertiary treatment is one of the most advanced methods of treating sewage and this technology is now more affordable even at lower discharge rates. The major advantage of tertiary treatment over more traditional treatments such as septic systems is the capacity to remove nitrates. Given Acton's population and business and industrial development, continued reliance on septic systems alone may jeopardize the quality of drinking water in the long term.

The Board of Health is working improved standards for sewage treatment.

*Strategy NC4    Establish tertiary sewage treatment or equivalent as the standard in Acton where environmentally necessary and fiscally feasible.*

### Issue: Household Hazardous Waste

The 1991 Plan recognized the need to continue and expand the program for disposal of household hazardous waste, and more public education regarding the reduction and proper disposal of hazardous household materials.

Subsequent efforts have been successful. Annual collection dates have increased from one to two, and households served from 120 to 400. The need now is to explore regional programs. Consequently, the Town is conferring with the Town of Lexington, which is attempting to build a permanent disposal facility for household hazardous waste.

*Strategy NC5    Continue and improve hazardous waste collection efforts and public education regarding the use and disposal of hazardous materials.*

*Strategy NC6    Continue to pursue a regional effort to establish a permanent disposal facility for household hazardous waste.*

### Issue: Solid Waste

Landfill closures and the increasing costs of solid waste disposal through conventional means such as incineration have made recycling a more viable and necessary element of communities' solid waste management strategies. However, Acton faces a dilemma with respect to recycling because the Town is required by contract to provide a certain annual tonnage of solid waste to NESWC for disposal. Increasing recycling efforts, while better for the environment, will detract from the Town's ability to meet its contractual obligations, with potential negative fiscal impacts. Resolving this dilemma will be an ongoing issue.

- Strategy NC7* Continue to pursue coalitions with other towns to effect statewide and/or regional waste reduction.
- Strategy NC8* Continue to promote and support efforts for trash separation in the households, for recycling and composting.
- Strategy NC9* Continue to work on the problem of trash and litter in the villages, along the roads and in public places as a component of the watershed protection program.
- Strategy NC10* Continue to monitor options for zoning techniques and other regulations and standards to promote waste reduction.

### Issue: Environmental Protection

Acton has made progress in enacting and strengthening regulations for the protection of natural resources. Enactment of a regulation or bylaw, however, represents only the first step in local environmental protection efforts. The second step is enforcement, without which ordinances and are of little worth. Acton must continue to enforce environmental regulations and zoning bylaws. Failure could adversely impact the environment and community, and public health, safety and welfare.

- Strategy NC11* Maintain staff sufficient for environmental enforcement and inspections.

Natural resources, including wetlands, ponds, rivers, aquifers and soils, represent dynamic, interconnected systems. Thus, activities taking place in one town can impact neighboring communities, and effective natural resource protection and water resource planning come through regional planning and inter-municipal cooperation.

Recognizing that pollutants are introduced into the Town's water bodies through point and nonpoint sources, the Town has embarked on a Watershed Trading program to identify the non-point sources and to reduce the overall pollutant levels. In return, the Town will receive "pollution credits" it hopes to use for the proposed municipal sewage treatment plant.

The Town is working with the Organization for the Assabet River (OAR), particularly with the Stream Teams program of volunteers adopting waterways and working to clean up their banks. The Town is also participating in the Metropolitan Area Planning Council's Assabet River Basin Study.

- Strategy NC12* Continue to participate in regional environmental protection programs.

- Strategy NC13* Continue to pursue the Watershed Trading Program

Public education is important to protect the Town's natural resources. Although many local, state and federal regulatory programs and guidelines exist to protect natural resources, many people are unaware of them or their usefulness on a local level. A need

exists to educate local officials and residents regarding the values, functions and management of various natural resources (and potential threats to these resources) and regulatory and non-regulatory mechanisms available to protect them.

Progress has been made in this area since 1991. The environmental education and outreach programs include a quarterly newsletter, classes in schools, nature walks, and yearly programs for officials held at Town Hall to spotlight endangered resources. A Master Plan for the Arboretum is near completion. It will emphasize environmentally sound use of land. The North Acton Recreation Area is designed to include wetlands replication areas with literature and informational signs.

*Strategy NC14 Continue to coordinate volunteer efforts and Town resources and equipment on Town beautification projects.*

*Strategy NC15 Continue educational programs for Town boards and staff on environmental issues.*

*Strategy NC16 Continue environmental education and outreach programs serving the general public.*

#### Issue: Municipal Water Supply

Acton relies on wells, and thus the underlying aquifer system, for its entire water supply. The 1991 Plan identified the protection of these resources as a high priority for the Town.

Subsequently the W.R. Grace environmental clean-up was completed, and the Town adopted zoning amendments reducing residential densities in sensitive areas and downsizing industrial zoning district. The Water District's on-going treatment procedures result in high quality water for townspeople.

The primary need now is a sewer system to protect groundwater resources from contamination resulting from failed septic systems.

Over the long range, a change in public water usage patterns could have a substantial positive impact on the Town's water delivery system. Acton has a relatively low per capita water use, but water consumption doubles in summer months, principally due to the watering of lawns. An extensive education program is needed regarding conservative outdoor watering. A shift from lawns and other high water-demanding plants toward landscaping demanding less water would improve water conservation.

*Strategy NC17 Mitigate potential danger to Acton's ground water posed by nitrate contamination by implementing a sanitary sewer collection system.*

*Strategy NC18 Pursue regional ground water protection to protect Acton's aquifers in adjacent towns.*

*Strategy NC19 Continue to improve and expand water conservation efforts to include an on-going education program that raises public awareness regarding alternatives to high water-demanding lawns and plants in home gardens.*

*Strategy NC20 Continue to monitor options for zoning techniques and other regulations and standards to promote ground water protection.*

### Issue: Road Salt Application

Road salt can reduce the quality of drinking water by increasing sodium chloride levels which have increased over time. One public well (Conant I) has very high sodium chloride concentrations. Steps should be taken to avoid future additional problems. This can be achieved through reducing the application of road salt in some areas and eliminating it within environmentally sensitive aquifer areas. Where needed, salt substitutes can be used.

*Strategy NC21 Reduce application of road salt and, in particular, seek the state's cooperation in this effort.*

### Issue: Environmentally Sensitive Areas

Wetlands, including marshes, swamps, and bogs, serve vital roles. They act as "sponges" to absorb and detain floodwaters and filter pollutants, and provide important habitat for many species. Wetlands also maintain the quality and quantity of water supplies by reducing contamination of surface and ground water and maintaining stable ground water levels.

While wetland resources provide valuable functions, intense residential and non-residential development can have adverse consequences. Many wildlife species require a minimum acreage of undisturbed habitat; likewise, the value of one large wetland may be significantly higher than several smaller ones. Overdevelopment and segregation of land areas without regard for these types of issues can result in significant degradation of the Town's resources.

In light of growth pressure for residential, commercial and industrial development in Acton, the 1991 Plan set the objective of directing development away from environmentally sensitive areas. Zoning changes and the local wetlands bylaw were subsequently adopted. The State's Rivers Protection Act also pursues this objective.

The Town has inventoried vernal pools, which are now on the state's National Heritage and Endangered Species list. Areas of endangered species have also been listed. The Town has conducted workshops for training conservation commissioners and to increase public awareness of these resources.

The Town has acquired some wetlands through private donations to gain greenbelts along Fort Pond Brook and Nashoba Brook.

- Strategy NC22 Continue to inventory and prioritize endangered species and critical habitat for protection. Take action for protection as needed.*
- Strategy NC23 Continue to create and set aside wildlife corridors linking wetlands, conservation areas and remaining open land.*
- Strategy NC24 Continue to monitor options for zoning techniques and other regulations and standards to promote wetlands and wildlife habitat protection.*

### **Issue: Surface Water Quality**

The 1991 Plan observed that although all surface waters in Acton were currently rated Class A (Nagog Pond) or Class B, it might be difficult to maintain this quality in the face of increased development. Acton's waterways cross a spectrum of development densities. As the amount and density of development increases, it is important that development controls, during and after construction, be in place and enforced, to ensure that the present level of surface water quality is maintained.

The Land Stewardship Committee is working steadily to carry out a clean-up program along the banks of streams.

- Strategy NC25 Continue to clean up Fort Pond Brook and other surface water bodies as needed, to maintain or improve their natural and recreational values.*
- Strategy NC26 Continue to monitor options for zoning techniques and other regulations and standards to promote watershed management.*

### **Issue: Historic Preservation**

Acton has a rich historical heritage. Acton's historic buildings and sites are tangible links with the Town's past which provide a sense of identity and shape the Town's special character.

In 1991, an Historic District Study Committee, with the assistance of a historical consultant and the Acton Planning Department, inventoried the Town's historic buildings and assessed the feasibility of creating local historic districts in Acton's three village centers.

Subsequently the Town implemented the Plan's proposal to establish local historic districts in South Acton, West Acton and Acton Center.

- Strategy NC27 Explore zoning bonuses for historic preservation.*
- Strategy NC28 Explore tax incentives for historic preservation.*
- Strategy NC29 Encourage public/private partnerships for preservation.*

## Natural and Cultural Resources Action Recommendations

### Waste Water Collection and Treatment

The Town should conduct planning for and management of a public sewer system, especially for areas where septic systems are failing or aging and where on-site replacement is not possible. The Board of Health is evaluating improved standards for sewage treatment and should establish high standards where environmentally necessary and fiscally feasible. The Town should also continue to require treatment plants for major new developments, and seek installation of extra capacities to service existing and future needs.

*Action NC-1*      Implement the sewer project currently being designed in South Acton

### Household Hazardous Waste

Acton is attempting to improve hazardous waste collection efforts and public education regarding the use and disposal of hazardous materials. The Town has also pursued a regional effort to establish a permanent disposal facility of household hazardous waste by discussing options with the Town of Lexington.

### Municipal Water Supply

Acton has adopted zoning amendments over the years to reduce the impact of development on sensitive areas and the Water District's on-going efforts have resulted in high quality drinking water. However, to ensure that the Town's high water quality is maintained, it must be realized that actions in surrounding communities impact Acton's water supply. One key strategy the Town should pursue is regional groundwater protection efforts.

*Action NC-2*      Review zoning in adjacent towns to determine if they support protection of Acton's groundwater resources. Work with communities to take action to revise regulations as necessary

### Historic Preservation

The Town has established local historic districts in the villages of South Acton, West Acton and Acton Center and the 1996 Open Space and Recreation Plan cited several parcels of historic significance where the Town should focus preservation efforts. Acton should provide incentives for historic preservation to encourage land owners to preserve, protect and enhance the integrity of these areas. It should be noted that the Town has already implemented a number of tools for historic preservation such as local historic districts, demolition delay, and village district zoning. These provisions should be maintained to further historic preservation and enhancement efforts.

The federal tax incentive program encourages private investment and rehabilitation of historic properties. The program allows National Register buildings in commercial, industrial or rental residential uses to qualify for a 20% Investment Tax Credit based on

rehabilitation costs. However, to qualify, the property must be on the National Register of Historic Places. Nominations for the National Register are generally initiated by the local historic commission, which works with the Massachusetts Historical Commission staff. Nominations are then reviewed by MHC and forwarded to the Keeper of the National Register for approval. Listing on the NRHP recognizes the value of a historically significant place but does not place constraints on owners' options when using private funding. However, the NRHP does provide limited protection from state and federal actions, and eligibility for matching state and federal restoration and research grants. Acton should review the 1991 inventory of historic buildings and determine if there are areas that should be nominated for listing on the NRHP.

Preservation Restrictions are another option for protecting historical properties in Acton. Preservation Restrictions protect historic and archaeological properties from inappropriate changes. A Preservation Restriction is an easement on a property which restricts owners from altering a specified portion of that building, structure or site. A restriction can be in place for any number of years and may be included as part of the property deed. Preservation Restrictions can be donated or purchased by a government body or private preservation organization and are enforced by the holder of the restriction. Charitable donations of easements on historical buildings or archaeological sites may qualify for federal income tax deductions.

- Action NC-3* Fully complete the Acton cultural resources inventory.
- Action NC-4* Focus on protecting the following parcels which have particular historic importance:
- Preserve and enhance historic mill sites within Acton villages.
  - Preserve the structural integrity of the Faulkner Mill Dam (Erikson Dam).
  - Review the area surrounding the Isaac Davis Trail to ensure views and vistas remain intact.
- Action NC-5* Determine whether certain areas should be nominated for listing on the National Register of Historic Places and/or are suitable for Preservation Restrictions.
- Action NC-6* If NHRP designation is obtained, encourage the use of the Investment Tax Credit for private investment and rehabilitation of historic properties.
- Action NC-7* Encourage Preservation Restrictions on properties of significant historical value either by encouraging property owners to donate the development rights or by acquisition by the Town, the Acton Historical Society, Ironwork Farm, Inc., or some other historical organization.

## OPEN SPACE AND RECREATION

### Overview

The Town's *Open Space and Recreation Plan* was completed in 1996. The Plan evaluates and prioritizes Acton's future open space needs, and plans for protecting the town's natural resources, developing the town's recreational potential, and preserving Acton's remaining rural character. The Plan summarizes the Town's program for acquiring and managing open space and many actions concerning organizational and policy changes have been implemented.

Open space is a mixture of public, semi-public and private lands with varying protection. Residents have become increasingly supportive of open space protection and improving recreational opportunities. Through resident support, the Town purchased Camp Acton, began development of the North Acton Recreation Area (NARA), created the Land Stewardship Committee, acquired the Morrison parcel adjacent to the Ice House Pond, and renovated local playgrounds. While Acton has made considerable efforts to preserve, protect and enhance open space and recreation in the town, there is still substantial land that could be sold for development in the future and there are resources in need of greater protection.

This section of the Master Plan builds on the work completed for the 1996 *Open Space and Recreation Plan* to provide an assessment of existing resources in the community so that they may be incorporated into the larger goals, objectives and strategies of the Town. This information is used in developing the Master Plan's land use and development policies.

### Open Space and Recreation Goals and Objectives

**Goal:** Preserve the remaining elements of Acton's rural character.

Objective: Protect and maintain Acton's remaining farmland, and promote active farming in the Town.

Objective: Conserve open space parcels that have been identified as key remaining elements of Acton's rural character.

Objective: Create greenbelts of conserved lands along waterways, to include key wildlife habitats.

Objective: Manage and enhance resource opportunities at Acton's conservation lands.

**Goal:** Provide a variety of recreational opportunities for all Acton residents.

Objective: Provide water recreational opportunities beyond existing facilities.

- Objective: Preserve open spaces which have value as aesthetic, recreational, wetland, water, and wildlife resources.
- Objective: Improve access to and between recreation and conservation areas.
- Objective: Develop, maintain, and encourage the use of Acton's recreational resources.
- Objective: Provide recreational opportunities for families with young children.
- Objective: Encourage entertainment opportunities for teenagers.

## Open Space and Recreation Resources and Facilities<sup>52</sup>

### Protected Open Space

#### Conservation Land

There are 1,522 acres of Conservation and Town Forest Land in town, of which 1,411 acres are grouped on the sixteen lands mentioned below. All conservation lands are owned by the town of Acton, and maintained by the Department of Natural Resources, in cooperation with other town departments. All lands with a Self Help number are restricted by state regulations for passive recreation use only. Great Hill is also regulated by the Land and Water grant.

Conservation lands are well protected. The state authorized the purchase of conservation lands to conserve vanishing natural resources. Transfer is intentionally difficult and requires a majority vote of the conservation commission, a two-thirds vote of the city council or town meeting, and two-thirds vote of each house in the legislature.

The parcels for each of the sixteen major lands have been grouped under each land title. Specific uses, needs, problems, and potentials have been identified after each listing. The specific area narratives have been produced by Conservation Commission members as part of an in-depth study of all conservation lands.

In the spring of 1996 the Commission completed a handbook entitled "A Guide to Acton Conservation Lands." The guide replaces the loose trail maps formerly available at the Conservation office.

#### ACTON ARBORETUM (53.24 Acres)

The Acton Arboretum, located in the center of town, consists of 53.24 acres of woods, meadows, swamp, pond, old apple orchards, a glacial esker, and a bog. It has more than 65 species of birds, and plants, shrubs, and trees abound. There are paths throughout the area and several boardwalks through a variety of wetland ecosystems. The main

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<sup>52</sup> From Town of Acton, *Open Space and Recreation Plan 1996-2001*.

entrance to the Arboretum and parking is off of Taylor Road. Other entrances are at Wood Lane and Minot Avenue. Planning and construction of a half mile long handicapped accessible trail has been under way since 1993, utilizing both town staff and volunteers, and was completed in 1997, with a collection of New England wildflowers planted along the trail, within easy viewing distance.

This area was acquired in 1976-1977, as part of a proposed "Acton Center Park." This proposal, presented to Town Meeting as part of the rationale for the land purchase, suggested that this area could be "Acton's answer to Central Park." The land was acquired with town revenues and state funds, and as such has substantial protection. The Arboretum has been in existence since 1986 when Town Meeting approved funds for the purchase of plants and other site improvements. This is the most formal, developed, visible, and highly used conservation area in Acton, and goes a long way in fulfilling the demand for a "town park." The Friends of the Acton Arboretum, Inc. are currently developing a master plan to guide the maintenance of The Arboretum and plan for future improvements.

The Arboretum has been enhanced by the efforts of the Friends of the Acton Arboretum, Inc., and numerous other volunteers, including members of the Acton Garden Club. Members of the Friends have planted, weeded, and cleaned up, particularly those areas visible from Taylor Road, while other volunteers, including Girl Scouts and Boy Scouts, have worked in the swamp areas on plantings, paths, and boardwalks. Most of the heavy labor of clearing out the foundation and upgrading the trail system has been done by town staff. Local businesses and landscaping firms have donated their services and materials. In addition, inmates from the Northeastern Correctional Center in Concord have provided labor for trail and boardwalk construction/maintenance.

The Acton Arboretum fulfills its mission statement which goes as follows: "*The Arboretum will provide an educational and aesthetically pleasing experience in and of the landscape. It will concentrate attention on the educational value of the following areas: succession stages, wildlife habitats, geological landforms, historic site features, and natural systems. In an effort to provide a wide range of study material, many plant, shrub, and tree species will be used. In all plantings, native and introduced species, hardy to the Acton area, will be utilized and planted in a naturalized fashion within the framework of existing microclimates and soils.*"

#### PRATT'S BROOK (57.54 Acres)

The Pratt's Brook Land is used for hiking and cross-country skiing. It was purchased in 1980 with town and state funds. The original access is from Parker Street near the railroad tracks. A newer trail off Parker Street, planned and cut in 1993 by volunteers, opens the previously inaccessible portion on the south side of Pratt's Brook where it meanders through an extensive wetland. A new parking lot and entrance off High Street has been installed by the developer of Audubon Hill. A loop trail has also been installed and marked. An interesting aspect to the Pratt's Brook area is that frequent fires apparently caused by the adjacent railroad tracks have created a 10-15 acre "barren" in this area. The vegetation consists almost entirely of pitch pine, blueberry shrub, oak, and gray birch, and looks more like Cape Cod than Middlesex County. Management practices should maintain this unique "barren" area.

#### BULETTE (38.55 Acres)

The Bulette land is a small parcel used for cross-country skiing and hiking. Parcels 16 and 12 are legally Town Forest lands. Some of the land was purchased in 1926 and dedicated for Town Forest use in perpetuity. Additional land was purchased with both town and state funds. The best access is from the end of Bulette Road.

#### GRASSY POND (139.22 Acres)

A boardwalk at the pond edge was dedicated in 1984 providing viewing access to many wetland plants. A second 300 foot boardwalk was completed in 1990 to replace the existing one in the swamp bordering the pond. This trail system can be accessed from Newtown Road, Nagog Hill Road, and Willis Holden Drive. A parking area on Nagog Hill Road was constructed in 1991. Several acres of open meadow are managed near the Nagog Hill Road entrance. Bluebird boxes have been installed around the field with bluebirds nesting at this site since 1991. The parcels for this area were purchased using state and town funds, and some was donated as part of a cluster development and is precluded from development.

#### GREAT HILL (184.88 Acres)

Great Hill is the largest conservation land, although it is smaller than the combined Spring Hill and Nashoba Brook Area. Hiking, picnicking, fishing, ball fields, and nature study are all located there. The town created a new skating pond in 1986. The area has good parking facilities, located behind the South Acton Fire Station, off School Street, and is located in a major population area. The open field above the new pond is mowed annually to provide a wildflower area. These lands are very well protected because they were purchased with town, state, and federal funds.

#### HEATH HEN (98.80 Acres)

Heath Hen has a variety of uses; in the past community gardens have been located there and as part of an Eagle Scout project, a multi-site campground was developed. The land has potential as access to Fort Pond Brook for canoeing and boating, and is adjacent to the proposed Fort Pond Brook Greenbelt. In 1992 work began to reopen the Community Gardens in this area. Access to this area is off the end of Robbins Street. These lands were purchased using town and state funds.

#### JENKS/GUGGINS BROOK (85.6 Acres)

Although these lands do not connect, they do serve the same area and are connected by a telephone right-of-way. The lands are used for hiking and cross-country skiing. A major problem is the use of motorized vehicles such as snowmobiles and trail bikes. These areas are part of the planned Fort Pond Brook greenbelt. Access to the Jenks land is on Central Street, opposite Orchard Drive. Access to the Guggins Brook Conservation Area is on Massachusetts Avenue opposite Birch Ridge Road, where a parking area was constructed in 1994. These lands were purchased using town and state funds and are in an aquifer protection zone.

