



A Vision for Belmont: Mapping a Sustainable Future

Volume II: Appendices and Supporting Materials



Presented By

**BELMONT PLANNING BOARD
&
BELMONT OFFICE OF COMMUNITY DEVELOPMENT**

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HISTORIC PRESERVATION AND COMPREHENSIVE PLANNING

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INTRODUCTION

The Comprehensive Plan offers an opportunity to affirm Belmont's commitment to historic preservation. By following a series of recommended strategies and actions, Belmont can fulfill its commitment to the Town's "*Working Vision for Belmont*" (see Appendix A). The *Vision* outlines goals for Quality of Life, Character of Our Town, and Sense of Community, all with references to preserving and enhancing the town's character-defining small-town features. The Historic Preservation Task Force, in the Comprehensive Plan process, has produced the following Historic Preservation Report consistent with the *Vision's* goals.

In this Report, the Task Force expands upon the *Vision* document by outlining the Benefits of historic preservation, Statements clarifying the intent of historic preservation, Objectives for historic preservation, and Strategies and Actions for historic preservation.

I. VISION FOR HISTORIC PRESERVATION OF RESOURCES IN THE COMPREHENSIVE PLAN

As stated in the town's *Working Vision for Belmont*, "Belmont is a desirable and welcoming community that retains a small-town atmosphere within a larger metropolitan area." However, without thoughtful consideration this small-town community atmosphere can easily disappear.

Belmont is a community made up of many residential neighborhoods, each with its own unique past and outward appearance. In addition to these neighborhoods there are three distinct commercial centers - Belmont Center, Cushing Square and Waverley Square (including Pleasant Street north of Waverley Square), that are surrounded by several transition zones that are comprised of a mix of residential and commercial uses.

Preserving the physical settings and streetscapes of these areas must be a priority if the town's overall character is to be maintained. This is not to say that growth and change should not take place in Belmont. The commercial centers along with the transition zones, will benefit from the thoughtful planning of future development that better defines the commercial and residential areas while expanding the stores and services available to residents. However, when change does occur it should be harmonious with its surroundings; built upon the aesthetic and historic values of the town; and sustainable in that efforts are made to encourage the reuse and improvement of existing buildings of historic or architectural value.

In addition, views of natural and man-made landmarks unique to Belmont, along with better use and access to its open spaces should be incorporated into Belmont's long-term planning to further preserve Belmont's small-town identity and atmosphere.

HISTORIC PRESERVATION IS MORE THAN PRESERVING EXISTING BUILDINGS

- **It is about preserving the character and quality of life that makes Belmont a special and desirable place to live.**
- **It is about preserving the character-defining elements responsible for shaping Belmont's outward appearance.**
- **It is about preserving and highlighting that which gives the various neighborhoods and commercial areas a sense of place as seen and articulated by an individual's perception of special relationships rather than by officially designated boundaries.**
- **It acknowledges that change can and will happen – but it ensures that change will be compatible with its surroundings, preserving the community's look and feel.**

- **It acknowledges that the economic viability of adaptive reuse and redevelopment strategies must be considered when making decisions about preservation, growth and change.**

II. BENEFITS OF HISTORIC PRESERVATION

HISTORIC PRESERVATION:

- **Creates and builds economic value in both residential and commercial areas.**

Numerous articles, books, scholarly studies and anecdotal evidence attest to the fact that historic preservation has direct and indirect positive impacts on the economy of communities and in the value of the homes and neighborhoods in which preservation is practiced. For more information on the economic benefits of preservation, see Appendix B: *Belmont Values Preservation: The Economics of Historic Preservation and Historic Districts*, Belmont Historic District Commission, May 2009.

 - Neighborhoods where maintenance and development projects follow accepted preservation standards, such as the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (see Appendix C), generally have property values that increase faster than the market as a whole.
 - Historic preservation protects the investments of owners and residents. Buyers know that the aspects that make a particular area of town attractive will be protected over a period of time.
 - There is a pool of private individuals interested in living in and owning historic and preserved homes and buildings.
 - Historic building rehabilitation, which is more labor intensive and requires greater specialization and higher skills levels, creates more jobs and results in more local business than does new construction.
 - Tax credit and preservation grant opportunities add economic value to both commercial and residential properties listed individually or as part of a district on the State and National Register of Historic Places.
- **Encourages private sector development.**

Historic rehabilitation projects, such as the re-development of the Waverley Fire Station and the Central Fire Station, act as anchor in commercial areas and residential neighborhoods and often stimulate additional private investment in similar projects.
- **Reinforces the *Vision 21* Goals related to Quality of Life, Character of Our Town and Sense of Community.**

Re-using existing buildings helps to preserve Belmont's small-town community atmosphere. Throughout Belmont, the original design character of the housing and neighborhoods has helped create the sense of a community that emphasizes

goal-worthy qualities in a small town – tranquility, beauty and excellent schools. The commercial areas, in need of revitalization, have benefitted from the rehabilitation and adaptive re-use of historic buildings. And, preservation, along with conservation, benefits the town’s natural habitats.

➤ **Ensures that development respects the traditions and distinctive characteristics of a community.**

Re-using existing buildings and retaining/restoring their historic features ensures that the characteristics of a building and its surroundings are retained. When new construction must take place, historic preservation can ensure these projects are sensitive to their surroundings by establishing design criteria that will guide a developer to design projects that preserve the “look and feel” of the town (see Appendix D: Suggested Design Criteria).

➤ **Promotes sustainability.**

Preservation and re-use of existing homes is environmentally responsible - we can *reduce* the amount of demolition and construction waste deposited in landfills, *lessen* unnecessary demand for energy and other natural resources, and *conserve* embodied energy (the amount of energy originally expended to create existing structures).

- The greenest buildings are the ones that already exist.
- One third of our nation’s landfill is construction debris from demolished older buildings.
- For more information on sustainability and preservation see Appendix E: *Our Position on Sustainability*, National Trust for Historic Preservation, and Appendix F National Trust for Historic Preservation *Pocantico Proclamation*.

➤ **Fosters civic pride in the community.**

Historic buildings are a touchstone to Belmont’s past - their preservation instills a sense of pride in the community and provides individuals with a connection to the past.

➤ **Increases sense of ownership and responsibility in the neighborhoods.**

- Historic rehabilitation encourages additional neighborhood investment.
- Projects that re-use and preserve historic buildings generally encourage better design in projects at nearby properties. There is a greater sense of relatedness, more innovative use of materials, and greater public appeal within neighborhoods where established preservation practices guide repair and development projects.

III. HISTORIC PRESERVATION ASSERTIONS

- **Historic preservation is integral to *Vision 21* Goals of Quality of Life, Character of Our Town and Sense of Community.**
- **Historic preservation is about Community Planning, not simply saving old buildings.**
- **Historic preservation builds economic value in communities and neighborhoods.**
- **Re-use of existing buildings is a green, sustainable strategy – re-use is the ultimate in recycling.**
- **Belmont's historic buildings, settings and neighborhoods need additional protection through education, zoning, community design standards, creation/expansion of local historic districts, etc.**
- **Adaptive re-use and new construction should be consistent with and reinforce the existing historic and small town character of Belmont.**
- **Creating more well-defined, safer neighborhoods can be facilitated with modest, easily implemented physical planning techniques.**
- **The town should work with developers of building re-use projects to ensure projects are economically viable by showing some flexibility to zoning regulations in return for the retention of building and site features. This may include showing flexibility to parking requirements for commercial and mixed-use projects that preserve and reuse an existing building of historic and/or architectural value.**

IV. HISTORIC PRESERVATION OBJECTIVES

- 1. Define “Historic Preservation” to reflect its role in:**
 - **Creating Economic Value**
 - **Neighborhood Revitalization**
 - **Commercial Revitalization**
 - **Community Planning**
 - **Sustainability**
- 2. Broaden historic preservation and protection of Belmont’s historic buildings, sites and neighborhoods beyond the town’s existing historic districts.**
- 3. Preserve, rehabilitate and/or adaptively re-use of Belmont’s historic public buildings and places.**
- 4. Encourage new development to be consistent with the historic small town character of Belmont.**
- 5. Encourage the redevelopment of existing residential and commercial structures as alternatives to new construction as a first priority.**
- 6. Strengthen physical definitions of existing neighborhoods.**
- 7. Encourage public road right-of-ways to be maintained through public/private partnerships.**

V. HISTORIC PRESERVATION STRATEGIES AND ACTIONS

1. Re-use and improve existing town-owned buildings.

Belmont's commitment to rehabilitate the buildings at the Town Hall Complex, and to sell the fire stations in Waverley Square and Belmont Center with preservation restrictions are projects that act as anchors in the neighborhoods where they are located, prove that older buildings can successfully be adapted for new uses, and stimulate interest in the private sector to retain and improve the existing building stock throughout the town. The Town must continue its commitment to preservation by maintaining and sensitively upgrading town-owned buildings and seek new uses for its obsolete or underutilized properties, such as the former Benton Branch Library in the Oakley Neighborhood and the Municipal Light Building in Belmont Center.

ACTION: Create Action Plans for:

- Re-use of the existing Police Station
- Re-use of the Municipal Light Building
- Re-use of the Rock Meadow Barn
- Re-use of the Benton Library
- Town Hall Complex Energy Improvements
- Completing Private Fundraising Efforts and Clean the Stone Bridge

2. Identify and protect Belmont's endangered historic resources.

Belmont's at-risk or endangered historic properties include buildings:

- On sites with the potential for larger buildings as permitted by zoning.
- On sites that may be subdivided as permitted by zoning.
- In a continual state of decline until their rehabilitation is difficult or at least very costly.
- Where historic, character-defining features have been stripped and/or covered in such a way as to make them undesirable.
- Where current development plans do not include the re-use of the building(s) if there are economically viable re-use alternatives available.

**SEE APPENDIX G FOR PARTIAL LIST OF ENDANGERED
HISTORIC RESOURCES IN BELMONT**

ACTION:

- Adopt the following criteria for identifying the historic resources in town: Historic resources shall be identified as those resources that: are listed on the inventory of the Historic and Archaeological Assessts of the Commonwealth as maintained by the Massachusetts

Historical Commission; or are listed on the National or State Register of Historic Places; or are specifically designated a “Historic Resource” by the Belmont Historic District Commission, using the criteria for evaluation established for determining eligibility for the National Register of Historic Places.

- Create full-scale inventory of historic resources including building, structures, open space, and views.
- Preserve and enhance views to landmark buildings and open spaces, e.g.: views of McLean’s and Beaver Brook from Waverley; Pequotette Field from Trapelo Road; historic civic buildings (Town Hall, etc.); historic former fire stations; and churches and schools.
- Classify levels of endangerment to create priorities for preservation and projects to be funded by the Community Preservation Act funds (see Actions under Strategy 5 “Adoption of the Community Preservation Act).
- Create public awareness of the tax benefits related to the protection of historic buildings and open space with preservation and conservation easements.

3. Encourage growth in commercial zones that complements Belmont’s small town character.

Belmont has three distinct commercial centers: Belmont Center; Cushing Square; and Waverley Square including Pleasant Street north of Waverley Square. In addition, the major transportation corridors in town which include Belmont Street/ Trapelo Road and Concord Avenue include commercial areas at Central Square, Palfrey Square, East Belmont (vicinity of Belmont Street/School Street) and Concord Avenue (vicinity of Concord Avenue and Bright Road).

ACTION:

- New development that will strengthen the commercial activity in these areas is encouraged provided that it complements the scale and design of the existing buildings in these areas and enhances the small-town atmosphere of the town.
- Provide developers a set of design criteria that will help provide a general idea of what new development should and should not look like. The architectural and aesthetic compatibility of a proposed development project should take into consideration the character of the surrounding neighborhood, taking into account appropriate scale, massing, and locations of buildings on the lot, roof slopes, street façade, exterior building materials, historic significance and similar factors (see Appendix D: Suggested Design Criteria).

4. Create public outreach programs to educate townspeople on the benefits of preservation.

ACTION:

- Promote wider participation of various committees, commissions, Town staff, and private groups with each other.
- Provide access, either online or through publication, to resources such as the Belmont Historic District Commission's Design Guidelines for Local Historic Districts to educate residents on appropriate historic preservation practices.
- Assist property owners in identifying the history of the evolution of the neighborhood their property is in, and assist in defining the characteristics of the neighborhood to ensure future changes are consistent with the neighborhood's look and feel.
- Work with the local Real Estate Community to provide developers and prospective property buyers with accurate information about possible development possibilities of properties and the benefits of Historic Preservation.
- Work with the Belmont Historical Society to promote its annual preservation awards program using past recipients as role models for preservation.
- Include historic preservation as a part of the local elementary schools' visits to the Belmont Historical Society's Claflin Room.

5. Enact protective measures to strengthen preservation of existing properties not currently protected.

ACTION:

- Adopt the Community Preservation Act:
The Community Preservation Act is statewide enabling legislation that helps communities preserve open space and historic sites, and create affordable housing and recreational facilities by creating a specific fund dedicated to: (1) acquisition and preservation of open space; (2) creation and support of affordable housing; and (3) acquisition and preservation of historic buildings and landscapes. This fund is established from a surcharge (1%- 3%) on all property tax that is matched by a dedicated state fund. Once adopted funding must be fairly distributed to the above three categories.
- Adopt Demolition Review By-Law
Buildings that are fifty years or older and that the Belmont Historic District Commission determines to be significant and preferably preserved will not be issued a demolition permit until a period of twelve months have passed which will allow members of the Belmont Historic District Commission to work with the property owner to explore alternatives to demolition.

- Formulate criteria for selecting specific historic resources needing protection.
- Identify vulnerable areas and create measures to protect them.
- Update the 1982 Inventory of Historic Properties.
- Inventory various patterns of housing development.
- Inventory Landmark Buildings and Open Spaces.
- Update Scenic Roads designations (Somerset Street is the only designated ‘scenic road’).
- Create new Historic Districts (a house can be a district).
- Create a Protection of Specimen Trees By-Law.
- Partner with the Belmont Historical Society to create a Historic Plaque Program.
- Include on the Planning Board a member experienced in historic preservation.
Create liaisons from the Belmont Historic District Commission to the Planning Board and to Sustainable Belmont.

6. Enact zoning reforms to include design standards for new development that are informed by preservation.

ACTION:

- Enact zoning reforms to include design standards that are neighborhood specific for new development to require new residential, commercial, and mixed-uses to complement neighborhoods.
- Promote use of natural, traditional and sustainable building materials.
- Enact Density Bonuses for Preservation. In exchange for redeveloping and preserving an historic structure(s), an additional unit(s) or square footage can be granted for such.
- Prepare Design Criteria and establish a Design Review Board for Overlay districts that address: scale and mass; proportions, shape and roof pitch; parking and loading; proximity to street; and views to protect, enhance, reclaim.
SEE APPENDIX D for Suggested Design Criteria

7. Provide measures and incentives to protect and enhance Belmont’s neighborhoods.

ACTION:

- Use traffic calming measures to slow down traffic within the neighborhoods.
- Create gateways to neighborhoods.
- Promote neighborhood workshops to share information on ways to strengthen neighborhood environments.
- Develop newspaper/on-line campaigns demonstrating techniques and benefits.

- Enact zoning reform to avoid parking lots, loading, dumpsters, lighting, etc. adjacent to neighborhood housing.
- Create and provide Design Standards and Guidelines for homeowners and commercial owners/tenants to plant and care for rights-of-way.
- Develop guidelines for public/private sharing in care of street trees.
- Redefine “ownership” and responsibility for rights-of-way in neighborhoods.
- Encourage underground placement of utilities.
- Provide DPW support as incentive for private participation for the improvement of streetscapes.
- Update National Register of Historic Places Listings: Efforts to individually list properties onto the National Register of Historic Places and to create new National Register Districts in town can provide tax incentives for property owners to place preservation restrictions on their property, and for developers to adaptively re-use and rehabilitate historic structures. To accomplish this work the existing survey of historical resources will need to be updated and expanded.

8. Adopt and Promote a Position on Sustainability

ACTION:

- See Appendix E and F for suggested position on sustainability.

APPENDIX A

**THE ECONOMICS OF HISTORIC PRESERVATION AND OF HISTORIC DISTRICTS
BELMONT HISTORICAL COMMISSION BELMONT HISTORIC DISTRICT
COMMISSION MAY 2009 THE ECONOMICS OF HISTORIC PRESERVATION
AND OF HISTORIC DISTRICTS**

A BIBLIOGRAPHY Plus

Numerous articles, books, scholarly studies and anecdotal evidence attest to the fact that historic preservation and the creation and maintenance of historic districts have direct and indirect positive impacts on the economy of communities and in the value of the homes in which preservation is practiced. “What does historic preservation do for a local economy? Increases the tax base, increases loan demand, enhances property values, generates sales of goods and services and—most importantly—creates jobs.” *Community, Place and the Economics of Historic Preservation*, Donovan D. Rypkema, New Jersey Preservation Awards (1966). By what methods(s) are these economic benefits measured? The five most referred to methods are: basic cost studies; economic impact studies; regression analysis (hedonic, travel cost and property value studies); contingent valuation and choice modeling; and case studies. The Brookings Institute recently analyzed the efficacy of these methods, identified each of their strengths and weaknesses and ended up proposing a “hybrid of the most promising methods.” The study, however, left no doubt that “[d]esignating a landmark as historical typically maintains if not boosts the value of the property, and as an economic development tool historic preservation has proved its worth. Nearly any way the effects are measured, be they direct or indirect, historic preservation tends to yield significant benefits to the economy.” *Economics and Historic Preservation: A Guide and Review of the Literature*, Randall Mason, Metropolitan Policy Program, the Brookings Institution. See also, *The Economics of Historic Preservation, A Community Leaders Guide* by Donovan D Rypkema on behalf of the National Trust for Historic Preservation (contains one hundred “arguments” on the economic benefits of historical

preservation each backed up by cites to studies, papers, publications, speeches, or report on the topic).

These same benefits are realized and, perhaps even to a greater extent, when preservation takes the form of the creation of a historic district. Indeed, not a single study has been found to show a reduction in the value of homes located within an historic district. To the contrary, these studies show that:

- **Home prices in historic districts generally increase faster than the market as a whole;**
- **The extra protection provided by local historic district designation generally leads to owners benefiting with a higher rate of return on their investments;**
- **The added value of properties in historic districts strengthens the tax base of communities;**
- **Tax credit and preservation grant opportunities add economic value to commercial historic registered properties.**

While the studies are too numerous to list, we have highlighted in this bibliography some of the more significant ones should you desire to read further. We have also collected various quotes considered notable.

QUOTES

1. ***“Property values in local historic districts appreciate significantly faster than the market as a whole in the vast majority of cases...simply put, local historic districts enhance property values”*** – The Economics of National Register Listing.
2. ***“Local land-marking can actually boost property values by introducing certainty into the marketplace and improving the overall economic climate, which benefits all property owners”*** – The Economic Benefits of Historic Preservation.
3. ***Historic Preservation.... “[F]rom an economic standpoint, historic preservation creates new local jobs, spurs private and public investment, increases property values, and enhances neighborhood and community pride.”*** The City of El Paso, Texas Department of Development Services.
4. ***Frequently Asked Questions about Local Historic Districts:***
www.uga.edu/gapc/links_doc_pdf/FAQ%20about%20local%20districts.pdf. Article notes that the economic benefits of historic preservation are:

- **“Creation of local historic districts stabilizes, and often increases residential and commercial property values.**
- **Increases in property values in historic districts are typically greater than increases in the community at large.**
- **Historic building rehabilitation, which is more labor intensive and requires greater specialization and higher skills levels, creates more jobs and results in more local business than does new construction.**
- **Heritage tourism provides substantial economic benefits. Tourists drawn by a community’s (or region’s) historic character typically stay longer and spend more during their visit than other tourists.**
- **Historic rehabilitation encourages additional neighborhood investment and produces a high return for municipal dollars spent.**
- **Use of a city or town’s existing, historic building stock can support growth management policies by increasing the availability of centrally located housing.”**

5. “...[W]e looked at the cost/benefit of the tax credit. In Fiscal Year 1995 the Department of the Interior reports that there were 529 projects representing investment of \$467,000,000. What is the cost of that program to the Federal coffers? Well with a 20 percent tax credit, the revenue loss to the treasury is a maximum of \$93,400,000. But what is the economic benefit? Income taxes paid by construction workers of almost \$51 million; income taxes from other workers of over \$39 million; business income taxes of nearly \$15 million; capital gains taxes of over \$19 million; totaling Federal economic benefits from this program of \$124, 250,000 last year significantly more than the revenue cost.

Additionally this activity created 14,000 jobs, added \$348 million to local household incomes, and will generate each year local property tax revenues of between \$7 and \$11 million dollars. Independent of the social, cultural, and aesthetic benefit historic preservation provides, the U.S. taxpayers are absolutely getting more than their money’s worth with this program. And I thought that’s what reinventing government was all about.” Community, Place and the Economics of Historic Preservation, Donovan D. Rypkema, New Jersey Historic Preservations Awards Ceremony, April 27, 1996, Montclair, New Jersey

6. “Historic Districts preserve memories for future generations, as well as a sense of time and place.” – Mission Hills Historic District.

7. ***“Environment – the greenest homes are the ones that already exist.” “One third of our landfill is construction debris from demolished older buildings.” “Our Homes: ‘Maintain tangible contact with the places where our identity as a nation was established and our character as a people was shaped’.” – Historic Preservation & Historic Districts are Good for America – Richard Moe (National Trust).***

8. ***“...homes within historic districts sell at a premium over similar houses outside historic districts and values outpace nearby neighborhoods – a point touted by realty agents and preservation experts.” – Los Angeles Times (Sept. 30, 2007) Real Estate section article “Banking on the Value of History”.***

9. ***National Park Service: U.S. Department of the Interior – Benefits of a Historic District:***

“Local districts protect the investments of owners and residents. Buyers know that the aspects that make a particular area attractive will be protected over a period of time.”

“Local districts encourage better design. It has been shown through comparative studies that there is a greater sense of relatedness, more innovative use of materials, and greater public appeal within historic districts than in areas without historic designations.”

“Local districts help the environment. Historic district revitalization can, and should, be part of a comprehensive environmental policy.”