#### NAGOG HILL (158.03 Acres)

Nagog Hill is used for hiking, cross-country skiing, nature study, and horseback riding. Scouts often use the land for both summer and winter camping. Users can cross into the Grassy Pond Area. Through a series of scout projects, the trail system is excellent. Principal access is from two parking lots on Nagog Hill Road. A portion of this area was purchased when a farm, listed under Chapter 61A, came up for development. The purchases were made using state and town funds.

#### ROUTE 2 (72.68 Acres)

The Route 2 land was purchased from the state. The Department of Corrections uses about forty acres for agricultural purposes. The land is used for cross-country skiing but trails have not been fully developed or marked to date. Access is from Wetherbee Street.

#### SPRING HILL (184.19 Acres)

Spring Hill Conservation Area is an area rich with natural resources and benefits to the public. The 184 acres are home to a diverse variety of wildlife, natural features and recreational opportunities. Access is from the end of Spring Hill Road and from the Nashoba Brook Conservation access points on Wheeler Lane and Davis Road. Camp Acton, purchased by the town in 1996, provides another point of direct access to Spring Hill, as does the Hearthstone Hill Land, a gift accepted in 1995.

Acquired by the Town of Acton between 1966 and 1971 through purchases and donations, Spring Hill is available to the public forever. Spring Hill is a deciduous forest of mostly red and white oaks, red maple, black and white birch and a scattering of beech and others. Comparatively few evergreens are present though larch, hemlock, and white pines are scattered throughout. On the forest floor a distinct community of ground cover and low-story vegetation exists, consisting of princess pine and other members of the club moss family, high-bush blueberry and swamp azalea.

Spring Hill may be most easily enjoyed by the use of hiking trails. The trails total three miles in length and are between three and six feet wide. They are most often used by hikers, though cross country skiers use as well. Slopes are gradual and work is being done to place wooden boardwalks across several streams which cross the trails. This area abuts the Nashoba Brook Conservation Area, and the interconnected trails provide a variety of routes and destinations.

Wildlife is often the highlight of a walk at Spring Hill. Upland game birds such as partridge and woodcock are not unusual sights. Black-capped chickadees and tufted titmice are the most common year-round occupants in the tree tops, while the trunks are home to woodpeckers and nuthatches. Owls and white-tailed deer also live on this land.

#### COMMUNITY GARDENS (5.38 Acres)

This property contains community gardens in North Acton, on Route 27 just south of Carlisle Road. This parcel is 5.38 acres in size, flanked by Nashoba Brook's Robbin's Mill Pond, the property is a fertile lowland. This rich earth is prime farming land, which is

the major asset of this site. Community gardens have been located at this site for over 20 years, and the field area is subdivided into 35 parcels, 50 by 33 feet each. In 1996, all 35 parcels were rented; 28 to Acton residents. A small picnic area is also located there. Due to its small size, no trails have been developed, but a small parking lot for the community gardens and fishing access was built in 1992.

#### WILL'S HOLE AND TOWN FOREST (73.05 Acres)

The Will's Hole Conservation Area and Town Forest are located on bordering parcels in North Acton. The centerpiece is Will's Hole, a quaking bog characterized by unusual land forms and flora.

The adjoining conservation and forest parcels comprise 73 acres. The Town Forest includes 49 acres, originally purchased in 1943 (for \$490) for harvesting lumber and firewood. The Will's Hole land encompasses 24 acres assembled from several land parcels purchased in 1969 and 1971.

Trails lead to the conservation area from both Quarry Road (off Route 27) and Nagog Park Road (off Route 2A). The trail from Nagog Park Road is easily accessible from the circle at the road's end and is a direct and interesting route to Will's Hole. The trail follows along the top of a glacial esker, a sand and gravel ridge deposited in the meltwater stream below an Ice Age glacier.

The esker contrasts with the lower land surrounding it. The esker soils are sandy and dry, but the land drops off quickly to wetlands on either side. The esker is also a drainage divide— water to its north flows eastward to Nonset Brook while water to its south flows southward to Will's Hole Brook. Both brooks eventually flow to Nashoba Brook. Bird-foot violet (*Viola pedata*) grows in the dry, sandy soils of the esker in clearings near the start of the trail. Further along the trail, one can find highbush blueberry (*Vaccinium corymbosum*), sweet pepperbush (*Clethra alnifolia*) and beech trees (*Fagaceae*).

The esker terminates at a small hill covered with eastern white pine (*Pinus strobus*). Immediately to the right (west) is a boardwalk leading to Will's Hole.

Will's Hole is a classic quaking bog as described by Charles W. Johnson in his book "Bogs of the Northeast" (University Press of New England, Hanover, NH, 1985). Will's Hole likely formed in a kettlehole, a depression in the land formed by a block of glacial ice. At its center, Will's Hole is an open pond. A mat of floating sphagnum moss rings the open water. The sphagnum mat is in turn ringed by a zone of dense shrubs and trees.

The quaking bog is an unusual environment that supports unique plant life. The bog waters are typically acidic and nutrient poor, fostering the growth of the carnivorous pitcher plant (*Sarracenia purpurea*) and sundew (*Drosera*). Both can be seen near the end of the boardwalk. Other, non carnivorous plants on the sphagnum mat include American cranberry (*Vaccinium macrocarpon*), leatherleaf (*Chamaedaphne calyculata*), sheep laurel (*Kalmia angustifolia*) and swamp loosestrife (*Decodon verticillatus*).

A short distance back from the sphagnum mat, bog shrubs and small trees are found such as Black Spruce (*Picea mariana*), North American tamarack (*Larix laricina*), and swamp azalea (*Rhododendron viscosum*).

Will's Hole provides a unique natural setting. Just south of the boardwalk, dirt bikes and other off-road vehicles use the trails, and cause substantial erosion in places. Nearby development is also a concern; plant nutrients from lawn fertilizers and on-site wastewater treatment systems could alter the unusual water chemistry that shapes the character of the bog and its plant life. With the expected addition of the Handley Woods Common Land, this area will have a new access, with a parking lot, from Harris Street. Handley Woods was approved as a cluster subdivision in 1996.

#### NASHOBA BROOK (123.29 Acres)

This area was donated to the town in 1987 as part of the cluster development approval process, and so is exempt from further development. The Nashoba Brook Area abuts the Spring Hill Conservation Area, and their trail systems are interconnected, providing an expanse of conservation land of over 300 acres, abutted by many large undeveloped parcels. In addition to the access from the Spring Hill Area, access is from Davis Road, Wheeler Lane, and the 2A/27 ballfield. Due to the area's size, there is a considerable deer herd. Nashoba Brook is probably the most scenic conservation area, due to the mostly unspoiled Nashoba Brook that traverses the land from north to south, and provides excellent trout fishing and attractive habitat for deer, small mammals, and water fowl. There are a variety of interesting ruins in the area, including foundations of early mills, two earth fill dams, many stone walls, and the enigmatic "potato cave." The Nashoba Brook trail traverses the area to the east of the brook, and an existing trace of a fishing trail is being upgraded into the Northbriar trail on the westerly side of the brook; both trails exceed a mile, running from Wheeler Lane to Davis Road. Parking areas and trail signs are provided at each end of the trail.

#### STONEYMEADE (44.51 Acres)

Donated to the town in 1989 as part of the Stoneymeade cluster subdivision approval process, primary access is from Stoneymeade Way. Approximately half of this parcel consists of narrow strips of wetland located behind the new houses, but this strip is continuous, and provides a wildlife corridor as well as the potential for a hiking trail surrounding the subdivision. The balance of the parcel is mostly open fields with spectacular views, heavily traveled by horses from abutting properties. A formal trailhead has been created on Stoneymeade Way, and one may enter into Concord conservation land from this area. The Stoneymeade field is mowed each fall to prevent forest succession from occurring. Several pairs of bluebirds and one pair of bobolinks nest here annually.

#### HEARTHSTONE HILL (31.7 Acres)

This 32 acre parcel, contiguous with Spring Hill's southeast corner, is extensively covered with a hemlock swamp. It was donated to the Town in 1994 in connection with the Hearthstone Farm cluster development. The Hearthstone Hill trail leads from the

cul-de-sac at the end of Jay Lane, off Strawberry Hill Road, and skirts the swamp along its western edge. The trail crosses a boardwalk before joining the main Spring Hill trail close to the small loop near the entrance. The entire Hearthstone Hill Land parcel is contained within a rectilinear stone wall. The north slope of the Hearthstone Hill has a spectacular stand of beech extending into the hemlock lowlands.

**CAMP ACTON (60.6 Acres)**

Camp Acton was recently purchased from a Boy Scout council with Town funds and State assistance from the Self-Help grant program. It contains part of the Bay Circuit Trail and cleared primitive camp sites which Acton will continue to maintain for camping. Access is from a trail off Pope Road and from a trail in Spring Hill Conservation Land.

**Other Conservation Lands**

Seventeen tracts totaling 110.60 acres were purchased primarily for wetland protection or were given as gifts for open space enhancement. The tracts range from one-tenth acre to 30 acres in area. Eventually, some of these areas may become connected as other lands are acquired; this will be the case in the next few years as donations are formalized in the Great Meadow Area, located off Massachusetts Avenue around Fort Pond Brook. These tracts are listed in the Open Space and Recreation Plan.

**Athletic Fields**

The Town of Acton provides approximately 20 acres of town-owned athletic fields, in addition to the facilities provided by the local and regional schools, that are frequently used for non-school activities. The location, sizes, and most common uses of these fields are shown below. Most areas are suited for a variety of athletic uses, with some areas capable of supporting multiple simultaneous uses.

**Table 57: Athletic Fields in Acton**

Area	Precinc t	Acres	League Uses
Jones Field	4	3	Baseball/soccer
Gardner Field	4	1.6	T-ball or soccer
Woodlawn Field	2	2	Soccer
Hart Field	2	1	Baseball or soccer
MacPherson Field	2	1	Baseball or soccer
Great Hill	4	2.5	Baseball/soccer or 2 soccer
Elm Street Field	3	2	Softball or football/tennis
2A/27	1	2	2 soccer or soccer/baseball
School Street	5	4	3 soccer
Little Great Hill Field	4	0.5	Soccer
North Acton Recreation Area (pending)	1		

Maintenance of town athletic fields is the responsibility of the Municipal Properties Department. Field scheduling is the responsibility of the Community Education Department.

Jones Field and Great Hill Field are often too wet in the spring to be playable. Gardner, Hart, MacPherson and Little Great Hill fields are all limited in their utility due to their size and geometry. In each case, only certain levels of play are possible. The difficulty of parking near some of the fields makes them less desirable for the age groups they can accommodate as the very young players are required to walk on the side of, or across busy town streets.

Woodlawn field is on a ten year agreement from the Cemetery Commission, and eventually will be used for burial purposes.

Goward field is about to be reduced in size to accommodate the library expansion; its use as a playing field has already been surrendered.

The School Street field is on a ten year lease from the Department of Corrections, in return for that agency's use of a 75 acre parcel of conservation land. These fields are difficult to keep playable because the soil is sandy with a gravel base and does not retain water. This proximity to Acton Water District wells (at 315 School Street and Lawsbrook Road) and an aeration tower, restricts the town and the sports leagues from irrigating the fields. Consequently the School Street fields are dangerous to play on with their rocky surface. The fields must be "rested" as much as possible to retain a minimum amount of vegetation.

The tennis courts at Elm Street are in poor condition and need resurfacing and fence repairs. In April 1998, Town Meeting appropriated funds to repair the tennis courts.

In addition to the athletic league use of fields, many community groups and companies reserve athletic areas for games and picnics and they are extensively utilized by families and groups of children.

With recent budget cuts, maintenance of athletic fields has become difficult. The town has never lined athletic fields and in recent years the leagues have had to provide their own silt or stone mix, and amenities such as team benches. Youth Soccer also frequently re-sods worn areas of fields. The leagues that use the illuminated field at Elm Street have to provide funding for lights. In 1990 the town discontinued routine trash removal at the fields, due to misuse of the trash barrels for deposit of household trash. As a result of the haul-in/haul-out litter sticker program, the fields are now cleaner than before. The town provides weekly mowing and annual aeration. Fields are fertilized using funds from field reservations or donations from leagues.

Comments were solicited in June 1991 from the four athletic leagues regarding their concerns about the future of the fields. All expressed concerns that there were only marginally sufficient areas to use, and that there will soon be a need for additional fields. The lack of additional illuminated fields, lack of soccer fields for league growth, ability to "rest" fields occasionally, potential loss of the Woodlawn field, and the necessity to double-book little league and soccer onto adjacent playing surfaces all are

concerns. Finally, it is difficult for groups that are not part of the four leagues to obtain use of the fields during the season, so ideally a field area not assigned to a league should be developed.

A recent opportunity to create a new, large soccer area on Summer Street, at no cost to the town, was lost due to intense neighborhood opposition. Two new residential developments will, however, provide additional athletic fields: Lawsbrook Village on the east side of Acton, will include a skating pond, jogging trail and possibly a baseball field; Bellows Farm, in the northeast section of Acton, will include a ball field.

Acton-Boxborough Youth Soccer installed a sprinkler system at Woodlawn Field in 1994, and the 1996 town meeting approved funds for sprinklers at the Route 2A/Route 27 fields. This will allow more intensive use of these fields.

Recently, the Town purchased the "Morrison Land" located next to Ice House Pond. Preliminary plans call for the installation of ballfields on the higher portions.

### Water Recreation

The 1985 Open Space and Recreation Plan cited the need for more water based recreational opportunities in Acton, and it was a high priority among public participants in the 1989/90 Master Plan process. Most water bodies in town are small to moderate in size, but a concerted effort has been made to create or improve access to water-related recreation sites where possible.

### ACCOMPLISHMENTS

North Acton Recreation Area (NARA): This 40 acre community park, located on quarry Road in North Acton, was funded through a \$1.6 million bond exclusion and is currently nearing completion. NARA will contain the following recreational opportunities:

- a nine-acre swimming pond and beach
- an amphitheater for performing arts, exhibitions and science and nature programs
- wheelchair/stroller accessible paths and nature trails
- playing fields for soccer and softball
- courts for basketball, tennis, volleyball, badminton and horseshoes
- playgrounds and adult exercise equipment
- covered pavilion and lawns for picnics
- access to 50 acres of town forest and the 200 mile Bay Circuit Trail

Great Hill Recreation Area Skating Pond: The pond is a 3/4 acre impoundment created by excavating an old, silted-up farm pond that was reverting into a red maple swamp. Completed in 1986, the pond is used for skating, fishing and wildlife viewing.

Mill Pond Recreation Area: This half acre site is located between Main Street and the Fort Pond Brook Mill Pond, above the 1898 stone dam near the site of the Faulkner Mills. The parcel was purchased to allow the reconstruction of the adjacent Main Street bridge across the railroad, now completed. Part of the site will continue to provide fishing, boating, and skating access to the Fort Pond Brook Mill Pond. The site has a half acre of

grass, a picnic table and is open to the water for fishing and related activities. This area's use is somewhat limited due to lack of on-site parking.

The South Acton Village Plan identifies Mill Pond (and Fort Pond Brook) as a significant, underutilized recreational opportunity. Maintaining the integrity of the dam is essential to preserving the pond and its recreational potential.

Robbin's Mill Pond Dam Restoration: This is a man-made impoundment in the Nashoba Brook Conservation Area; the pond is the site of mill foundations and an earth fill dam that dates back to pre-colonial times. In 1990, the dam was rebuilt by the town, using funds for materials donated by the Acton Conservation Trust. The restored impoundment offers fishing, canoeing, and wildlife study. Additional reconstruction was undertaken in 1995, utilizing crew from the Northeastern Correctional Facility in Concord.

Grassy Pond Trail and Boardwalk Improvements: The boardwalks and trails leading to Grassy Pond, in the Grassy Pond Conservation Area, were improved and upgraded to provide better access into the pond for fishing and wildlife study. A new access trail was created so that it is now possible for the portage of a canoe into the pond.

Arboretum Pond: A 4,000 square foot pond was excavated at the Arboretum in 1991. This small pond provides open water habitat for birds and other wildlife.

Will's Hole Bog Boardwalk Reconstruction: The boardwalk into Will's Hole, a kettle hole pond and associated quaking bog, was reconstructed by Eagle Scouts under the supervision of the Conservation Administrator. This boardwalk now provides safe access to the pond for wildlife and plant observation.

Arboretum Bog Boardwalk: A new 100 yard long boardwalk was constructed across the quaking bog located at the Arboretum, and includes an observation bench, allowing close study of bog plants and related wildlife. Many elementary classes study the bog and its inhabitants, during outings hosted by the Conservation Office.

Sandy Pond: In 1988, a contractor dredged a two-acre pond located near Sandy Drive, located on town Conservation Land. This impoundment is now publicly accessible for fishing and nature study.

Ice House Pond Restoration: This is a four-acre impoundment of Nashoba Brook located on town owned land at the intersection of Concord Road and Great Road. Since management activities (including yearly draining) related to ice harvesting stopped in the 1950s the pond very rapidly filled with floating and emergent vegetation that reduced the recreational potential of the site. In 1995 the pond was dewatered and dredged to restore its value as a boating and fishing area. Because of the proximity of the parking area to the water's edge, this site has the potential for handicapped access for water recreation.

Town Forests

Acton has two town forests, managed similarly as other conservation lands. Due to purchase of adjacent lands, the forests are incorporated into larger conservation areas. If the town were to harver timber, these areas would be the first to be harvested, on a selective basis, as that was intended when purchased. The town forests acreages are included in the conservation land inventory (Will’s Hole, 49.0 acres; Bulette, 22 acres).

Playgrounds and School Department Land

The Acton-Boxborough Regional School District owns 66.6 acres of land, and the Acton School District owns 121.77 acres of land. Although there are school buildings on almost all of these properties, the school campuses and grounds provide valuable open space.

The inventory shown below reflects all the areas in Acton containing traditional playground amenities, such as playground equipment, play surfaces, and picnic tables. Some of these areas abut athletic fields or are on school property and are not publicly accessible during school hours. Four of the five elementary schools have fairly new, large play structures, built with funds generated by school parent organizations. Merriam School’s playground is older.

In 1993 the Acton Children’s Playground Committee Inc., a citizen’s group, successfully raised funds and used town and citizen labor to create a playground for ages 1-6 at Goward Field. This was a first response to the Master Plan objective to “provide recreational opportunities for young children.”

Thanks to support from Town Meeting votes in 1995 and 1996, town funding for improvement of playgrounds has been more available than before. The Acton Children’s Playground Committee. Inc., has raised additional funds, and, in conjunction with the Municipal Properties Department, has improved playgrounds at Jones Field and Gardner Field. Some town funding will be used to construct a small play structure near the fields at the corner of Route 27 (Main Street) and Route 2A.

SCHOOL PLAYGROUNDS	<u>Locations</u>
Conant School	Taylor Road
McCarthy-Towne School	Massachusetts Avenue
Gates School	Spruce Street
Douglas School	Elm Street
Merriam School	Charter Road

## TOWN PLAYGROUNDS

## Locations

Gardner Field  
Goward Field  
Elm Street Field  
Jones Field  
Great Hill  
27/2A Field

Massachusetts Avenue  
Woodbury Lane  
Elm Street  
Martin Street  
School Street  
Main Street

## Greenbelts

Greenbelts have been discussed in Acton since the 1966 Conservation Commission Master Plan. There are two proposed greenbelts in Acton: Fort Pond Brook and Nashoba Brook, which comprise the principal watersheds in town. The only other major water course in Acton is the Assabet River which touches a small portion of town, near the Maynard and Concord lines, in a very built-up area with limited recreation or conservation potential. In the future, as the water quality of the Assabet River improves, this area should be reviewed.

The idea behind the greenbelt concept as it is being applied here is to evaluate all the parcels of publicly owned land adjacent to the brooks, and to deal with the corridors as unified strips rather than a collection of isolated parcels. After the corridors have been analyzed, management plans will be developed for each greenbelt, including access points, area utilization, and identification of privately owned parcels for future acquisition. The benefit of such a program is that it will provide long trails for fishing and boating access, wildlife corridors to support varied animal life, and a reservoir for wetlands ecosystems.

## NASHOBA BROOK GREENBELT

Nashoba Brook is one of two main watersheds in Acton and an important resource for fish and wildlife, public and private water supply, recreation and Acton's history.

Starting in Westford at Nashoba Hill, Nashoba Brook flows south through Acton and eventually into the Assabet River. Along its course it is fed by Butter Brook, Will's Hole Brook, Conant Brook, and Nagog Brook and other smaller nameless tributaries. North of Route 2A, Nashoba Brook has been dammed to provide power to mills and factories that formerly lined its banks. A pencil factory was one such business which operated on the brook until early in this century. The dam at the end of Wheeler Lane, recently rebuilt, creates the second largest impoundment on the brook.

The Nashoba Brook Conservation Area north of Route 2A is primarily forested. Along the banks it is dominated by white oak, red maples, alder and other species tolerant of dampness. On adjacent higher ground the forest is dominated by hardwoods such as sugar maple, red oak, elm and beech, and conifers, especially white pines. The northern end of the brook was the home of the Nashoba Indian tribe who inhabited the area before the arrival of European settlers. They may be responsible for a unique structure in the Nashoba Brook Conservation Area dubbed the 'potato cave.' Located between the

railroad tracks and Milldam Road in the Northbriar subdivision, the potato cave is a stone-walled and stone-footed structure dug into a hillside. The walls are made of stacked field stones and the roof is several large flat stones covered with earth.

South of Route 2A, Nashoba Brook flows through an open meadow flood plain owned primarily by the Acton Water District. Below these meadows is the largest impoundment on the stream, Ice House Pond. Ice House Pond was used for what the name indicates: a source of ice for Acton residents. This practice continued until the late 1950s, after which the use of refrigerators made ice boxes obsolete. Ice House Pond is still a major wildlife area, especially for waterfowl, and is the most popular ice skating pond in town.