“The educational benefits of creating local districts are the same as those derived from any historic preservation effort. Districts help explain the development of a place, the source of inspiration, and technological advances.”

“A local district can result in a positive economic impact from tourism. A historic district that is aesthetically cohesive and well promoted can be a community’s most important attraction. The retention of historic areas as a way to attract tourist dollars makes good economic sense.”

“Local districts provide social and psychological benefits. A sense of empowerment and confidence develops when community decisions are made through a structured participatory process rather than behind closed doors or without public comment.”

10. ***“The proximity of historically designated houses on the sales price of other non-historic houses is valued using hedonic regression analysis.” “The results suggest that a house’s value is increased by 3.8 percent by having a historical house within 250?ft. and by 1.6 percent by having a historical home located between***

250 and 500?ft away.”- Estimating the Value of the Historical Designation Externality.

11. ***“Preservation is no longer the sentimental saving of a beautiful old building—it is now a broad concept involving building codes, land use planning, tax law, open space planning, downtown revitalization—a vital tool for the conservation of neighborhoods and cities.” – Ypsilanti Historic District Fact Sheet.***
12. ***“Property values of historic buildings and sites in communities as diverse as Fredericksburg, Richmond, and Staunton [Virginia] significantly outperform the appreciation rates of non-historic properties” (Virginia’s Economy and Historic Preservation: The Impact of Preservation on Jobs, Business and Community, 1995, by Donovan D. Rypkema).***
13. ***“Galveston [Texas]: Information was obtained on sales transacted over a period of six months in the two residential historic districts and in the nearby [non-historic] San Jacinto/South Broadway neighborhood ‘to compute an average sales price per area. These figures were compared to the results of an early 1970’s study of average sales prices. Between 1975 and 1991, prices increased by an average 440% in the East End [historic district] and by 165% in the Silk Stocking [historic] district. By comparison, prices in the San Jacinto neighborhood increased over the same period by an average 80%’.” (The Economic Benefits of Preserving Community Character: A Case Study from Galveston, Texas, 1991, by Government Finance Research Center.)***
14. ***“Anderson [Indiana]: Over a recent period of 15 years, ‘the values of properties in the study areas steadily appreciated after the creation of historic [residential] districts’.” (American Planning Association, Historic Preservation and Property Values in Indiana, June 1998 edition of the Planning Advisory Service Memo.)***
15. ***“Indianapolis [Indiana]: ‘The property values in the local historic [residential] district increased at a rate [that]...exceeded the rate of both an adjacent, highly similar and unregulated neighborhood and the larger area of Indianapolis within which it sits.’ Two adjacent, nearly identical historic residential neighborhoods—Fletcher Place and Holy Rosary-Danish Church—are both listed in the National Register. However, ‘since 1980, Fletcher Place has been a locally designated historic district.’ Although the value of both neighborhoods appreciated between 1982 and 1995, Fletcher Place ‘appreciated at a significantly greater rate’.” (APA).***

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- 3. The Economics of Historic Preservation, *Randall Mason, Brookings Institution (2005).***
- 4. Historic Districts are Good for Your Pocketbook, *Elizabeth Morton, State Preservation Office at the South Carolina Department of Architecture and History.***
- 5. Greenfield, MA Historical Commission FAQ: Is there a connection between historic preservation and economic development? How do National Register and Historic Districts affect property value?**
- 6. Study Puts Dollar Value on Historic Preservation, *Article from the Washington Post dated March 14, 1992.***
- 7. Economic Benefits of Residential Historic Districts, *Los Angeles Conservancy, 1971.***
- 8. Statewide Studies [of 21 states] on the Economic Impacts of Historic Preservation, Advisory Council on Historic Preservation (2009)
*<http://www.achp.gov/economic-statewide.html> with links to each state's research website.***
- 9. Planning for Historic Preservation: An Introduction to Preservation Planning, *Amy Facca, PCJ #52, Fall, 2003.***
- 10. *National Trust for Historic Preservation and its excellent collection of preservation books.***
- 11. *Articles on the Economic Value of Historic Districts, High Beam Research, <http://www.highbeam.com/search.aspx?q=articles+on+the+economic+value+of+historic+districts>***

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- 1. *Economic Benefits of Preserving Old Buildings*, by the National Trust for Historic Preservation (1982).**

- 2. Historic Preservation: An Introduction to its History, Principles, and Practice, by Ted J. Ligibel, Ph.D., Irene R. Taylor, Norman Taylor AICP (1999).**
- 3. Economic Impact of Historic District Designation: Lower Downtown Denver, Colorado (Dollars and Sense of Historic Preservation) by Siler Hammer, George Associates, and Bridget Hartman.**
- 4. Use It or Lose It (Dollars and Sense of Historic Preservation) by Matthew Bauer and Bridge Hartman.**
- 5. Saving Places that Matter: A Citizen's Guide to the National Historic Preservation Act by Thomas F. King.**
- 6. The Economics of Historic Preservation: A...by Donovan D. Ryp...**
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- 10. Assessing the Impact of Local Historic Districts on Property by Jo Ramsay Leimenstoll and Bridget Hartman.**
- 11. A Richer Heritage: Historic Preservation in the Twenty-First Century by Robert E. (ed.) Stipe (Hardcover – June 23, 2003).**
- 12. Historic Preservation in the USA by Karolin Frank, Patricia Petersen, H.M. Mowat, and J. Smith**
- 13. The Economics of Rehabilitation (Preservation Information) by Donovan D. Rypkema.**
- 14. Preservation Yellow Pages: The Complete Information Source for Homeowners, Communities, and Professionals by National Trust for Historic Preservation and Julie Zagars.**
- 15. Historic Preservation Incentives of the 1976 Tax Reform Act: An Economic Analysis (NBS Technical Note; 980) by Stephen F. Weber.**
- 16. Economic Facts and Fallacies by Thomas Sowell.**

Most, if not all, of the cited articles may be obtained on line while the published books can be found on Amazon as well as at other national booksellers' sites. All are still in print and are available new

or, in many cases, used condition. Please contact any HDC member should you be unable to locate any listed material.

APPENDIX B

SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES

Standards for Rehabilitation

1. A property will be used as it was historically, or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired significance in their own right shall be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work

will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent new construction will be undertaken in such a manner, that if removed in the future, the essential form and integrity of the historic property and its environments would be unimpaired.

APPENDIX C Suggested Design Criteria

NOTE: THIS SECTION REQUIRES FURTHER DEVELOPMENT TO BE DISCUSSED AFTER COMPREHENSIVE PLAN APPROVAL

GENERAL

The Design Criteria listed in this section are examples of what should be included in zoning bylaws. The Planning Board should be given broader site planning review authority than it currently has.

The entire section needs to be more thoroughly crafted and illustrated as a next step in the Comprehensive Plan process. See photographs as reference for things to encourage and discourage.

The Comprehensive Plan should include specific recommendations for launching an extensive town-wide educational campaign, describing a vision of benefits and likely design outcomes when applying design criteria.

COMMERCIAL AND MIXED-USE ZONES DESIGN CRITERIA

Design Criteria in commercial and mixed-use zones should be created to provide developers a general idea of what new development should and should not look like. The architectural and aesthetic compatibility of a proposed development project shall be considered with the character of the surrounding neighborhood, taking into account appropriate scale, massing, space for current parking demands and requirements, and location of buildings on the lot, roof slopes, street façade, exterior building materials, historic significance and similar factors.

Design Criteria should be written specifically for various zones. For example, the criteria for the Oakley Overlay District would certainly be different than for Waverley Square.

Design Criteria should also be included in the various zoning districts as part of a “site plan review” process giving the Planning Board review authority.

Design criteria for commercial zones should be written so that the design of sites and building is respectful to existing surrounding/adjacent residential neighborhood homes.

Design Criteria should include:

Scale and Massing:

Several features of a building define its scale and massing including: height; number of stories; roof design and materials; cornice height; and fenestration, all of which are addressed below. In addition, the area that a building's footprint occupies on its lot also defines its scale and massing when compared to the existing surrounding buildings and their lots.

Building Form:

Building Height:

The height and number of stories of a proposed new building must be compatible with the majority of the existing surrounding buildings in the residential zones. In general the maximum height on primary streets shall be no greater than 2-1/2 stories (32'), as measured to the mid-point of sloping roofs (see Waverley Sq. Dunkin Donuts building as an example). The South Pleasant Street zone, up to and including the Flett site can be 3 stories (36') max. View corridors to landmark sites (e.g. Wellington Hill) should not be obstructed. Only in the case of a proposed new parking garage in a commercial area will a greater number of stories be permitted, provided that the number of stories does not increase the building height beyond that permitted by zoning.

Roof Design and Material:

The design of a roof, whether flat, side-gable, front-gable, Gambrel, Mansard or other, is a character defining element of a building. Roof design, including form and materials, should blend well with and be respectful of the design of the historic homes in adjacent neighborhoods.

Sidewall Material:

The sidewall material of a building is a critical visual design element and should be made of natural materials such as wood siding, wood shingle, brick, stucco, stone, etc.

Fenestration:

Exterior Mechanical and Electrical Equipment:

Air conditioning handlers and condensers, venting and exhaust equipment, and other related utilities must be located to minimize visual impact and sound disturbance to neighboring properties and any surrounding public way. Rooftop building systems (such as mechanical and electrical equipment, antennas, satellite dishes) shall be screened from view from the street frontage by integrating them into the building design with parapets, screens or by other appropriate methods.

Exterior Lighting:

The location and brightness of exterior lighting must be consistent with the existing lighting in the neighborhood, and, whenever possible, be minimized to encourage the conservation of electricity and limit light pollution associated with urban areas.

Setbacks:

Landscaping:

Grade Changes:

Driveway/Parking Area Location and Material:

Providing room for parking, particularly on small or dimensionally constrained lots, may require flexibility by the town when considering redevelopment options for Belmont's commercial centers. These will be considered on a case by case basis with preference to those projects that re-use and preserve buildings of historic and/or architectural value.

Parking Garages: Parking garages above grade shall not front on primary streets; they should be behind retail and/or other commercial uses.

LEED: Building and site design should be adequate to achieve compliance with Leadership in Energy and Environmental Design (LEED) criteria, as promulgated by the U.S. Green Building Council. Goals of Sustainable Belmont must be met.

Type and Location of Infrastructure:

To the extent possible, new utilities shall be located underground. To the maximum extent feasible, all dumpsters, utilities, mechanical equipment, storage and service areas shall be screened from view from adjacent streets and from structures on neighboring lots with plantings and/or landscape structures. In no cases shall dumpsters be permitted to be located within the required Front Setback.

Off-Street Parking:

Surface parking areas shall be set back from street lines a minimum of ten feet (10'). Parking layouts should minimize nuisance from car headlights that beam into residential dwellings through the use of visual screening by use of plantings or fencing. Alleys are permissible to provide multi-purpose parking areas.

Surface parking shall be located in the side or rear relative to the streets, and should be screened with a combination of stone walls or fencing, and landscaping.

Lighting:

Subject to compliance with the lighting requirements, distinctive features of buildings including entries, signage, canopies, and areas of architectural detail and interest may be illuminated.

Protection of Significant Natural Site Features:

Location and design of buildings shall not cause avoidable removal or damage to any tree exceeding twelve (12) inches trunk diameter measured at a point four feet above grade.

Location and Design of On-Site Open Spaces:

The overall site design shall include common open space and facilities designed to be functional and well-integrated with the built environment. Wherever practicable, existing trees and

plantings shall be maintained. Consideration will be given to creating open space that is visually and functionally accessible to the public.

Within Renovation projects, open space surrounding existing buildings shall be maintained. Any new structures and outdoor parking areas shall be screened with evergreen shrubbery which shall be a minimum five (5) feet in height at time of building occupancy, and be planted to maintain adequate sight lines for pedestrians and motor vehicles.

Landscaping:

Existing vegetation should be preserved if feasible and healthy. Plant materials should be chosen to withstand seasonal weather cycles in New England and for compatibility with existing plantings in the surrounding neighborhood, with consideration for resistance to infestations, resilience to climate exposure, water availability and drainage conditions. Native species must be used.

Buffering in Relation to Adjacent Properties:

Wherever it abuts existing development, new development should incorporate design transitions between new buildings and existing buildings, using comparable materials, roof design, fencing materials and landscaping.

RESIDENTIAL ZONES DESIGN CRITERIA

NOTE: THIS SECTION REQUIRES FURTHER DEVELOPMENT: This should be written for residential zones only – that is the single family and general residence zones – not to be confused with residential in the commercial and mixed-use areas.

Scale, Proportion and Exterior Appearance of Homes:

Home renovations should seek to restore the character of the original historic design, while accommodating the user's needs. New home construction should be consistent with that found on the majority of the existing surrounding homes.

Windows and Doors:

All homes should contain doors and windows of natural, traditional and sustainable building materials, to the extent practical.

Roofs:

Roof form and materials should be consistent with that found on the majority of the existing surrounding historic homes. Dormers should be carefully designed to appear as relatively small compared to the general roof surface – shed dormers as large as room widths are inappropriate. Roofs additions larger and/or taller than the original house are inappropriate.

Balconies/Porches

Enclosures of existing balconies and/or porches should not be permitted. The re-opening of previously enclosed balconies, especially on historic two and three-family homes, should be encouraged. New balconies and/or porches should be encouraged on both new and renovation projects, if suitable for and compatible with the existing neighborhood.

Sidewalls:

Material selection should be of natural, traditional and sustainable building materials. Materials such as wood shingles, clapboard, brick and stone are encouraged.

Facades:

In renovation development projects, the façade(s) of any building that is determined to be eligible for listing on the National Register of Historic Places will be appropriately rehabilitated, as provided in the Secretary of the Interior's Standards for Rehabilitation (36 CFR Part 67).

Two-Family Dwellings:

Two-family dwellings should be designed to appear as a single-family home to the greatest extent practical. If the two-family dwelling includes two entrances, consideration should be given to placing the entrances on two different sides of the building. The two-family dwelling should include pitched rooflines, and features such as porches and terraces characteristic of the historic stock on homes in the neighborhood,

Placement, Alignment, Width and Grade of Streets and Sidewalks.

The pedestrian environment shall be maintained by providing for continuous sidewalks that are unencumbered by parked vehicles and are minimally broken by vehicular access and parking. Sidewalks should provide a uniform travel surface for people who use wheelchairs, carriages, walkers, bicycles or scooters.

Streets and sidewalks should not obstruct the growth of trees, especially larger, older trees.

Sidewalks, when built adjacent to retaining walls should, to the extent practical, be built to leave planting strips.

Street paving should be minimized and landscaping maximized wherever possible, particularly at intersections leading to neighborhoods.

Existing paving of existing planting strips on rights-of-way should be removed and new planting installed. Public private partnerships between the Town and property owners should be encouraged.

Location of Building and Garage Entrances:

Building design and location of garages and driveways should minimize the impact of automobile parking and driveways on the pedestrian environment, adjacent properties and existing streets and intersections by consolidating access to a limited number of curb cuts.

Garages are not allowed on street facing, primary façades in neighborhoods where historically it is not the pattern.

Below grade garages requiring ramped driveways with retaining walls are inappropriate.

Entries:

Entry areas should provide protection from adverse weather through the use of porches or canopies.

Outbuildings (Garages, Sheds, etc.):

Outbuildings, including garages and sheds must be compatible with the existing surrounding buildings in the neighborhood and of a smaller scale and massing of the primary building on the property. In no case will subterranean garages be permitted in residential neighborhoods.

Protection of Significant Natural Site Features:

Location and design of buildings shall not cause avoidable removal or damage to any tree exceeding twelve (12) inches trunk diameter measured at a point four feet above grade.

Location and Design of On-Site Open Spaces:

The overall site design shall include common open space and facilities designed to be functional and well-integrated with the built environment. Wherever practicable, existing trees and plantings shall be maintained. Consideration will be given to creating open space that is visually and functionally accessible to the public.

Within Renovation projects, open space surrounding existing buildings shall be maintained. Any new structures and outdoor parking areas shall be screened with evergreen shrubbery which shall be a minimum five (5) feet in height at time of building occupancy, and be planted to maintain adequate sight lines for pedestrians and motor vehicles.

Landscaping:

Existing vegetation should be preserved if feasible and healthy. Plant materials should be chosen to withstand seasonal weather cycles in New England and for compatibility with existing plantings in the surrounding neighborhood, with consideration for resistance to infestations, resilience to climate exposure, water availability and drainage conditions. Native species must be used.

Buffering in Relation to Adjacent Properties:

Wherever it abuts existing development, new development should incorporate design transitions between new buildings and existing buildings, using comparable materials, roof design, fencing materials and landscaping.

Mechanical and Electrical Equipment: Mechanical equipment is inappropriate for placement on the roofs of homes. Electrical equipment (satellite dishes, antennae, cable/telephone/electric wires, etc.) should all be placed as discretely as possible away from the public view.

Underground wiring is highly encouraged. Solar panels and other energy efficient equipment

should be integrated with the home design, to the extent practical, and discretely placed away from the public view.

APPENDIX D

National Trust for Historic Preservation notes re: Preservation and Sustainability From website:
<http://www.preservationnation.org/issues/sustainability/> 10-29-09

Our Position on Sustainability

Historic preservation can – and should – be an important component of any effort to promote sustainable development. The conservation and improvement of our existing built resources, including re-use of historic and older buildings, greening the existing building stock, and reinvestment in older and historic communities, is crucial to combating climate change.

Preservation's Essential Role in Addressing Climate Change

The construction, operation and demolition of buildings accounts for 48% the United States' greenhouse gas emissions. But reusing and retrofitting our existing buildings can reduce these emissions dramatically. In fact, our existing buildings are one of our greatest renewable resources.

Through our Sustainability Initiative, the National Trust for Historic Preservation is focusing the nation's attention on the importance of reusing existing buildings and reinvesting in older and historic communities as critical elements in combating climate change. Americans already embrace as common sense the need to recycle aluminum cans, glass and newspapers. We advocate applying that same common sense to our built environment.

We don't discount the value of new, green construction – in fact many green technologies can and should be applied to existing buildings to improve performance. But new construction – no matter how green – still uses energy and other natural resources and generates construction waste that clogs landfills.

Through its research, the National Trust's Sustainability Initiative is demonstrating that conservation and improvement of our existing built resources are environmentally logical and economically viable elements in combating climate change.

Sustainable Stewardship of our Buildings and Communities

Guiding Principles:

- ⌚ Reuse existing buildings: Use what you have. The continued use of our existing buildings reduces the amount of demolition and construction waste deposited in landfills, lessens unnecessary demand for energy and other natural resources and conserves embodied energy (the amount of energy originally expended to create extant structures).

1 National Trust for Historic Preservation notes re: Preservation and Sustainability From website: <http://www.preservationnation.org/issues/sustainability/> 10-29-09

- ⌚ Reinvest in our older and historic communities: Older and historic communities tend to be centrally located, dense, walkable, and are often

mass-transit accessible – qualities celebrated and promoted by Smart Growth advocates. Reinvestment in existing communities also preserves the energy embedded in infrastructure, such as roads, water and sewer lines.

- ⌚ Retrofit our existing building stock: Many historic and older buildings are remarkably energy efficient because of their site sensitivity, quality of construction, and use of passive heating and cooling, while other buildings require improvements to reduce their environmental footprint. Historic buildings can go green without compromising historic character.

Our Commitment

Focus on Local, State and Federal Policy: The National Trust for Historic Preservation will work with several cities to develop model policies that encourage preservation as sustainable development. This work will include refining building, energy and zoning codes, as well as developing model language for comprehensive plans and climate change action plans. We will also work to expand the availability of historic tax credits at the state and federal level, encourage other financial incentives for building reuse and community revitalization and support energy policy that improves energy efficiency in older buildings.

Empower Preservation Practitioners: The National Trust will provide our network of practitioners with the tools they need to incorporate green building practices into their preservation work. This will include development and dissemination of best practices and other guidance for greening older and historic buildings.

Sustainability by the Numbers

The Costs of Construction & Demolition

- ⌚ The average home size in the United States has increased 105% between 1950 and 1999.
- ⌚ The United States is responsible for 22% of the world's greenhouse gas emissions, though we have only 5% of the world's population. According to the Pew Center on Climate Change, the operation of buildings accounts for 43% of carbon emissions in the United States. The environmental impact of buildings is even more significant when we take into consideration the greenhouse gas emissions associated with manufacturing building materials and products.
- ⌚ In terms of waste, construction of an average 2,000-square-foot home generates 3,000 pounds of wood, 2,000 pounds of drywall and 600

2 National Trust for Historic Preservation notes re: Preservation and Sustainability From website:
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pounds of cardboard. Moreover, the construction of an average single-family home generates four pounds of waste per square foot. On average, only about 20%-30% of that waste is recycled or reused.

- ⌚ It takes a lot of energy to construct a building – for example, building a 50,000 square foot commercial building requires the same amount of energy needed to drive a car 20,000 miles a year for 730 years.
- ⌚ We are much too inclined to think of our buildings as disposable rather than a renewable resource. A 2004 report from the Brookings Institution projects that by 2030, we will have demolished and replaced 82 billion square feet of our current building stock. Since it is estimated that there are about 300 billion square feet of space in the United States today, that means we anticipate demolishing nearly 1/3 of our building stock in the next 20-25 years.
- ⌚ It will take as much energy to demolish and reconstruct 82 billion square feet of space (as predicted by the Brookings study) as it would to power the entire state of California – the 10th largest economy in the world with a population of about 36 million people – for 10 years.
- ⌚ If we were to rehab even 10% of this 82 billion square feet, we would save enough energy to power the state of New York for well over a year.
- ⌚ Construction debris accounts for 25% of the waste in the municipal waste stream each year. Demolishing 82 billion square feet of space will create enough debris to fill 2,500 NFL stadiums.

Energy Efficiency of Historic & Older Buildings

It is often assumed that older and historic buildings are "energy hogs" and that it is more environmentally friendly to demolish these buildings and construct new energy efficient buildings. However, recent work indicates otherwise.

- ⌚ The average embodied energy in existing buildings is five to 15 gallons of gasoline per square foot. The average embodied energy in a 250,000 square-foot office building is 3.75 million gallons of gasoline.
- ⌚ Recent calculations indicate that it takes 35-50 years for an energy efficient new building to save the amount of energy lost in demolishing an existing building.
- ⌚ Far from being "energy hogs," some historic buildings are as energy efficient – or more so – than buildings constructed in later decades. Data from the U.S. Energy Information Agency finds that buildings constructed before 1920 are actually more energy-efficient than those built at any time afterwards – except for those built after 2000.
- ⌚ In 1999, the General Services Administration examined its building inventory and found that utility costs for historic buildings were 27% less than for more modern buildings.

- ⌚ Not all historic and older buildings are as sustainable as they should be – indeed, many are not. But an increasing number of case studies demonstrate that historic buildings can go green. The National Trust's Lincoln Cottage Visitors Education Center in Washington, D.C., is just one such example.

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The National Trust for Historic Preservation launched its Preservation Green Lab on March 25, 2009, in Seattle, WA. The work of the new field office will focus on preserving older and historic buildings sustainably, as well as supporting the broader goal of fighting climate change. Click [here](#) to view photos from the official launch event.

Why do we need a Preservation Green Lab?

There's a lot of buzz these days about global warming and the worsening climate crisis, but did you know that it's not just gas-guzzling cars that are to blame? An astounding 43% of our nation's carbon emissions originate from the operation of the buildings that we live and work in. Even worse? Factoring in the environmental impact of the construction (and perhaps future demolition) of those buildings bumps that percentage even higher.

In recent years, state and local governments across the country have adopted much-needed climate action plans outlining strategies for countering the growing threat of global warming. These plans typically identify goals for preserving open space, increasing the use of mass transit, enhancing recycling activities and promoting the greening of new construction projects. However, despite the grim statistics noted above, few of these action plans offer strategies for greening our country's existing building stock, and even fewer – if any – identify the important role that building reuse plays in curbing carbon emissions.

What will the Preservation Green Lab do?

Sometimes the best way to teach is to lead by example.

In its day-to-day work, the Preservation Green Lab will coordinate demonstration projects and provide technical assistance and model policies – all in an effort to encourage municipalities and states around the country to fully consider historic preservation and the existing building stock in formulating their climate change action plans. As a key component of the National Trust for Historic Preservation's Sustainability Program, the Preservation Green Lab will focus on these three goals:

Good Policy, Green Results: The greenest building is often the one that is already built, which is precisely why the Preservation Green Lab will work in various cities and states to develop and implement policies that support green retrofits and adaptive reuse, as well as reinvestment in existing communities.

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Greening by Example: To demonstrate that older and historic buildings can, in fact, be retrofitted to achieve high levels of energy efficiency, the Preservation Green Lab will launch a number of green retrofit projects in pilot cities across the country.

The Go-To for Going Green: The Preservation Green Lab will lead the conversation on best practices and model policies for greening our country's prized older and historic buildings, functioning as the go-to resource for those navigating the intersection of historic preservation and sustainability.

Support for the Preservation Green Lab was made possible by the City of Seattle, the Kresge Foundation, the Bullitt Foundation, the Charles Evans Hughes Foundation, the Goodfellow Fund, 4Culture, and Mr. and Mrs. Kevin Daniels.

Where will the Preservation Green Lab work?

Headquartered in Seattle, the Preservation Green Lab will partner with selected cities and states in its efforts to become a national clearinghouse for best practices and model policies. Seattle, San Francisco and Dubuque have agreed to be the Preservation Green Lab's first pilot cities, and additional cities are already being considered for future projects and partnerships.

Want to know more about the people behind the Preservation Green Lab? Check out our new Q&A interview series, and come back often as we add more profiles.

Speak out! How could your city or state be more green?

Historic preservation and sustainability go hand-in-hand. That's the conversation we need to have time and time again with the people who are making important decisions in our cities and states. Join in by leaving a comment below with your thoughts and ideas about how things could be greener – and at the same time more historic – in your neck of the woods.

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Green Home Tips

The greenest house is the house already built. But that doesn't mean you shouldn't make your old house even more eco-friendly. Mouse over the numbers to see 10 tips to green your home while maintaining its historic integrity.

Illustration by MCKIBILLO (from Preservation Magazine January/February 2008 issue).

Submitted by nateknowswindows at: July 18, 2009 Please visit www.antiquewindowrestoration.com for information on restoring your original wood windows. We are here to help you understand what your options are with your windows and your home. Email nate@antiquewindowrestoration.com if you have ANY questions about your windows. **Submitted by Landscape Architect Student** at: May 20, 2009 This is more of a general question... I'm working on a summer research project that is looking at: preservation and restoration of historic architecture and ways to upgrade them so they are more "sustainable" without taking away from their antiquity. Any good books or sites that I could be directed to? **Submitted by HPCP** at: April 22, 2009 <http://www.oldhouseweb.com/suppliers/Windows/> You need to know what materials your house is made out of to decide what insulation will be best fit for it. This Brief discusses is: <http://www.nps.gov/history/hps/tps/briefs/brief03.htm> **Submitted by Buphie** at: March 25, 2009 I have a 1930 brick tudor in Seattle. Most of the downstairs windows were replaced with ugly aluminum in the 70s or 80s, and we have original leaded glass upstairs. The upstairs windows don't close properly, but I just haven't been able to bring myself to replace them. I'm looking for resources or advice for fixing leaded glass windows and frames, for storm

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windows, and for replacement windows for downstairs that match the house. Are there contractors who will install salvage windows, and maybe even help find them? Does anyone make replacement windows that look like leaded glass (not the cheesy black-plastic-inside-double-pane ones)? Any pointers? Also looking for pointers on attic insulation. Thanks! **Submitted by sarah** at: February 26,

2009 our home inspector told us that he had to tell us to replace the windows in our 1840 stone house, but we would be crazy if we did. **Submitted by Casey** at: February 2, 2009 Historic home owner Help **Submitted by John Leeke** at: January 28, 2009 The latest strategy for saving energy dollars and historic windows at the absolute lowest cost is to add interior air panels, turn down the thermostat one degree, then use the annual savings to repair and maintain your fine old windows.

Instructions and discussion to make interior air panels here:

<http://historichomeworks.com/forum/viewforum.php?f=6> Step-by-step methods to maintain and repair wood windows here: <http://www.historichomeworks.com/hhw/reports/reports.htm#Windows>

John by hammer and hand great works do stand www.HistoricHomeWorks.com

Sustainability Resources

The National Trust for Historic Preservation is compiling and commissioning research to help explain the environmental benefits of preservation. Through this research, the National Trust will quantify the significant adverse impacts that occur when well-built, functional historic buildings are unnecessarily razed or abandoned in favor of new construction.

- ⌚ **[Statement]** "The Impacts of Climate Change on the Chesapeake Bay," Prepared for the U.S. House of Representatives Committee on Natural Resources, July 2009
- ⌚ **[Report]** "Heritage Tax Credits: Maryland's Own Stimulus to Renovate Buildings for Productive Use and Create Jobs," The Abell Report, March 2009
- ⌚ **[Report]** "How Changes to LEED Will Benefit Existing and Historic Buildings," Forum News, December 2008
- ⌚ **[White Paper]** "Green Building Practices and the Secretary of the Interior's Standards for Historic Preservation," November 2008
- ⌚ **[Report]** "Building Reuse: Finding a Place on American Climate Policy Agendas," September 2008
- ⌚ **[Testimony]** "Improving Energy Efficiency, Increasing the Use of Renewable Sources of Energy, and Reducing the Carbon Footprint of the Capitol Complex," Senate Rules Committee, June 2008
- ⌚ **[White Paper]** "Making the Case: Historic Preservation as Sustainable Development," October 2007
- ⌚ **[Bibliography]** General Preservation and Sustainability Resources

7 National Trust for Historic Preservation notes re: Preservation and Sustainability From website: <http://www.preservationnation.org/issues/sustainability/> 10-29-09

Submitted by Ca Heritage Boare Member at: April 28, 2009 Hello again. We have won a short respite. Our main concerns was that the mandatory existing building upgrade ordinance (goal: 80% of homes by 2015), would pass before adequate accomodations for historic and potentially historic homes could be implemented. The local window replacement contractors are lined up and ready to go. We have a little time to apply the good work of places such a Boulder to our mild climate here.

We would welcome ANY insights into the advantages/disadvantages of prescriptive vs incentive-based ordinances. Is hard data on embodied energy or life cycle cost of new/old materials available yet? We would love to hear how the Feebate system in Portland is working out. Do you find that well-intentioned individuals come in mis-informed regarding window replacement or damaging insulation or other "upgrades"? Would welcome comments from Planning and Building Department staff in particular. Does anyone have policies that protect POTENTIALLY eligible buildings? We have a large body of structures that will be potentially eligible for listing in the next decade, but will remain unprotected from historically damaging energy upgrades. Thank you for any insights. Mark DeBacker

Submitted by Ca Heritage Bd Member at: February 17, 2009 Help! I am an architect with a strong preservation background, newly appointed to the Cultural Heritage Board of a small city (200,000) in California that has just decided it wants to be the Greenest place on the planet.

Using groundwork set by the previous City Council, the new (and very Green) Council is acting rapidly with staff support to be the first city in California with MANDATORY green requirements for ALL new construction. To this they will be adding mandatory upgrades to ALL EXISTING BUILDINGS within the next 60 days. Historic buildings and Districts are not excluded (unlike all other jurisdictions). The current plan is to apply HERS, Build-it-Green and LEED to evaluate and score the various building classes. These are not currently configured, as you know for older structures. They are determined to act quickly on this to save the planet (weeks not months). I need all available assistance to get them to understand the principles of Embodied Energy and example ordinances that provided reasonable modifications to HERS, BIG and LEED as they apply to historic properties,... QUICKLY! I have reviewed the new LEED 2009, and while it significantly improves the situation for commerical buildings, it must be acknowledged as just a start. This is happening so fast.

BIG and HERS are almost completely oriented at new construction and would guide citizens to significant damage to their historic properties, if unrevised. Using some of the available refernences, we have a few Council members who seem to understand that windows should not be replaced as a first priority. The greatest, most immediate need is for well thought-through modifications to HERS,

BIG and LEED that we can offer as amendments. There is no time to develop them in a comprehensive way here. Several members were disappointed they could not pass it on thier first meeting in January, and after some additional input this month, will tolerate only about 30 to 60 days more delay to put something together for our mild climate. Grateful for any help you can offer, Mark

DeBacker, CSI, CHB

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Sustainability Speeches

Featured Speech - Historic Preservation & Green Building: Finding Common Ground

By Richard Moe / November 20, 2008

Stream Historic Preservation & Green Building: Finding Common Ground online on the USGBC Web site. Version 7.3 or higher of Apple Quicktime is required.

Thank you, Don, and good morning, everyone. I'm delighted to be here.

Since some of you may not be completely familiar with the work of the National Trust for Historic Preservation, I'd like to begin with a few words about who we are and what we do. The National Trust was created in 1949 to be the leader of America's preservation movement. We are a privately-funded nonprofit organization. We have about 270,000 members, and a staff of about 300 at our headquarters in Washington, our 6 regional offices, and our coast-to-coast collection of 29 historic sites.

The National Trust's overall mission can be summed up in a single sentence: to encourage people to appreciate the importance of the historic buildings, neighborhoods and landscapes that tell America's story, and to give them the tools they need to keep our heritage intact and playing a meaningful role in our lives. To put it even more succinctly, the National Trust helps people protect, enhance and enjoy the places that matter to them.

You'll note that the terms "sustainability" and "green building" don't appear in that brief description but that doesn't mean the concepts are new and unfamiliar to us. Back in 1980, long before the word "sustainability" came into widespread use, the National Trust

⁹ National Trust for Historic Preservation notes re: Preservation and Sustainability From website: <http://www.preservationnation.org/issues/sustainability/> 10-29-09

issued a Preservation Week poster that depicted an old building in the shape of a gas can a reminder that reusing an existing building, instead of demolishing it and replacing it with a new one, is a good way to conserve energy.

The fact is, preservationists are not gate-crashers at the green-building party. There is a strong relationship between sound old buildings and new green ones, so there is or ought to be a strong relationship between preservationists and green-building advocates. We share a determination to find effective ways to address the defining issue of our time: climate change. We have a lot in common, and there is much we can learn from one another.

This morning, I'd like to tell you about the perspective that preservationists bring to the table in discussions of green building and sustainable development. I'd also like to share with you the ways in which the preservation community is re-examining its own practices and embracing change, especially in the area of improving energy efficiency in older and historic buildings.

Let's begin with some facts.

We all know that the United States, which has only 5% of the world's population, is responsible for 22% of the world's greenhouse gas emissions. We also know that discussions on this topic usually focus on the need to reduce auto emissions. It's true that transportation cars, trucks, trains, airplanes accounts for 32% of America's carbon emissions. But here's a fact that's getting more and more attention, thanks in part to the hard work of USGBC and others in the field: According to The Pew Center on Climate Change, 43% of America's carbon emissions comes from the operation of buildings and this doesn't include the carbon that is generated by extracting, manufacturing and transporting building materials.

If nearly half of the carbon we send into the atmosphere comes from our buildings, it's clear that any solution to climate change must include being wiser about how we design and use our buildings.

I'm talking about stewardship and that's what preservation is all about. At the risk of sounding smug, I believe that preservationists know how to take good care of buildings. It's our job, and we've been doing it in this country for more than 150 years. The tradition of stewardship that we've always embraced, the knowledge that we've gained from decades of experience these can be of enormous help in efforts to transform our built environment to one that is more sustainable.

Preservationists are sometimes accused of being sentimentally fixated on the past but in fact, preservation is strongly future-oriented. Our goal is to ensure that our historic built environment our legacy from the past survives so that future generations can experience it, learn from it and be inspired by it. This kind of focus on the future is at the very core of sustainable development.

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Preservationists are also sometimes accused of wanting to freeze buildings in time but in fact, our goal is to keep old buildings viable so that they can play meaningful roles in community life. Anthropologist Ashley Montague has said that the secret to staying young is to die young but the trick is to do it as late as possible. All over the United States, preservationists are showing that old buildings put to new uses can stay young to a ripe old age. They're demonstrating that buildings are renewable not disposable resources. If that's not sustainability, I don't know what else to call it.

Two weeks ago, the nexus between historic preservation and sustainable development was the focus of a conference involving preservationists, architects, green builders and energy experts. Meeting at the historic Rockefeller estate at Pocantico Hills, New York, this group developed what we're calling the Pocantico Proclamation on Sustainability and Preservation.

This proclamation, the text of which is still being word-smithed and vetted among the preservation community, outlines six preservation-based guiding principles to sustain our built environment. We believe these principles can inform and strengthen efforts to reduce the environmental impacts especially carbon emissions that are associated with buildings. In the time remaining to me, I'll focus on these six principles.

Principle #1: Promote a Culture of Reuse

We know that the way we use our buildings causes big problems but incredibly, we keep trying to solve the problem by constructing more and more new buildings while largely ignoring the ones we already have. That makes no sense. In addition to building green, we have to make wiser use of what we've already built.

One of the basic truths we acknowledge about climate change is that it is fundamentally the result of overconsumption of natural resources namely carbon-intense resources such as oil and coal. We often think of this in terms of the oil needed to power our cars, and the coal that powers many of our buildings but constructing buildings is also an energy- and carbon-intense activity.

The retention and reuse of older buildings is an effective tool for the responsible, sustainable stewardship of our environmental resources including those that have already been expended. I'm talking about "embodied energy."

Buildings are vast repositories of energy. It takes energy to manufacture or extract building materials, more energy to transport them to a construction site, still more energy to assemble them into a building. All of that energy is embodied in the finished structure and if the structure is demolished and landfilled, the energy locked up in it is totally wasted. What's more, the process of demolition itself uses more energy and, of course, the construction of a new building in place of the demolished one uses more yet.

Let me offer an example: a well-known building not too far from where we're sitting. Boston City Hall has about 500,000 square feet of space. The amount of energy

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embodied in that building is about 800 billion BTUs. That's the equivalent of about 6.5 million gallons of oil and if the building were to be demolished, all of that embodied energy would be wasted. What's more, demolishing City Hall would create about 40,000 tons of debris. That's enough to fill more than 250 railroad boxcars a train nearly 2 ½ miles long, headed for a landfill that's probably almost full already. Finally, constructing a new 500,000-square-foot building on the City Hall site would release about as much carbon into the atmosphere as driving a car 30 million miles or 1,200 times around the world.

One final point: Don't assume that the energy expended in manufacturing a building is offset by the efficient operation of new green buildings. In fact, a recent study from the United Kingdom found that it takes 35 to 50 years for an energy-efficient new home to recover the carbon expended in constructing it.

It all comes down to this: We can't build our way out of the climate-change crisis. We have to conserve our way out. No matter how much green technology is employed in its design and construction, any new building represents a new impact on the environment. The greenest building is one that already exists.

Principle #2: Reinvest at a Community Scale

In its early years, preservation in America was primarily concerned with saving individual buildings, especially the grand architectural landmarks that some people call "the homes of dead rich white guys." We've come a long way since then. Today we recognize that buildings are important but context matters too.

For example, the most energy-efficient building doesn't help our cause much if it sits in a remote location accessible only by car. USGBC has recognized the importance of context in LEED 2009 by increasing the number of points available for buildings in "smart" locations that is, those that are transit-accessible. This commendable action acknowledges that the way our communities are laid out is just as important as the quality of our buildings and plays an equally important role in our efforts to address global warming.

Instead of building more and more highways and strip malls and subdivisions, we ought to be reinvesting in the communities we already have. LEED Neighborhood Development has an entire section "Green Infrastructure and Buildings" that focuses on this. LEED ND, which just came out for public comment earlier this week, includes very important language that encourages preservation and reuse of older buildings instead of demolition.

I believe you can't have smart growth without preservation. In fact, preservation is smart growth. Here's why:

- ⌚ Smart growth emphasizes density of development, mixed uses, and a pedestrian orientation. These are major characteristics of older neighborhoods. Saving them is smart growth.

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- ⌚ Communities have a major investment in the infrastructure of older neighborhoods the streets, schools, water and sewer lines, and so on. Making good use of this investment, instead of leaving it underused and duplicating it elsewhere, is smart growth.
- ⌚ Reuse of older buildings allows for growth without consumption of land. Revitalizing Main Street means less demand for a new strip mall. Converting a warehouse into 40 dwelling units reduces the demand for new houses on 10 acres of farmland. That's smart growth at its best.

This is an area in which preservationists have lots of experience. We've been fighting sprawl and encouraging smart growth for years and our message has been heard. More and more cities are using preservation as an effective tool for improving the quality of life in older neighborhoods and allowing older buildings to shelter people instead of pigeons. Creating viable alternatives to sprawl by turning urban backwaters into lively, attractive places to live and work that's what sustainable development is all about.

Principle #3: Value the Lessons of Heritage Buildings and Communities

It's often alleged that historic buildings are energy hogs but in fact, some older buildings are as energy-efficient as many recently-built ones. When the General Services Administration examined its nationwide buildings inventory in 1999, it found that utility costs for historic buildings were 27% less than for more modern buildings. In fact, data from the U.S. Energy Information Agency suggests that buildings constructed before 1920 are actually more energy-efficient than those put up between 1920 and 2000.

It's not hard to figure out why. Many older buildings have thick, solid walls, resulting in greater thermal mass and reducing the amount of energy needed for heating and cooling. Buildings designed before the widespread use of electricity feature transoms, high ceilings, and big, operable windows for natural light and ventilation, as well as shaded porches, overhanging eaves and other features to reduce solar gain. Architects and builders used careful siting and landscaping as tools for maximizing sun exposure during the winter months and minimizing it during warmer months.

Most older buildings were constructed so that their individual components such as windows, for example can be easily repaired or replaced when necessary. Even more important, unlike their more recent counterparts that celebrate the concept of planned obsolescence, older buildings were generally built to last. Because of their durability and "repairability," they have almost unlimited "renewability."

There's also much to be learned from traditional communities that were constructed before the automobile took over our lives. These places offer a vision for how our cities and towns should function in a post-auto-dependent world. No wonder smart-growth advocates and New Urbanists embrace the principles these communities embody.

In short, we can learn a lot from our heritage buildings and communities, which were constructed with respect for traditional practices that allow man-made places to exist in

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harmony with the natural environment. In recent decades, with the advent of new materials and technologies, we've lost touch with the building lessons of the past and that worries me. I'm concerned, for example, that many new buildings employ tech-heavy systems for heating and cooling, when lower-tech, passive systems might work fine. I'm concerned, too, that many new materials and systems may prove to be much less durable than their earlier counterparts.

Don't get me wrong. I'm enormously heartened by the spirit of innovation and enthusiasm that is so evident at this conference, and I know that what we can learn from history however useful won't be enough to solve all of today's problems. But I'm convinced that innovation in the green-building arena must be grounded in the hard-learned design lessons of the past.

Principle #4: Make Use of the Economic Advantages of Reuse, Reinvestment and Retrofits

The current economic downturn has everyone scrambling to identify ways to stimulate local economies and create jobs. The situation reminds me of what a British statesman told his colleagues during the darkest days of World War II: "Gentlemen, we are out of money; therefore, we shall have to think."

This is another area in which preservationists can make a meaningful contribution. Over the years, we've discovered some important things related to the economics of reusing buildings and reinvesting in existing communities.

Here's the basic message: Dollar for dollar, rehabilitation creates more jobs than new construction. Several studies and an economic input-output model developed by Carnegie Mellon University demonstrate that preservation activities create more jobs than new construction. For example, one study found that \$1 million invested in the rehabilitation of an existing building creates 9-13 more jobs than the same \$1 million invested in new construction. Why? Quite simply, rehabilitation activities are more labor-intensive than new construction that is, they require more man-hours and fewer materials. This has other

implications for our conversation about sustainable development as well. An economy that is more labor-intensive and less materials-intensive is a greener economy.

Here's another point to consider: Much of the work involved in building rehab requires skilled craftsmanship which means that historic rehab, combined with job training programs, can build a corps of workers with bankable skills that will serve them well for a lifetime.

It's highly likely that the creation of more "green" jobs will be a cornerstone of economic-stimulus packages that come down the line in the next few months. Most of these "green" jobs will probably focus on developing things such as solar panels, wind turbines and other highly technical solutions but we shouldn't overlook the wisdom of a statement in Van Jones's new book, *The Green Collar Economy*. He suggests that "the main piece of technology in the green economy is a caulk gun."