Below the Ice House Pond dam at Concord Road, Nashoba Brook flows southeast, primarily through a meadow, and under Route 2 where it is joined by Fort Pond Brook. From here it flows into Warner's Pond in Concord and then into the Assabet River. The banks of the Nashoba Brook are better than 75% publicly owned.

An abandoned train track runs parallel to Nashoba Brook, from the Concord line all the way to the Westford line where it crosses Butter Brook. It is hoped that in the future this track will become a bike/walking trail, greatly enhancing access to the Nashoba Brook drainage basin.

#### FORT POND BROOK GREENBELT

Originating at Fort Pond in Littleton, Fort Pond Brook flows primarily through Acton to its confluence with Nashoba Brook. Beginning as the outflow from Fort Pond, the brook enters Acton along Central Street in West Acton. The brook's contributions to Acton have been agricultural and industrial. It provided water to the fields and orchards of West and South Acton and power to the emerging early industries. Accessing the greenbelt from Central Street opposite Orchard Drive, one finds several small ponds along the brook created by farmers over the years. It continues through West Acton Center to Route 111, where the brook runs through forest and swamp. Some agriculture continues along the brook today in association with Idylwilde Farm.

Emerging from this area just east of Mount Hope Cemetery, the brook meanders through open meadows, which dominate the rest of the brook's distance. It flows through Mill Pond in South Acton, impounded by the dam at Erikson's Grain Mill. This is also the site of the early Faulkner Mills that influenced the growth of South Acton.

Owned by the Erikson Grain Mill, the dam is the reason Mill Pond exists. Preserving the structural integrity of this fragile dam was one of the highest priorities in the Natural Resources section of the South Acton Village Plan, since the dam's collapse would eliminate Mill Pond as a scenic and recreational resource.

During high water, Fort Pond Brook is navigable by canoe from Littlefield Road to Mill Pond (with one portage to avoid the culvert at Martin Street), and from Parker Street to the Concord line. The intervening stream is potentially navigable by kayak.

The Fort Pond Brook watershed is extensive, collecting water from Guggins Brook, Inch Brook, Grassy Pond Brook, Heath Hen Meadow Brook and Pratt's Brook, and then flowing into Nashoba Brook along Route 2 at the Acton-Concord line.

The water quality in the brook degrades after South Acton, due to the poorly functioning septic systems in this area. However, the brook provides water for the aquifer that supplies the Lawsbrook well field.

There are several parcels of public land abutting the brook, and although controlled by different agencies, they provide the potential for many access points and recreational opportunities.

Beaver activity is evident along Fort Pond Brook with dams built on several major feeder brooks. The Conservation Commission must work closely with the state to educate the public as beaver activity increases.

### Water District Lands

The Acton Water District, a separate political unit from the Town of Acton, owns 399.5 acres. Most parcels protect the groundwater wells, Acton's only source of public water. Some parcels were purchased for future well sites or storage reservoirs.

No recreational use of these lands is permitted, but they hold value for wildlife and open space. It appears that most potential well sites have been identified, so the Water District probably will not purchase much additional land. These lands do not generate any tax revenues, but are protected from development.

### Bicycle Trails

**ASSABET RIVER RAIL TRAIL:** This planned trail will reuse a section of the abandoned Marlboro branch railroad between South Acton and Maynard. This trail is intended for walkers, runners, bicyclists and skaters, and would run from Marlboro through Hudson, Stow and Maynard, ending near the M.B.T.A. commuter rail station in South Acton.

**LOWELL TO SOUTH SUDBURY:** The portion from Lowell to the North Acton town line is officially designated as the 'Bruce Freeman Bicycle Trail.' The state funded the design of the first portion and the trail has received number one priority for funding in the state's 1995 Bicycle Trail Inventory. Eventually Acton's portion of the trail will run through the North Acton Recreation Area, the Nashoba Brook Conservation Land, the fields at Routes 2A and 27, Ice House Pond, and the reformatory fields along Route 2.

### Regional Hiking Trails

**BAY CIRCUIT TRAIL:** This trail has been accepted by the Acton Conservation Commission and the Board of Selectmen. It enters Acton at the Westford town line and runs through Nashoba Brook and Spring Hill conservation lands. The trail then connects to Carlisle through Camp Acton, and Concord through Stoneymeade Conservation Land.

### Private Restricted Common Lands

Over the years, approvals of cluster developments preserved approximately 430 acres of protected open space (common land). Some were donated to the Town, while approximately 200 acres remain in the hand of landowner trusts or associations.

### Unprotected Open Space Land

#### State Owned Lands

The state owns 199.2 acres of land in Acton, 168 acres of which could be described as "open space." There are three major categories of open space: part of the Department of Corrections Farm (122 acres), parcels taken when Route 2 was built lying outside of the right-of-way, and the Whittier land (25 acres) under the Department of Fisheries and Wildlife.

The Correction Department land is significant to the town, because the open fields abutting Route 2 add to Acton's "rural" image. If these lands were to be disposed of, the town would consider them a high priority purchase, as it did when given the opportunity to buy the "Route 2 Conservation Area" from the state years ago. That parcel is now leased back to the state for agricultural purposes.

The Route 2 corridor land is broken up on smaller parcels, which are valuable as a greenbelt and open space around this major roadway. The town has attempted to acquire several parcels in the past, and hearings with the state have been held, but the process is stalled.

#### School Department Lands

One parcel not associated with an actual school building, but considered to be "school land" and holding value as open space, is located on Arlington Street, north of Route 2, and is 24.92 acres (Town Atlas Place E-3, Parcel 8). This land was acquired in 1962 as a potential school site.

#### Chapter 61, 61A and 61B Lands

There are 1,254.92 acres of open space in Acton listed under these statutes that allow for reduced real estate taxes. Chapter 61 applies to forest lands, Chapter 61A to land in agriculture, and Chapter 61 B to private recreational lands. Developing these lands is fairly easy, but the town is given a 120 day right of first refusal to purchase the land if it is to be sold or undergo a change of use.

One of the goals of the Master Plan is to bring all offers of land under 61, 61A and 61B to Town Meeting for possible acquisition, and the high importance of these lands for possible acquisition is illustrated by their position on the Town's priority list for land acquisition. These open spaces, although not town owned, are significant to the

environment and the aesthetics of the community, and preventing development is an important issue.

Of particular interest due to proximity to conservation lands, major wetlands or recreation areas are large, privately-owned, unprotected parcels whose maximum residential build-out would alter Acton's environment. Five large groupings of land covered under these statutes have particular value to the town, and would be given top of the priority if they became available. These five sites are:

- The Conant land, located on Main Street. north of the Town Common;
- Simeone's or Stonefield Farm, located on Martin Street and adjacent to Fort Pond Brook
- Parcels in the Pope Road area of Acton, at the Concord/Carlisle/Acton line. Owners include Robert Okada, Drake Trust and Liberty Trust.
- Palmer Family Realty Trust land off Route 2A, adjacent to Nagog Brook
- The Kennedy land abutting the North Acton Recreation Area.

The Conant family owns 298 acres of land. The Palmer family owns 133 acres. Both abut existing conservation land, and are only separated by town conservation land and Commonwealth of Massachusetts Fisheries and Wildlife land. If these properties were to be developed, the impact on wildlife corridors and habitats would be considerable.

Although these five properties are the highest priority lands for protection, all parcels under the Chapter 61 program should be considered for acquisition. Two smaller parcels of importance are the Nashoba Sportsman's Club land (abutting Rex Lumber and the Kennedy land) near the NARA site, and the Donald's land (a large portion of which is wetlands) that abuts The Arboretum.

### Cemetery Lands

There are three cemeteries in Acton. Woodlawn, located on Concord Rd. in Acton Center, was established in 1738, is comprised of 80 acres, of which 31 are developed. Mount Hope, located on Central St. in West Acton, was established in 1848, with 94 acres, 11 of which are developed, and Forest Cemetery, located on Carlisle Rd. in North Acton, established in 1750, is half an acre, and is fully developed.

These three municipal cemeteries have value as open space, both in their undeveloped, and developed, conditions. The undeveloped land provides wildlife habitat, and is used for passive recreation pursuits that commonly occur on conservation lands. A portion of Woodlawn is presently in use as a soccer field, although the agreement for this use will expire in 1998.

At the present rate of use, there will be sufficient room at the two active cemeteries for at least 100 years.

## Other Unprotected Parcels

One significant parcel of open space not included in other inventories is land (other than Camp Acton) still owned by the Acton Boy Scouts located adjacent to the Sprag Hill Conservation Area between Pope Road and Wheeler Lane.

## Open Space and Recreation Issues and Strategies

### Issue: Open Space and Recreation Planning

The Town's 1996 Open Space and Recreation Plan shares many of the Master Plan's goals, objectives and actions, and the Town is implementing many of its recommendations. The Open Space and Recreation Plan is an important tool for guiding actions focused on environmental protection and provision of recreational facilities and programs, and the Town must maintain an updated Open Space and Recreation Plan to qualify for state and federal open space funding programs. In addition, the Town needs to coordinate with neighboring communities to protect environmental resources effectively and provide a full range of recreational opportunities.

*Strategy OSR1 Continue to implement the Town's Open Space and Recreation Plan.*

*Strategy OSR2 Continue to participate in regional open space planning.*

### Issue: Open Space Linkage and Connections

The linkage of open space parcels through easements can create corridors for wildlife and recreation, link large publicly-owned open space parcels, and improve connections between residential neighborhoods. This linkage can be encouraged through the planning board's subdivision approval process.

*Strategy OSR3 In new developments, continue to maintain open space corridors and easements for trails and pedestrian walks.*

*Strategy OSR4 Continue to connect open space and conservation lands through additional land acquisitions or easements.*

*Strategy OSR5 Continue to improve connections among Town conservation and recreation lands through acquisition of more land, easements, and through trails or paths.*

### Issue: Open Space Protection Mechanisms

Acton has more than 1,500 acres of town-owned conservation land, the result of an aggressive open space acquisition program. The 1991 Plan foresaw that in the future, acquisition of open space for scenic, natural resource or recreational purposes would become more difficult and expensive as growth pressures increased. The Plan sought to identify and implement several options to preserve open space.

Currently the Town participates in the Bay Circuit Trail planning effort, and Town Meeting recently approved the acquisition of open space relating to bikeways.

- Strategy OSR6 Create a mechanism to finance and acquire public open space.*
- Strategy OSR7 Review existing Town lands for possible swaps with high priority lands to be preserved.*
- Strategy OSR8 Examine the costs and benefits of instituting an open space option in assessing vacant parcels, and pursue other taxation policies that foster open space preservation.*
- Strategy OSR9 Continue to monitor options for zoning techniques and other regulations and standards to promote open space protection.*

### Issue: Open Space Protection of Key Parcels

Acton contains many unique and valuable land resources ranging from prime farmland to rare species habitat. To protect these resources, the 1991 Plan observed that it was necessary to identify and prioritize them for protection. It was felt that prioritization of parcels for open space protection would focus efforts on key parcels of land promoting local conservation values and goals. The Town's 1996 *Open Space and Recreation Plan* performed this prioritization. Now the task is to implement the acquisition plan.

Exercising the option provided through the Chapter 61 tax abatement program, the Town purchased land owned by the Boy Scouts of America off Pope Road, and the Morrison Farm overlooking Ice House Pond.

- Strategy OSR10 Continue to consider all offers of land under Chapter 61, 61A, and 61B in accordance with the goals of the Open Space and Recreation Plan.*

### Issue: Farmland Preservation

Acton was historically a farming community and still retains much rural flavor. The Town had been especially well-known for its apple orchards. However, as suburban development increases and farmland is utilized for such development, Acton is losing ties to its agricultural past. While it is clear that Acton won't regain its status as a rural farming community, the identification of those lands with high potential for agricultural use is important to the prioritization of lands to be protected from development.

- Strategy OSR11 Continue efforts to preserve farmland as a resource. Focus on prime and state farmland and land currently in farm use.*
- Strategy OSR12 Purchase agricultural preservation restrictions using the Agricultural Preservation Restriction program of the Department of Food and Agriculture. Establish appropriate fund.*

## Issue: Awareness of Recreational Opportunities

Acton has many recreational resources. Much progress has been made in making available information about these resources so that townspeople may enjoy them. There are several conservation trail books, and an active program of community education at the schools. In 1997, the Town issued a "Recreation White Paper," which identifies recreational resources and needs. A recreation director was hired recently to promote and raise local awareness of the town's existing recreational facilities and coordinate recreational programs. The North Acton Recreation Area (NARA) will open in 1999, and will be a major local point of recreational activities in Acton.

*Strategy OSR13 Continue to increase public awareness of Acton's recreational opportunities.*

## Issue: Water Recreation

Water recreation in Acton was limited in 1991. The Town did not have any large ponds or lakes with public swimming areas. Its rivers and ponds, however, did provide fishing, boating, and limited swimming recreation. In 1991 public access to most waterways was limited to areas where streets crossed water bodies.

Subsequently the Town dredged Ice House Pond, and as a result it is rejuvenated. The Town stocks it with trout each year. Shoreline was acquired through purchase of the Morrison Farm.

By mid-summer 1999 the new North Acton Recreation Area (NARA) will include a nine-acre groundwater-fed pond with beach area, bathhouse, and picnic areas.

Mill Pond in South Acton is a focus of the planned Assabet River Rail Trail.

*Strategy OSR14 Continue to improve access to ponds and streams.*

*Strategy OSR15 Continue to explore possibilities of making more ponds and streams suitable for boating and fishing.*

*Strategy OSR16 Continue to develop and maintain recreation facilities on Ice House Pond.*

## Issue: Maintenance of Conservation and Recreation Lands

The 1991 Plan observed that the number of hours devoted by Municipal Properties for conservation maintenance had increased substantially in recent years, but the need existed for more public involvement in maintaining the Town's conservation and recreation resources.

Much progress has occurred since 1991. The Land Stewardship Committee under the Conservation Commission does most of the trail maintenance. The Friends of the Acton Arboretum work on the maintenance and improvements of the Arboretum. A closer, more organized relationship was established between the Town and athletic leagues,

who are engaging landscape contractors for maintenance and upgrade of fields more regularly. Several playground committees were established to raise funds and provide labor to upgrade the playgrounds at Jones Field in South Acton, and Gardner Field in West Acton. The 2A & 27 Field was upgraded in the Spring of 1998.

The Town has accomplished a number of tree plantings at Jones, Gardner, and 2A & 27 Fields. A number of parking areas have been built – for example, at Grassy Pond Conservation Area and the expanded parking at the Arboretum. There is also increased signage at trail heads.

With the establishment of its new Recreational Division, the Natural Resources Department is assuming responsibility for the Town's maintenance of conservation and recreation lands.

*Strategy OSR17 Continue with land stewardship and volunteer efforts to substitute and supplement Town efforts (e.g., encourage users of recreation areas to remove trash).*

*Strategy OSR18 Continue to plant more shade trees at public recreation facilities.*

*Strategy OSR19 Continue to improve access and maintenance of conservation and recreation lands including parking areas and demarcation of trails and boundaries, both existing and newly acquired.*

## Issue: Recreational Facilities and Services

The 1991 Plan observed that as Acton's population grows, so will the need for additional parks, hiking trails, and recreational facilities and services.

As of 1998, all Town buildings open to the public are accessible to persons with disabilities. All playground upgrades include access to equipment for persons with disabilities. The Arboretum is completing a one-half mile trail to meet the standards of the Americans with Disabilities Act.

*Strategy OSR20 Develop an under-21 club or youth center away from school complex.*

*Strategy OSR21 Continue to improve and maintain accessibility for persons with disabilities to public buildings and facilities, recreational areas, conservation lands, playgrounds, sidewalks, etc.*

*Strategy OSR22 Continue to balance sports league activity on playing fields with the need for non-organized recreation.*

## Open Space and Recreation Action Recommendations

### Open Space and Recreation Planning

The Town has made significant progress in implementing the 1996 Open Space and Recreation Plan. The success has been attributed to the work of the Land Stewardship Committee, formed as a result of the 1996 Plan. The Committee manages and enhances resource opportunities at Acton's conservation lands and reports to the Conservation Commission. Each member of the Committee is assigned to a conservation land to evaluate improvements and recommend actions to the Committee.

The Open Space and Recreation Plan also recommended creating of an Open Space Committee to determine open space prioritization and develop options for protection. The Conservation Trust has served this purpose.

The Town's Recreation Commission has become active in recent years, because of the 1996 Open Space and Recreation Plan. The Commission has examined new areas for ballfields and is developing a management plan for existing recreation sites.

Six areas in need of protection to preserve Acton's rural character were identified in the Open Space and Recreation Plan. The first, the Morrison parcel abutting Ice House Pond, has been acquired to provide additional recreation land. The remaining areas should also be protected through a variety of preservation techniques.

*Action OSR-1* Protect the following properties through a variety of preservation techniques in order to preserve those properties that have been identified in the 1996 Open Space and Recreation Plan as being critical to preserving Acton's rural character.

- The Conant property on Nagog Hill Road, abutting Nagog Hill and Grassy Pond Conservation areas.
- The land owned by the Palmer Family Realty Trust
- The Simeone or Stonefield Farm in South Acton
- The Kennedy land abutting the North Acton Recreation Area
- Several large parcels of land near the Concord and Carlisle borders, abutting Camp Acton, Nashoba Brook, and Spring Hill Conservation Areas.

*Action OSR-2* Develop a plan to educate and inform residents about open space planning and needs.

*Action OSR-3* Every two years, update the prioritization of all open space in Acton, including protected and unprotected parcels. Use the results of the open space survey, the farm survey, information from the Conservation Land Stewardship Committee and the goals, objectives and priorities outlined in the Open Space and Recreation Plan as guidelines.

*Action OSR-4* Obtain abutting towns' open space plans and identify potential corridors between the towns and ways in which water resources (e.g. Nagog Pond), important to another community can be better protected.

## Open Space Linkage and Connections

Acton has been very active in the SuAsCo Committee through MAGIC to discuss water supply protection efforts and the creation of trail corridors. In addition, the SuAsCo River Basin Coalition, a volunteer organization, has a "stream-team" which identifies issues related to habitat and sensitive environmental issues. This effort can provide guidance for acquisition efforts in stream corridors.

The 1996 Open Space and Recreation Plan identified several actions necessary to create open space linkages and connections in Acton:

*Action OSR-5* Work with the Conservation Land Stewardship Committee to identify the status of those parcels important for the provision of greenbelts and wildlife corridors within Acton and within abutting towns.

*Action OSR-6* Lobby for an extension of the Lowell-Sudbury Rail Trail through Acton (Recreation Commission).

*Action OSR-7* Continue meeting with the Assabet River Rail Trail communities to move construction forward (Recreation Commission)

*Action OSR-8* Participate in the Bay Circuit Trail planning effort

*Action OSR-9* Work with MAGIC on possible connections between different bike trails (Recreation Commission).

*Action OSR-10* Pursue development of the greenbelt concept for Fort Point Brook and Nashoba Brook.

*Action OSR-11* Provide information to the Conservation Trust identifying those parcels meriting protection for their value as greenbelt and wildlife corridors between Acton's' conservation lands and also between Acton lands and those of abutting towns.

*Action OSR-12* Work with the Conservation Land Stewardship Committee to develop an implementation plan for the Fort Pond Brook and Nashoba Brook greenbelts.

## Funding Sources for Trail Development

There are several funding sources available to assist with open space linkages and connections to help Acton reach its goals:

- *ISTEA*. The Intermodal Surface Transportation Efficiency Act (ISTEA) is a source of federal transportation funding distributed by the state transportation departments. Generally, to qualify for funding under ISTEA, bicycle and pedestrian projects must principally be for transportation rather than recreation use and projects must also be identified within long-range state and MPO (Metropolitan Planning Organizations) transportation plans. ISTEA funds are appropriated through the annual highway improvement prioritization conducted by the MPO.
- *National Recreation Trails Act Funding Program*. The NRTA is an element of the ISTEA program. This particular funding program emphasizes *recreation*-related trails, over transportation oriented projects. Priority is given to projects with physical, on-the-ground trail improvements. Appropriate project types include (but are not limited to) trail development, maintenance, or restoration; environmental protection and education programs relating to use of recreational trails; development of trail-side and trail-head facilities; features for persons with disabilities; acquisition for land or easements.

The program is administered by DEM with guidance from the Mass. Recreational Trail Advisory Board (MARTAB). DEM and MARTAB look for the following features as selection criteria:

- Compatible trail uses, emphasis on multi-use trails;
  - Mitigation of impacts on natural resources;
  - Community support;
  - Partnerships;
  - Projects which advance a goal of adopted state, regional or local plans;
  - Realistic project time-lines;
  - Clearly demonstrated need for solving trail problems or satisfying a recreational demand.
- *Massachusetts Greenways and Trails Demonstration Grants Program*. This grant funds greenways and trails planning, mapping, research and ecological assessments; public education and community outreach related to greenways and trails; greenways and trails management, construction and expansion. The maximum award amount is \$3,000 with no Town match required.
  - *Rivers and Trails Conservation Assistance Program*. The National Park Service's River and Trails Conservation Assistance Program is a technical assistance program for trail development. The program funds 20% to 30% of a staff person's time for one year to assist a community in developing a trail. There are five criteria:
    1. Resource significance
    2. Tangible conservation
    3. Public support
    4. Project goals
    5. Broad cooperation
  - *Massachusetts Self-Help and Urban Self-Help Programs*. These programs reimburse up to 80% of funds that a municipality has expended to acquire land or similar interests

for conservation and recreation purposes. The Self-Help program funds conservation and passive recreation purposes while the Urban Self-Help program provides assistance for active outdoor recreation. An updated Open Space & Recreation Plan conforming to State requirements must be filed with the Division of Conservation Services to apply.