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In almost every way imaginable, the rehab and retrofit of existing buildings is essential not only in fighting climate change but also in addressing the economic crisis and bringing good, skilled jobs back to American communities. We need to make sure that Congress and our new President connect these dots. Any meaningful economic stimulus package must include provisions to reinvest in our failing infrastructure and retrofit our buildings.

Principle #5: Re-imagine Historic Preservation Policies and Practices as They Relate to Sustainability

Obviously, this portion of my message is directed primarily at preservation practitioners. I mention it to you as evidence that we understand the gravity of the threat of climate change and we take seriously our responsibility to do whatever we can to reduce the impact of buildings on the environment. In its early years, preservation focused on keeping buildings from being torn down. Now we understand that just saving them isn't enough we also have to do our best to improve their energy efficiency and ensure that their impact on the environment isn't harmful.

Happily, there is a growing number of projects that show how historic buildings can go green. There's a great example in Portland, Oregon, where an armory built in 1892 was turned into a state-of-the-art performance space and in the process became the first historic building to receive LEED Platinum certification and federal historic-rehab tax credits. I'm especially proud of another example in Washington, D.C.: Last spring, the National Trust opened President Lincoln's Cottage to the public and just a few yards away from the Cottage, the Visitors Education Center is housed in a renovated historic building that will be LEED Gold-certified.

Examples such as these and there are many others show that we're making progress, but this is an area in which preservationists can't pretend to have all the answers. We know that we have much to learn from you the green building community about how to be smarter about preserving and reusing historic buildings. We will learn and we'll put what we learn into action.

That brings me to my final point:

Principle #6: Take Immediate and Decisive Action

It's not enough to talk about how historic preservation can inform green building, or how green building practices can be integrated with preservation practices. We must roll up our sleeves and put these principles into practice. Education and outreach will be key to our success but action, especially in the public policy arena, is critically important.

I'd like to commend the work of the USGBC, which has done a great job of focusing attention, especially in the building community, on the issue of green building. LEED standards are being adopted by more and more state and local governments and many of

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us expect that these standards will eventually be incorporated into municipal and state codes throughout the country.

Over the years, preservationists have expressed some concerns about LEED specifically, that it is biased towards new construction and doesn't offer enough credit for reuse, and that there is too much focus on individual buildings and not enough on the context or location of buildings. To address this concern, the National Trust formed a Sustainable Preservation Coalition which includes the American Institute of Architects, the Association for Preservation Technology, the Environmental Protection Agency, the National Park Service, the General Services Administration, and the National Conference of State Historic Preservation Officers. This group has been working with the USGBC to ensure that the benefits of reusing existing buildings are better recognized in future versions of LEED and some great progress has been made. Initially, green building standards grew out of some loose ideas about what would make for a more sustainable built environment; with LEED 2009, USGBC is shifting to a rating system that is based on the science of building and the quantifiable impact of buildings on the environment.

As many of you know, LEED 2009 will incorporate a system in which credits are weighted according to Life Cycle Assessment indicators that are based on environmental impacts and take into consideration the durability of materials. The new rating system is also more context-sensitive than the previous version, awarding many more points for constructing or reusing buildings in environmentally-responsible locations. Finally and this is very important the new rating system will incorporate what USGBC calls an "Alternative Compliance Path" that we anticipate will award more points for the reuse of existing buildings than was the case with previous versions of LEED.

Once LEED 2009 is finalized, the National Trust and USGBC will begin working on the next version of LEED which will incorporate even more changes. For one thing, in addition to the durability metric that will already be in place, we'll apply a new overlay of cultural, social and preservation metrics that will provide direct recognition of the importance of things such as preserving sites of historic and cultural significance, reinvesting in existing neighborhoods, and providing affordable housing.

These are great steps forward, but there's more work to be done. The science that informs the USGBC's standards and, indeed, all ratings systems is still evolving. We must ensure that this science is accurate, especially when it comes to understanding the embodied energy and embodied carbon in buildings, and the life cycles of buildings and materials.

On the federal level, we are at a critical juncture for new policies related to climate change and the built environment. President-elect Obama has made it clear that he wants to address the threat of global warming and will make reducing carbon emissions a priority in his new administration. I'm very encouraged by this.

Many of you are familiar with the Lieberman-Warner Cap & Trade bill that Congress failed to pass last summer. In addition to mandating a cap on carbon emissions in the United States, this bill included many other provisions related to carbon mitigation and

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the environment but it would have done little to incentivize retrofits to reduce carbon emissions by buildings. That's a serious oversight that must be corrected in any climate-change legislation that comes up during the next session of Congress.

USGBC, the American Institute of Architects, the National Resources Defense Council and others have begun to develop proposals to address this issue. We need a bill that recognizes that reducing carbon emissions means being smarter about how we construct, use and re-use our buildings. All of us green builders, preservationists, architects, smart-growth advocates and others all of us must work together to support measures that will make this happen.

I believe there is a powerful synergy between green building and historic preservation. But I also know there have been tensions between our two fields. Some of you may see preservation as a roadblock to going green and there's no denying that occasionally there are very real conflicts between preservation and sustainable development goals. Here are some examples:

- ⌚ We know that part of the solution to global warming is the development of renewable energy such as wind but sometimes the development of windmill farms threatens viewsheds and sites of cultural significance.
- ⌚ In many cases, solar technologies can be accommodated in historic rehab projects but there are other instances in which aesthetics or concerns about historic fabric make their use undesirable.
- ⌚ Higher density is a key element of sustainable development but efforts to increase density, especially in urban locations accessible to mass transit, sometimes put historic buildings and neighborhoods at risk.

Situations such as these pit "good guys against good guys" but we can't let them cripple our efforts. Be assured that preservationists are committed to re-examining our practices, committed to thinking critically and creatively about how they can be improved to reflect the realities of the climate-change crisis.

As an indication of our commitment, we will soon open the National Trust Preservation Green Lab on the West Coast. The Green Lab will undertake demonstration projects to retrofit historic buildings to achieve high levels of energy efficiency and reduce other environmental impacts. The Clinton Climate Initiative, which recently announced an Energy Efficiency Building Retrofit Program, is a partner in this effort, having committed to provide technical assistance, materials at cost, and favorable financing through participating lenders.

The Preservation Green Lab will also work with state and local governments to make sure that municipal plans, building and zoning codes and "climate action plans" incorporate principles that support reuse, reinvestment, and green retrofits. Here's a specific example: In Seattle, many landmarked buildings are exempt from high-performance energy requirements that are imposed on new construction or major

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rehabilitation projects. To address this issue, the Green Lab will work in partnership with the City of Seattle to develop code language that encourages energy efficiency in historic buildings while providing the flexibility needed to deal with historic fabric and other complexities associated with older buildings. This is just one way in which we intend to make our Green Lab a true laboratory for generating creative policy and technical solutions to help integrate preservation and green building practices.

The preservation and green building communities share a common goal: securing a viable, sustainable, meaningful future for our children and the generations that will follow them. We stand on common ground but to ensure that we don't lose our footing, two things are needed:

First, a recognition of the importance of balance between the need to preserve our heritage and the need to address global warming and the degradation of our environment;

And second, a commitment to honest, open and ongoing dialogue to identify points of difference and find ways to overcome them.

In the face of an unprecedented global challenge, we have an opportunity to forge an unprecedented partnership. Working together, we can make a real difference.

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The National Trust for Historic Preservation is a non-profit membership organization bringing people together to protect, enhance and enjoy the places that matter to them. By saving the places where great moments from history – and the important moments of everyday life – took place, the National Trust for Historic Preservation helps revitalize neighborhoods and communities, spark economic development and promote environmental sustainability. With headquarters in Washington, DC, nine regional and field offices, 29 historic sites, and partner organizations in all 50 states, the National Trust for Historic Preservation provides leadership, education, advocacy and resources to a national network of people, organizations and local communities committed to saving places, connecting us

to our history and collectively shaping the future of America's stories. For more information visit www.PreservationNation.org.

APPENDIX E

POCANTICO PROCLAMATION On Sustainability and Historic Preservation NATIONAL TRUST FOR HISTORIC PRESERVATION

Premise

The historic preservation community has a deep tradition of stewardship for our built environment, emerging as leaders in sustainable practices. Consistent with this tradition, historic preservation practitioners resolve to face head-on the global human-caused ecological crises that threaten our built and natural resources. Historic preservation must play a central role in efforts to make the built environment more sustainable. To this end, we urge all policy makers to recognize the following:

1. *The Climate Change Imperative* – Human activity has increased and accelerated global warming putting the environment at risk. It is imperative that we immediately and significantly reduced greenhouse gas emissions to begin reversing extreme climate change patterns within a generation.
2. *The Economic Imperative* – Our current economy is based upon unsustainable consumption and an overreliance on finite resources. A new green economy must rest upon a conservation-based foundation to manage natural and cultural resources in a sustainable and economically beneficial manner.
3. *The Equity Imperative* – In recent years, economic inequalities between rich and poor have grown in the United States and abroad. The disproportionate levels of resource consumption and global pollution are unsustainable. Our consumption patterns must be altered to foster social equity, cultural diversity, and survival of all species.

The Pocantico Principles on Sustainability and Historic Preservation

Therefore, in order to address the three above imperatives, we advocate the following:

1. FOSTER a Culture of Reuse

Maximizing the life cycle of all resources through conservation is a fundamental condition of sustainability. The most sustainable building, community or landscape is often the one that already exists. Lessons learned from historic preservation are transferable to the entire existing built and landscaped environment.

Pocantico Proclamation
on Sustainability and Historic Preservation

2. REINVEST at a Community Scale

It is not sufficient to address sustainability on a piecemeal basis through individual building projects. We must consider the larger context of the built

environment: our communities. Reinvestment in existing, more sustainable neighborhoods – especially our older and historic ones – saves resources and promotes socially, culturally, and economically rich communities.

3. **VALUE** Heritage

The design of older buildings, landscapes, and communities should inform future building practices. While new green building technology offers promise for reducing the environmental harms caused by new construction, traditional building practices provide a wealth of sustainable design solutions that are premised on sensitivity to local conditions, careful siting and planning, and longterm durability, all of which provide essential models for the future.

4. **CAPITALIZE** on the Potential of the Green Economy

Preservation economics provide a powerful model for shifting away from a consumption-based and energy-inefficient economy. Reinvestment in our existing built environment must become an indispensable part of America's new green economy. Per dollar spent rehabilitation activities create more new jobs than new construction.

5. **REALIGN** Historic Preservation Policies with Sustainability

Today's challenges require that historic preservation move beyond maintaining or recovering a frozen view of the past. Historic preservation must contribute to the transformation of communities and the establishment of a sustainable, equitable, and verdant world by re-evaluating historic preservation practices and policies, and making changes where appropriate.

Next Steps

Consequently, we, the historic preservation community, recognize the environmental, economic, and social challenges that face us and call for policies that will result in revising our present course. We stand ready to offer an example for sustainability, while further challenging preservationists to more fully accommodate sustainable practices. We call for our leaders and fellow citizens to join us in taking immediate action.

The Pocantico Proclamation on Sustainability and Historic Preservation was written by participants in the Pocantico Symposium: 'Sustainability and Historic Preservation -- Making Policy, November 5-7, 2008' based on materials developed at this symposium and the discussions that took place there. It reflects the views of the authors and not necessarily those of the Rockefeller Brothers Fund.

APPENDIX F

Partial List of Endangered Resources in Belmont

Public Buildings:

In the past several years, Belmont has made admirable progress in preserving its historic buildings. The Town Complex including the Homer Building, the School Administration Building and the Town Hall has been rehabilitated to create one of the most beautiful historic municipal centers in the region. The Waverley Fire Station and the Central Fire Station were provided with preservation restrictions enabling them to be adaptively reused as successful private developments; they are now crown jewels in Waverley Square and Belmont Center, respectively. But work remains to be done to complete the Town's commitment to preservation.

- **Police Station** – 1930, Georgian Revival, H. Thaxter Underwood, architect. According to Town studies, Police operations will likely be moved from this building to another location. Designed to resemble a colonial residence, it fits well with both the municipal town complex and the adjacent residential neighborhood. *Recent studies have included suggestions for development which would include the building's demolition.*
- **Municipal Light Building** – Georgian Revival, 1925 (substation, Francis Galaher, architect), 1934 (offices, George Robinson, architect). Underutilized and unmaintained, building. It's well-proportioned, graceful façade is a major frontispiece to the historic Town complex. *The lack of depth on the site, backed by the railroad tracks, presents challenges. Along with the adjacent Police Station, recent studies have included suggestions for development which would include the building's demolition.*
- **Underwood Pool and Bath House** – 1912, Loring Underwood, landscape architect; H. Thaxter Underwood, architect. Originally built as a pond fed by an underground spring, the site is significant as the nation's first public outdoor pool. *Recent studies indicate that the current concrete pool is facing imminent failure and the Bath House is in need of repairs. Action needs to be taken by either the Town or a "Friends" group to restore this historic complex.*

Residential Properties:

Throughout Belmont there are numerous examples of important 17th and 18th century homes that are unprotected. Typically these homes are on sites that could be subdivided or have larger homes built if the existing historic structures were demolished.

17th and 18th Century Residences – There are at least ten 17th and 18th century homes in Belmont. Only one of these structures is in the Historic District and, therefore, protected. Often these homes are lived in by residents who care deeply for the historic value of their

homes. Nevertheless, the properties are unprotected if there is a change of ownership or intent of the owners. Examples of unprotected early homes include:

- **59 Common Street** – Thomas Clark House, c.1760 – An outstanding 18th century Georgian farmhouse, built and lived in by Thomas Clark, an American Revolution Minuteman who served in Lexington and Bunker Hill. He became the first person to cast a vote in the new Town of Belmont. Clark Hill is named after him. *The site, under current zoning, could be subdivided if the house were to be demolished.*
- **52 Washington Street** – John Chenery House, c.1654
- **388 Pleasant Street** – Abraham Hill House, c.1693
- **981 Concord Avenue** – Josh Shattuck House, c.1744
- **154 Mill Street** – Capt. Eaton House, c.1750
- **325 Common Street** – Christopher Grant House, c.1760
- **160-162 Washington Street** – Jonathan Stone House, c.1775-1800

19th Century Residences – Throughout Belmont there are examples of 19th century homes that are unprotected. Some are in enclaves and others are in scattered locations. Examples that would benefit from some form of protection include:

- **Belmont Park** – An 1896 enclave of well-detailed Queen Anne and Shingle Style homes at Myrtle, Goden, Oak and School Streets.
- **386 Common Street** – The Whitney Mansion, c.1856 – Gothic Revival home, currently used as a non-conforming boarding house. It is in continuously rundown condition, greatly compromised by the application of inappropriate exterior cladding material. *The lot appears to be subdividable into a condition similar to the recent townhouses built on neighboring Warwick Road if the historic house were to be demolished.*
- **Frost Family Homes** – 308, 340, 354 Lake Street and 170, 291 Brighton Street, c.1805-1889 – several homes from one of the early landholders in Belmont.

Early 20th Century Residences

Most of the homes in Belmont were developed in subdivisions created in the first three decades of the 20th century. These are homes in a variety of historic revival styles that create the character defining features in their neighborhoods. *Many of these homes are in danger as they fall into one or more of the conditions cited above. The loss recently of a home on Van Ness Road resulted in the not only the demolition of the historic home but also the removal of a very old specimen tree – all to make way for a larger home.*

Modern Homes

There are several modern homes in Belmont that are representative of the Modern Movement in architecture, embodying criteria for listing on the National Register of Historic Places. Examples include: the 1936 Miller House on Juniper Road; the 1950 Whiting House on Tyler Road; the 1956 McCreary House at 54 Kenmore Road; and the 1956 Meyer House at 240 Somerset Road. Others include the group of small homes

designed by Carl Koch and built in 1940-41. *As an example of the threat to these homes, the 1934 International Style home at 12 Park Avenue, designed by the distinguished architect Eleanor Raymond, was demolished by Belmont Hill School in 2007. This was one of the first modern houses in New England and represented a milestone in modern American architecture; now it is a vacant lot.*

Privately Owned Commercial Buildings:

Historic buildings in our commercial areas are particularly at risk until there is zoning reform that reflects a commitment to preservation. Although demolished forty years ago, the memory of the Tudor Block and Olive's Block remains fresh. Some of the commercial buildings at risk include:

- **The former SS Pierce Building** (489-493 Common Street; 102-104 Trapelo Road), c.1913, Colonial Revival, wood shingle and brick, gambrel gabled form – *As part of the Cushing Square Overlay Zoning District, this building at the important corner of Common Street and Trapelo Road is in imminent risk as it has not yet been included in proposed development plans.*
- **432-444 Common Street** 1931 Georgian Revival, single-story set of storefronts with steep-pitched slate roof and cupola - *set back from the street to align with the houses in the adjacent residential neighborhood, this is one the most handsome commercial buildings in Belmont. Its threat may be its small but appropriate size.*
- **The Winters Block** (72-86 Trapelo Road), c.1925-1929, Tudor Revival, stucco/half timber exterior – Also set back from the street, its second story contributes to the scale of the area. While perhaps seeming to be an unlikely candidate for demolition, its relationship to adjoining underutilized commercial properties makes it a potential prospect for inclusion or exclusion in a larger development plan.

COMMERCIAL DEVELOPMENT WORKING GROUP REPORT (January 11, 2010)

VALUE STATEMENT

The Town of Belmont is a community that is 94% residential with a wonderful quality of life, schools, recreation, convenient commercial centers, and small shops – a town you would want to live in! Although considered the “Town of Homes”, these homes need local stores to service their needs. Residents will shop in their local commercial areas if these areas have a welcoming feeling and provide at competitive prices the needed products and services.

The Town of Belmont values its commercial centers for the vibrancy and village atmosphere they bring to the community and for the goods and services available in close proximity to residents. Commercial centers enhance the quality of life experienced by residents and add to the sustainability of each neighborhood. Commercial centers can (1) provide an atmosphere that encourages community interactions, (2) help define the character of the Town, (3) provide a significant sense of place to residents and (4) contribute to the local tax base.

While the commercial centers are valued, the needs of these areas to adjust to changing market conditions in order to remain economically viable and sustainable appear to often conflict with perceived quality of life characteristics (such as small scale) desired by local residents. A balanced development framework is needed in order to accommodate essential changes while simultaneously enhancing the vitality and attractiveness of the commercial areas in new ways.

GENERAL ISSUES CONTRIBUTING TO A POOR COMMERCIAL CLIMATE

- There are approximately 20 vacant retail spaces in town. If vacancies continue into a commercial blight, then neighboring residential values and tax revenues will be adversely affected.
- The retail market is in flux due to competition from internet and on-line shopping, the current recession, and the big-box phenomenon (Wal-Mart, Costco, BJ's, CVS, etc.) which creates increased competition for small retailers.
- The market (Supply & Demand), including current retail rents do not in many locations support new development or renovation of existing buildings (including underground or Off-Street parking).
- Generally, there has been neighborhood opposition to commercial development, i.e. density, height, parking, traffic, etc. It is difficult to get approvals for zoning changes, variances and permitting. Delays are costly to development and can leave some blight during the development period.
- There is a concern that adding 2nd and 3rd floors to existing facilities and/or new developments (i.e. mixed-use retail and residential) will make Belmont have a similar community feel like Medford and Somerville.

- Current regulations (zoning, liquor license, parking) and limited public improvements retard growth of niche markets and economically prevent major renovations or quality new construction.
- Regional competition, small sites, and multiple owners limit market potential unless incentives are provided for site assembly and new development
- Belmont's commercial squares are too small to provide their own private sector support for undertaking promotion, management and maintenance activities.
- In some cases the rents are not sufficient to support sign and façade improvements without support from local banks and the town
- Because there is no consensus as to what commercial areas changes are best for the town, zoning and rezoning issues are dealt with on a case by case basis with the abutters having the greatest voice leading to costly delays, ad hoc development decisions, and lost opportunities for substantial, quality economic development.
- There is no organizational mechanism to facilitate ongoing communication between the town and local business areas re. parking regulations, snow plowing, trash disposal, marketing.

ACTION OUTLINE

CONCERN: VIBRANCY OF COMMERCIAL CENTERS - PARKING

Issues: Low availability of front-door locations

High parking availability in inconvenient places

Creating new parking supply is prohibitively expensive

Residents complain about spill-over parking.

Residents and businesses complain about commuter parking

Local shoppers and employees are used to low cost or free parking.

Often, because many commercial parcels are small and do not include sufficient space to accommodate current zoning parking requirements, existing 'grandfathered' older buildings, which often have little supporting parking, are often the 'highest and best use'. Therefore additions or new construction cannot occur.

Goal 1: Develop a Parking Management Plan for Each Commercial Center

OBJECTIVE: MAXIMIZE FRONT-DOOR PARKING SUPPLY

Adopt graduated pricing/time limit strategy

Establish remote employee permit parking areas.

Install reverse angle parking where appropriate to increase curbside parking supply

Limit loading zone hours

OBJECTIVE: INCREASE CONVENIENCE FOR SHOPPERS

Provide clear signage indicating parking options.

Use enforcement personnel to “assist” consumers first and enforce regulations second.

OBJECTIVE: TREAT PARKING AS AN ASSET

Dedicate surplus parking revenues to local improvements as decided by local business community

Dedicate surplus revenues to residential neighborhoods that allow on street parking.

Goal 2: Encourage new and infill development

OBJECTIVE: REVISE PARKING REGULATIONS

Reduce minimum parking requirements

Allow off-site parking to meet parking requirements

Encourage shared parking

For townhouse and possibly mixed-use developments, consider separating cost of parking from cost of housing in order to reduce cost of housing, rate of auto ownership and encourage shared parking.

Goal 3 : Encourage Increased Use of Public Transit while reducing parking conflicts

OBJECTIVE: ENCOURAGE INCREASED USE OF COMMUTER RAIL STATIONS

Investigate possibility of private shuttle to serve commercial, residential and transit stations.

Provide parking near stations on edge of commercial districts utilizing side streets.

Provide clear signage, lighting and access to stations

CONCERN: VIBRANCY OF COMMERCIAL CENTERS – PHYSICAL APPEARANCE & VITALITY

Issues: Lack of “quality” tenants

Rents do not support improvements to buildings.

No consistent approach to streetscape in commercial areas.

Merchants, land-owners do not generally act cooperatively

Current signage for the most part has no appeal, and is not inviting

Goal 4: Improve Physical Appearance of Commercial Areas

OBJECTIVE: ESTABLISH STREETSCAPE & PUBLIC PLAZA IMPROVEMENT PROGRAM

Widen Sidewalks

Enhance public spaces

Develop a palette of recommended street furnishings for each district

Establish uniform street lighting/traffic signals for each district.

Establish design guidelines for renovation and new development.

Dedicate surplus parking revenue to physical improvements

OBJECTIVE: ESTABLISH BUILDING IMPROVEMENT/SIGN AND FAÇADE PROGRAM

Develop signage guidelines, potentially as a component of design guidelines.

- Create a resource guide for existing businesses including desired suggestions and examples for new signage.
- Explore possible incentives to encourage property owners to update their properties (low interest construction loan rates, real estate tax credits)
- Explore with local financial institutions private funding
- Explore public funding options
- Develop positive program and schedule meetings with absentee landlords to discuss renovation needs

CONCERN: ECONOMIC VIABILITY OF COMMERCIAL CENTERS

- Issues: Market rents in older properties often do not support renovation or redevelopment
- Regulatory environment discourages investment
- No ongoing communication amongst business owners and the Town.
- Marketing of Districts to support existing businesses is minimal
- Commercial centers do not support one another. Generally, residents oppose new commercial development, citing density, community character, traffic, etc. concerns
- Uncertainty of retail market and small scale local commercial markets.
- Lack of ‘events programming’ to attract customers and visitors.

Goal 5: Support policies, programs and events that increase the competitiveness of local businesses

OBJECTIVE: MAKE TOWN MORE BUSINESS FRIENDLY

- Assist commercial areas in promoting their services and goods through community events
- Encourage public/private partnership to support commercial areas
- Use parking enforcement personnel to “assist” consumers first and enforce regulations second.
- Keep a single tax rate – do not penalize commercial property owners who are already having problems
- Investigate potential for tax credit for property improvements (create a TIF district)
- Study and amend permitting process as appropriate
- Address issues of town services (e.g. snow and trash removal) that affect commercial areas

OBJECTIVE: ENCOURAGE FORMATION OF BUSINESS ORGANIZATION(S)

- Delegate to a private/public organization authority to address issues that would improve appearance, conditions and experience of the district.
- Allow parking revenue to be dedicated to commercial area improvement. (see parking recommendations)
- Develop common marketing promotions and events.
- Explore feasibility of creating a Business Improvement District

OBJECTIVE: IMPROVE ACCESSIBILITY AND CONNECTIVITY OF TOWN'S COMMERCIAL AREAS
Investigate possibility of private shuttle to serve commercial, residential and transit stations.

Improve Traffic Circulation

Provide clear signage indicating parking options.

Resurface and provide traffic calming in commercial areas as well as residential areas.

OBJECTIVE: REVIEW AND AMEND ZONING AND OTHER REGULATIONS TO SUPPORT
DEVELOPMENT, REDEVELOPMENT, AND RENOVATION OF THE TOWN'S
COMMERCIAL AREAS

Permit mixed use development including residential, retail, and office uses;

Require ground floor retail

Review and modify dimensional regulations including height, setbacks, and floor area ratios.

Modify major development regulations with design guidelines in place of Town Meeting approval. All development would still have staff review.

Encourage development incentives for mixed use, affordable housing, structured parking, or other public objectives

Review & update current district designations and uses to insure that zoning reflects a hierarchy of commercial centers/locations in order to make zoning more consistent with each specific location

Review & update locations and boundaries of current commercial districts and adjust mapping appropriately

Develop design guidelines for area

Review requirements for Liquor Licenses

reduce 130-seat requirement for all alcohol and 39 seat requirement for wine/beer
increase number of licenses

Eliminate parking requirement for outdoor dining

Visions for Commercial Centers

Within the context of developing recommendations to improve the Town's commercial areas, the Committee was also tasked with developing a vision of each of the Town's commercial centers that would act as the guide for many of the above recommendations. Additionally, the committee was provided with information from the consultant's research on several potential development sites. That information and recommendations are included below.

Belmont Center - *Town Center commercial district featuring specialty shopping (as well as regional and anchor tenants), restaurants, office uses, municipal and post office uses, commuter rail station, public parking, and historic architecture.* Consider changes to permit mix of residential, retail, and office uses that serve the community. Seek all opportunities for additional parking.

Waverley Square - *Transit hub and center for convenience, shopping, restaurant, and office uses.* Consider changes to foster community development by permitting mix of residential, retail, and office uses that include ground floor retail and serve the community as well as provide for additional parking.

Central/Palfrey Squares (Trapelo Road Corridor) - *Mixed use corridor with convenience retail, personal services, and entertainment.* Enhance the existing district with pedestrian friendly amenities, improvement of connections to adjacent recreational spaces, and required ground floor retail as a component of new development.

Cushing Square - *Mixed use center with shopping, dining, office, and multifamily residences.* Encourage ground floor retail uses and facilitate the development of additional parking.

East Belmont - *Small-scale neighborhood retail and services.* Enhance and encourage the continued ethnic diversity of retail establishments in this unique area.

Brighton Street - *Complement existing uses with new municipal and recreation uses.* Consider opportunity to relocate municipal uses here, including police station, light company, and skating rink. Subsequently, re-use existing police station/light company building and skating rink locations to achieve goals for the development of Belmont Center and municipal revenue goals.

Concord-Bright - *Small neighborhood retail/office district or long term plan to redevelop as residential.* Promote this area as a gateway to Belmont.

Pleasant Street - *Up-grade commercial corridor with flexible uses i.e. office, retail, or residential uses based upon market conditions. New development at this location should enhance Waverley Square as a transit hub and commercial center and not undermine the viability of Belmont Center.* Consider opportunity to relocate DPW yard to this location (in order to improve functionality of the facility); thereby creating the opportunity to re-use the existing DPW yard for residential development.

DEVELOPMENT SITES: GUIDING REUSE DECISIONS

The following describes the context of decisions to be made about a selection of potential development sites. The primary questions are:

- How can the town plan for the optimal redevelopment or reuse of these sites?
- How do these land use decisions impact the surrounding neighborhoods?
- How can the town's priorities be identified in order to make choices between conflicting objectives?

Purecoat Site

Location: Brighton Street, Hills Crossing

Current Use: Light Industrial/Office

Potential Uses:

- a) continued commercial activity, possibly with renovations, enhancements
- b) Municipal use, possibly including high school campus, light company, police station, skating rink?
- c) Residential – multifamily and/or mixed use development

Possible objectives/criteria

- Intensify/enhance commercial activity
- maximize tax base by possibly accommodating municipal uses in this location in exchange for private sector uses on former municipal parcels (police, light company, library).
- retain area as light industrial/flex space
- provide space for public facilities in a contiguous campus
- increase supply of multifamily, townhouse or mixed use housing, consistent with adjacent residential uses

Light Company/Police Station

Location: Belmont Center

Current Use: Police Department which is to be relocated in the future, and Municipal Light substation

Issues: Prior analysis determined that buildings are awkward for commercially viable reuse and site is insufficient in size to accommodate mixed use development.

Potential Uses:

- a) office
- b) residential townhouse
- c) retail
- d) quasi-public or nonprofit space for educational, entertainment, tourism, meeting, and/or other purposes?

Possible objectives/criteria

- provide short term revenues for Town through disposition
- preserve historic architecture in Belmont Center
- expand available commercial space in Belmont Center
- create focal point for Belmont Center
- increase density of housing near Belmont Center
- maximize tax base
- provide space for nonprofit or quasi-public activity that complements CBD.
- Promote commercially viable development opportunity
- Take advantage of proximity to train station

Claflin St. Municipal Parking Lot

The consultant team studied two scenarios for this site, {1.} a one level deck-total of 235 spaces (110 at ground level) and alternative [2] townhouses (15) with 30 at grade parking spaces located above an underground municipal parking garage of 125 parking spaces.

The team concluded that the revenue of this development i.e. sale of townhouses would not justify the cost of building the underground garage, a cost which might be in the range of \$5M for 125 underground spaces. Furthermore, the residential uses would distract from the commercial vitality of the district as charging shoppers high fees for structured parking would be a disincentive.

Former Auto Dealership

Location: Pleasant Street

Current Use: Vacant auto dealership

Potential Uses (may include some combination of the following):

- a) office building (70,000, sq ft., 4 floors)
- b) retail (30,000 sq. ft. single level retail)
- c) structured parking (275 spaces of which 65 on surface lot for commuters and 210 in a 3 level parking deck)

Possible objectives/criteria

- provide opportunity for major commercial development project
- anchor Pleasant Street commercial district
- strengthen connection to Waverley Square
- provide parking for commuters and /or employees on Pleasant Street and Waverley Square.
- Maximize tax base
- Allow for DPW yard to relocate to Pleasant Street permitting disposition of former DPW yard for housing.

Sandler Skate Shop

Location: Concord/Bright

Current Use: Vacant gas station and skate shop

Issues: site insufficient size for mixed use or development with below-grade parking. Current density higher than zoning would allow for redevelopment.

Potential Uses:

- a) Retail and/or office within existing skate shop building or
- b) 9 Townhouses with 18 surface parking spaces

Possible objectives/criteria

- Strengthen neighborhood commercial presence
- Shift node toward more toward residential character
- maximize tax base
- provide retail or services to serve surrounding neighborhood

Belmont Comprehensive Plan – **Open Space, Greenways & Pathways:**
Working Group Statement of Values and Recommendations
December 2009

I. Statement of Values

“A Working Vision for Belmont’s Future,” adopted by Town Meeting, includes the promises that “we will protect the beauty and character of our natural settings,” “we will conserve our natural habitats,” and “we will preserve our small town community atmosphere.” As stewards for future generations we support the following values which underlie our care for Belmont’s open spaces, greenways, playfields, and pathways:

1. Connectedness – Places for community gathering and interaction; centers for neighborhood identity; spaces preserving our connection to the natural world; connections to broader greenway corridors for both people and wildlife
2. Vistas – Contributing to the natural beauty of the town; enhancing enjoyment of the changing seasons; preserving a sense of space and light in the densely developed metropolitan area
3. Recreation – Passive and active; youth and adult organized sports; open areas for informal play; spaces to enjoy exercise and relative solitude and closeness to the natural world.
4. Conservation – Protecting green spaces important for air quality, water quality, wildlife habitats and natural beauty
5. Preservation of the Historic Elements of the Town – Sense of Town’s identity, pride of place; connection to the Town’s agrarian past – an element of the Vision 21 Statement
6. Clean Water – Protecting contributing watersheds and maintaining natural filtering and buffers from pollution sources. Celebrating and protecting streams and ponds, and wetlands
7. Storm Water Management/Flood Control – Maintaining and protecting our green infrastructure to provide vegetated buffers (wetlands) and unobstructed waterways
8. Health - Providing opportunities for maintaining and improving good physical and mental health; helping children develop life-long sports and physical exercise habits
9. Small Open Spaces – Providing breathing room in densely developed neighborhoods and business districts.
10. Equity - Aspiring to provide close proximity or at least convenient access to open spaces, playfields and public gathering spaces for *each* neighborhood in town, particularly taking into account residential densities

II. Passive Recreational and Natural Open Spaces, Parks & Greenways

A. Policy & Goals

1. Preserve and enhance existing open spaces (both public and private)
2. Ensure adequate maintenance of what the town now has.
3. Develop more links between open spaces and greenways.
4. Protect greenway systems and other open spaces as a flood control/drainage management system.
5. Maintain clean, unobstructed waterways

B. Strategies

1. Support the continuing development of the Western Greenway in western part of the town.
2. Support creation of a Belmont Greenway in the eastern part of the town as an urban trail.
3. Link the two greenways as a continuous system.
4. Adopt a town policy for acquiring open space and for obtaining or approving conservation easements for the preservation of *private* open spaces.
5. Consider daylighting existing underground culverted streams to provide greater natural amenities, control floods and establish better drainage.
6. Develop a protection plan against invasive species.

C. Specific Recommendations

1. Identify the missing links between the Western Greenway system and a proposed Belmont Greenway. Identify the urban trail route for the Belmont Greenway.
2. Develop criteria to identify private open space parcels appropriate for preservation which might become available in whole or in part, (e.g. Belmont Country Club).
3. Pass the Community Preservation Act to provide a funding source for open space acquisitions.
4. Develop a town policy on the right of first refusal for open space properties and analyze its likely cost.
5. Identify specific portions of culverted streams that could be daylighted and hold public meetings to present costs and benefits.
6. Provide bike parking accommodations at greenway destinations (e.g. trailheads).
7. Pass a Belmont Wetlands By-Law
8. Initiate an “Adopt a Stream” program to promote and provide resources for management and maintenance of the Town’s waterways.
9. Review cemetery policies to ensure compatibility with open space and recreation values and to preserve open space as long as possible while balancing cemetery interests.
10. Develop an invasive species action plan with strategic recommendations to prevent, control and, where possible, eradicate invasive plant (i.e., knotweed, bittersweet) and insect species (i.e., winter moth, Asian longhorn beetle), that can do long-term harm to our wetlands, meadows, urban forests and specimen trees.

III. Active Recreation Playfields and Courts

A. Policy & Goals

1. Improve the maintenance of the playfields and tennis and basketball courts the Town now owns.
2. Consider allowing additional uses of recreational playfields or courts (e.g. dog parks at playgrounds early in the morning, skateboard park, etc.)
3. Encourage private schools to continue sharing their recreational fields and courts with the Community.
4. Identify and provide opportunities for developing interest in life long sports

B. Strategies

1. Convene an inter-departmental working group, with the support of Friends groups, to identify multiple uses that could be established.
2. Identify the true costs of maintenance and current sources of funding – both public and private, and the percentage share contributed each by the town and by private sources.
3. Convene an inter-departmental working group, to identify opportunities for coordinating the maintenance of playfields, playgrounds and parks across departmental jurisdictions for greater efficiencies and cost savings (e.g. park area surrounding Clay Pit Pond).

C. Specific Recommendations

1. Analyze the benefits of relocating a new ice skating facility to maintain playfield space if the Library is moved across Concord Ave.
2. Prepare a report on the requirements for successful dog parks and identify potential locations.
3. Identify potential locations for a skateboard park.
4. Establish a gateway to Pequossette Park, linking it to Trapelo Rd.
5. Provide bike parking accommodations at recreational fields and parks.

IV. Private Neighborhood Open Spaces and Vistas as Visual Amenities

A. Policy and Goals

1. Recognize private residential open spaces - front, side, and rear yard lawns, wooded areas and native vegetation - as valuable visual amenities for neighborhoods
2. Protect views of significant structures and topographical landmarks for their role in providing orientation and a sense of place.

B. Strategies

1. Examine residential zoning bylaws to prevent oversized building footprints from eroding neighborhood visual open space.
2. Identify important vistas that should be maintained throughout town.

C. Specific Recommendations

1. Prepare residential zoning bylaw amendments to establish larger minimum setbacks to maintain neighborhood visual open space. Consider new residential zoning density requirements as measured by floor area ratio and open space requirements.
2. Analyze the cost of acquiring scenic vista easements from private property owners and offering tax abatements for the donation of such easements (e.g. View coming down the Concord Ave. hill toward Belmont Center).

V. Commercial Squares: Town Green / & Community Meeting Spaces

A. Policy & Goals

1. Create more community public gathering places in village commercial squares to foster a greater sense of community.
2. Beautify the commercial squares
3. Maintain the public streetscape in the town's commercial squares through public/private partnerships.

B. Strategies

1. Expand green spaces and sidewalks
2. Prepare preliminary plans for improved streetscape amenities in all commercial centers, including crosswalks leading directly to green spaces
3. Develop strategies to maintain the commercial squares

C. Specific Recommendations

1. Widen sidewalks in commercial squares to accommodate street furniture, outdoor cafes and comfortable gathering
2. Plant more street trees
3. Design streetscape improvements including paving, lighting, benches and planters.
4. Widen sidewalks and add small plazas at intersections along Trapelo Road.
5. In Belmont Center, redesign the intersection of Leonard Street and Concord Avenue to improve safety. Narrow pedestrian street crossing, and create small plazas and wider sidewalks.
6. Investigate creating a more significant town green in Belmont Center.

7. In Waverley Square, seek to expand the existing public park located between Lexington St. and Trapelo Rd. on an air rights deck above the rail tracks.
8. Encourage the planting of native species in municipal and town gardens, memorial sites, parks, and traffic islands.

VI. Recreational Trails

A. Policy & Goals

1. Expand off-street town recreational trails that interconnect existing parks, open spaces and conservation areas.
2. Establish an in-town trail linking existing recreational trails in other towns to the west and east of Belmont
3. Encourage wider use of existing trails.

B. Strategies

1. Establish a trail through Belmont that will link with the Mass Central Rail Trail in Waltham to the west and the Alewife Reservation Trail in Cambridge to the east.

C. Specific Recommendations

1. Determine alternate safe routes, including street crossings, for a trail through Belmont, linking trails to the east and west of the town. Identify missing links necessary to create the trail.

VII. Commuter and Community Paths

A. Policy & Goals

1. Encourage bicycle and pedestrian travel to commuter rail stations, bus terminals and the Alewife Red Line Station
2. Designate more pathways from neighborhoods to the commercial village centers
3. Recognize and increase public awareness that Belmont streets are multi-modal pathways that must be shared by autos, cyclists and pedestrians (under state law).
4. Encourage walking and biking to schools.
5. Increase awareness of neighborhood and community history through public art opportunities and signage establishing connections along community paths.
6. Improve pedestrian and bicycle connections across the rail right-of-way to improve connections between neighborhoods and from neighborhoods to schools, trails and bike paths
7. Preserve the town's pleasant walking atmosphere, recognizing sidewalks and street trees as important assets providing in-town connections and walking connections to neighboring towns.

B. Strategies

1. Redesign Belmont streets as multi-modal pathways to be shared by autos, cyclists, parked cars and pedestrians as safely as possible
2. Maintain sidewalks as the most frequently used pathways to commuter rail stations and bus stops
3. Improve the number and legibility of on-street bike lanes
4. Create off-street bikeways that connect to public transportation
5. Provide amenities at rail stations, such as secured bike accommodations, to encourage cyclists to commute to train stations.
6. Create neighborhood histories with the assistance of the Historic District Commission and the Historical Society to enhance community paths.
7. Identify opportunities for additional rail right-of-way crossings
8. Establish a trail through Belmont that will link with the Mass Central Rail Trail in Waltham to the west and the Alewife Reservation Trail to the east.

C. Specific Recommendations

1. Determine alternate safe routes, including street crossings, for a trail through Belmont, linking trails to the east and west of town. Identify missing links necessary to create the trail.
2. Identify town-owned parcels adjacent to the commuter rail tracks that are likely to be part of the Belmont trail and maintain town ownership of the parcels
3. Develop trail marker signage systems, providing both historical neighborhood information and directional information and install them along designated community paths.
4. Adopt "Safe Routes to School" policies, and educate families about safe walking and biking practices for getting to and from schools.
5. Construct a bike and pedestrian tunnel under the rail right-of-way at the end of Alexander Avenue to the High School grounds.
6. Establish a White Street pedestrian/cyclist bridge path to connect Waverley Square and Pleasant Street.
7. Identify the Clark Street bridge as open to pedestrians and cyclists.
8. Maintain the Lion's Club/Belmont Center Station pedestrian tunnel for 24 hour a day, year round use.
9. Identify sidewalk problems and provide unobstructed, safe, accessible sidewalk pathways.
10. Fund the care, maintenance and planting of street trees.
11. Fund the maintenance and, where necessary, the reconstruction of sidewalks.

IX. Scenic By-ways

A. Policy and goals

1. Identify possible additional scenic by-ways in the town, the maintenance of which would serve to support the preservation of historic elements of the town's natural beauty

B. Strategies

1. Consider designation of additional streets as scenic by-ways

X. Implementation: Funding & Maintenance

A. Policy & Goals

1. Provide greater maintenance efficiencies and coordination among departments, committees and commissions responsible for open spaces, pathways and streets.
2. Establish greater awareness across town departments of the policies and practices related to the stewardship and care of open spaces, including familiarity with the Open Space and Recreation Plan.
3. Continue current town policy of jointly funding maintenance of recreational properties through public/private partnerships, continuing to foster a sense of ownership and vested interest in recreational properties.
4. Identify resources for preserving existing private open spaces.
5. In commercial squares, seek to form business organizations to help the town maintain the squares and deltas.

B. Strategies

1. Examine the town's management and oversight structure for open space and consider areas of consolidation, as well as the establishment of new committees, so as to best achieve open space goals.
2. Develop coordinated maintenance responsibilities across town departments, committees and commissions.
3. Establish business organizations in each commercial square, (possibly funded with dedicated resources, e.g. parking meter revenues), to help maintain the squares in a public/private partnership with the town.
4. Pursue grants and other funding

C. Specific Recommendations

1. Consolidate maintenance responsibilities for all town conservation land
2. Restore town funding for planting shade trees town-wide and, specifically in commercial centers, in partnership with commercial square business associations.
3. Pass the Community Preservation Act to provide a funding source for open space acquisitions.

XI. Education and Outreach

A. Policy & Goals

1. Connect residents to open space by providing them with the information they need to learn about open space resources in town and to take informed actions related to sustaining these resources.
2. Educate the community to the connection between maintaining open space and forest canopy and positive benefits to maintaining the environment and personal health.
3. Build support in the community for providing the necessary resources for maintaining the town's open space and recreation assets.

B. Strategies

1. Gather and disseminate information on Belmont's open spaces, parks, recreation fields, greenways and pathways.
2. Encourage understanding of the value of Belmont's open space assets:
 - a. Inform residents that healthy trees and forests in urban areas contribute to improved air and water quality, watershed function, energy conservation and social well-being.
 - b. Inform residents of Belmont's historic landscape, agrarian past, and development history to create a greater understanding and appreciation of the town's open space resources.
 - c. Inform residents of the role of greenways and trails in providing vital links between the built environment, natural areas, and native habitats of our town, as well as neighboring communities.