*Action OSR-13* Apply for the Mass. Division of Conservation Services' Self-Help Program for the purchase of conservation land.

*Action OSR-14* Pursue funding available for trail development, maintenance or restoration through a variety of sources.

### Farmland Preservation

To preserve the Town's rural character and protect the environment, the Open Space and Recreation Plan recommended that remaining farms in Acton be surveyed and methods developed to ensure preservation, especially:

*Action OSR-15* Survey all remaining farms in Acton to determine what methods might be used or available to ensure their preservation. Pay particular attention to maintaining the following farms:

- Simeone or Stonefield Farm in South Acton (Stow Border)
- Idylwilde Farm in West Acton
- Kennedy Farm in North Acton (Westford Border)
- DiDuca Farm in East Acton
- Horse farms in the Pope Road/Strawberry Hill Road/Estabrook Road area, and those on Nagog Hill Road, in West Acton and in other sections of town.

### Awareness of Recreational Opportunities

Acton has been increasing awareness of recreational opportunities for the past several years. The establishment of the Land Stewardship Committee, Recreation Commission and Conservation Trust will continue with public outreach efforts. The following actions are recommended to complement this strategy:

*Action OSR-16* Distribute handouts and brochures for the major parks and public lands which show the trails, special features and access points for pedestrians, the disabled, and vehicles.

*Action OSR-17* Create a new map for inclusion in the Guide to Acton's Conservation Lands, showing access points and suggested canoe routes along portions of Fort Pond Brook, Nashoba River and the Assabet River.

## Water Recreation

The Town has improved access to water features in Acton since the 1991 Master Plan. Efforts will continue through the participation in regional organizations such as the “stream-team” of the Assabet River. The Mass. Department of Fisheries, Wildlife and Environmental Law Enforcement’s Urban Rivers Grant Program are potential sources of funding to enhance public access to rivers in Acton. The program is funded by the Riverways Program through the Massachusetts Department of Fisheries, Wildlife and Environmental Law Enforcement and awards up to \$5,000. A match is not required from the Town but increases the competitiveness of the proposal. Eligible projects include revitalization of urban river corridors through activities which enhance public access, restore or enhance aesthetic or ecological values of urban rivers.

- Action OSR-18*    Apply to the Mass. Dept. of Fisheries, Wildlife and Environmental Law Enforcement’s Urban Rivers Grant Program to enhance public access to rivers in Acton.
- Action OSR-19*    Add trails or increase public access to areas that can accommodate pedestrians.
- Action OSR-20*    Map and upgrade public access points to the Nashoba Brook to allow fishing by creating a continuous foot access to the brook from Carlisle Road to Great Road.

## Maintenance of Conservation and Recreation Lands

Maintenance of conservation land has improved with the establishment of the Land Stewardship Committee. As of July 1, 1998 all recreation land are under the Natural Resources Department rather than Municipal Properties to provide continuity in maintenance and upkeep.

- Action OSR-21*    Develop a forestry management plan, in conjunction with the town’s tree warden, for all forested conservation lands.
- Action OSR-22*    Complete the Arboretum Master Plan.
- Action OSR-23*    Apply to the Urban Forestry Program for a Mass ReLeaf Grant through DEM to obtain funding for tree purchasing and planting.
- Action OSR-24*    Develop a plan for conservation land maintenance of trails, campsites at Camp Acton, access to waterways and signage. Ensure that handicapped accessibility improvements (identified in the Open Space and Recreation Plan inventory) are addressed. Also ensure trails are accessible to the elderly and adequate benches are provided.

## SERVICES AND FACILITIES

### Overview

Acton traditionally provides high quality services, facilities, and administration consistent with the fiscal capacity of the community. The 1991 Master Plan identified several major capital improvement needs. The Town has made progress on this list. Examples include the Senior Citizen Center, Acton Memorial Library, and North Acton Recreation Area. The community has demonstrated its commitment to protecting natural resources by approving the replacement of underground storage tanks at Town facilities and the initiation of the South Acton/Kelley's Corner Sewer System. Progress has been made in upgrading the Town administration's Management Information System to integrate fully the Town's decision support systems.

Other important capital improvement needs to be addressed in coming years include improvements and expansion to schools buildings, expanding the sewer system, and working with the Water District to continue providing good quality and quantity of water. The community also needs to begin considering whether and how to augment the Fire Department's facilities and the Senior Citizen Center.

### Services and Facilities Goals and Objectives

**Goal:** Provide high quality services, facilities, and administration within the fiscal capacity of the Town.

**Objective:** Plan for new and expanded facilities as needed to serve the community.

**Objective:** Construct new, and expand and renovate existing school facilities at the local and regional levels to meet the needs of increased school enrollment.

**Objective:** Enhance the level of services that the Town can provide by continually seeking operational efficiencies and by using federal, state, and private funding sources to supplement Town funds.

**Objective:** Consider alternative ways of generating local revenues to pay for services and amenities desired by residents.

**Objective:** Explore and develop strategies to reduce reliance on the residential property tax to fund services and facilities, particularly for senior citizens and those on fixed incomes.

**Goal:** Provide a variety of high quality educational opportunities.

**Objective:** Maintain the excellence of the public school system.

- Objective: Provide educational facilities and resources to support the increased student enrollment at the local and regional levels.
  - Objective: Encourage day-care facilities.
  - Objective: Provide a variety of continuing education programs.
  - Objective: Sustain and promote Acton's excellent library services.
  - Objective: Encourage the use of conservation areas and historic resources for educational purposes.
  - Objective: Provide services and facilities to enable the elderly and persons with disabilities to live independently in Acton.
  - Objective: Encourage greater access for all residents to cultural events, opportunities and services.
- Goal: Continue to mitigate the impact of development upon natural resources
- Objective: Work with Acton Water Supply District to maintain adequate supply and quality of water and to address the state water withdrawal limit.
  - Objective: Continue working to avoid and alleviate pollution resulting from failed septic systems.
  - Objective: Continue planning and implementing a sewerage system as needed to protect water resources and service desired development

## Update of 1991 Financial Plan and Capital Improvement Program

### Major Capital Improvement Needs Identified in 1991 and Progress Made

The 1991 Master Plan identified several major capital improvement needs and costs. The Town has made good progress on this list.

**Table 58: Status of 1991 Capital Facility Recommendations**

<b>Capital Need Identified in 1991 Master Plan</b>	<b>Status</b>
Expansion of Acton Memorial Library	Under construction
Concord Road Bridge	Done
South Acton/Kelley's Corner Sewer System	Beginning
Senior Citizen's Center	Done
Police Department Expansion	Included in current Capital Plan
Upgrade Management/Information System to fully integrate decision support system	Good progress, further steps being taken
North Acton Recreation Area	Being constructed
Town Hall Parking Lot	Done
South Acton Commuter Parking Lot	Increased number of spaces, more needed
Replacement of Oils Tanks at High School	Done
HVAC Units at High School	Done
Window Replacement at McCarthy-Towne School	Underway
Underground Storage Tank Replacements - Town Highway Garage	Done

## Existing Status of Town Facilities and Services

### Town Administrative Offices<sup>53</sup>

In 1989, Acton completed a major renovation and expansion of the Town Hall and Town administrative offices, resulting in ample quality office space for administrative services provided by the Town. Town Hall also accommodates public meetings involving up to 150 persons. However, parking for the Town Hall and administrative offices, as well as the adjacent Acton Library, is limited. The library expansion will be completed in 1998. With it comes a larger parking lot that will also benefit Town Hall users.

The 1991 Master Plan identified the need to upgrade the Town's Management Information System. The decisions of Town government have become increasingly complex. A typical decision today encompasses environmental, legal, financial, and public safety concerns. It is a priority to secure a decision support system which can combine and organize information from these areas into one cohesive plan. The Town's computer system was upgraded in 1995 to address this issue and should suffice for another three to five years; but upgrades will be an ongoing capital need for the Town

<sup>53</sup> Tess Summers, Town Accountant. March 4, 1998.

due to continuous changes in user needs and technology. The Town is also implementing a Geographic Information System (GIS) to improve mapping capabilities. Septic management issues are driving this need. The Town secured a \$75,000 grant to partially cover the MIS and GIS upgrade as part of the sewer expansion project in South Acton.

## School Department<sup>54</sup>

The Acton Public School system is composed of five elementary schools and the Acton-Boxborough Regional School District consists of the R.J. Grey Junior High School and the Acton-Boxborough Regional High School. Since the publication of the Master Plan in 1991, the school systems have identified the need for additional classroom space at the elementary, junior and senior high schools. After defeat of an attempt to build a new elementary school in February 1998, the Acton-Boxborough Regional School Committee and the Acton Public School Committee charged the 1998 Building Committee with recommending a solution to the overcrowding at both the region and the Acton elementary level. This committee began meeting in May 1998 to reexamine the enrollment needs and to formulate a solution that would create more classrooms at the Acton elementary schools as well as at the Junior High and Senior High Schools.

In May 1998 an update to the enrollment projections was completed and this report was further refined and updated in October 1998, using new enrollment data for this year. The October 1998 update showed the following:

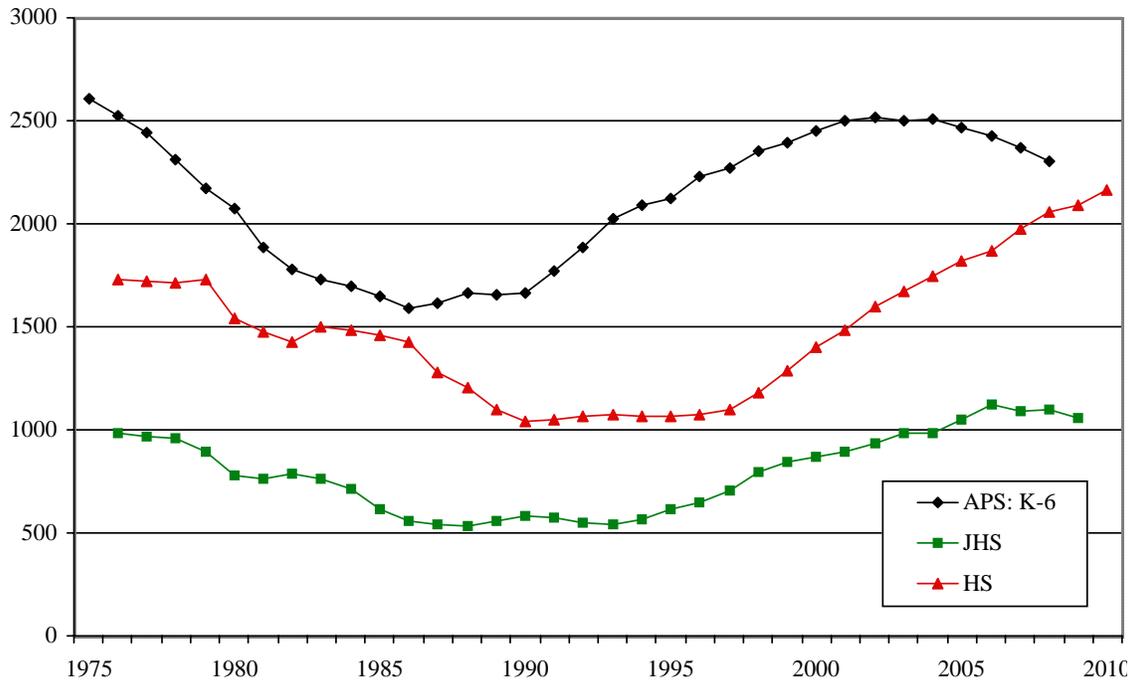
- Elementary school enrollment reached a peak of 2,708 in 1974-75 and a low of 1,588 in 1986-87. Current enrollment has risen to 2,444 in 1998-99, an increase of over 50 percent. Such trends are consistent with the building trends in Acton over the last 20 years and an increase in births rates over the last seven years. The update projects enrollment will peak at over 2,500 between 2002-2004, and then begin to decline gradually.
- At the Junior High enrollment (for both Acton and Boxborough) will increase to approximately 1,124 by the year 2006 and then begin to decline.
- High School enrollment (grades 9-12) in Acton and Boxborough is expected to peak in 2010 at over 2,168 students, which represents an increase of 80 percent over today's enrollment at the high school.

A chart and tables showing the predicted trends in enrollment at the elementary and regional levels are shown below.

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<sup>54</sup> Information provided through the School Superintendent's office.

Figure 10: Actual & Projected School Enrollment, 1975-2010



**Table 59: Public School Enrollment Projections, 1994-2008**

PUBLIC SCHOOL ENROLLMENT PROJECTIONS									
Elementary School Acton, MA: 1994-2008									
Year	K-12	K	1	2	3	4	5	6	Total
1994*	3,422	292	329	311	318	295	272	274	2,091
1995*	3,509	312	293	328	315	309	299	264	2,120
1996*	3,633	311	329	310	329	318	326	309	2,232
1997*	3,751	294	337	334	323	327	327	326	2,268
1998*	3,963	336	319	355	346	334	325	337	2,352
1999	4,125	335	356	325	362	349	337	328	2,394
2000	4,252	338	355	363	332	366	353	341	2,448
2001	4,368	351	358	363	371	335	369	356	2,503
2002	4,467	324	372	365	370	374	339	373	2,516
2003	4,520	318	343	379	373	366	378	342	2,498
2004	4,542	307	337	350	387	376	370	382	2,508
2005	4,545	298	326	343	357	390	380	373	2,468
2006	4,550	291	316	332	350	361	394	384	2,429
2007	4,534	284	309	323	339	354	364	398	2,371
2008	4,504	282	309	315	329	342	357	368	2,303
Uses new forecasted birth data									
Junior School Acton, MA: 1994-2009				High School Acton, MA: 1994-2010					
Year	7	8	Total	Year	9	10	11	12	Total
1994*	251	218	469	1994*	218	227	216	201	862
1995*	272	249	521	1995*	213	209	227	219	868
1996*	267	271	538	1996*	237	214	192	220	863
1997*	316	271	587	1997*	259	234	199	204	896
1998*	336	307	643	1998*	260	268	237	203	968
1999	344	336	680	1999	292	260	260	239	1051
2000	335	344	679	2000	319	292	252	263	1126
2001	348	335	682	2001	327	319	283	255	1183
2002	364	348	711	2002	318	327	310	286	1240
2003	381	364	744	2003	330	318	317	313	1278
2004	349	381	729	2004	345	330	309	320	1304
2005	389	349	738	2005	362	345	320	312	1339
2006	381	389	770	2006	331	362	335	323	1351
2007	392	381	772	2007	370	331	351	338	1390
2008	402	392	794	2008	362	370	321	354	1407
2009	372	402	774	2009	372	362	359	325	1417
				2010	382	372	351	362	1467

Excludes choice

\* Actual data

Shaded area indicates enrollment data based on children who are already born.

NOTE: This scenario is a result of utilizing 8 **year averages** for the kindergarten to births and grade to grade ratios.

Sources: Acton-Boxborough School System  
Metropolitan Area Planning Council  
Enrollment Subcommittee

The Building Committee held public meetings approximately every one to two weeks from May through September. During the Building Committee process of 1996-1998, members of this and previous committees visited other systems to look at various configurations and approaches taken. A number of creative ideas to avoid building or renovating were considered in detail including increasing class sizes, double sessions, year round schooling and the use of more modulars throughout the system.

The committee looked at all the land available in Acton and Boxborough; renovating some or all of the school buildings; several commercial/office space properties; the idea of building jointly with a commercial enterprise; the Arlington street parcel; the Morrison land and the Douglas-Gates parcel. In early October 1998, the Building Committee submitted a detailed report outlining its work, the options considered, and the rationale for its recommendations.

In addition, the Office of Michael Rosenfeld, Inc. (OMR) conducted a comprehensive study which resulted in a series of recommendations on how to deal with school capacity and related issues to the existing school facilities. The study concluded that the schools do not meet state standards for classroom space and core facilities. The elementary schools currently have a total of fourteen sections, only nine of which were found to have an effective capacity. It is anticipated that the elementary schools will be in need of between two and five additional sections for a total of nineteen to accommodate future enrollment and to bring class sizes back within School Committee policy. In addition, one of the elementary schools, McCarthy-Towne is in severe disrepair and was found to be in such poor condition that the state would not support through financial reimbursement any renovation work.

The junior high facility has a capacity of less than seven teams, and projected enrollment growth indicates a need for ten teams. The high school enrollment will require expansion by the year 2004 in order to meet the increasing enrollment which will push the school beyond current capacity limitations.

Based on its review and analysis, the Building Committee submitted the following recommended comprehensive K-12 plan, certain elements of which the town will vote on at a special town meeting in December 1998:

#### Element 1 - Twin School

The School Committee has voted to recommend we build a 53 class room building housing two schools, each with its own identity, principal and program. This provides the cost-effectiveness of a larger building and the educational soundness of smaller schools, a model which has been very successful in other towns. The Acton School Committee voted that the Merriam and McCarthy -Towne programs will move into the new Twin school. The Twin school will be located behind the current McCarthy-Towne school and will cost \$21.35 million, (63% will be reimbursed by the state).

## Element 2 - Kindergarten Center

The Kindergarten Center, located in the Merriam building, will house all the kindergartens, system wide, in addition to the Integrated Preschool. This opens two class rooms in every school and provides significant educational opportunities. Having all the five year olds in the district in the same place allows for a variety of appropriate combinations of children and teachers, in an environment explicitly tailored for young children.

## Element 3 - Raze McCarthy-Towne

Consideration was given to maintaining the Towne building for use as administrative or town offices, However space on the central campus is very tight and this was not financially practical since the Towne building renovation costs would be very high and would not be reimbursable. This cost has been included in the Twin school construction program.

## Junior High School Expansion

The R.J. Grey Junior High School renovation and addition are planned for a peak enrollment of 1,124 students (ten teams) in the year 2006. A key aspect of the Junior High design is the need for phased construction while maintaining school operation. The cost to construct this addition will be \$19 million and approximately 62% will be reimbursed by the state.

## High School Addition

The high school addition was originally built for 1,600 students, There will be at least 2,000 students by the year 2009. The committee reviewed 7 possible design solutions for a high school addition and asked the architects to further develop three plans. The high school addition is planned to be ready for September 2004. Although plans are not yet finalized, the expected cost of the high school additions is expected to be in the range of \$40-45 million.

If approved at town meeting, construction on the elementary and junior high school projects would commence in the fall of 1999, and open in the fall of 2001.

## **Library Services<sup>55</sup>**

The Town of Acton has two libraries and approximately 70,000 volumes.

The Acton Memorial Library, adjacent to Town Hall in Acton Center, is expanding from 10,000 square feet to 30,000 square feet. The 20 year growth plan for the library includes an increase in annual circulation from the current 70,000 volumes to 105,000 volumes. The expansion will also include a large parking lot that should also benefit the Town

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<sup>55</sup> Wanda Null, Acton Memorial Library Director. May 21, 1998.

Hall administrative offices. The total project cost is \$6.3 million including capital costs such as land acquisition, construction, moving to the temporary facility and associated rent. Slightly over \$2 million of the project cost was provided by the State. The expansion should be completed by mid-November 1998.

The expansion will include:

- A tripling in size of the Children's section, including a story hour/craft room, more seating and more shelves to accommodate picture books.
- A new young adult section.
- A handicapped accessible elevator and aisle widths of 40 inches to accommodate wheelchairs.
- The periodical section will be increased to accommodate roughly 350 periodicals and additional seating.
- A large print collection in an area attractive for the elderly.
- Sixteen additional study carrels; three more study tables; and two quiet study rooms.
- Additional computer terminals to access the Minuteman network and the internet. A PC room for small teaching groups and a soundproof microfilm room.
- A large meeting room with a capacity of 80 seats that can be divided into two separate areas, which can be used for Library activities as well as for Town committee and board meetings. A conference room primarily for Library use.
- Staff offices with separate offices for the Library Director and Assistant Director.
- The original library building will now hold adult services, the Acton collection, and the genealogy section which have been kept in storage areas until this time and have been difficult to access.
- Additional restrooms and drinking fountains.

The 20 year growth plan is required by the state. It is anticipated that the library expansion should meet the needs of the population for the next twenty years. The expected needs were based on the previous Master Plan's buildout projections and projected population figures.

Due to increased facility space and services, additional staff will be necessary. The 1998 Annual Town Meeting approved a staff increase of 2.25 full time equivalency positions. Gradual staff increases over the next 5 years are expected and were discussed prior to the approval of the library expansion.

## Public Safety

The need for a new or expanded police station and a study of the fire department's facility and operational needs were cited in the 1991 Master Plan. Town Meeting voted to approve \$50,000 for a public safety study in August 1996 with the condition that the results of the study would be presented to Town Meeting in 1999. The Town has developed a Request for Proposals for the analysis of existing facilities, run times,

staffing levels and an evaluation of how the Town's facilities compare with National and State standards. The RFP also requests recommendations and a feasibility study of constructing new buildings versus the rehabilitation of existing structures.<sup>56</sup> No preliminary findings are available at this time.

### Police Department<sup>57</sup>

The Town police department is housed in a 2,600 square foot station on Route 27. The police department, as part of the Town's capital improvement program, purchases a number of police cruisers every year. The need for a new or expanded police station has been identified. The current police station was constructed when the police force totaled 11 persons. The force now numbers approximately 29 sworn officers and 8 civilians.

The 1991 Master Plan cited need for additional staff due to growth levels at the time. The department was reorganized in FY 1990. The reorganization resulted in the addition of civilian dispatchers, which placed five additional police officers on the street. The department estimates that it will need additional staff over the next 5 years.