C. Specific Recommendations

1. Expand information on the town website about access to our open spaces, playing fields, and conservation lands, including rules and maps.
2. Develop interpretive trails and signage for a town-wide trail system including areas of historic, biological, and special interest.
3. Work towards a unified identity for stewardship and use of town parks and conservation lands through use of signage and logos.
4. Educate the public about how to use chemical pesticides, fertilizers, and herbicides in thoughtful ways, and about natural and less toxic alternatives.
5. Educate the public about water conservation methods in lawn and garden care.

Transportation and Energy Group Report: **Making Transportation a Part of Belmont's Sustainability Goals**

December 2009

This outline presents the goals and objectives identified by the Transportation, Parking and Energy Working Group. Following the list of goals and objectives is an expanded outline, offering the group's proposed strategies which might move the Town toward achieving these goals. This document is meant to inspire not constrain discussion about these issues. The Working Group recognizes that there are many tradeoffs and decisions to be made suggested by this outline: for example increasing housing density to support our businesses and public transit services balanced with the desire to maintain our small town community atmosphere; providing parking to support robust commercial centers and the use of public transit balanced with traffic concerns and the desire to reduce auto dependency; the need to provide safe and attractive passage for pedestrians, bicycles and cars balanced with the Town's fiscal constraints and competing demands for resources. The lists of proposed strategies are not in any priority order. We hope that this document will inspire broad discussion to achieve community consensus about our directions for these important issues.

I. Transportation

Overall Goals:

- Reduce emissions
- Ensure future livability
- Maintain "small town community atmosphere" (from Vision Statement)
- Reduce congestion at school & transit drop off points, in town centers, and along key arterials
- Give people transportation choice/options
- Plan early for future trends/technologies in transportation

Objectives for Transportation:

Objective 1: Reduce Auto Dependency

Objective 2: Promote the use of public transit

Objective 3: Make Belmont a walkable community

Objective 4: Promote biking

II. Parking

Overall Goals for Parking:

- Retain neighborhood character
- Sustain vibrant businesses
- Attract business customers from outside Belmont
- Promote the use of public transit

Objectives for Parking:

Objective 1: Provide village customer parking

Objective 2: Support commuters' use of transit with parking

Objective 3: Maintain residential street character

Objective 4: Plan for non-auto parking accommodation

Objective 5: Create an overall parking management plan for the Town

III. Energy

Overall Goals for Energy:

- Reduce the Town's energy budget
- Ensure future livability
- Ensure availability of sufficient, affordable, reliable energy

Objectives for Energy:

Objective 1: Reduce solid waste collection

Objective 2: Provide incentives for reducing electricity usage

Objective 3: Encourage decentralized energy production

Objective 4: Integrate energy conservation into public school's curriculum

Objective 5: Reduce energy usage in municipal buildings

Expanded Outline:

I. Transportation

Overall Goals:

- Reduce emissions
- Ensure future livability
- Maintain “small town community atmosphere” (from Vision Statement)
- Reduce congestion at school & transit drop off points, in town centers, and along key arterials
- Give people transportation choice/options
- Plan early for future trends/technologies in transportation

Objectives for Transportation:

Objective 1: Reduce Auto Dependency

Issues:

1. Resistance to density
2. Perception that hybrids, ethanol, hydrogen generators, etc. alone will save the environment

Proposed Strategies:

1. Promote retail serving local neighborhoods
2. Encourage delivery services as part of local businesses
3. Develop transit oriented zoning (higher density, greater use mix)
4. Establish outreach campaign to educate about emissions impacts and alternatives to the car
5. Provide zoning incentives to businesses and developers to promote alternatives to the automobile
6. Investigate requiring financial incentives to employees not to park
7. “Can’t get there from here” – provide needed non-auto connections
8. Working with businesses/business associations conduct regular street fairs with street closures
 - a. Close Leonard Street to cars periodically (expand practice of closings at Town Day and for the holiday tree lighting to once a month at least?)
 - b. Explore similar periodic road closures in Cushing Square and Waverley Square
9. Create a tele-work facility
10. Get Zip Cars in town
11. Promote carpooling among municipal employees and among residents; encourage use of new web-based ride-share programs
12. Consider possibilities for alternative forms of human and/or low powered vehicles for local travel/shopping (implications for traffic regulations?)

13. Consider what planning issues may be raised by alternative fuel vehicles (e.g. charging facilities for batteries at parking lots)
14. Charge students to park at the High School

Objective 2: Promote the use of public transit

Issues:

1. No good connections to Alewife T
2. No cross-town T service
3. If transit services are not well used they may be reduced or lost

Proposed Strategies:

1. Provide service to Alewife (consider diverting existing 128 shuttles to/from Waltham?)
2. Provide cross-town (inter-town/Arlington/Belmont/Watertown/etc) T service
3. Provide transit (train and bus) shelters
4. Provide clear identifying and directional signing for transit stations
5. Provide benches and attractive, well lit, safe waiting areas
6. Visibly post transit schedule information
7. Provide real time transit info
8. Maintain sidewalks that are primary pathways to commuter rail stations and bus stops
9. Provide commuter rail parking
10. Request more frequent and reliable transit service
11. Provide transit how to/anecdote stories on signs
12. Develop an intra-town shuttle
13. Make it pavement management policy to provide bikeways and pedestrian sidewalk paths to transit hubs

Objective 3: Make Belmont a walkable community

Issues:

1. Existing pavement management policy does not include sidewalks
2. Funding
3. Need to develop picture of what areas (%) of town should be considered within “reasonable” walking distance of transit buses/trains/commercial centers

Proposed Strategies:

1. Adopt “Safe Routes to School” policies and promote walking and biking to school (which is safer than driving)
2. Preserve the town’s pleasant walking atmosphere, recognizing sidewalks and street trees as important assets
3. Fund the care, maintenance and planting of street trees

4. Provide well maintained and lit sidewalks (our sidewalks are a significant community asset enabling connections among neighborhoods and to services and amenities)
5. Make sidewalks part of road reconstruction policy – fund the maintenance and, where necessary, the reconstruction of sidewalks with pathways to schools, parks, and public transit as priorities
6. Ensure and maintain safe pathways to village centers (e.g. sidewalk path from Waverley Woods development to Waverley Square)
7. Sidewalk shoveling ordinance and enforcement needed for residential areas
8. More effective snow removal requirements and procedures needed for commercial areas to keep access open
9. Improve pedestrian and bicycle connections across the rail right-of-way to improve connections between neighborhoods and from neighborhoods to schools, public amenities, trails and bike paths
 - a. Construct pedestrian/bike tunnel under the tracks at the end of Alexander Ave.
 - b. Improve lighting and enhance the visibility of and maintain the pedestrian tunnel at Belmont Center station for comfortable, safe, 24 hour a day, year round use
 - c. Establish a White Street pedestrian/bicycle bridge path to connect Waverley Square and Pleasant Street
 - d. Improve as necessary and identify the Clark Street bridge as open to pedestrians and bicyclists
10. Require new development to install and maintain non-auto infrastructure
11. Improve pedestrian protection in the villages
12. Improve streetscapes (add trees, benches, open spaces for public gathering, etc.)
13. Promote use of existing trails (Habitat/McLean/Rock Meadow)
14. Create walking clubs (i.e. dog walking; walking school busses)
15. Establish interesting walks/paths in each precinct/interpretive trail signage on local history of various parts of town (model after Waverley Trail)
16. Signage leading people to open space/recreation areas
17. Enforce ordinance relating to pruning landscaping adjacent to sidewalks and at intersections
18. Ensure barrier free sidewalks
19. Establish cut through access to Leonard Street for pedestrians coming from rear parking lots

Objective 4: Promote biking

Issues:

1. Most bike routes are not actual bike facilities
2. If you build it, will they come? Need data about biking habits and population
3. Streets do not feel safe for biking? Is it safe to ride bikes on Belmont's streets? What is practical given various street widths and curbside parking conditions?

Proposed Strategies:

1. Connect bikeways to schools, commuter parking, villages and public amenities

2. Encourage bicycle and pedestrian travel to commuter rail stations, bus terminals and the Alewife Redline Station
3. Provide amenities at rail stations, including secure, sheltered bike parking accommodations to encourage cyclists to commute to train stations
4. Provide bike parking accommodations in village centers and at selected locations to support use of bus transit
5. Create off-street bikeways that connect to public transportation
6. Recognize that Belmont's streets are multi-modal pathways that must be shared by motor vehicles, bikes, and pedestrians (under state law)
 - a. Redesign streets to be shared as safely as possible by autos, cyclists, parked cars and pedestrians (bike paths or accommodations with striping and symbols wherever safe and possible; "share the road" signage; traffic calming measures; etc.)
7. Improve the number and legibility of on-street bike lanes and investigate the use of the "cheviot" symbol to indicate bike accommodations where there are no bike lanes
8. Stay current with most up-to-date bike accommodation planning to ensure highest level of safety
9. Provide bike parking/storage accommodations at "destinations" in addition to transit hubs (e.g. recreational fields and parks, trail heads, schools, village centers, etc.)
10. Conduct bike safety education for students, drivers, and the police (rules of the road, helmets, lights and safety apparel for visibility, etc)
11. Require new development to install and maintain non-auto infrastructure
12. Improve pedestrian and bicycle connections across the rail right-of-way to improve connections between neighborhoods and from neighborhoods to schools, public amenities, trails and bike paths

See 9. a. b. c. d. above
13. Establish a trail through Belmont that will link with the Mass Central trail in Waltham to the west and the Alewife Reservation Trail in Cambridge to the east
 - a. Determine alternate safe routes, including street crossings, for the trail – Identify missing links necessary to create the trail
 - b. Identify town-owned parcels adjacent to the commuter rail tracks that are likely to be part of the Belmont trail and retain town ownership of the parcels
 - c. Hold community meetings gathering all bikeway stakeholders to weigh costs and benefits of options for bikeway routes, determine the best option and generate support to build the trail
14. Identify safe routes/paths from neighborhoods to connecting bike path once constructed
15. Ensure bike paths are plowed
16. Investigate possibilities for a bicycle sharing program on the model of Zip Car
17. Investigate potential funding sources for bicycle infrastructure improvements

II. Parking

Overall Goals for Parking:

- Retain neighborhood character
- Sustain vibrant businesses
- Attract business customers from outside Belmont
- Promote the use of public transit

Objectives for Parking:**Objective 1: Provide village customer parking****Issues:**

1. Insufficient availability on key shopping streets
2. Employees occupying key customer spaces
3. Resistance to any parking on residential streets
4. No on-street parking overnight (ostensibly to avoid multi-family density? Also public safety departments' preference and long tradition)

Proposed Strategies:

1. Increase convenience for customers; maximize front door parking supply
2. Improved parking signing
3. Promote shared parking in and around village centers
4. Explore possibilities for public leasing and management of private parking spaces to expand shared parking possibilities
5. Manage parking supply better through pay structure; treat customer parking as a business asset

Objective 2: Support commuters' use of transit with parking**Proposed Strategies:**

1. Promote mixed use development of properties near rail stations to create vibrancy and support access and comfort and safety improvements to stations
2. Identify areas at the edges of village centers for permitted commuter parking
3. Create safe, attractive walking connections to promote more remote parking for stations
4. Provide bike parking accommodations at stations
5. Study changing location of commuter rail stations – Consolidate to one on Pleasant Street with parking accommodation? Move Belmont Center station to commercial area on Brighton Street to serve areas of both Belmont and Cambridge with potentially more room for parking accommodation?

Objective 3: Maintain residential street character**Proposed Strategies:**

1. Consider a strategy that modifies time limit parking to improve availability of parking spaces

2. Consider establishing residents only parking on residential streets near village centers
3. Consider a policy of enabling as an option fee-based permits for commuters/employees in designated areas agreed to by a majority of residents, with the revenue directed to funding neighborhood improvements

Objective 4: Plan for non-auto parking accommodation

Proposed Strategies:

1. Include bike rack standards and minimums in all sidewalk projects and require them for all new development
2. Install sheltered, secure bike parking accommodations at transit stops
3. Install short-term bicycle racks in village centers
4. Install bike parking accommodations at schools, parks and other public destinations
5. Consider future parking issues to be posed by alternative fuel and small sized vehicles and motorized bikes

Objective 5: Create an overall parking management plan for the Town

Proposed Strategies:

1. Study parking utilization
2. Involve the business community
3. Evaluate on and off-street parking regulations and supply
4. Establish staff responsibility for coordinating and overseeing parking planning
5. Adopt policies which support the goals outlined above and create an overall plan to implement strategies to achieve them
6. Pursue land-use and development choices that will support a “park once” strategy

III. Energy

Overall Goals for Energy:

- Reduce the Town’s energy budget
- Ensure future livability
- Ensure availability of sufficient, affordable, reliable energy

Objectives for Energy:

Objective 1: Reduce solid waste collection

Proposed Strategies:

1. Increase residential recycling
2. Increase commercial recycling
3. Increase recycling by staff, students and all users of town and school buildings

4. Promote composting
5. Promote reuse by establishing community “swap” events and by encouraging residents to participate in Freecycle
6. Adopt a by-law requiring the salvage and recycling of building demolition debris

Objective 2: Provide incentives for reducing electricity usage

Proposed Strategies:

1. Time-of-use metering and pricing
2. Investigate pros and cons of becoming a “Green Community” with a goal to apply for the designation within one year if it is in the best interest of the Town
3. Promote BMLD’s energy audits and conservation incentive programs
4. Use regulations to promote energy efficiency best practices in construction and renovation, including e.g. siting considerations, increased density to reduce average energy use, and the ability to take advantage of decentralized energy production

Objective 3: Encourage decentralized energy production

Proposed Strategies:

1. Establish zoning norms for alternative energy equipment/installations
2. Explore and provide incentives for local energy generation, both public and private (residential and commercial)

Objective 4: Integrate energy conservation into public school’s curriculum

Proposed Strategies:

1. Review science curriculum for integration
2. Identify conservation measures in the school buildings and use them as teaching tools
3. Organize environmental/energy fairs or other events – engage the school community in the organization

Objective 5: Reduce energy usage in municipal buildings

Proposed Strategies:

1. Explore feasibility of new ESCO project and or in-house energy audit and infrastructure up-grade program
2. Establish energy conservation procedures for all staff and users of municipal buildings
3. Install energy saving upgrades (e.g. awnings on the south facing windows of all municipal buildings; heat recovery ventilation systems)
4. Establish administrative oversight and responsibility for energy use issues, including e.g. energy audits for all buildings, usage data gathering, reporting and continuing to keep current with developing energy conservation technologies

Housing Work Group
Town of Belmont Comprehensive Plan
Housing Committee

Goals:

1. Provide organic life-cycle housing options for young families and the aging
2. Promote Socio-economic diversity
3. Preserve and upgrade existing housing stock
4. Promote a walkable/bike-able community of neighborhood villages and connecting corridors with a variety of housing options
5. Reduce carbon footprint of new housing construction
6. Supplement property tax base with new development of empty properties

Provide organic life-cycle housing options for young families and the aging:

Issues:

1. Limited opportunities for seniors to downsize and remain in Belmont in smaller, owner or renter units affordable for a range of incomes.
2. Limited opportunities for young families at a range of incomes to move into Belmont
3. Zoning limits opportunities for new construction or redevelopment of existing properties

Strategies:

1. Allow co-housing on large lots
2. Allow accessory apartments based upon lot size (Newton model—subject to size restriction of accessory apartment)
3. Allow three story buildings with third floor, one bedroom units along “Corridors” except Pleasant Street
4. Allow mixed-use development along Trapelo Road
5. Allow 1-family attached housing on smaller lots throughout Town
6. Allow cluster zoning on smaller lots town-wide constrained by green space and design standards
7. Allow townhouse development on large lots town-wide.
8. Rollback residential zoning to former lot size with “McMansion” constraint

Promote socio-economic diversity

Issues:

1. Lack of Diversity leads to homogenization of population and intolerance of others’ differences
2. Work force, both commercial and municipal, requires range of housing options at different prices

Strategies:

1. Maintain meaningful inclusionary zoning by-law
2. Allow accessory apartments

Housing Work Group

Preserve and upgrade existing housing stock so that it is sustainable

Issues:

1. No tax relief for building renovation
2. No restrictions on building demolition
3. No incentives for adopting energy efficiency improvements
4. No historic neighborhood preservation guidelines

Strategies:

1. Adopt 90 day demolition delay bylaw
2. Adopt energy efficiency building code standards and incentives
3. Provide tax relief for “New Growth” by encouraging building renovation
4. Permit cluster development on large lots in residential districts
5. Promote neighborhood preservation

Promote a walkable/bike-able community

Issues:

1. Existing zoning regulations prohibit mixed use and multifamily housing in the commercial centers and along the Trapelo Road and Concord Road corridors
2. No incentives in zoning bylaw for mixed use, multifamily housing, and shared parking

Strategies:

1. Allow increased housing density within walking distance of commercial centers and “corridors” (i.e. the village centers)
2. Within the village centers permit smaller lot size/du., cluster zoning, density bonuses.
3. Allow by-right development

Reduce carbon footprint of new housing construction

Issues:

1. Existing housing is energy inefficient and increases greenhouse gas emissions
2. Over-reliance on cars leads to energy inefficiency and greenhouse gases

Strategies:

1. Adopt energy efficient building code
2. Require LEED check list for all new development

Supplement property tax base with new development of empty properties

Issues:

1. A number of public and private properties have vacant, underutilized buildings. There is no consensus about reuse (i.e housing, commercial, mixed use as well as preservation or redevelopment).
2. There is no database inventory of underutilized property nor is there a process to develop consensus amongst the various boards and interest groups to facilitate change.

Housing Work Group

Strategies:

1. Consensus around the three elements included in Sustainability (i.e. Enhancing the town's tax base, the environment and design/historic preservation/social) need to be taken into account when considering changes in land use and buildings.
2. Develop design guidelines to shape new development.
3. Include representatives of the Historic Preservation community in a review of land use and building changes.
4. Identify opportunities for mixed use, multi-family housing and co- housing.
5. Promote zoning changes which will enable the development of housing to address priority needs.

BELMONT COMPREHENSIVE PLAN PHASE II
PUBLIC FINANCE AND CAPITAL FACILITIES PLANNING ELEMENT

1. Introduction
2. Existing Conditions:
3. Issues and Opportunities
4. Goals
5. Recommendations

Appendix 1: Budget Projections

Appendix 2: Excerpt from CPOC Report

Appendix 3: Financial Planning in Wellesley

Appendix 4: Override History

Appendix 5: 2008/2009 Gifts

INTERSECTION OF LAND USE PLANNING AND FINANCIAL PLANNING

A resolution of the issues and concerns of all of the Comprehensive Plan elements requires to varying degrees reliance on financial planning to provide resources to make it possible to meet the goals in all of these areas and to preserve Belmont as a sustainable and livable community. Without addressing the funding needed to preserve the town's existing assets and services, it will be difficult to implement improvements in public facilities, infrastructure and services to support a land use plan.

At the same time, land use decisions affect the town's status as a financially stable and sustainable community. Proposed land use changes must be considered in light of their impact on fiscal sustainability and capital needs. Decisions about public investment and finances will have long term implications for shaping land use and infrastructure changes.

The following planning report on capital facilities and finance is one of the six elements of the Comprehensive Plan. This report describes the existing conditions of the town's capital facilities and finances, identifies issues and opportunities, suggests some goals which should guide financial planning in concert with the town's comprehensive plan, and identifies some specific recommendations which should be considered as a starting point in achieving these goals.

EXISTING CONDITIONS

I. Revenue/Spending:

The total town budget for FY10 is \$79.7 million. The capital budget for FY10 is \$1.76 million or about 2.2% of the total¹.

The following charts provide a snapshot of Belmont's revenues and expenditures in 2008. The tax levy is the largest source of revenue by far, followed by local receipts and other revenues. State aid contributes just 9% of the Town's revenues.

The categories of expenditures shown in Chart 2 are provided by Massachusetts Department of Revenue Division of Local Services. Capital expenditures are not reported as a distinct category in this classification.

¹ As explained in the Capital Budget Committee Report for 2009, the Town's Capital Budget is based on its bylaw definition and is less inclusive than is generally understood.

Chart 1

Belmont Revenue Sources FY2008

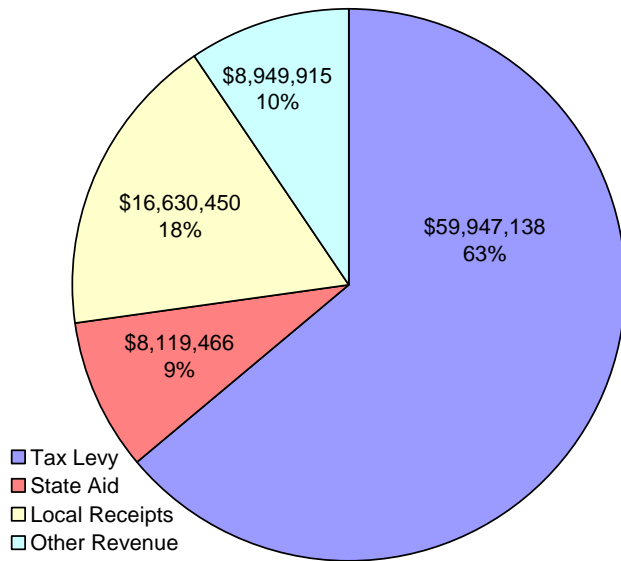
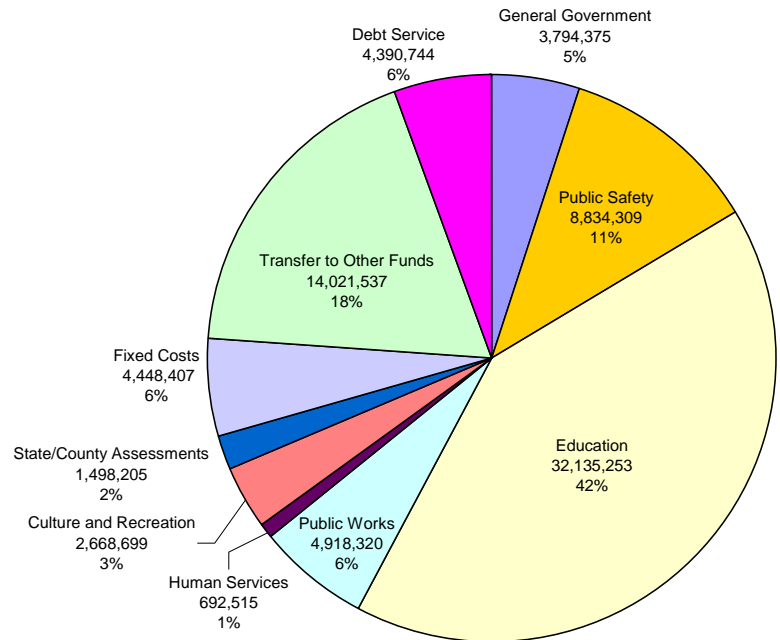


Chart 2

Belmont Expenditure by Department FY2008



Source: Massachusetts Department of Revenue Division of Local Services

Charts 3 and 4 provide a historical perspective of revenues and spending. The most significant growth in spending has been for Education, which also represents the largest single share of spending. Reliance on the tax levy has grown significantly in the past decade, while State aid has diminished as a share of total revenues. The amount of local receipts (which includes fees and fines), has grown, although it represents a smaller proportion of total revenue than in the past.