### Fire Department<sup>58</sup>

A major expenditure for the Town is the periodic need for additional fire fighting equipment and vehicles. The town has 12 major pieces of fire apparatus. These vehicles often cost in excess of \$200,000 and last 15 to 20 years. The need for a new ladder truck was cited in the 1991 Master Plan and has been added.

There have also been discussions concerning residential and commercial growth patterns outside the traditional village centers. A request for proposals has been written to evaluate the growth pattern as it relates to fire safety.

### Highways and Public Works<sup>59</sup>

Due to the demise of the "Massachusetts Miracle," road maintenance had not kept pace with deterioration in 1991. In the last six years, the Town and the State have funded a road construction and paving program which has eliminated the backlog of roads in disrepair.

The Concord Road bridge, South Acton railroad bridge and Wetherbee Street bridge were cited in the 1991 Master Plan as needing repair or replacement. The Town replaced the Concord Road bridge and the State just completed the replacement of the South Acton railroad bridge and the Wetherbee Street bridge. In addition, several single walled underground storage tanks at the highway garage were recently replaced after having been cited as a need in the 1991 Master Plan. Also, the Town recently replaced

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<sup>56</sup> Dean Charter, Municipal Properties Director. March 6, 1998.

<sup>57</sup> Lieutenant McNiff, Acton Police Department. March 4, 1998.

<sup>58</sup> Chief Bob Craig, Acton Fire Department. March 5, 1998.

<sup>59</sup> David Abbt, Engineering Administrator. March 5, 1998.

the Central Street bridge across Fort Pond Brook near Elm Street. Several culverts were also replaced.

### Recreation, Parks, and Resource Areas<sup>60</sup>

While the Town has substantial conservation land and many small ball fields, lack of park lands and small community village parks has been identified as a need. Since the 1991 Master Plan, the Recreation Commission has become more active in examining possibilities for increasing recreational opportunities. The position of a Recreation Director was approved by Town Meeting in Spring 1998. The potential for creating additional ball fields on existing Town owned land and the construction of a Little League facility are being considered. In addition, the Town recently purchased the Morrison Farm on Concord Road to provide additional land for recreation.

The \$1.6 million North Acton Recreation Area (NARA) currently under construction has been a high priority for Town Officials for years. The facility abuts the Town Forest on a forty acre site and will include a natural pond swimming area, tennis courts, two ballfields (soccer and baseball), an amphitheater, trails, and parking for approximately 150 automobiles, when it opens by Summer 1999.

### Water Supply<sup>61</sup>

The Acton Water District is a separate municipal entity created by the state legislature. It is governed by 3 Commissioners elected for 3-year terms at the annual District Meeting. The day to day operations are overseen by the District Manager, appointed by the Commissioners, and 11 staff.

The Water District serves 85-90% of the households in Acton, or 16,500 people.<sup>62</sup> Other households are served by private wells, or by the Concord Water system. The average daily demand is 1.77 million gallons per day (mgd) and the peak daily demand is 3.00 mgd. The Water District is able to meet the average daily demand without any problems but accommodating the peak daily demand in the summer months has placed a strain on service.

The Water District adopted a Bylaw restricting water usage in the town between May 1 and October 1 to reduce peak demand. The restriction limits outdoor water usage: houses with odd number addresses may only use outdoor water on odd days and even addresses may use outdoor water on even days. To provide additional water capacity, the Water District is completing a new well. Well Conant II will be completed by Fall 1998 and provide an additional 0.3 mgd. The Water District has also acquired land for 2 future well sites but no action has been taken to develop wells as of this writing.

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<sup>60</sup> Tom Tidman, Natural Resources Director. March 4, 1998.

<sup>61</sup> Jim Deming, Acton Water Supply District Manager. May 21, 1998.

<sup>62</sup> Note: Water Supply District manager, Jim Deming, feels this number may be inaccurate but it is the figure cited in reports and publications.

One constraint to increasing water capacity is the Water Management Act. It is a regulatory process whereby the State determines the maximum amount that may be withdrawn by a community based on existing sources of water (i.e. aquifers, reservoirs, etc.). Acton is close to reaching this maximum withdrawal amount, even without the Conant II well. It is unclear what the ramifications will be of exceeding the permitted amount. The per capita demand for water is not higher than other communities and the increased demand for water is consistent with growth.

The Water District feels that one key strategy in reducing water demand is to educate residents on water conservation to reduce peak demand. The Water District issues a publication to all serviced households explaining water conservation techniques and importance. Additional public education efforts are needed at the State level to have a measurable impact. The rate of residential growth also places a strain on water service. Despite education efforts and water restrictions, the overall demand has increased due to residential growth.

### Waste Water Disposal<sup>63</sup>

Currently, the Town disposes of most domestic sewage through septic systems, and a number of these systems are failing, at an average replacement cost of \$10,000 to \$15,000 each. Acton is currently the largest town in Massachusetts, in population, without public sewerage collection and treatment facilities. Because Acton is comprised largely of homes of less than 50 years of age, septic system failures are likely to become more prevalent during the next twenty years, a situation that the Town will be under great pressure to address.

In 1988, Acton's Town Meeting approved funds for sewerage South Acton and Kelley's Corner. At that time, very little federal or state funding was available for the installation of sewage treatment facilities or sewage distribution systems. The Town has now obtained a low interest loan for 50% of the cost of a \$21.5 million sewer project. Approximately 700 properties in South Acton and Kelley's Corner will be served by the new 250,000 gallon per day system. Construction should begin in May 1999 and be finished by October 2000. A planning study is in progress to determine the feasibility of upgrading the system later on to accommodate 800,000 gallons per day. Preliminary estimates indicate that expansion may cost an additional \$35 million to \$45 million. The expansion would begin in 2004 to increase capacity by an additional 250,000 gallons per day and the entire 800,000 gallon per day capacity would be complete by 2008.

As a condition of the discharge permit into the Assabet River, the Town will participate in a Watershed Based Trading program to resolve Assabet River wastewater effluent discharge impediments. The purpose of the program is to remove phosphorus and other pollutants of concern in the proposed treatment process and to identify and reduce pollutants from non-point sources. This will result in the loading of receiving waters to be no greater than the current loading and achieving the goal of reversing

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<sup>63</sup> Doug Halley, Health Director. March 5, 1998.

eutrophication trends in the Assabet River and related water bodies. The Town will incur an annual cost of \$50,000 to \$100,000 for this program.

### Solid Waste Disposal<sup>64</sup>

Acton is one of 23 communities that disposes solid waste through a state-negotiated contract with NESWC (Northeast Solid Waste Committee), valid through 2005. This contract is not in the best interest of the town. Disposal costs are currently \$95/ton – twice the state average – and are expected to double in the next few years. The contract holds the communities in NESWC responsible for debt service and the cost of retrofitting equipment. However, despite of these investments, the communities will not own the facility at the conclusion of the contract.

The Town is also in a “put or pay” situation and is obligated to dispose of 9500 tons per year, regardless of the amount of waste generated by Acton residents. Only 3600 tons are generated by Acton households and the balance is sold to private haulers to make up for the deficit.<sup>65</sup> Approximately half of the households in Acton make use of private waste disposal services rather than use the transfer station. All commercial waste is disposed by private vendors.

The Town of Acton disposes of its solid waste at a transfer station located on Route 2 next to the Highway Department garage. There is no curbside pickup provided by the town.

Acton has a 46% recycling rate, an “A” rating according to state standards. However, recycling is a net fiscal drain for the town. Recycling reduces in the waste stream but the town is obligated to pay for the disposal of 9500 tons of solid waste per year. Therefore, reductions in the waste stream do not result in savings for the town.

The Town has several issues to face following the end of the contract in 2005:

1. *Is waste disposal a task for municipal government?* Acton must determine if it will continue to provide solid waste disposal service for residents or if the service should be provided by the private sector. Since half the households and all of the businesses do not utilize municipal waste disposal under the current arrangement, it may not be feasible for the town to continue this service.
2. *What method should be used to dispose of municipal waste?* If the town decides to continue providing solid waste disposal for Acton households after 2005, it must determine if the transfer station should be continued or if a private collection service with curbside pickup should be arranged.

Additional issues, regardless of the NESWC contract, include packaging regulations and the status of the Acton landfill. There has been discussion at the federal and state levels

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<sup>64</sup> John Murray, Assistant Town Manager. August 12, 1998.

<sup>65</sup> Because Acton has a *regional* transfer station, the Department of Environmental Protection allows the brokerage of excess volume.

regarding the disposal of packaging materials but no regulations have been adopted. However, changing in regulations may impact the volume of waste generated or the disposal method for packaging material.

While the Acton landfill has been closed for a number of years, it is officially “uncapped.” This process will cost approximately \$1.5 to \$2 million. The 1998 Town Meeting appropriated \$125,000 for the design costs of officially capping the landfill.

### Senior Citizens Center<sup>66</sup>

The Town’s senior center moved to a new location in a 70 unit private senior citizen condominium development in 1994. Formerly, it was located in the basement of the West Acton Baptist Church, which the 1991 Master Plan cited as inadequate. The Town will lease this space for \$1 per year for 99 years. The interior is owned by the Town but exterior maintenance is the responsibility of the condominium association. The existing facility can meet current needs. Due to the condominium arrangement, it is unclear what options exist for expansion of the facility on the site. The senior center has been able to expand the number and type of programs offered through the use of other facilities such as computer classes in the High School and the potential for offering senior programs at the new North Acton recreation center.

### Housing Authority<sup>67</sup>

The maintenance and rehabilitation of housing authority property is primarily the responsibility of the State so the Town will likely not have any major capital expenditures associated with existing facilities. However, changes in zoning and acquisition procedures may be required to provide additional affordable housing opportunities for first time home buyers.

### Municipal Properties<sup>68</sup>

Town Hall was renovated and expanded in 1989, increasing the office and meeting space for Town government. However, town staff has continued to increase and is likely to continue to do so. This has raised concern that the level of public service may deteriorate due to overcrowding.

Other departmental buildings need upgrades or expansions. In some cases, the existing structures could be reused and combined with other Town services. The Public Works building was constructed in 1969 and while the structure is in good shape, the space needs of the department have increased. There are more employees, their responsibilities have changed and the amount of equipment has increased since the building was constructed. These changes may warrant an expansion of the existing facility or relocation to a larger facility.

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<sup>66</sup> Carol Lake, Council on Aging Director. March 4, 1998.

<sup>67</sup> Betty McManus, Executive Director of Acton Housing Authority. March 5, 1998.

<sup>68</sup> Dean Charter, Municipal Properties Director. March 6, 1998.

The 1998 Spring Town Meeting appropriated funding of \$100,000 for a cemetery storage facility which will meet short term needs.

In addition to determining how to accommodate the needs of expanding departments, the Town should also develop a strategy to determine the long term use and reuse of existing structures.

### South Acton Parking Lot<sup>69</sup>

The expansion of the South Acton Train Station parking lot was identified as a capital need in the 1991 Master Plan and the 1995 South Acton Village Plan. This parking lot currently services commuters utilizing the MBTA commuter rail line. The capacity has been increased from 200 to 300 vehicles and 20 bicycle lockers have been added. The lot continues to fill to capacity daily.

### Town Common Beautification

As of the completion of the 1991 Master Plan, there had been serious discussion regarding funding the burial of all utility services in the Town Common area. While this action is something that would greatly improve the appearance of the Town Hall/Town Common area, the need for additional school space and the associated costs have pushed this project to a lower priority.

## Services and Facilities Issues and Strategies

### Issue: New or Expanded Facilities Needed by the Town

Acton's population increase drives the need for facilities. In cases the need is exacerbated by changing codes and standards, or the personnel and equipment needed to serve the growing community have outgrown available space.

*Strategy SF1     Move ahead with plans for a new public safety facility or facilities.*

*Strategy SF2     Examine Acton's needs for municipal land other than for conservation.*

*Strategy SF3     Plan for expansion of municipal facilities.*

### Issue: Educational Resources

Acton offers its residents a wide range of excellent educational services and opportunities. Many residents have chosen to live in Acton for this reason. The 1991 Plan identified continued effort in this area to be a top priority for many residents.

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<sup>69</sup> Roland Bartl, Town Planner

- Strategy SF4*     *Continue to strive for excellence in educating Acton's youth.*
- Strategy SF5*     *Select and implement an option for upgrading and expanding school facilities.*
- Strategy SF6*     *Continue to maintain the quality and diversity of educational and cultural resources for all ages, including the Community Education Programs, Library Service and Acton's participation in the Minuteman Regional Vocational Technical School District.*
- Strategy SF7*     *Continue to encourage public and private cooperation to facilitate the use of Acton's multiple resources for educational and cultural purposes, including conservation lands, historic resources, private businesses and industries, and social services; and facilitate internship programs for Acton's youth.*

#### **Issue: Services for Elderly and Lower-Income Residents**

Rising taxes and the need for social services are creating hardships for elderly and other vulnerable persons. At present the Directors of the Housing Authority and the Council on Aging are extending well beyond their spheres to cushion the impact of diminished federal and state services. The Police force is working with people in crisis intervention, because there is no social service department to handle this.

The 1991 Plan found that the town had an excellent and widely appreciated public nursing and home health care service. However, numerous service and program strategies are needed to help vulnerable individuals continue as residents of the town. Acton's changing demographics may merit consideration of a Town Social Service Department.

- Strategy SF8*     *Establish ways to enable lower-income homeowners, the elderly, and other residents with special needs to remain in Acton, preferably in their homes.*
- Strategy SF9*     *Continue to have affordable non-profit nursing and home care service available in Acton.*
- Strategy SF10*    *Encourage elder care facilities*

#### **Issue: Facilities for the Elderly and Handicapped**

The 1991 Plan found that facilities serving as a senior citizens center were inadequate. Accessibility to sites and buildings was often difficult for persons with disabilities.

In the early 1990s, the town completed a new Senior Citizens Center in the Audubon Hill housing development. All public Town buildings have been made accessible to persons with disabilities. Townspeople still feel that it is important for the elderly and persons with disabilities to remain independent as much as possible.

*Strategy SF11 Continue to remove barriers for the handicapped through zoning and other available methods.*

### **Issue: Communication**

Open and timely communication between municipal bodies is essential to effective local government. In addition, municipal officials should play a key role in informing residents about key local issues.

*Strategy SF12 Continue a high level of inter-departmental and inter-board communication and coordination.*

*Strategy SF13 Continue to build and update technology and equipment for the Town's MIS and GIS systems within the Town's government, with accompanying staff capacity and staff training.*

### **Issue: Paying For Services and Amenities Desired By Residents**

Residents are concerned about the increasing costs of maintaining the quality of services they desire. Deliberations during the 1998 Update showed the need to seek out and evaluate potential alternatives for funding services and facilities. Townspeople are open to discussing alternative ways of gaining revenue, but they want clarity regarding potential costs and benefits, and assurance that new strategies are feasible.

*Strategy SF14 Research and suggest new strategies to pay for Town services and facilities, evaluating their feasibility, costs, and benefits.*

*Strategy SF15 Continue to monitor the applicability of impact fees for residential, commercial and industrial development to fund capital improvements needed to service new development (e.g., sewers, water, streets, police and fire protection).*

*Strategy SF16 Consider how adjusting and/or slowing the pattern of residential development might help the Town's fiscal picture.*

### **Issue: Master Plan Consistency**

The Town has adopted zoning amendments that require Master Plan consistency when issuing special permits and variances. Residents expressed support for continuation of this policy and would like to see continued use of the Master plan, as updated, as a guide for Town government decision making.

*Strategy SF17 Continue to require Master Plan consistency in zoning decisions, and strive for Master Plan consistency in all Town government actions.*

## Services and Facilities Action Recommendations

### Current and Projected Capital Improvement Needs and Actions

*Action SF-1* Continue working to meet the remaining capital improvement needs identified in the 1991 Master Plan.

#### Schools

A comprehensive study and analysis of the Acton Public Schools has been completed, and a number of recommendations have been made. The Town has not agreed upon how to remedy the shortfalls identified by the study. Continuing to provide high quality education is a priority of the townspeople who have participated in the 1998 Master Plan Update. However, avoiding tax increases is also a priority of townspeople.

*Action SF-2* Plan and implement new construction, and expansions and renovations of the elementary school, junior and senior high schools. Continue community deliberations to reach agreement on implementing improvements to schools.

#### Sewer System

The Town has begun the complex and expensive task of sewerage to support a broad range of Master Plan goals, including the preservation of natural resources and the servicing of desired residential and business development. These efforts have begun with a focus on South Acton Village, Kelley's Corner and the main school campus. The Town will need to continue planning for sewer service to other key areas.

*Action SF-3* Plan and implement sewer service for West Acton Village and East Acton Village.

#### Water

Water withdrawal limitations were placed on all public water suppliers as part of the Water Management Act. The Water District is currently permitted to withdraw a total of 700.8 Million Gallons per Year [MGY]. The District expects that the FY98 water production will come very close to that amount. It is unclear what will happen when Acton's water use exceeds the annual permitted withdrawal.

The Water District points out that the "spike" in usage occurs in the summer, and that per capita water use has increased recently. The District believes that these two phenomena correspond to the increased use of water for large lawn surfaces. The District requests the Town's assistance in decreasing the extent of lawns in the community and increasing public awareness of the values of landscaping techniques requiring minimum water use.

- Action SF-4* Continue assisting the Water District in promoting water-conserving practices throughout Acton, with special attention to low water using landscape techniques.
- Action SF-5* Incorporate in the site plan review process standards and criteria relating to the use of low water landscape techniques .
- Action SF-6* Continue assisting the Water District in achieving needed raising of the cap on water withdrawal.
- Action SF-7* Continue assisting the Water District in its efforts to develop new sources of water for the community.

### Senior Center

Acton is fortunate to have achieved the Senior Center through the development review process. The Center cannot expand, however, as may be required to keep pace with the needs of the growing senior population. The Town needs to prepare a formal study of whether and when a second center will be needed. A second facility could serve other residents in addition to seniors.

- Action SF-8* Schedule and carry out an examination of the needs for a second facility to serve seniors, and implement the resulting recommendations.

# TRAFFIC AND CIRCULATION

## Overview

Acton has experienced rapid residential growth in recent years as well as a moderate increase in commercial and industrial development. The purpose of this section of the Update is to identify the deficiencies and needs of the current transportation facilities and develop strategies to facilitate the orderly growth and development that is described within the goals and objectives of the Master Plan.

This section reviews Acton's existing roadway and traffic characteristics, traffic data collection and traffic operations. The focus in addressing these issues is managing the road system and its impacts from increasing development; maintaining and building sidewalks, walking paths and bicycle routes; and balancing the need to move traffic safely through town while preserving town character.

## Transportation and Circulation Goals and Objectives

**Goal:** Provide a transportation system that meets the mobility and access needs of the community, is environmentally sound, safe and convenient, and reduces dependency on the automobile.

**Objective:** Regulate the amount and intensity of new growth as one measure to control traffic.

**Objective:** Establish transportation system capacity limits to be consistent with Acton's character and with the roadway's functional classification system.

**Objective:** Minimize Town expenditures for road improvements by maximizing the use of federal and state funds, and private mitigation efforts.

**Objective:** Promote local and regional public transportation.

**Objective:** Provide facilities that will encourage walking and bicycling, including on-road bicycle access.

**Objective:** Encourage regional and public/private cooperation in transportation planning.

**Objective:** Provide adequate vehicle carrying capacity on the major traffic corridors to maintain mobility, safety and access to land and minor roads.

**Objective:** Make improvements at hazardous locations while maintaining the scenic character of Acton's roads.

Objective: Improve parking availability in the village centers consistent with village plans and community design standards.

Objective: Improve connectivity and circulation between and within residential neighborhoods, and between and within business districts.

## Traffic and Accident Data – 1991 Plan and 1998 Update

### Traffic Volumes

Updated daily traffic volumes were available at several locations on arterial and collector roadways.<sup>70</sup> A review of the 1991 Master Plan daily volume count locations and these locations, where additional, more recent data were available, led to the development of a set of locations along arterial and collector roadways to conduct comparisons of traffic volumes (Table 60 and Table 61). To complete the comparisons, the Town conducted daily traffic counts at 13 locations in May and June of 1998.

Average daily volumes were compared at the selected locations. Care should be taken in drawing conclusions from a comparison of daily traffic volumes. Though the traffic volumes compared in the tables below were taken at consistent locations, traffic volumes vary by day and by season. A comparison of daily volumes does not necessarily indicate trends in daily traffic volumes.

### Route 2

*1.6 km west of Route 27*— Average daily traffic counts show an increase in daily traffic of approximately 3% from 1995 to 1996, based on counts taken by the Massachusetts Highway Department (MHD) at a continuous count station. Updated counts should be available annually when MHD publishes statewide traffic volumes.

### Great Road - Route 2A & 119

Great Road carries approximately 20,000 vehicles daily along its length from the Concord town line to the Littleton town line.

*Concord T.L.*— No previous counts are available to determine changes in daily traffic volumes at this location.

*Between Esterbrook Road and Strawberry Hill Road*— A comparison of traffic counts taken in 1989 and 1998 shows that daily traffic volumes have increased by approximately 5%, or less than 1% per year, at this location. The 1989 counts were

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<sup>70</sup> The Massachusetts Highway Department (MHD) count program calls for the collection of data on varying schedules of frequency: some locations are counted every year, some every third year.

Also, note that there is a lag of 6 months or more between the collection of MHD counts and the publishing thereof. At the time this section of the Update was completed, 1996 data were the most recent counts available.

taken in August, and the 1998 counts were taken in May. Monthly variation may account for some of the difference in the volumes.