Chart 3, Annual Expenditures, 1988-2008

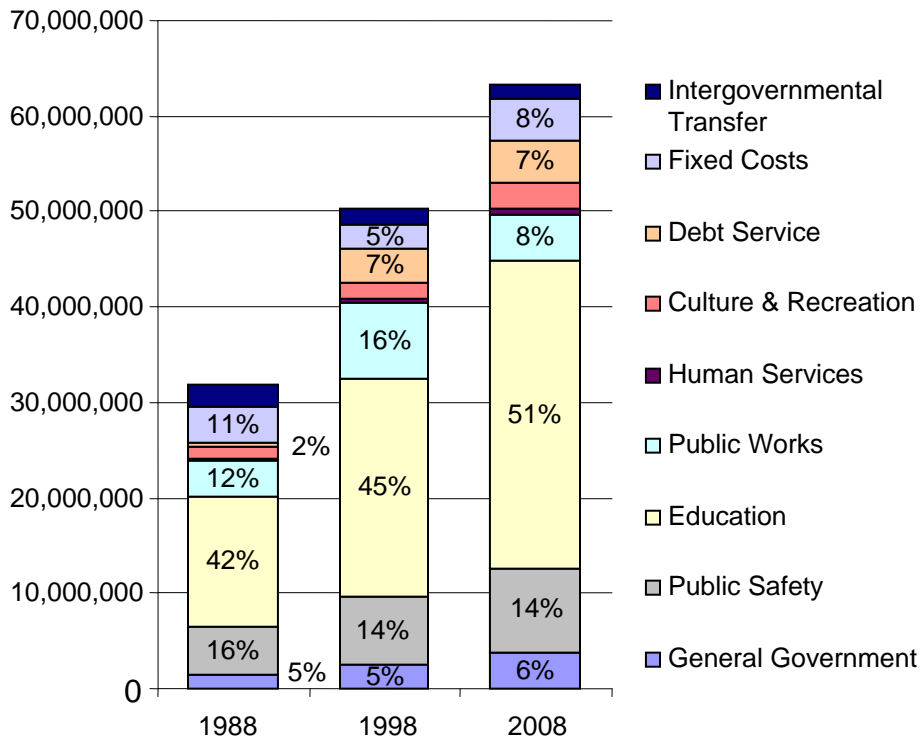
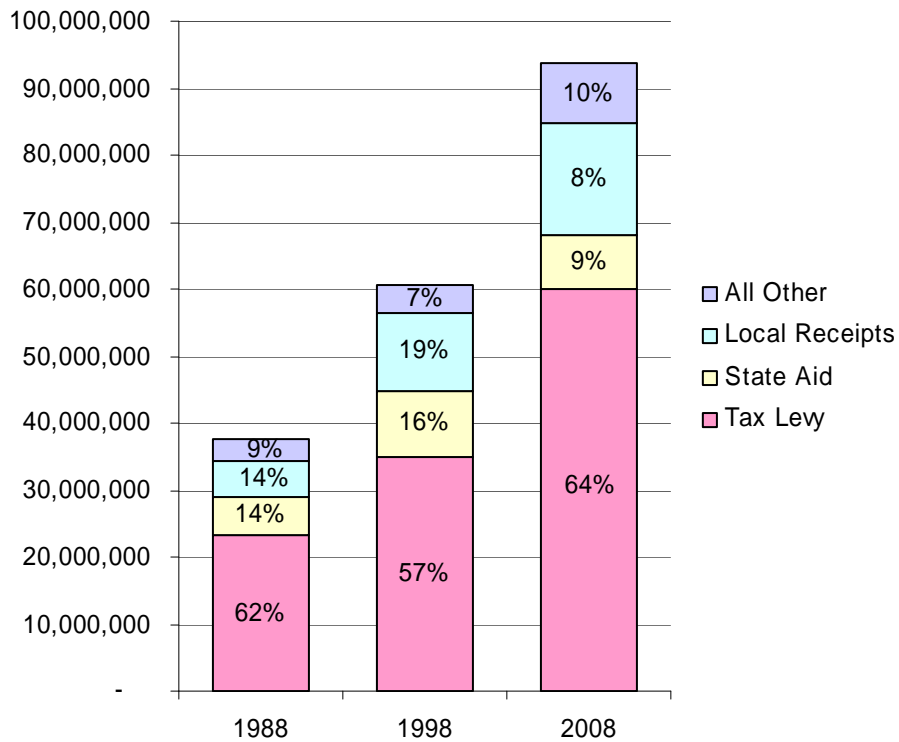


Chart 4, General Fund Revenues 1988-2008



Municipal costs are inflating faster than the town's revenue-raising capacity. Budget forecasts project a deficit of over \$7M by FY15 (see Appendix 1). Without additional funding or the passing of overrides to pay for this operating budget, the town will have to face cuts in services.

Debt Service

In FY10 the town will spend \$5 million on debt and interest on debt. This represents about 6.3% of the total budget. About \$3.5 million (70%) of that is for debt principal while the remaining \$1.5 million (30%) is interest on debt. Fully 20% of the debt service is remaining principal from the Chenery Middle School project. Other major projects being paid for are the Town Hall Complex and the Fire Stations, the School Athletic Fields, and the Senior Center. The cost of capital is at an historic low in 2010, and Belmont therefore will issue debt for the new Wellington School at a favorable time.

The Town maintains AAA bond rating through careful financial management, within the guidelines established by Moody's for an AAA rating (the highest available rating). Belmont's ability to maintain an AAA rating ensures access to the municipal debt market at very attractive rates.

II. Financial and Capital Asset Planning:

A. Short Term

The Board of Selectmen (BOS) is the central board in the financial planning process. The Warrant Committee (WC) is the town's finance committee and has all the legal responsibilities of any finance committee (state statute). It is the responsibility of the WC to prepare and present a budget to TM, and to prepare budget parameters.

A snapshot picture of the annual budgeting process follows: the Town Administrator prepares a budget for the Selectmen and the Superintendent of Schools prepares a budget for the School Committee. The Warrant Committee receives both and the BOS, WC and SC engage in discussion and negotiation (including discussions with department heads) until a final budget proposal is agreed upon and presented to TM.

The Capital Budget Committee (CBC) receives both annual "capital" budget requests from departments and a budget amount (recommended by the Town Administrator and discussed by the BOS and the WC). The CBC then makes its recommendation about what should be included in that year's capital budget to TM. The CBC is also required to present a 5-year plan for capital projects to TM each year, facilitating orderly scheduling of near term capital improvements.

B. Long Term

Several standing committees are tasked with various aspects of long term capital planning. Most directly, the CBC is involved in more long-term decision-making through its role in determining what kinds of requests are included in the capital budget, and for

long term management of capital expenditures. The Permanent Building Committee (PBC), advisory to BOS and TM, is responsible for planning and overseeing all capital projects (except road work) for public buildings regardless of the scope or cost. The PBC also does all the feasibility analysis requested by the town, and serves on all feasibility studies for the school department. (Specific building committees are usually appointed for specific projects.)

Over the past 15 to 20 years the BOS has established a variety of ad hoc committees to try to engage in planning and prioritization for large capital building projects. These have generally included the BOS, WC, CBC, SC, and the Permanent Building Committee.

1. Project Specific Advisory Groups: Several advisory groups have been created for the purpose of developing conceptual plans for specific capital projects. Most if not all of the town's facilities in need of updating now have these conceptual plans defining the project, though many of the plans are some years old. These studies have provided the basis for discussion and planning. They have considered the priority order of needs, funding sources, likely political scenarios regarding Debt Exclusions, etc. and made recommendations for the BOS and/or TM action to move projects forward, fund studies for projects not yet defined, etc.

2. Strategic Planning Advisory Groups: Five ad hoc committees have been created with a broader purpose, to coordinate planning, prioritize resources, and increase efficiencies.

- Financial Task Force (FTF) (1990's) recommended scheduled maintenance of buildings.
- The Capital Planning Group (the "Mega-group", consisting of the BOS, WC, PBC, and CBC) has been convened over the last decade to prioritize major capital projects which have been put before the voters, beginning with the Town Hall Complex. Prioritizing of specific projects has depended on need, as well as timing of state funding authorizations and political support.
- A Capital Projects Overview Committee (CPOC) was charged with looking at the relationships among projects and land use choices to see if projects might be combined or otherwise accomplished in the most efficient way. The CPOC utilized the work done by the Mega Group in determining priority projects, and outlined its findings in a 2008 report (see Appendix 2). Looking comprehensively the various capital projects currently facing the town, the Committee examined and attempted to assemble the pieces of the puzzle, seeking opportunities to either combine projects or reuse existing buildings. The CPOC report recommended a series of building projects to follow, beginning with reconstruction of the Wellington School (currently in the planning process.)

Construction of a new Library, capping of the incinerator site, and/or selection of a site for a new substation can trigger a chain of opportunities for meeting other

capital facilities needs such as Police department, recreational facility, and skating rink, among others. Further analysis is needed on some of these projects in order to determine the best use or combination of uses on sites such as the Purecoat site or former incinerator.

- The Government Structure Review Committee (GSRC) is concerned with the Town's form of government, and how administration and policy-making is carried out. This committee's work impacts long term financial planning in that the issue relates to opportunities for streamlining government and decision-making capacity for implementing recommendations for capital improvements or changes in services.
- The Blueprint for Belmont Group (BBG), consisting of the BOS, SC, WC, and CBC, dealt with a broader range of financial issues, focusing on general operating budget efficiencies. Subcommittees of this group looked at a range of specific strategies for cutting costs and increasing revenues to put the town into a more fiscally sustainable position. On the cost-cutting side, this effort resulted in recommendations for changes to Health insurance, regionalization initiatives, and other measures described in the Issues and Opportunities section.

ISSUES AND OPPORTUNITIES FOR ASSET MANAGEMENT, FUNDING, AND FINANCIAL PLANNING

A lack of comprehensive capital budget planning as well as sufficient revenue results in a gap in funding for investment in new public facilities, the management of existing Town assets and facilities, as well as the maintenance of town services. The budget projections shown in Appendix 1 suggest the need for substantial overrides to cover operating expenses, yet carry forward a significant cut in funding for capital improvements that occurs in FY10, and maintain an already low contribution to Reserve Funds at a constant level. The funding choices represented in this budget forecast are not sustainable. Strategies are needed to generate and allocate funding for facilities and services that reflect community priorities, as well as the need for financial sustainability.

I. Capital Budget and Asset Management

The definition of projects that qualify as Capital Budget items are "those public improvements and non-recurring major equipment needs which represent the most necessary enhancement projects or purchases to be undertaken by the Town during each year." Increasingly, as department budgets are constrained, there is a push to shift maintenance and asset management costs which have traditionally been covered under department budgets onto the capital budget.

Given the constraints of the Capital Budget, many of these items go unfunded, and the Town faces a growing backlog of deferred maintenance on its facilities, which results in more costly repairs or replacement of assets which might have been prolonged with

consistent management. Meanwhile, implementing plans for major capital improvements such as replacement or reuse of public buildings is delayed, further impacting cost as well as opportunities to coordinate priorities and funding.

While the annual budget allocation for capital improvements continues to be inadequate to keep up with the current needs, the Town lacks both funding and planning to catch up on deferred maintenance of buildings, roads, and other assets. The consequence of this policy is that assets are not maintained, forcing the Town either to pay more in replacement costs or accept a lower level of service. While there might be potential to save millions of dollars if capital needs are anticipated, planned for and managed efficiently with accurate data and cost tracking, such a planning process has not been established.

A very rough estimate of the total replacement cost of all the Town's pipes, roads, buildings, and Light Department assets would be about \$700 million. The Town is assembling the necessary data that must be collected in order to begin putting together an asset management plan that extends beyond roads to include all important infrastructure and buildings².

The CBC recommends that the annual allocation be increased from \$1.76M to \$3M annually to cover current capital budget needs, and that the amount should increase by 2 ½% per year, as do other aspects of the Town's general budget.³ This estimate was based on the experience of the CBC with annual lists of requests and the sum of costs for items judged to be needed and appropriate for funding in any particular year. Does this reflect how much the town ought to be spending as a share of its budget or is it commensurate to the portfolio of capital assets?

This recommended allocation does not include road repair. The annual cost of a "completely adequate pavement management program" was estimated to be \$3.8M in 2006, which can be partially covered through Chapter 90 funds⁴. A \$2.5M override to pay for road repairs was unsuccessful in 2008, which would have supplemented a \$1M road maintenance override which passed in 2001.

Debt Financing.

Belmont's share of debt service is on the low end among comparable communities and below the State average. The table below ranks Belmont with some comparable communities in terms of the percent of the budget allocated to debt service and the percentage of Industrial valuation. At this critical juncture one might ask if the Town would benefit by establishing targets for its tax base and debt financing which would allow greater flexibility in funding its capital needs.

² Blueprint Group meeting minutes, 3/21/07

³ Capital Budget Committee report, 2009 (?)

⁴ Capital Budget Committee report, page 7

	% Debt Service of total expenditures	Debt as % of EQV 2008	Moody's Bond Rating	% Commercial/ Industrial Valuation
Arlington	18.35	0.28	AA2	6.0
Belmont	6.3	0.09	AAA	5.8
Lexington	7.72	0.11	AAA	13.0
Lincoln	4.86	0.08	AA1	3.2
Wellesley	14.85	0.09	AAA	12.7
Winchester	15.87	0.11	AAA	5.5
State Average	7.33	0.15		17.0

II. Funding

A. Cost Saving Strategies

1. Reducing Services

As an inherent consequence of budgetary constraints, maintenance of town buildings and other assets is an area of services that is consistently reduced, increasing the long term costs of deferred maintenance. This is not a financially sustainable planning policy.

Nevertheless, reducing services is happening each year of necessity because of lack of funds. To date, no broad decisions about reducing whole departments or categories of services have been considered or adopted.

2. Streamlining, Combining Town Government

The Government Structure Review Committee (GSRC) is one avenue to look at streamlining town government. Many of these ideas have been difficult to implement because of financial, personnel and administrative reporting and oversight issues.

A subcommittee of the Blueprint Group has been working actively on consolidation of functions and combining services, looking at building & grounds, personnel administration, technology services and legal representation for the general government and the school department. Limited opportunities for combination have been identified and implemented.

3. Regionalization

The town has been aggressively exploring regionalization of municipal services. The State is advocating this approach, providing preferential funding for programs and projects where communities are coordinating or sharing resources, as well as facilitating collaborative efforts to explore combining services⁵.

⁵ State of Massachusetts, 2009, Governor's Proclamation

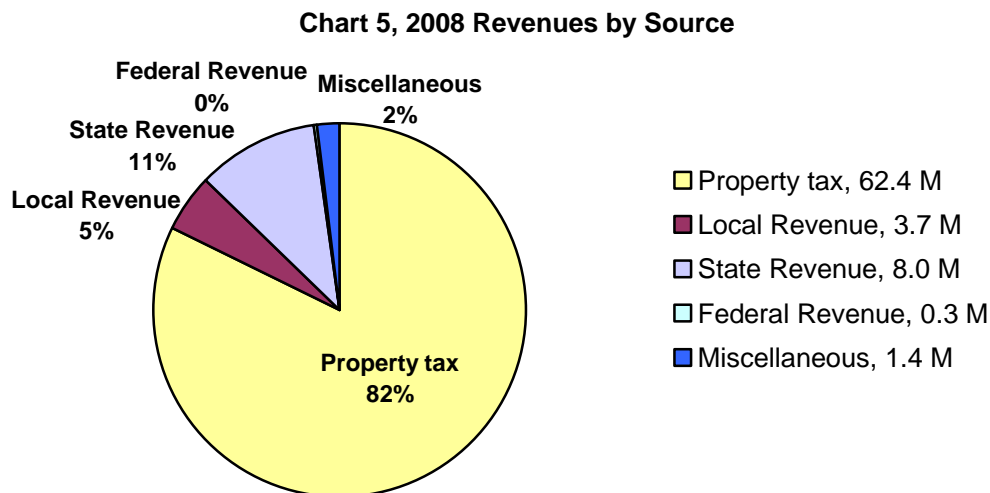
The town has investigated and had some success in getting other towns engaged in talking about ideas for combining services, including purchasing collaborative, nursing, special education, and inspectional services. The Minuteman Library Network has been very successful for the library. The Town is participating in several area groups trying to find ways to share public safety services, but this would involve regional consolidations and a whole new structure for providing fire protection. Cost saving through regionalization has not been found to have immediately significant opportunities, although there have been minor successes.

4. Other Strategies

Subcommittees of the Blueprint Group have been studying other strategies, finding opportunities for cost savings through outsourcing vehicle maintenance, and energy and resource conservation.

B. Increasing Local Revenues

Property taxes are by far the largest source of municipal revenue, followed at some distance by state funding and other local revenues such as fees for services, licenses, permits and fines. Miscellaneous revenues include earnings on investments. The State limits how much the town can raise through Proposition 2 ½, so that additional tax revenue can only be obtained through overrides or new growth.



1. Overrides

Overrides offer an immediate opportunity to raise additional revenue. The distinct disadvantage is that they have to be approved by voters. As has been demonstrated in the past, there are limits to what projects or funding needs the taxpayers are willing to support through overrides. Moreover, this strategy cannot be counted on for sustained funding needs, as voters are less likely to support repeated requests for overrides.

On the other hand, some communities, the town of Wellesley for example (see Appendix 3), have successfully incorporated overrides in a strategy to fund capital improvements. A

key to obtaining public support for override funding is to be able to articulate to the public the overall vision into which the proposed spending fits.

A Table in Appendix 4 shows the history of attempts in Belmont to tax beyond the limits of Proposition 2 ½. Over the past two decades the town has successfully passed debt exclusions for many capital projects, including school renovations/construction, the Town Hall campus buildings, Athletic Complex, fire stations, and Senior Center. In 2001 and 2002, overrides passed to supplement budgets for the town, schools, and road improvements. Proposed overrides were turned down by voters in 1993-1994 for municipal and school programs and public safety equipment, and in 2008 for road improvements.

The record of override attempts brings to light some of the capital planning and municipal finance issues in Belmont.

- Proposition 2 ½ constrains the town's ability to provide adequate funding for municipal and school services, or to provide for asset management and development.
- The town has had the greatest challenge raising funds through taxpayers during tight economic times.
- Major building projects are more strongly supported by voters than routine capital and operating expenditures

2. Zoning to increase the tax base

“New Growth”, generated by new development, redevelopment, and improvements to existing properties, has contributed less than \$1M to the town's Tax Base each year over the past decade, averaging around 1.5% of the prior year's levy limit. Could this “New Growth” be increased with additional benefit to the town?

A question raised in Phase I of the Comprehensive Plan related to what the fiscal impact might be of additional commercial development. To answer this question the consultant team studied the fiscal impact of 16 parcels that were identified as having immediate to long term redevelopment potential throughout the town's commercial areas. A buildout estimate and fiscal impact analysis of potential reuse scenarios assuming new zoning which would permit moderately higher development, i.e., buildings of 3-4 stories on a limited number of key sites, concluded that these selected parcels could increase the overall property tax revenues by 2-3%, adding \$30-\$46M to the tax base.

Taking into account the cost of municipal services (such as education and public safety), the 16 parcels combined generated estimated *net* revenues of \$200,000 - \$400,000 per year. Notably, this analysis found that redevelopment with *mixed use* and *housing* would generate greater net revenue than commercial redevelopment alone⁶. Experience in Massachusetts communities like Belmont has demonstrated that high density housing (i.e., condominiums, townhouses and mixed use housing) attract fewer families with school children than conventional single family homes. With considerably higher

⁶ Belmont Comprehensive Plan Phase I report, Appendix A

property values than commercial space, these types of high density housing provide relatively greater potential to generate surplus revenue.

Contrary to these findings, over the past couple of decades, Belmont has seen a trend toward downzoning, reducing the allowable density and uses. One result of this pressure toward low-density zoning is a constraint on potential to increase property tax revenue through new growth. Owners of commercial property, in particular, are discouraged from making investments that would raise their property value because current zoning does not allow for economically feasible redevelopment. One and two story buildings with surface parking that meet zoning requirements cannot achieve rents adequate to recoup construction costs, while special permit and major development approval requirements further increase the costs and risks associated with improvement and tenanting of commercial sites. Commercial buildings will be better able to attract and retain tenants with slightly larger and more updated spaces, however the rents are not adequate to spur this investment. These factors lead to deterioration of older and underutilized sites.

A closer study of issues surrounding development opportunities in Waverley Square identified zoning as a significant constraint on investment that would improve the valuation of commercial properties in this district.⁷ Higher density development, in this case commercial, as well as townhouses and condominiums, are restricted throughout much of Waverley Square and other prime potential development parcels. As in Cushing Square, a higher density (3-4 stories) might be necessary in order to facilitate higher quality development that includes attractive design features, public improvements, underground parking, and/or air rights development over the rail line on either side of the Square.

One positive example of a revenue-enhancing zoning initiative is the Cushing Square Overlay District, which will allow for an increased density with a scale and mix of uses characteristic of historic village centers. This zoning change has the potential to facilitate a substantial private investment that would not otherwise be feasible. Comparable initiatives in Waverley Square, Belmont Center, and other commercial areas could attract further redevelopment and enhancements to generate new property tax growth.