*Littleton T.L.* – Average daily traffic counts taken by the Massachusetts Highway Department show an increase in daily traffic of less than 2% from 1989 to 1992, and an increase of 20% from 1992 to 1995. The increase in traffic from 1992 to 1995 is significantly higher than the typical increase in traffic observed on other arterials in Acton. Updated counts should be available every three years when MHD publishes statewide traffic volumes.

## 1. Daily Traffic on Arterial Roadways

Table 60: Average Daily Traffic on Arterials

Arterial	Location	Date	Volume	% Growth	
				Total	Per Year
Route 2	1.6 km west of Route 27 (MHD count station)	1995	32,100		
		1996	33,000	2.8%	2.8%
Great Road Route 2A/119	Concord Town Line	Not available			
		May 1998	20,800	na	na
	btwn Esterbrook Road & Strawberry Hill Road (205 Great - Pole 20/60)	August 1989	19,100		
		May 1998	20,000	4.7%	0.5%
	Littleton Town Line (MHD count station)	Jan/Feb 1989	17,000		
		March 1992 June 1995	17,200 20,800	1.5% 20.5%	0.5% 6.8%
Main Street Route 27	north of Route 2A (MHD count station)	Jan/Feb 1989	10,200		
		March 1992	10,100	- 1.0%	-0.3%
		June 1995	10,600	5.0%	1.7%
	btwn Coughlin St. & Taylor Rd. (416 Main - Pole 152)	August 1989	17,500		
		May 1998	18,500	5.7%	0.6%
	north of Prospect Street (211 Main - Pole 31/77)	July 1989	17,700		
		May 1998	18,800	6.2%	0.7%
	south of High Street (30 Main - Pole 14)	August 1989	15,000		
		August 1998	13,800	- 8.0%	-0.9%
	Mass. Avenue Route 111	west of Route 2 (380 Mass. - Pole 1/91)	July 1989	11,000	
October 1996			11,900	8.2%	1.2%
west of Main Street (456 Mass. - Pole 70)		August 1989	14,000		
		October 1996	14,800	5.7%	0.8%
east of Birch Ridge Road (630 Mass. Ave. - Pole 25)		April 1989	11,000		
		May 1998	11,500	4.5%	0.5%
Powder Mill Rd. Route 62	btwn Sudbury Road & Maynard (35 Powder Mill - Pole 184)	September 1989	13,500		
		May 1998	14,500	7.4%	0.8%

## **Main Street - Route 27**

Daily traffic volumes on Main Street vary from approximately 10,000 vehicles at Great Road to approximately 19,000 vehicles at Prospect Street.

*North of Route 2A*— Average daily traffic counts taken by the Massachusetts Highway Department show a decrease in daily traffic of 1% from 1989 to 1992, and an increase of 5% from 1992 to 1995. Updated counts should be available every three years when MHD publishes statewide traffic volumes.

*Between Coughlin Street and Taylor Road*— A comparison of traffic counts taken in 1989 and 1998 shows that daily traffic volumes have increased by approximately 6%, or less than 1% per year, at this location. The 1989 counts were taken in August, and the 1998 counts were taken in May. Monthly variation may account for some of the difference.

*North of Prospect Street*— A comparison of traffic counts taken in 1989 and 1998 shows that daily traffic volumes have increased by approximately 6%, or less than 1% per year, at this location. The 1989 counts were taken in July, and the 1998 counts were taken in May. Monthly variation may account for some of the difference.

*South of High Street*— A comparison of traffic counts taken in 1989 and 1998 shows that daily traffic volumes have decreased by 8% since 1989, amounting to slightly less than 1 percent on an annual basis.

## **Massachusetts Avenue - Route 111**

Daily traffic volumes on Massachusetts Avenue range from 11,000 to 14,000 vehicles, with the highest volume occurring west of Main Street.

*West of Route 2*— Traffic counts show an increase in daily traffic of approximately 8% from 1989 to 1996, or approximately 1% per year. The 1989 counts were taken in late July, and the 1996 counts were taken in early October. Monthly variation may account for some of the difference in the volumes.

*West of Main Street*— Traffic counts show an increase in daily traffic of approximately 6% from 1989 to 1996, or approximately 1% per year. The 1989 counts were taken in late July, and the 1996 counts were taken in early October. Monthly variation may account for some of the difference in the volumes.

*East of Birch Ridge Road*— A comparison of traffic counts taken in 1989 and 1998 shows that daily traffic volumes have increased by approximately 5%, or less than 1% per year, at this location.

## **Powder Mill Road - Route 62**

*Between Sudbury Road and Maynard T.L.*— A comparison of traffic counts taken in 1989 and 1998 shows that daily traffic volumes have increased by approximately 7%, or approximately 1% per year, at this location. The 1989 counts were taken in

September, and the 1998 counts were taken in May. Monthly variation may account for some of the difference.

## 2. Daily Traffic on Collector Roadways

**Table 61: Daily Traffic on Collector Roadways**

Collector	Location	Date	Daily Volume	% Growth	
				Total	Per Year
Arlington Street	near Spruce Street (220 Arlington - Pole 82)	November 1996	4,400		
		June 1998	4,700	6.8%	3.4%
Central Street	north of West Acton Village (323 Central - Pole 6/100A)	March/April 1989	5,400		
		August 1998	7,900	46.3%	4.3%
	btwn Martin St. & Prospect St. (34 Central - Pole 9)	March 1989	8,300		
		August 1998	9,800	18.1%	2.0%
Concord Road	btwn Alcott St. & Horseshoe Dr. (105 Concord - Pole 38)	October 1987	4,600		
		June 1998	5,800	26.1%	2.4%
Hayward Road	east of Jefferson Drive (45 Hayward)	November 1996	5,500		
		June 1998	5,700	3.6%	1.8%
High Street	east of Valley Road (135 High - Pole 24/44)	Not available			
		June 1998	6,100	na	na
Hosmer Street	south of Route 2 (85 Hosmer - Pole 27/35)	March 1989	1,200		
		November 1997	1,300	8.3%	1.0%
Piper Road	south of Route 2 (71 Piper - Pole 11)	March 1989	3,000		
		November 1996	3,300	10.0%	1.4%
Prospect Street	between Routes 27 & 111 (101 Prospect - Pole 31X)	March 1989	2,600		
		November 1996 <sup>1</sup>	2,500	-3.8%	-0.5%
School Street	at Fire Station (52 School - Pole 49/11)	December 1988	3,400		
		November 1996	3,200	-5.9%	-0.7%
Taylor Road	north of Route 2 (89 Taylor - Pole 31)	January 1989	2,200		
		November 1996	2,800	27.3%	3.9%

<sup>1</sup> 1989 and 1996 count locations are slightly different.

**Arlington Street**—Traffic counts show an increase in daily traffic of approximately 7% from 1996 to 1998, or approximately 3% per year. The 3% per year increase is higher than the typical increase in traffic on collector roadways in Acton. The 1996 counts were taken in November, and the 1998 counts were taken in June. Monthly variation may account for some of the difference.

**Central Street**—Traffic counts show an increase in daily traffic of approximately 46% from 1989 to 1998, or approximately 4% per year on Central Street north of West Acton Village. The 4% per year increase is somewhat higher than the typical increase in traffic on collector roadways in Acton. The 1989 counts were taken in late March, and the 1998 counts were taken in August. Monthly variation may account for some of the difference.

A comparison of traffic counts taken in 1989 and 1998 on Central Street between Martin and Prospect streets shows that daily traffic volumes have increased by approximately 18%, or approximately 2% per year, at this location. The 1989 counts were taken in March, and the 1998 counts were taken in May. Monthly variation and the expansion of the train station parking lot may account for some of the difference.

**Concord Road**—A comparison of traffic counts taken in 1987 and 1998 shows that daily traffic volumes have increased by approximately 26%, or approximately 2% per year, at this location. The 1987 counts were taken in October, and the 1998 counts were taken in June. Monthly variation may account for some of the difference.

**Hayward Road**—Traffic counts show an increase in daily traffic of approximately 4% from 1996 to 1998, or approximately 2% per year. The 1996 counts were taken in November, and the 1998 counts were taken in June. Monthly variation may account for some of the difference.

**High Street**—No previous counts are available to determine any changes in daily traffic volumes at this location.

**Hosmer Street**—A comparison of traffic counts taken in 1989 and 1997 shows that daily traffic volumes have increased by approximately 8%, or approximately 1% per year, at this location. The 1989 counts were taken in March, and the 1997 counts were taken in November. Monthly variation may account for some of the difference.

**Piper Road**—A comparison of traffic counts taken in 1989 and 1996 shows that daily traffic volumes have increased by approximately 10%, or approximately 1% per year, at this location. The 1989 counts were taken in March, and the 1996 counts were taken in November. Monthly variation may account for some of the difference.

**Prospect Street**—Traffic counts show a decrease in daily traffic of approximately 4% from 1989 to 1996, or less than 1% per year. The 1989 counts were taken in March, and the 1996 counts were taken in November. Monthly variation may account for some of the difference in the volumes.

**School Street**—Traffic counts show a decrease in daily traffic of approximately 6% from 1988 to 1996, a decrease of less than 1% per year. The 1988 counts were taken in December, and the 1996 counts were taken in early November. Monthly variation may account for some of the difference.

**Taylor Road**—A comparison of traffic counts taken in 1989 and 1996 shows that daily traffic volumes have increased by approximately 27%, or approximately 4% per year, at this location. The 1989 counts were taken in January, and the 1996 counts were taken in November. The 4% per year increase is somewhat higher than the typical increase in

traffic on collector roadways in Acton. The increase in traffic on Taylor Road may be partially attributed to the closure of the connection of School and Wetherbee Streets across Route 2.

## Regional Traffic

The Central Transportation Planning Staff (CTPS) in coordination with the Massachusetts Highway Department (MHD), conducted a study of long range improvements to Route 2. A draft of the study was released in August, 1996. The purpose of the study was to examine better connections across Route 2 for Acton, Concord and Lincoln, and to improve the overall safety and capacity of Route 2. The Draft report examines the following options for Acton:

*Alternative I* - Under this alternative, School Street is connected over Route 2. The existing right turns on and off of Route 2 are eliminated, and replaced by access at the Concord rotary. In addition, the Concord rotary is grade separated.

*Alternative II* - Under Alternative II, Taylor Road, Piper Road and Hosmer Street terminate at service roads which run along Route 2. The service roads connect over Route 2 between Taylor Road and Hosmer Street. Connections from Route 2 westbound and to Route 2 eastbound are provided by the service roads. Alternative II also includes the improvements described for Alternative I.

The Draft report does not present traffic volumes for the alternatives. In the report, volume changes are described as localized. Under Alternative I, volumes on School Street and Great Road increase because of the direct connection. The direct connection also results in decreased volumes on Route 27 northbound and Route 62. Under Alternative II, Route 2 volumes between Piper/Taylor Roads and Hosmer Street decrease due to the removal of the direct connections to Route 2 at these locations. Volumes generally decrease on north/south routes from Route 27 to Hosmer Street, with trips diverted to School Street and Route 2A.

MHD is beginning the environmental process to move forward with the grade separation of the Concord rotary.

## Accident Data

Accident records for motor vehicle accidents were obtained from the Acton Police Department for the years 1994 through 1997. There were a total of approximately 3,350 accident records for the four years examined. The accident records are a subset of the Police Department's electronic incident database, and contain limited information regarding each accident. Many of the accident records did not clearly specify the location of the accident. Either no information about the location was recorded at all, or a roadway was identified but no information was recorded regarding the exact location of the accident along the roadway. Accident reports, which contain detailed information about an accident, were available for some of these accident records. The accident records along major roadways were compared to the corresponding accident reports by

the Town Planning Department to identify the locations of these accidents. Despite these efforts, approximately 25% of the accidents could not be specifically located.

The accident data was summarized to identify locations with frequent accident experience. Though there were many accidents that could not be specifically located, it is likely that locations for the majority of accidents that occurred at intersections were recorded, given the ease of identifying an intersection as a location. Therefore, summary of the data most likely identifies all critical locations that experience frequent accident occurrence. The table below shows the fourteen locations that experienced an average of 5 or more accidents per year.

**Table 62: Accident Data**

<b>Intersection</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>Four-Year Total</b>	<b>Average per Year</b>
Route 2 @ Taylor Road/Piper Road*	14	18	30	20	82	21
Route 2 @ Main Street*	18	12	26	13	69	17
Great Road @ Main Street*	11	11	17	19	58	15
Main Street @ Massachusetts Avenue*	10	12	9	11	42	11
Route 2 @ Massachusetts Avenue*	9	11	12	7	39	10
Main Street @ School Street/Maple Street/RR*	9	13	3	8	33	8
Main Street @ High Street	12	8	5	4	29	7
Summer Street @ Willow Street*	8	7	11	2	28	7
Powder Mill Road @ High Street	9	1	8	9	27	7
Main Street @ Hayward Road	5	7	3	7	22	6
Main Street @ Concord Road/Newtown Road*	6	2	8	5	21	5
Great Road @ Concord Road	8	6	1	4	19	5
Arlington Street @ Spruce Street	11	3	4	0	18	5
Main Street @ Prospect Street*	6	4	3	5	18	5

\* Intersections identified as high accident locations in the 1991 Master Plan.

Two different methods were used to summarize accident data for 1984-1987 and for 1994-1997. The 1984-1987 data summarized in the 1991 Master Plan was obtained by reviewing every accident report to tabulate the number of accidents at each location. The 1994-1997 data was summarized by reviewing accident records, supplemented by a review of selected accident reports. As such, a specific comparison of the number of accidents at each location may not be valid.

Comparison of the two sets of data does reveal that nine of the seventeen high accident locations identified in the 1991 Master Plan are also identified as high accident locations based on the 1994-1997 accident data. Five new high accident locations were identified, and nine locations previously identified as high accident locations from 1984-1987 were not identified as high accident locations from 1994 to 1997. Notable changes in high accident locations include:

- The intersection of Massachusetts Avenue with Central Street, which had the highest average accidents per year from 1984-1987, experienced less than 5 accidents per year from 1994-1997. The decrease in number of accidents may be due to the installation of a traffic signal in late 1989.

- The number of accidents per year at the intersection of Main Street and Massachusetts Avenue (Kelley's Corner) appears to have been reduced by half. The reduction in accidents may be due to the installation of an eastbound left turn lane on Massachusetts Avenue in 1989.
- The intersection of Route 2 with School and Wetherbee Streets, a high accident location from 1984-1987, is no longer a high accident location because the connection of School and Wetherbee Streets across Route 2 has since been closed.
- The intersection of High and Conant Streets had an average of 9 accidents per year from 1984-1987, and only 1 accident per year from 1994-1997.
- The intersections of High Street/Parker Street, Great Road/Nagog Park, Piper Road/School Street, Main Street/Harris Street, and Main Street/Brook Streets appear to have experienced a slight reduction in the number of accidents from greater than to less than 5 accidents per year.
- There were no accidents at the intersection of Arlington Street and Spruce Street in 1997, which may be attributed to the installation of 4-way stop control in 1996.

## Public Transportation

### Mode of Travel to Work (1990 Census)

A breakdown of the mode of travel to work for Acton residents is presented in Table 63.

**Table 63: Mode of Travel to Work**

<b>Mode</b>	<b>Number</b>	<b>Percent</b>
Work at Home	241	2.4%
Drive Alone	8,500	84.3%
Car pool	761	7.5%
Commuter Rail/Subway	318	3.2%
Walk	150	1.5%
Other	67	0.7%
Bicycle	27	0.3%
Bus	25	0.2%
<b>TOTAL</b>	<b>10,089</b>	<b>100%</b>

### Commuter Rail

Commuter rail service, taken from the most recent MBTA schedule (effective 5/97) is summarized in Table 64. No information on commuter rail service was presented in the 1991 Master Plan.

**Table 64: Commuter Rail Service**

Time Period	Service Hours		Number of Trains		Average Headways <sup>1</sup> (minutes)	
	Inbound	Outbound	Inbound	Outbound	Inbound <sup>2</sup>	Outbound <sup>3</sup>
Weekday	6:21a-11:05p	8:20a-1:02p	16	16	67	67
AM Peak	6:00a-9:30a	6:00a -9:30a	6	3	37	45
PM Peak	4:00a-6:30p	4:00a-6:30p	2	5	50	34
Saturday	7:25a-9:50p	9:28a-11:53p	8	8	125	125
Sunday	8:35a-8:35p	10:25a-11:53p	7	7	120	135

<sup>1</sup> Average time between trains leaving station

<sup>2</sup> From South Acton Station

<sup>3</sup> From North Station

## Transportation and Circulation Issues and Strategies

### Issue: Highway Capacity and Safety

Due to the size of commercial zones and number of curb cuts permitted along many arterial highways, particularly Route 2A, Acton’s zoning bylaw and State Highway access standards have allowed for the generation of high traffic levels and multiple turning movements. Safety and capacity are concerns on the major roadways where daily volumes range from 10,000-20,000 cars per day. During peak hours, traffic spills into residential areas introducing hazardous conditions for pedestrians. The need exists to increase the capacity of Acton’s major arterial routes to draw through traffic away from roads serving residential neighborhoods.

Several of the interchanges with Route 2 need improvement. According to the most recent data, the Route 27 interchange is one of the five highest accident locations in Acton. The interchange at Taylor Road and Piper Road and the Route 111 (Massachusetts Avenue) entrance onto Route 2 are also high accident locations. With design and geometric limitations, problems at these interchanges are a by-product of traffic growth on Route 2, and the resulting pressure on lesser roadways to accommodate the growth. In addition, Route 2 experiences major congestion during peak hours, causing additional traffic to spill into Acton’s smaller roads. The town should continue to lobby the Massachusetts Highway Department and other agencies to further the completion of these important roadway safety improvements.

*Strategy TC1 Smooth traffic flow on Acton’s major arterial highways by making improvements to remove bottlenecks at key intersections (e.g., turning lanes, signal timing, etc.), and by applying appropriate travel demand strategies.*

*Strategy TC2 Reduce curb cuts.*

*Strategy TC3 Encourage separate service roads on Route 2.*

*Strategy TC4 Pursue Route 2 improvements to encourage regional commuter traffic to stay on Route 2 and discourage cut-through traffic.*

## Issue: Traffic on Local Roadways

One consistent comment through the original and update planning processes is that Acton neighborhoods are bearing the burden of regional traffic volumes. Many local streets are used for more convenient access to adjoining towns such as Concord, to circumvent traffic congestion on Route 2 and other major roadways. The town is working toward improving the flow along Route 2 and other major roads. Another method that could complement these major roadway efforts would be to discourage motorists from using these local / neighborhood streets. Streets like Strawberry Hill Road and Hammond Street could benefit from the implementation of a traffic calming initiative which discourages cut-through traffic and speeding and returns the orientation of these streets to the neighborhood access for which they were originally intended.

*Strategy TC5     Implement a traffic calming program to reduce speeds on local roadways and the use of local roadways by through vehicles.*

## Issue: Financing Highway Improvements

New development must be accommodated with improved highway infrastructure. Several sources are potentially available to finance these improvements such as federal and state grants and impact fees, and off-site improvement requirements. Impact fees are standard fees charged to new development to pay for the construction, expansion, improvement, or purchase of off-site capital items.<sup>71</sup> Impact fees and the requirement for defined off-site improvements on public streets can both link improvement costs to their beneficiaries.

*Strategy TC6     Seek additional state and federal aid for highway construction and general transportation improvement projects.*

*Strategy TC7     Monitor the legal status of impact fees or required off-site improvements where roadway improvements are necessitated by new development, and implement such measures as feasible.*

*Strategy TC8     Evaluate the applicability of betterment districts to facilitate improvements in transportation and pedestrian infrastructure.*

*Strategy TC9     Require (1) dedication of land for road, sidewalks, and biking improvements, and (2) adequate tie-in to the existing road network as condition of land development.*

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<sup>71</sup> The current legal status of impact fees in Massachusetts is unclear: some communities and regions have received specific statutory authorization for such fees, but most are subject to judicial review. Until general enabling legislation with clear standards is adopted, Massachusetts towns have little precedent or guidance for implementing impact fee systems.

## Issue: Public Transportation, Pedestrian Ways, Connectivity and Circulation

Limited public transportation and sidewalks, and few trails, bicycle paths, or accommodations for bicycles on major streets exist to encourage alternative forms of transportation. The location and size of business corridors and their distance from residential neighborhoods result in congested roadways. Current traffic levels combined with those areas forecasted for future development will further impact troubled areas and result in newly congested locations.

By providing transportation choices to serve various age groups and income levels in the population, Acton can reduce the number of automobile trips generated daily and meet the needs of its citizens. Coordinating a regional public transportation system can reduce peak traffic levels by addressing traffic patterns generated from adjacent communities. Constructing linkages such as bicycle paths and walking trails, along with allocating space on existing streets for bicyclists, between neighborhoods and shopping areas in village centers will also decrease the need for automobiles.

The public has shown continued interest in providing alternate transportation options in Acton to reduce reliance on private automobiles. Pedestrian and bicycle connections, as well as shuttle service, between activity center, were mentioned specifically.

Implementation of proposed improvements in conjunction with the ongoing resurfacing of Route 2A would reduce the disruption and costs of the improvements. The town should also include problem intersections near interchange improvement projects being pursued by MHD. An area that would benefit from inclusion is the medical center driveway across from the eastbound ramp to Route 2 from Route 27. The reconstruction and relocation could be incorporated into a design of any interchange improvement at this location.

- Strategy TC10*    *Encourage trip reduction measures, i.e. van/car pooling, private transportation services; park and ride facilities; and use demand management ( i.e. flexible work hours).*
- Strategy TC11*    *Investigate the potential for a commuter shuttle to the South Acton commuter rail station with satellite parking lots.*
- Strategy TC12*    *Study the feasibility of local and/or regional transit service.*
- Strategy TC13*    *Use zoning incentives for participation in local and regional transit systems.*
- Strategy TC14*    *Lobby for increased train service to Boston and a regional rail center west of Acton.*
- Strategy TC15*    *Explore making elderly and handicapped transportation available to low income residents.*
- Strategy TC16*    *Secure cross-town access over Route 2.*

*Strategy TC17 Build sidewalks, walk ways and bike ways that provide connections between neighborhoods and key activity centers. Require the construction of sidewalks and walk ways and bike ways for new development where possible and appropriate.*

*Strategy TC18 Aggressively advocate coordination of improvement projects with MHD.*

## Issue: Commuter Parking

Inadequate commuter parking facilities in towns west of Acton will continue to cause high demand for the parking lot at the South Acton commuter rail station. Since the 1991 Master Plan, improvements have been made to the South Acton lot, including an increase in parking capacity, designation of resident, non-resident, and handicapped spaces, an improved drop-off/pick-up area, and bicycle racks and lockers. Expansion of surface parking at the station is constrained by wetlands and topographical characteristics as well as roadway access capacity limitations. Parking capacity at the station has been maximized, excluding the construction of a parking deck or garage.

Parking at this location remains a divisive issue. This is an important regional facility and the needs of users must be met. Measures like the proposed agreement with the Clock Tower Place in Maynard to provide shuttle service from a major employment center to and from the commuter rail station would increase use without adding demand for parking.

The South Acton station is the last stop on several trains from Boston due to track and capacity constraints to the west. This makes South Acton the most convenient stop for many users living in towns west of Acton. An increase in MBTA service to and from Boston for towns to the west of Acton would help to reduce some of the regional burden Acton currently shoulders.

*Strategy TC19 Provide sufficient parking capacity for commuter rail users through the addition of off-site parking and shuttle service to the commuter rail from major employment centers and other areas.*

*Strategy TC20 Discourage non-resident parking at South Acton commuter station for commuters originating from areas west of Acton and encourage van service from other towns, such as Maynard and Stow.*

*Strategy TC21 Continue to lobby the MBTA for increased commuter rail service west of Acton.*

*Strategy TC22 Continue to explore options for a West Acton commuter station.*

*Strategy TC23 Lobby for the expansion of commuter lots in other towns west of Acton.*

## Issue: Parking in Village Centers

Extensive off-street parking lots, or smaller lots in front of businesses, can be intrusive and conflict with the established character of the traditional villages. Accordingly, the Town has adopted zoning amendments providing special design standards for parking in the villages (North Acton, East Acton, South Acton and West Acton) and in Kelley's Corner. The regulations promote the sharing of off-street parking areas and require new parking lots to be sited behind the principal structure. In addition, for the SAV, WAV and KC districts, the new regulations call for enhanced landscaping, off-street vehicular connections among and between parking lots, and limits on the number and spacing of access driveways.

- Strategy TC24* Create additional public and/or private off-street parking in village centers in keeping with the character of the villages.
- Strategy TC25* Continue to encourage driveway connections between off-street parking lots for improved vehicular circulation off the public ways.
- Strategy TC26* Amend zoning regulations to promote the use of shared off-street parking and to limit the size and number of curb cuts per lot. Include a requirement in the zoning bylaw for bicycle parking, encouraging bike parking to be placed as close to the store entrance as possible.

## Issue: Private Involvement in Roadway Projects

In view of the difficulty in funding improvement projects, public/private partnerships are important to securing funds for the implementation of infrastructure improvements. For example, the Central Transportation Planning Staff (CTPS) conducted a study of Route 2 improvements in 1996 which included an alternative in which service roads running parallel to Route 2 would be constructed. Hosmer Street and Piper and Taylor Roads would terminate at the service roads, and access to and from Route 2 would occur from the service roads. The service roads would be connected by an overpass over Route 2 located between Hosmer Street and Piper and Taylor Roads. The Town should pursue this improvement in coordination with the potential redevelopment of the Concord Auto Auction site.

- Strategy TC27* Pursue potential public/private funding sources and other public/private partnerships that further transportation goals as set forth in the master plan.

## Traffic and Circulation Action Recommendations

### Implications of Traffic and Accident Data Updates

Recommendations presented in the Master Plan reflect the desires of the community and the traffic conditions generally within the community. Recent traffic data collected in

support of this Master Plan Update indicate that many challenges identified in the 1991 Master Plan remain.

Traffic volumes measured on arterial routes in Acton reflect relatively consistent growth rates. Higher growth rates have been experienced on Route 2 and on Route 2A/119 at the Littleton town line, and the town appears subject to a great deal of pass-through traffic. Turning movements continue to impact traffic along Route 2A, while many accident problems are concentrated along Route 27. Although traffic volumes on many collector roadways have experienced only limited growth, the volumes on some collector roadways have experienced greater increases, supporting the common perception that cut-through traffic is a growing problem on the collector roads of Acton. The traffic growth recorded on Route 2 over the past two years demonstrates the need for further involvement in the Route 2 studies being conducted by the Central Transportation Planning Staff. Pursuit of corridor studies on Route 27 and Route 2A is also warranted.

The traffic and accident data collected support most of the previously recommended actions. New, updated or modified actions recommended for inclusion in the Master Plan Update are identified below.

### Status of Recommended Transportation Improvements

Based on conversations with the Town Engineer, the following table summarizes progress made towards implementation of the transportation improvements recommended in the 1991 Master Plan. The priority of improvements will be refined upon review of an updated summary of accident data.

Many recommended improvements are located on major through routes in Acton (Route 2A, Route 27). Improvements to Route 2A are approved by the Massachusetts Highway Department (MHD). These improvements are more likely to be implemented as part of a corridor improvement project than as individual projects. Improvements to Route 27 have been delayed partially by a desire of the Town Selectmen to review an evaluation of the improvements at the corridor level, rather than as independent intersection improvements.

**Table 65: Status of 1991 Transportation Improvement Recommendations**

<b>Current Status</b>	<b>Updated Recommendation</b>
<i>1: Traffic signal at Pope Road and Route 2A</i>	
No action has been taken on this recommendation.	This improvement remains a low priority.
<i>2: Left turn lane on Route 2A at Concord Road</i>	
MHD plans to mill and resurface Route 2A in 1998. Efforts are being made by the Town to incorporate the left turn lane, or at least a minor widening of Route 2A, into this MHD project.	This improvement remains a high priority, and efforts with MHD should be continued.

<i>3: Widen Concord Road and build a sidewalk</i>	
Concord Road was widened near Great Road as part of the bridge reconstruction project. No further roadway widening is planned at the present time. A sidewalk will be constructed along Concord Road from Great Road to Minot Avenue in 1998 and from Minot Avenue to Nagog Hill Road in 1999. A sidewalk from Nagog Hill Road to Main Street is planned for the year 2000, but difficulties relating to construction of the sidewalk may delay or prevent completion of this section.	Widening of the roadway remains a low priority.
<i>4: Realign the Concord Road and Hosmer Street intersection</i>	
This recommendation has been reviewed by the Town, and implementation is considered unlikely for environmental and aesthetic reasons. The Town is considering minor improvements (improved signage) in place of the realignment.	The realignment of this intersection is no longer under consideration.
<i>5: Add dedicated left turn lanes on Route 2A</i>	
This improvement is governed by the Massachusetts Highway Department (MHD). Efforts have been made to initiate the project, but MHD has not been responsive.	These improvements remain a high priority.
<i>6: Make Strawberry Hill Road a one-way roadway</i>	
This recommendation was presented at a public hearing, and received an unfavorable response from users of the roadway.	This recommendation is no longer under consideration.
<i>7: Upgrade the Harris Street and Route 27 intersection</i>	
No action has been taken on this recommendation.	The recommended improvements remain a medium priority.
<i>8: Widen Harris Street</i>	
No action has been taken on this recommendation.	In the longer-term, the recommendation for Harris Street is construction of a sidewalk.
<i>9: Widen Route 2A to four lanes west of Route 27</i>	
No action has been taken on this recommendation.	This recommendation is no longer under consideration.

<i>10: Upgrade the Route 27 and Route 2A intersection</i>	
Improvements to this intersection have been completed.	NA
<i>11: Upgrade the intersection of Route 27 with Concord Road and Newtown Road</i>	
Preliminary investigation of this improvement was conducted. However, the intersection is located in an historic district and signalization is considered undesirable by some residents.	Improvements to this intersection remain a medium to high priority, and should be included in a Route 27 corridor study.
<i>12: Signalize the Post Office Square and Route 27 intersection</i>	
Signalization of this intersection has been completed.	NA
<i>13: Upgrade the Route 27 and Brook Street intersection</i>	
No action has been taken on this recommendation.	Improvements to this intersection remain a medium priority, and should be included in a Route 27 corridor study.
<i>14: Install left turn lane on Route 27 at Taylor Road</i>	
Implementation of this recommendation was pursued, but received an unfavorable response from Taylor Road residents, who felt that it would increase traffic on Taylor Road.	Improvements to this intersection remain a medium priority, and should be included in a Route 27 corridor study.
<i>15: Install northbound left turn lane on Route 27 at Hayward Road</i>	
A traffic signal warrant study and preliminary design were completed for this intersection. Though the location met traffic signal warrants, the project was not approved by the Selectmen.	Improvements to this intersection remain a medium priority, and should be included in a Route 27 corridor study.

<i>16: Upgrade Kelley's Corner intersection</i>	
Improvements to this intersection and to the adjacent business district were studied in detail as part of the Kelley's Corner Circulation Plan Study. Recommended short-term improvements include the addition of a left-turn phase for Route 111 left turns, and restriping to provide left turn lanes on Route 27. Long-term improvements for Kelley's corner include widening Route 27 to a 4-lane cross-section, as recommended in the 1991 Master Plan, and creation of a system of urban village streets to provide access and improve circulation within the district. However, these recommendations are being re-examined as of this writing.	Short-term improvements to this intersection remain a high priority. Implementation of long-term improvements should be evaluated as development in the Kelley's Corner district occurs.
<i>17: Upgrade Route 2 and Route 27 intersection</i>	
This location was examined by the Town. The capacity constraints at the intersection are primarily due to the lack of available gaps for traffic turning to and from the ramps, and not the geometric design of the intersection.	Improvements to this intersection remain a high priority, and should be included in a Route 27 corridor study.
<i>18: Widen Route 27 between Central Street and Route 2</i>	
No action has been taken on this recommendation. It is felt that this improvement would be resisted by residents.	This recommendation is no longer under consideration.
<i>19: Realign the Prospect Street intersection with Route 27</i>	
This location has been examined by the Town, and no easily implementable geometric changes have been identified. A preliminary design for signalization of this intersection was completed, but funding was not available for the improvement.	Improvements, including potential signalization of this intersection remain a medium priority.

<i>20: Upgrade Route 2, Piper Road, Taylor Road intersection</i>	
The Massachusetts Highway Department made some improvements to this intersection, including signal phasing changes and geometric changes to provide a U-turn for trucks. Potential developments under study in the vicinity of this intersection may include the design of additional improvements to this intersection.	Route 2 improvements remain a high priority.
<i>21: Restripe Route 27 between High Street and Central Street</i>	
Improvements to this location were completed as part of the bridge reconstruction project.	NA
<i>22: Realign Piper Road</i>	
No action has been taken on this recommendation.	Piper Road improvements remain a low priority.
<i>23: Upgrade signs at Piper Road and School Street intersection</i>	
Improvements to this intersection have been completed.	NA
<i>24: Improve signs at High and Conant Street</i>	
No action has been taken on this recommendation.	Improvements to this intersection remain a high priority.
<i>25: Install traffic signal at High Street and Route 62</i>	
Geometric improvements have been completed, and conduit for the proposed signal has been installed. Signal design for this intersection is nearly complete, and installation of the signal is expected in 1999.	Improvements to this intersection remain a high priority.
<i>26: Implement Sidewalk Master Plan</i>	
Progress has been made on a Sidewalk Master Plan.	Efforts should be continued.

## Traffic Safety

### Safety Remediation

The updated accident analysis identifies 10 intersections that experience more than 5 accidents per year. Most of these intersections are included in the recommended improvements in the Master Plan, and several have already been implemented. However, the Route 2/Massachusetts Avenue intersection has not been addressed, and the analysis shows 10 accidents per year at this location (average over 4 years).

*Action TC-1*            Implement safety studies to identify appropriate improvements at the Route 2/Massachusetts Avenue intersection.

### Accident Monitoring

Traffic conflicts and accident frequency are significant at intersections throughout several of the villages. Analysis of accident records can be used to identify specific problems to be addressed by design or operational improvements.

*Action TC-2*            Implement a program in coordination with the local or state police department to track accident trends in different areas of town.

*Action TC-3*            Implement studies of accidents at highest accident locations on a regular basis to develop design improvements at these locations.

### Traffic Calming

The public has shown continued interest in providing alternate transportation options to traditional traffic reduction measures. Traffic calming measures present alternate ways to discourage motorists from using residential roadways, such as School Street, Strawberry Hill Road or Piper Road, as short cuts, or at least as methods to improve traffic speed and safety conditions within the neighborhoods.

*Action TC-4*            Develop a town wide traffic calming program to discourage cut-through traffic and enhance the residential environment. Establish guidelines for the specific villages, and explore the possibility of incorporating into the village zoning bylaws.

### Traffic Circulation

#### Route 27 Corridor Study

While Route 27 has benefited from substantial improvements since the 1991 Master Plan, significant traffic and circulation problems remain. The Town should conduct a traffic study of the Route 27 corridor to study in more detail, and in the context of the entire corridor, the improvements recommended in the 1991 Master Plan. This study would also facilitate approval of improvements by the Town Selectmen. Funding for a study of Route 27 from Route 2 to Brook Street has been approved.

*Action TC-5*            Conduct a comprehensive study of Route 27 from Great Road to High Street.

#### Route 2A Corridor Study

The traffic growth and directional patterns along this thoroughfare indicate a significant volume of commuter traffic coming from towns north and west of Acton. The commuter traffic exacerbates a condition already complicated by multiple driveways and turning

movements. In conjunction with the previous recommendation for dedicated left turn lanes, the town should examine ways to improve flow along the entire corridor. This might include the identification of opportunities for potential driveway consolidation.

*Action TC-6* Conduct a comprehensive study of Route 2A from the Concord Town Line to the Littleton Town Line.

### Monitor Roadway Improvements

Several specific roadway improvements identified as actions in the 1991 Master Plan have been implemented and it would be beneficial to examine their level of success.

*Action TC-7* Monitor traffic operations and accident frequency at completed roadway improvement locations.

### Regional Transportation Issues

The town can accomplish much by coordinating with surrounding towns. Issues such as regional shuttles for park and ride facilities, or regional impact studies of proposed developments could address several transportation concerns raised in the Master Plan process.

*Action TC-8* Either through MAGIC or the development of a regional transportation board comprised of officials from surrounding towns, work in coordination with surrounding towns to address immediate regional transportation issues..

### Improvements for Pedestrians and Bicyclists

#### Introduction

Encouraging the use of alternative means to get around Acton is one strategy for reducing automobile trips, congestion, and parking shortages. Alternatives to the automobile also increase mobility for teens and non-driving seniors and promote a closer sense of community.

Described below are recommended actions for pedestrian and bicyclist circulation improvements. Specific improvements are grouped primarily by geographic “villages” where possible and reflect many goals and requests voiced by members of the public in 1990 and 1997. Many of the following recommendations involve the use or modification of public rights-of-way and would be undertaken by the Town. However, several recommendations could be addressed by the private sector and/or financed with state and federal funding. Maximizing use of private and state/federal funds to realize these recommendations should be an overarching goal for implementation.

Acton already has a detailed Sidewalk Capital Plan. The following streets have been identified in the Capital Plan for sidewalk improvements:

- Central Street, Arlington Street to Elm Street

- Charter, #76 to #80
- High Street, Main Street to Audubon Hill
- School Street, Sandy Drive to Maddy Lane
- Concord Road, Minot Avenue to Nagog Hill Road
- Lawsbrook Road/School Street, Hosmer Street to Concord Town Line
- Massachusetts Avenue, Arlington Street to Wright terrace
- Central Street, Willow Street to Windsor Avenue
- Main Street, Post Office Square to Great Road
- Prospect Street, Main Street to Central Street
- Newtown Road, Simon Williard Road to Main Street
- Stow Street, Maple Street to Jones Field
- Summer Street, #122 to Autumn Lane
- Willow Street, Central Street to Marian Road
- Arlington Street, Massachusetts Avenue to Summer Street
- Brook Street, Main Street to Great Road
- Main Street, Great Road to Northbriar Road
- Martin street, Central Street to Jones Field

The costs for these improvements is estimated to be \$1,674,300 in 1998 dollars. The cost of providing additional sidewalks (those not already included in the Sidewalk Capital Plan) is estimated to be \$960,000 to \$1,872,000,<sup>72</sup> depending on whether one or two sides of the streets will have sidewalks. Granite curbs for sidewalks is estimated to be an additional \$704,000 for one side of the street or \$1,372,800 for both sides of the street.<sup>73</sup>

### South Acton

Improving connectivity between residential areas and South Acton Village and the MBTA commuter rail will help increase walking and bicycling to these areas. Sidewalks should be built on High Street, Central Street past Martin Street, River Street, Piper Street, and Prospect Street. Second priority sidewalks are Martin Street, Maple Street, Stow Street, and Liberty Street.

Funding should be designated to participate in the design and construction of the Assabet River Rail Trail, a proposed 12-mile multi-use trail from Marlborough to the South Acton commuter rail station, to ensure that it is built expeditiously. This trail, in addition to being a significant recreational asset, would improve bicycle access to the commuter rail station and ease parking shortages. The estimated cost for the creation of the Assabet River Trail is \$250,000 per mile.

*Action TC-9*      Build sidewalks leading to South Acton Village and commuter rail station.

*Action TC-10*    Improve facilities for bicyclists

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<sup>72</sup> Based on an estimate of \$30.00 per linear foot

<sup>73</sup> Based on an estimate of \$22.00 per linear foot

*Action TC-11* Provide funding and support for Assabet River Rail-Trail

### East Acton

Pedestrian movement in East Acton is hampered by steady traffic, inadequate sidewalks, and excessive curb cuts. A pedestrian walk as continuous as possible should be built to create a system that is attractive, safe, and comprehensible approach to both pedestrian and motorist. Consolidating curb cuts to define the pedestrian way should be pursued. The elimination of curb cuts is estimated to be \$900 per curb cut.

Filling missing segments of sidewalk is essential to making a pedestrian system in East Acton Village. Streets leading to Great Road as well as Great Road should have sidewalks.

*Action TC-12* Reduce curb cuts on Great Road

*Action TC-13* Construct sidewalks on Great Road and Wetherbee Street

### West Acton

Providing continuous sidewalks on streets leading to and within West Acton Village should be a high priority. Key streets are: south side of Arlington Street between Spruce Street and Central Street; both sides of Spruce Street; and north side of Massachusetts Avenue from Central Street to Wright Terrace. Reducing and consolidating curb cuts (\$900 each) within the village district will improve the pedestrian environment.

Areas with many children, such as the schools and playgrounds, should be connected by an internal multi-use path running between Elm Street and Arlington Street. This paved path would also help connect the neighborhood north of West Acton Village to the village district.

A multi-use path connecting Massachusetts Avenue to Arlington Street would shorten the distance between the playground and the Douglas School and the residential areas to the east, making walking and bicycling more viable. It is estimated that this path will cost \$100,000 per half mile to construct.

Provision of pedestrian amenities, such as neckdowns to reduce crossing distance, and crosswalks with special colors and textures within the village district helps slow traffic by making pedestrian facilities more prominent. This will create a better balance between pedestrians and motorists within the village district. Neckdowns cost about \$1,700 each and enhanced crosswalks about \$4,800 each.

*Action TC-14* Construct sidewalks on West Acton Village-area streets.

*Action TC-15* Create pedestrian and bicycle connections between activity centers.

*Action TC-16* Slow Massachusetts Avenue traffic by installing pedestrian amenities.

## North Acton

The North Acton Recreation Area is scheduled to open in 1999. This multi-use community park is expected to generate significant pedestrian and bicycle traffic from surrounding neighborhoods, as well as vehicular traffic from throughout the town.

*Action TC-17*      Develop sidewalks and bikeways to connect NARA with surrounding neighborhoods.

## Townwide

Limited facilities for pedestrians and cyclists result in poor connections within and between activity centers such as Kelley's Corner or other village centers, and outlying residential areas. Enhanced linkages play a role in reducing auto-dependency in Acton.

A study of additional connections for bicycles and pedestrians to facilitate access to activity centers should be conducted to determine issues and to rank priority corridors. This study would identify barriers to access that may be easy to overcome.

Connecting the villages of South Acton and West Acton by means other than the automobile could be accomplished by working with the MBTA to construct a rail-with-trail along, but separated from, the commuter rail tracks (Fitchburg line). The trail would also connect to West Concord and would provide safe, off-road commuting and recreational opportunities. This trail, ranked a high priority by the Metropolitan Area Planning Council because of the excellent potential connections between villages, should be studied in detail to determine feasibility and costs.

Consideration should be given to constructing an off-road bicycle path or bicycle lanes along Route 27 if the road is reconstructed. The Town should study the issues surrounding widening the paved area for bicycles.

A bicycle path in North Acton to provide access to conservation areas and the NARA should be studied to determine the feasibility and environmental issues.

The Metropolitan Area Planning Council has identified the provision of bicycle lanes on Route 111 as a high priority. These lanes would aid cyclists headed to numerous schools on Route 111, and would link Kelley's Corner and West Acton. Creation of these bike lanes should be a high priority. The estimated cost for this project is \$4,700 per mile of bike lane.

Signage and pavement markings designed for bicycle traffic may encourage more bicyclists. Bicycle signage on key local connector street should be installed following a detailed study of bicycle-use patterns. "Share the Road [with bicycles]" warning signage should be installed on roads that lead to activity centers, are used by bicyclists, and do not have special provisions (extra width or marked bike lanes) for bicyclists. For example, Hayward Road, Piper Road, and Central Street may be candidates for "Share the Road" signage. This costs about \$25 per sign.

On state highway, the Town should work with MHD to determine where “Share the Road” signage may be installed by MHD.

Creating an image that an area is bicycle-friendly is important to encouraging more bicyclists, and highly visible bicycle racks help create that image. The zoning bylaw should be amended to require provision of bicycle parking in proportion to automobile parking and racks in prominent locations. Bicycle racks should be installed in villages, at public buildings, and at recreation areas. Village district bicycle racks should be small enough (such as an “inverted U” or Bike Link-type rack) to be installed on sidewalks at key locations. Group parking of bicycles should be provided at schools, large shopping areas, and recreation areas. Bicycle racks generally cost \$240 for a rack accommodating two bicycles.

- Action TC-18* Continue to develop a program to address missing pedestrian and bicycle linkages and limited facilities within activity centers and neighborhoods.
- Action TC-19* Comprehensive study of additional potential pedestrian and bicycle linkages.
- Action TC-20* Pursue a Rail-with-Trail along Fitchburg line right-of-way.
- Action TC-21* Study bicycle accommodation along Route 27.
- Action TC-22* Study bicycle path in North Acton.
- Action TC-23* Pursue creation of bicycle lanes along Route 111.
- Action TC-24* Enhance bicycle visibility through appropriate signage and pavement markings.
- Action TC-25* Amend zoning By-Law to require provision of bicycle racks in proportion to off-street parking spaces as close to the store as possible. Consider how to incorporate the stroller storage areas into these facilities.
- Action TC-26* Provide public bicycle parking facilities in village areas, at all public buildings, and at all recreation areas.

## IMPLEMENTATION PROGRAM

This section of the Master Plan restates the specific action recommendations presented in each of the preceding elements. The actions are organized according to the seven major elements of the Master Plan with references to other relevant sections where appropriate.

### Land Use

- Action LU-1*      Develop a program to control residential growth.
- Action LU-2*      Increase the maximum Floor Area Ratio for the East Acton Village and North Acton Village districts to 0.40.
- Action LU-3*      Complete the East Acton Village Plan. Take steps toward implementing it, giving special attention to actions identified as having high priority.
- Action LU-4*      Prepare a North Acton Village Plan. Take steps toward implementing it, giving special attention to actions identified as having high priority.
- Action LU-5*      Update the West Acton and South Acton Village Plans. Take steps toward implementing them, giving special attention to actions identified as having high priority.
- Action LU-6*      Revise the parking regulations for the EAV and NAV districts to reflect the provisions provided in the other village districts.
- Action LU-7*      Revise the zoning of the EAV and NAV districts to encourage small mixed use centers. Allow similar uses that are permitted in other village districts.
- Action LU-8*      Provide pedestrian scale lighting and benches in village centers.
- Action LU-9*      Create design guidelines to encourage the desired type of development in village centers.
- Action LU-10*     Apply for the Mass ReLeaf grant through the DEM Urban Forestry Program to purchase and plant trees in village centers.
- Action LU-11*     If the TDR option is removed (see discussion, below), multifamily dwellings should be allowed by special permit in the NAV and EAV districts.
- Action LU-12*     Continue taking steps to refine and implement the Kelley's Corner Specific Area Plan and Circulation Plan.

<i>Action LU-13</i>	Remove from the Zoning Bylaw the Transfer of Development Rights provisions and associated parking limitations (Section 5.4).
<i>Action LU-14</i>	Reduce the maximum Floor Area Ratio (FAR) in the Limited Business district from 0.20 to 0.15.
<i>Action LU-15</i>	Consider combining the LI and LI-1 districts.
<i>Action LU-16</i>	Consider rezoning the SM district along north Main Street to the GI district, provided that groundwater protection will not be diminished.
<i>Action LU-17</i>	Consider rezoning the SM district at Wetherbee Street and Keefe Road to the EAV district.
<i>Action LU-18</i>	Move forward with proposal to raise the floor area ratio for the OP-2 district, in order to encourage office park development of the Auto Auction site and adjacent areas.
<i>Action LU-19</i>	Consider consolidating the OP-1 and OP-2 districts if more intensive development in the OP-2 district is disapproved by Town Meeting.
<i>Action LU-20</i>	Revise the use table to address specific concerns: <ul style="list-style-type: none"> <li>• Separate hotels and motels from inns. Allow Inns and B&amp;B's in the village districts as of right and allow B&amp;B's in residential districts by special permit. Hotels and motels should be allowed in the business districts by right and perhaps industrial districts, by special permit.</li> <li>• Revise the definitions for studio, recreation, and retail.</li> <li>• Create new definitions for theaters and department stores.</li> </ul>
<i>Action LU-21</i>	Update the use table and definitions to provide more flexibility as the character and type of uses change over time.
<i>Action LU-22</i>	Remove from the Zoning Bylaw the Site Plan Special Permit process and replace it with a simplified Site Plan Review procedure.
<i>Action LU-23</i>	Review uses to determine whether any uses currently requiring a special permit should be allowed by right instead.
<i>Action LU-24</i>	Review the Town's prohibition of restaurant drive-up windows and consider how they might be allowed.
<i>Action LU-25</i>	Consider expanding the Nagog Park OP-1 district to include a portion of the land adjacent to the Westford town line, but preserving a dense buffer area to protect the adjacent residentially-zoned property and define a limit to expansion of the district.

- Action LU-26* Consolidate zoning district boundaries in the area of Route 62 and High Street.
- Action LU-27* Create an index for the Zoning Bylaw in order to allow the document to be more user-friendly.
- Action LU-28* Allow for variations from the maximum or minimum dimensions (frontage, width, depth, height, etc.) by special permit rather than by variance.
- Action LU-29* Consider creating landscape and site design standards that are flexible enough to meet the needs of a specific site but are still consistent with the Town's goals.

## Housing

- Action H-1* Investigate costs and benefits of establishing a Town Social Services Department.
- Action H-2* Update the 1989 *Affordable Housing Study*. Include in the study broad-based community discussion of how maintaining affordability will contribute to Acton's quality of life. Concentrate on identifying and adopting satisfactory and effective strategies for gaining affordable homes from both the development of open land and infill within existing neighborhoods.
- Action H-3* Consider increasing the permitted FAR in village districts for mixed use developments that include guaranteed affordable units.
- Action H-4* Simplify the formulas and processes in the Affordable Housing Overlay District so that density bonuses can be easily determined and attained, and provide options for satisfying the affordable housing requirements with off-site housing units.
- Action H-5* Consider adopting a zoning provision that requires the inclusion of affordable units in new developments.
- Action H-6* Create a set-aside fund for rehabilitation of current Housing Authority units, and low interest home improvement loans for seniors and other populations of concern.
- Action H-7* Search out parcels with problematic titles that the Town could clear through eminent domain and turn over to ACHC for use in developing affordable homes. Explore with owners who can be identified the potential options for satisfactory resolution.

*Action H-8* Examine the costs and benefits of a Real Estate Transfer Tax, and consider how such a tool might assist Acton in achieving objectives relating to both affordable housing and conservation of natural resource areas.

*Action H-9* Remove the Affordable Housing Overlay District from areas zoned industrial or business. Develop alternative mechanisms to offset any resulting loss of affordable housing potential.

See Also:

*Action LU-1* Develop a program to control residential growth.

## Economic Development

*Action ED 1* Encourage commercial development to create a sustainable balance of land uses.

*Action ED 2* Give special attention to development of the few remaining commercial/ industrial sites.

*Action ED 3* Increase types of land uses allowed.

*Action ED 4* Consider elimination of the “high traffic generators” cap in the Zoning Bylaw within the context of the Traffic & Circulation element of the 1998 Master Plan Update.

*Action ED 5* Develop implementation plan with incentives that may include:

- Provision of FAR density bonus in Village and Business Districts for business that began as home based business
- Identification of Village and Business Districts as prime locations for incubator (start-up) businesses
- Encouragement of home based business
- Encouragement of incubator (start-up) businesses.

*Action ED 6* Re-write sign bylaw to be less confusing.

*Action ED 7* Increase FAR where appropriate.

*Action ED 8* Evaluate whether the minimum open space requirement for non-residential zoning districts should be reduced from 50% to 35%.

*Action ED 9* Combine the Light Industrial & Light Industrial 1 districts and increase FAR.

*Action ED 10* Reduce the minimum lot requirement for the OP-1, OP-2, LI, LI-1

and IP districts.

- Action ED 11* Remove the complexity relating to computation of allowed development density in the LB District based on number of parking spaces.
- Action ED 12* Revise selected parking requirements.
- Action ED 13* Rezone some residential land, in locations well served by infrastructure, to business, commercial and industrial districts.
- Action ED 14* Remove Affordable Housing Overlay District from all commercial and industrial zoning districts while working to increase affordable housing options for residential zoned land.
- Action ED 15* Prevent conversion/loss of commercial and industrial land to residential development.
- Action ED 16* Consider restructuring the TDR provisions within the Zoning Bylaw to provide sufficient incentives for new development and redevelopment of selected areas.
- Action ED 17* Establish clear design standards for all commercial and industrial districts.
- Action ED 18* Aggressively pursue state and federal funding of important infrastructure improvements.
- Action ED 19* Construct public sewers.
- Action ED 20* Encourage traffic management, transportation improvements and enhancements (e.g. Route 2 overpass).
- Action ED 21* Continue to advance the work of the Route 2 Corridor Advisory Committee.
- Action ED 22* Continue to advance the work of the Route 2 Corridor Advisory Committee.
- Action ED 23* Work to increase the water withdrawal cap.
- Action ED 24* Work to ensure consistent utility service throughout Acton.
- Action ED 25* Upgrade telecommunication capabilities.
- Action ED 26* Simplify Rules & Regulations for all Special Permit/Site Plan processes.
- Action ED 27* Amend Zoning Bylaw to simplify procedures.

<i>Action ED 28</i>	Re-write the Development Guide to be more informative and include charts to clarify permitting processes.
<i>Action ED 29</i>	Establish an Ambassador Program within Acton to meet with prospective businesses.
<i>Action ED 30</i>	Evaluate the following: <ul style="list-style-type: none"> <li>• Appointment of an Ombudsmen</li> <li>• Hire of new town staff: Economic Development Director/official</li> <li>• Establishment of Commercial &amp; Industrial Development Commission or other such entity.</li> </ul>
<i>Action ED 31</i>	Develop and implement educational programs to inform voters of relationship between commercial and industrial property, quality of life and their tax burden.
<i>Action ED 32</i>	Consider using a newsletter and/or web site for economic development
<i>Action ED 33</i>	Maintain current and accurate inventory of businesses (update at least annually).
<i>Action ED 34</i>	Complete database of available vacant, under-utilized commercial and industrial properties and developable land, include features (e.g. rail spur, loading docks).
<i>Action ED 35</i>	Analyze and react to database.
<i>Action ED 36</i>	Require fiscal analysis of all proposed development.
<i>Action ED 37</i>	Explore in concert with other mechanisms incentives for additional development such as tax abatements, Tax Increment Financing, special assessments, low-interest loans, employee training.
<i>Action ED 38</i>	Establish a new zoning district for the business, commercial and industrial properties located on Powder Mill Road, High Street, Sudbury Street and Knox Trail.
<i>Action ED 39</i>	Establish new village business districts in North Acton and East Acton.
<i>Action ED 40</i>	Revise Zoning Bylaw to: <ul style="list-style-type: none"> <li>• Allow additional land uses to provide a good mixture of uses</li> <li>• Increase the FAR in the Village Districts</li> </ul>

- Allow transfer of development rights within village districts
- Establish design guidelines
- Establish parking requirements to encourage connectivity (e.g. consolidation and sharing of parking lots, interconnected parking lots behind existing commercial development, reduce curb cuts).

<i>Action ED 41</i>	Create Plans for North Acton Village Business District and East Acton Village Business District.
<i>Action ED 42</i>	Evaluate further implementation of the Kelley’s Corner Plan.
<i>Action ED 43</i>	Update the West Acton Village Plan and South Acton Village Plan.
<i>Action ED 44</i>	Increase the diversity of goods and services available to residents by encouraging diversity of commercial enterprise.

## Natural and Cultural Resources

<i>Action NC-1</i>	Implement the sewer project currently being designed in South Acton
<i>Action NC-2</i>	Review zoning in adjacent towns to determine if they support protection of Acton’s groundwater resources. Work with communities to take action to revise regulations as necessary
<i>Action NC-3</i>	Fully complete the Acton cultural resources inventory.
<i>Action NC-4</i>	Focus on protecting the following parcels which have particular historic importance: <ul style="list-style-type: none"> <li>• Preserve and enhance historic mill sites within Acton villages.</li> <li>• Preserve the structural integrity of the Faulkner Mill Dam (Erikson Dam).</li> <li>• Review the area surrounding the Isaac Davis Trail to ensure views and vistas remain intact.</li> </ul>
<i>Action NC-5</i>	Determine whether certain areas should be nominated for listing on the National Register of Historic Places and/or are suitable for Preservation Restrictions.
<i>Action NC-6</i>	If NHRP designation is obtained, encourage the use of the Investment Tax Credit for private investment and rehabilitation of historic properties.

*Action NC-7* Encourage Preservation Restrictions on properties of significant historical value either by encouraging property owners to donate the development rights or by acquisition by the Town, the Acton Historical Society, Ironwork Farm, Inc., or some other historical organization.

## Open Space and Recreation

*Action OSR-1* Protect the following properties through a variety of preservation techniques in order to preserve those properties that have been identified in the 1996 Open Space and Recreation Plan as being critical to preserving Acton's rural character.

- The Conant property on Nagog Hill Road, abutting Nagog Hill and Grassy Pond Conservation areas.
- The land owned by the Palmer Family Realty Trust
- The Simeone or Stonefield Farm in South Acton
- The Kennedy land abutting the North Acton Recreation Area
- Several large parcels of land near the Concord and Carlisle borders, abutting Camp Acton, Nashoba Brook, and Spring Hill Conservation Areas.

*Action OSR-2* Develop a plan to educate and inform residents about open space planning and needs.

*Action OSR-3* Every two years, update the prioritization of all open space in Acton, including protected and unprotected parcels. Use the results of the open space survey, the farm survey, information from the Conservation Land Stewardship Committee and the goals, objectives and priorities outlined in the Open Space and Recreation Plan as guidelines.

*Action OSR-4* Obtain abutting towns' open space plans and identify potential corridors between the towns and ways in which water resources (e.g. Nagog Pond), important to another community can be better protected.

*Action OSR-5* Work with the Conservation Land Stewardship Committee to identify the status of those parcels important for the provision of greenbelts and wildlife corridors within Acton and within abutting towns.

*Action OSR-6* Lobby for an extension of the Lowell-Sudbury Rail Trail through Acton (Recreation Commission).

- Action OSR-7* Continue meeting with the Assabet River Rail Trail communities to move construction forward (Recreation Commission)
- Action OSR-8* Participate in the Bay Circuit Trail planning effort
- Action OSR-9* Work with MAGIC on possible connections between different bike trails (Recreation Commission).
- Action OSR-10* Pursue development of the greenbelt concept for Fort Point Brook and Nashoba Brook.
- Action OSR-11* Provide information to the Conservation Trust identifying those parcels meriting protection for their value as greenbelt and wildlife corridors between Acton's conservation lands and also between Acton lands and those of abutting towns.
- Action OSR-12* Work with the Conservation Land Stewardship Committee to develop an implementation plan for the Fort Pond Brook and Nashoba Brook greenbelts.
- Action OSR-13* Apply for the Mass. Division of Conservation Services' Self-Help Program for the purchase of conservation land.
- Action OSR-14* Pursue funding available for trail development, maintenance or restoration through a variety of sources.
- Action OSR-15* Survey all remaining farms in Acton to determine what methods might be used or available to ensure their preservation. Pay particular attention to maintaining the following farms:
- Simeone or Stonefield Farm in South Acton (Stow Border)
  - Idylwilde Farm in West Acton
  - Kennedy Farm in North Acton (Westford Border)
  - DiDuca Farm in East Acton
  - Horse farms in the Pope Road/Strawberry Hill Road/Estabrook Road area, and those on Nagog Hill Road, in West Acton and in other sections of town.
- Action OSR-16* Distribute handouts and brochures for the major parks and public lands which show the trails, special features and access points for pedestrians, the disabled, and vehicles.
- Action OSR-17* Create a new map for inclusion in the Guide to Acton's Conservation Lands, showing access points and suggested canoe routes along portions of Fort Pond Brook, Nashoba River and the Assabet River.

- Action OSR-18*     Apply to the Mass. Dept. of Fisheries, Wildlife and Environmental Law Enforcement’s Urban Rivers Grant Program to enhance public access to rivers in Acton.
- Action OSR-19*     Add trails or increase public access to areas that can accommodate pedestrians.
- Action OSR-20*     Map and upgrade public access points to the Nashoba Brook to allow fishing by creating a continuous foot access to the brook from Carlisle Road to Great Road.
- Action OSR-21*     Develop a forestry management plan, in conjunction with the town’s tree warden, for all forested conservation lands.
- Action OSR-22*     Complete the Arboretum Master Plan.
- Action OSR-23*     Apply to the Urban Forestry Program for a Mass ReLeaf Grant through DEM to obtain funding for tree purchasing and planting.
- Action OSR-24*     Develop a plan for conservation land maintenance of trails, campsites at Camp Acton, access to waterways and signage. Ensure that handicapped accessibility improvements (identified in the Open Space and Recreation Plan inventory) are addressed. Also ensure trails are accessible to the elderly and adequate benches are provided.

## Municipal Services and Facilities

- Action SF-1*         Continue working to meet the remaining capital improvement needs identified in the 1991 Master Plan.
- Action SF-2*         Plan and implement new construction, and expansions and renovations of the elementary school, junior and senior high schools. Continue community deliberations to reach agreement on implementing improvements to schools.
- Action SF-3*         Plan and implement sewer service for West Acton Village and East Acton Village.
- Action SF-4*         Continue assisting the Water District in promoting water-conserving practices throughout Acton, with special attention to low water using landscape techniques.
- Action SF-5*         Incorporate in the site plan review process standards and criteria relating to the use of low water landscape techniques .

- Action SF-6* Continue assisting the Water District in achieving needed raising of the cap on water withdrawal.
- Action SF-7* Continue assisting the Water District in its efforts to develop new sources of water for the community.
- Action SF-8* Schedule and carry out an examination of the needs for a second facility to serve seniors, and implement the resulting recommendations.

## Traffic and Circulation

- Action TC-1* Implement safety studies to identify appropriate improvements at the Route 2/Massachusetts Avenue intersection.
- Action TC-2* Implement a program in coordination with the local or state police department to track accident trends in different areas of town.
- Action TC-3* Implement studies of accidents at highest accident locations on a regular basis to develop design improvements at these locations.
- Action TC-4* Develop a town wide traffic calming program to discourage cut-through traffic and enhance the residential environment. Establish guidelines for the specific villages, and explore the possibility of incorporating into the village zoning bylaws.
- Action TC-5* Conduct a comprehensive study of Route 27 from Great Road to High Street.
- Action TC-6* Conduct a comprehensive study of Route 2A from the Concord Town Line to the Littleton Town Line.
- Action TC-7* Monitor traffic operations and accident frequency at completed roadway improvement locations.
- Action TC-8* Either through MAGIC or the development of a regional transportation board comprised of officials from surrounding towns, work in coordination with surrounding towns to address immediate regional transportation issues..
- Action TC-9* Build sidewalks leading to South Acton Village and commuter rail station.
- Action TC-10* Improve facilities for bicyclists
- Action TC-11* Provide funding and support for Assabet River Rail-Trail

- Action TC-12* Reduce curb cuts on Great Road
- Action TC-13* Construct sidewalks on Great Road and Wetherbee Street
- Action TC-14* Construct sidewalks on West Acton Village-area streets.
- Action TC-15* Create pedestrian and bicycle connections between activity centers.
- Action TC-16* Slow Massachusetts Avenue traffic by installing pedestrian amenities.
- Action TC-17* Develop sidewalks and bikeways to connect NARA with surrounding neighborhoods.
- Action TC-18* Continue to develop a program to address missing pedestrian and bicycle linkages and limited facilities within activity centers and neighborhoods.
- Action TC-19* Comprehensive study of additional potential pedestrian and bicycle linkages.
- Action TC-20* Pursue a Rail-with-Trail along Fitchburg line right-of-way.
- Action TC-21* Study bicycle accommodation along Route 27.
- Action TC-22* Study bicycle path in North Acton.
- Action TC-23* Pursue creation of bicycle lanes along Route 111.
- Action TC-24* Enhance bicycle visibility through appropriate signage and pavement markings.
- Action TC-25* Amend zoning By-Law to require provision of bicycle racks in proportion to off-street parking spaces as close to the store as possible. Consider how to incorporate the stroller storage areas into these facilities.
- Action TC-26* Provide public bicycle parking facilities in village areas, at all public buildings, and at all recreation areas.

*In order to keep this document a manageable size for downloading purposes, you may view the full document (including the appendices) by visiting the Acton Planning Department. Copies are available for in-office use or for purchase.*

*Please contact the Planning Department with further questions.*

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