In short, the Phase I real estate market and site analyses concluded that real estate development was an important positive aid but not a “silver bullet” solution to substantially reduce the town’s fiscal shortfall. First, there were a limited number of sites appropriate for new development in the foreseeable future. Second, zoning would need to be adjusted to facilitate such growth. And third, especially in Belmont Center and Brighton Street/Pure Coat, the town’s capital facility planning would need to be coordinated with the town’s land use planning if the town was to take advantage of commercial area revitalization opportunities.

3. State/Federal Funding

The Trapelo Road/Belmont Street corridor, school reimbursement, and library building assistance are examples of state and federal funding for capital projects. Through

⁷ Larry Koff & Associates, Waverley Square report, 2009

planning and targeted local investment, the Town can position itself to attract further funding for infrastructure improvements, such as MBTA improvements, open space, trails, and energy efficiency.

Another impact of low density zoning is that it inhibits the town's competitiveness for State and Federal funding for infrastructure. Specifically, increasing commercial and residential density in the town's village centers and corridors will help to sustain transit ridership levels that support maintaining or increasing current levels of transit service. While there is not currently a numerical goal for ridership to maintain service, demonstrating that the town's zoning and infrastructure investment are consistent with supporting transit ridership may influence State and Federal support.

Belmont must continue to work diligently to maximize opportunities for state and federal funding. As this is one of the areas over which the Town has the least control, it would be unwise to plan on a greater share of total revenue coming from this category.

4. Community Preservation Act (CPA)

The CPA is a program that entails placing a surcharge on property tax bills to provide funding for open space, historic resources and affordable housing. Matching funds are granted by the state on the basis of a formula which prioritizes communities with greater need and greater level of participation. CPA could provide the town with additional state funding for projects that entail the renovation or reuse of historic buildings, open space, or affordable housing. Examples of local needs that could utilize CPA funding are the Underwood Swimming Pool, the barn, and the Housing Trust.

One reason why CPA has not to date been pursued in Belmont is that it is restricted in the types of applicable projects and the locally funded component would compete with higher priority needs, while the anticipated and somewhat limited level of state reimbursement continues to decrease. On the other hand, CPA would be an asset where the town specifically anticipates undertaking eligible projects such as the Underwood Pool in the future.

5. Increasing fees for services

Both town and school department charge fees for a lot of non-essential services. The town reviews fees yearly and makes sure that fees charged cover the cost of the service. It is not clear that there are opportunities to generate substantial new revenues from this source.

- Sewer, water, and electricity are all fee based.
- At the insistence of WC, the Recreation Dept is now fully supporting, except for maintenance of their fields.
- Trash collection fees are regularly discussed, however the cost of this service is already more than covered by an override passed in 1990, which was expressly for the purpose of providing trash pickup and disposal. One of the reasons why this override was supported is that large numbers of TMM preferred all those

- kinds of services (trash, water and sewer fees) be covered by local taxes so they could deduct them from their income tax returns.
- The town has talked about charging a fee for, or simply eliminating services such as unclogging a sewer, pumping out basements etc.

6. Public/Private Partnership

Some services and capital improvements could be funded through the private sector in cooperation with the town. An example of a public/private partnership is the Western Greenbelt initiative, collaborating to create regional open space connections. Fundraising efforts by the Friends of Rock Meadow provide for maintenance and improvement of that open space resources, while the Soccer Association maintains and irrigates fields, and recently renovated the Town Field near the Beech Street Center. Various foundations support specific town functions, including schools. (See Appendix 5) Another example, although still in early stages, is the work that the Belmont Library Foundation is doing to raise private money to help pay for a new public library building, just as private fundraising also contributed to construction of the Beech Street Center.

The recent interest by a private developer in constructing a new skating rink could have resulted in replacing an aging public facility with one that would have been privately owned and operated, while continuing to provide public access. While this was possibly a unique situation, the town could continue to look for ways in which to partner with private fundraising organizations and enterprises to facilitate major capital improvements.

On a smaller scale, private funding through development agreements with proponents of new private sector projects could help to pay for streetscape and roadway improvements, recreation, and parking facilities. Likewise, dedicated funds could be established allowing and encouraging the public to share in the cost of services such as tree planting, park improvements, and streetscape and open space maintenance.

A formally designated and approved Business Improvement District could be established to provide funding for staffing, marketing, physical improvements and an enhanced maintenance program in a designated commercial district such as Belmont Center. Local property owners would be assessed a fee that could be between 1/10th of 1% (0.001%) to up to one half of one percent (0.005%) of the total assessed value of the real property owned by participating members of the district. It is estimated that such a program could raise between \$40,000 and over \$200,000 annually of funds dedicated to the Belmont Center business community. Establishing this program would require the support from 60% of the owners and at least 51% of the assessed valuation of the real property within the proposed BID.

7. TIF (Tax Increment Financing) & DIF (District Improvement Financing)

Two somewhat similar programs have been established by the legislature to assist in the financing of private real estate development projects. Both of these programs allow a municipality to dedicate tax revenue from development within a designated area to specific infrastructure improvements.

District Improvement Financing

Chapter 40, Section 18 of the Acts of 2003 now allows a Massachusetts municipality to pledge future increases in property taxes generated in a specified section of a community (the Development District”) to the repayment of a bond issue used to finance capital improvements benefiting the Development District. With a viable project, the bonds which are issued could be secured only by the pledge of new future property taxes in the Development District. Table 22 below highlights some of the differences between DIF and TIF financing.

As a DIF project could involve multiple parcels and owners, it is important to remember that the preparation and public approval of a Development Plan and a Financing Plan will require substantial scrutiny at both the local and State level.

Differences between a DIF and TIF program

Issue	DIF (District Improvement Financing)- 40Q	TIF (Tax Increment Financing)
Tax Mechanism	TIF	Tax Exemption
State Incentive	None	5% State Tax Credit
Coverage	All Municipalities	Economic Target Area
Term	30 years	5-20 years
Beneficiary	District	Company
Type of Project	residential, commercial, industrial	Commercial
Public Approval	Yes	Yes

8. Leveraging public facility improvements to provide net tax benefits

The disposition of the Leonard Street Fire station is a prime example as to how the town, through careful planning, can dispose of public assets in a manner which will leverage private funding and additional annual tax revenue.

The recent CPOC report identified a series of projects including the construction of a new Library and Police Station, capping of the incinerator site, and/or selection of a site for a new substation. These capital improvement projects will create opportunities for adaptive reuse or redevelopment that can potentially leverage private investment and new tax revenues. Additional analysis is needed to determine the best use or combination of uses on sites such as the Pureoat site or former incinerator and what disposition strategy of certain assets might provide the highest net revenue to the town, leveraging in the process the ability to finance these interconnected projects.

RECOMMENDATIONS

Capital facilities and financial planning are key components of the Comprehensive Plan theme of a “sustainable community”. Major capital investments and asset management policies should reflect the priorities stated in the town’s Comprehensive Plan, and correspond with the needs for fiscal sustainability. The following recommendations seek to enhance the town’s organizational coordination of comprehensive long term capital planning, and to build support with the public and with town leadership for fiscally sustainable policies.

GOALS:

- A. Investment in regular asset management, infrastructure improvements, and public facilities should reflect the Town’s Vision of a sustainable community.
- B. An organizational structure needs to ensure that a coordinated town-wide capital planning process complements the short term budgeting process, pulling together comprehensive town-wide goals.
- C. A capital budgeting process needs to build public support for funding.

Strategies:

Four guiding strategies are identified below for the town to pursue. Each strategy identifies a number of activities to be carried out. It is essential that in implementing the Comprehensive Plan, a process be established to prioritize these strategies and recommended activities and to identify who and over what time period they will be carried out.

A. Formulate Next Steps to carry out a Capital Improvement Plan

While the CPOC report took a comprehensive view of the capital facilities needs facing the town and prioritized capital projects currently in the planning stages, there were some unanswered questions about where some facilities may be located, depending on the sequence of construction and initial decisions which have yet to be made. Meanwhile, there are several private properties and public buildings currently “at play”, which could be redeveloped for public or private use, and which could positively transform and define the character of the municipal campus and the surrounding neighborhoods as well as provide opportunities for tax base growth, economic development and/or housing.

At a moment when all of these options are still open, the town has the opportunity to make choices about the future land use and character of the areas in which the public facilities currently are or could be located. For example, the Purecoat site could have reuse potential for a number of public facilities, including a light substation, recreational fields, skating rink, and/or police station. The town could dispose of the front portion of this site for a high value use such as a multifamily condominium housing development. “Upzoning” the frontage along Brighton Street might be combined with plans for public

uses in the rear of the Purecoat Site in order both to generate funding for capital improvements, as well as enhance the Brighton Street commercial district.

As another example, the current library building was suggested as a suitable site for the Police Department in the CPOC report, however it might be worth exploring whether renovating the library into condominiums and locating the Police Department elsewhere could yield a higher value to the town, adding more housing near Belmont Center. More housing could also be accommodated in Belmont Center through adaptive reuse of the Police and Light Departments.

A re-charged CPOC planning process could identify what types of uses, design and density are most appropriate for the neighborhoods in which facilities might locate. Now that the Wellington School Project is under way, and before decisions are finalized about the light substation and library relocation, the town should continue to build on the CPOC effort to look ahead at how future projects are interrelated with land use and other objectives. At the same time, zoning changes should be considered that correspond with this capital facilities vision, including an exemption for municipal projects meeting defined criteria, and regulations for public buildings to be redeveloped.

B. Funding for Asset Management

Addressing the goals of capital planning and public facilities is closely tied to the issue of overall fiscal sustainability in the town because the same shortage of funding affects all of the town's departments and services. The following points echo the Capital Budget Committee recommendations.⁸

- In order for the town to develop a fiscally sustainable strategy going forward, the town needs to develop a Capital Asset Management Plan for catching up on deferred maintenance and capital projects.
- The town also needs to consider how the budget can be shifted to allow for a gradual increase the annual capital budget allocation to the level that is needed for sustainable asset management; the Capital Budget Committee recommends an annual rate of \$3M.
- Funds need to be set aside in the department operating budgets for maintenance and recurring capital expenses.
- A stabilization fund for pavement management is needed to ensure that regular funding is dedicated for this purpose and are available in coordination with the construction season.
- Capital improvements should be coordinated so that various projects such as pavement repair, water and sewer and streetscape improvements may be timed and/or combined for efficiency.
- Opportunities should be created to engage in public/private partnerships to fund the maintenance of assets.
- Establishing an estimated time frame for major capital projects well in advance (such as the library or pool) could help to facilitate fundraising efforts to contribute to their cost.

⁸ Capital Budget Committee Report, 2009

C. Organizational Coordination around Capital Asset and Financial Planning

Despite all of the efforts of the various committees and mega-groups to address the needs of fiscal sustainability over the past several decades, there is little written documentation of what ideas have been explored and how they relate to an overall structure.

Building on the capable existing framework, organizational coordination should be enhanced or recharged so that an effective and sustainable Capital Asset and Financial Management Plan can be developed and implemented.

- More publicly accessible documentation (utilizing the town's website) will clarify the issues, as well as historic and current efforts.
- Criteria and goals for asset management and funding should be identified.
- A set of guiding principles, benchmarks, and strategies for capital facility investment, asset management, new growth and commercial tax base can help to ensure that financial sustainability is a shared objective across departments and committees, and connect specific actions (such as zoning or other regulatory changes) to financial goals.
- Operating budget funding of consultants is needed to continue developing zoning and other tools to implement the Comprehensive Plan.

D. Building Support

The need to fund asset management, coordinate capital facilities planning, and to address the need for long-term budgeting solutions have long been explored by committees and town staff, but have met resistance from voters and leadership. Several Committee Reports and planning studies prepared in the same year as the CPOC report provide recommendations relating to capital improvements and asset management, yet it is not clear how these proposals are to be prioritized, funded, and implemented.

Meanwhile, there is a real or perceived resistance among voters or elected officials to pursue initiatives such as streamlining government, changes in zoning to facilitate growth in property assessments by allowing greater density, or funding maintenance of existing infrastructure, facilities or equipment.

- Need to communicate more clearly to the public and internally what efforts have been made to reduce costs, increase revenues, and shift budget allocations, providing a clear, well documented Capital Asset and Financial Management Plan.
- Goals of fiscal sustainability should be correlated with town priorities regarding public investment in buildings and infrastructure, and other public improvements.
- Capital facility funding decisions should relate to the Comprehensive Plan, as well as changes in zoning, and other policy choices.
- Awareness and understanding of the Plan for Fiscal Sustainability by residents and public officials should be fostered in order to generate support for policy and funding decisions in accordance with the plan.
- Graphic presentations should be used to raise and maintain awareness of the fiscal situation, linking property value, vitality and quality of life to the choices to be made regarding municipal services and revenues.

Appendix 1

BUDGET PROJECTIONS

Hagg

16-Nov-09	#59	FY 08		FY09		FY10		FY11		FY12		FY13		FY14		FY15
Level FY10		BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD
REVENUE LINE ITEM						11/12/09										
PROPERTY TAXES		54,478		56,711		58,913		60,988		63,110		65,288		67,520		69,808
INCR UNDER 2 1/2 ¹		1,362	2.5%	1,418	2.5%	1,473	2.5%	1,525	2.5%	1,578	2.5%	1,632	2.5%	1,688	2.5%	1,745
Growth ²		871		749		600		600		600		600		600		600
DEBT EXCLUSION ³		3,278		3,670		3,471		4,555		3,995		3,928		3,663		3,558
TOTAL PROPERTY TAXES		59,951		62,513		64,456		67,665		69,283		71,448		73,471		75,711
MOTOR VEHICLE EXCISE		2,600	2%	2,499	-2.0%	2,450	2%	2,499	2%	2,549	2%	2,600	2%	2,652	2%	2,705
ADDED INTEREST COST		110		175	-12.5%	153		160		160		160		160		160
PAYMENT IN LIEU OF TAXES ⁴		99		10		14		14		10		10		10		10
FEES & FINES (COURT,PARKING)		468		337		337		340		340		340		340		340
LICENSES & PERMITS (BUILDING)		550		650	-38.5%	400		400		400		450		500		500
DEPARTMENTAL																
LIBRARIES		65	-26.8%	48	2.9%	49	2%	50	2%	51	2%	52	2%	53	2%	54
CEMETERIES		87	22.6%	107	17.2%	125	10%	138	10%	151	10%	166	10%	183	10%	201
RECREATIONAL		615	-2.4%	600	1.0%	606	2%	618	2%	631	2%	643	2%	656	2%	669
OTHER ⁵		491	-1.2%	485	19.2%	578	2%	590	2%	602	2%	614	2%	626	2%	638
INTEREST ON INVESTMENT		1,200		500		300		325		350		400		450		500
STATE AID ⁶		8,079	2.5%	8,278	-13.1%	7,191		6,014		6,012		6,012		6,874		6,874
STIMULUS FEDERAL GRANT						1,721		0		0		0		0		0
TRANSFERS & OTHER ⁷		6,335		4,700		3,045		2,661		2,061		2,061		2,061		2,061
TTL REVENUE BUDGET (EXCLUDING RESTRICTED) ¹³		80,650		80,901		81,426		81,374		82,599		84,957		88,037		90,425
EXPENSE LINE ITEM																
SALARIES & WAGES - Twn/School(9a)		38,832	5.7%	41,045	3.2%	42,378	3.0%	43,649	3.0%	44,959	3.0%	46,307	3.0%	47,697	3.0%	49,128
HEALTH (ACTIVE & RETIRED) ⁸		9,599	-7.7%	8,859	-3.8%	8,521	7.0%	9,118	5.0%	9,574	5.0%	10,053	5.0%	10,555	5.0%	11,083
RETIREMENT (EXCL TEACHERS)		3,929	4.6%	4,109	6.3%	4,366	4.1%	4,546	15.0%	5,228	12.0%	5,855	12.0%	6,558	12.0%	7,345
RETIREMENT HEALTHCARE FUNDING		500	-70.0%	150	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
SCHOOL NON-SALARIES ⁹		5,073	0.8%	5,113	8.4%	4,644	3.0%	4,784	3.0%	4,927	3.0%	5,075	3.0%	5,227	3.0%	5,384
SPECIAL EDUC OUT-OF DIST TUITIOI		2,733	8.3%	2,961	24.3%	3,682	3.0%	3,792	3.0%	3,906	3.0%	4,023	3.0%	4,144	3.0%	4,268
MINUTEMAN VOCATIONAL		502	37.1%	688	17.8%	810	4.0%	843	4.0%	876	4.0%	911	4.0%	948	4.0%	986
STATE CHARGES ¹⁰		1,505	0.9%	1,518	2.4%	1,554	2.5%	1,593	2.5%	1,633	2.5%	1,674	2.5%	1,716	2.5%	1,759
TOWN NON-SALARY ¹¹		5,061	13.6%	5,749	-5.2%	5,452	3.0%	5,616	3.0%	5,784	3.0%	5,958	3.0%	6,137	3.0%	6,321
SOLID WASTE COLLECTION ¹²		2,318	3.0%	2,387	-2.6%	2,325	3.0%	2,394	3.0%	2,466	3.0%	2,540	3.0%	2,617	3.0%	2,695
RESERVE FUND		400	0.0%	400	0.0%	400	0.0%	400	0.0%	400	0.0%	400	0.0%	400	0.0%	400
OVERLAY RESERVE-ABATEMENT		827	0.0%	815	0.0%	800	0.0%	800	0.0%	800	0.0%	800	0.0%	800	0.0%	800
ROADS OVERRIDE		2,100														
ROADS		1,025	2.5%	1,051	2.5%	1,077	2.5%	1,104	2.5%	1,132	2.5%	1,160	2.5%	1,189	2.5%	1,219
OTHER CAPITAL		1,110	4.0%	1,123	-39.3%	681	4.0%	709	4.0%	737	4.0%	766	4.0%	797	4.0%	829
SUB-TOTAL CAPITAL		4,235		2,174		1,759		1,813		1,869		1,926		1,986		2,048
COMMITTED DEBT W/O LT/WAT/SEW		5,137		4,934		4,611	Est	4,287	Est	6,348	Est	6,216	Est	5,886	Est	5,586
WELLINGTON SCHOOL TEMP DEBT INT				0		100		1,500		0		0		0		0
TOTAL EXPENSE BUDGET		80,650		80,902		81,402		85,135		88,770		91,739		94,670		97,801
(EXCLUDING ENTERPRISE) ¹³																
REVENUE OVER/(UNDER) EXPENSE		(0)		(1)		23		(3,761)		(6,171)		(6,782)		(6,833)		(7,376)
EXP REDUX/OPERATING O'RIDE REC		0		1		-23		3,761		6,171		6,782		6,833		7,376

1. ASSUMES AT THE LEVY LIMIT FOR ALL YEARS

Appendix 1

BUDGET PROJECTIONS

Hagg

16-Nov-09	#59	FY 08		FY09		FY10		FY11		FY12		FY13		FY14		FY15
Level FY10		BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD
2 ASSUMES SOME IMPACT FROM MCLEAN BUT NOT ALEWIFE OR OTHER DEVELOPMENT.																
3 DEBT EXCLUSION: CHENERY DEE		1,090		1,090		1,190		1,025		1,055		1,075		1,100		1,100
		439		388		228		139		108		87		61		33
CHENERY STATE REIM		-1,099		-537		-537		-537		-537		-537		-537		-537
TOWN HALL		600		600		600		600		600		600		595		595
		378		359		339		317		294		272		248		223
ATHLETIC COMPLEX		220		220		220		220		220		220		0		0
		43		36		29		21		12		4		0		0
FIRE STATIONS - 1st is:		500		500		500		500		500		500		500		500
		362		346		328		311		292		272		270		227
FIRE STATIONS - 2nd is		105		105		105		105		105		100		100		100
		81		75		70		66		62		57		53		48
FIRE STATION BAN/PEI		0		0		0		0		0		0		0		0
SENIOR CENTER - est		285		250		195		195		195		195		195		195
		285		250		112		102		97		91		87		82
Wellington School						100		1,500	EST	1,000	EST	1,000	EST	1,000	EST	1,000
Less: Premium on Sale/E		-9		-8		-8		-8		-8		-8		-8		-8
NET EXCLUSION		3,279		3,670		3,471		4,555		3,995		3,928		3,663		3,558
4 PMT IN LIEU OF TAXES - MCLEAN/C		99		13		13		13		13		13		13		13
- LIGHT DEF		0		0		0		0		0		0		0		0
TOTAL		99		13		13		13		13		13		13		13
5 OTHER DEPARTMENTAL REVENUE		491	2%	531	2%	542	2%	0	2%	0	2%	552	2%	0	2%	0
FY08 EST RECEIPTS ARE INCREASED 2% BUT THEN REFLECT THE 2 NEW REVOLVING ACCOUNTS FOR COA & YOUTH																
6 STATE AID: SCHOOL CHAP 70		3857	19%	4604	0%	4512	-15%	3835	0%	3835	0%	3835	0%	4512	0%	4512
SCHOOL CONSTRUCTI		1100		537		537		537		537		537		537		537
LOTTERY		1982		1719		0		0		0		0		0		0
Jan03 Gov chg/Hold Harmless				283		0		0		0		0		0		0
ADDITIONAL ASSISTAN		827		827		0		0		0		0		0		0
General Municipal Assistance						1989	-20%	1591		1590		1590		1775		1775
Jan03 Gov chg						0		0		0		0		0		0
ALL OTHER		313		327		102		50		50		50		50		50
TOTAL STATE AID		8079		8278		7141		6014		6012		6012		6874		6874
7 TRANSFERS & OTHER																
STABILIZATION FUND		0		0		0		0		0		0		0		0
CAPITAL ENDOWMENT		100		100		100		100		100		100		100		100
WATER DEPT OVERHE		150		150		158		158		158		158		158		158
SEWER OVERHEAD		120		120		125		125		125		125		125		125
PREM SALE BONDS		9		8		8		8		8		8		8		8
FREE CASH		4679		2470		1323		1000		500		500		500		500
PARKING FINES		35		45		100		45		45		45		45		45
CEMETERY INCOME		20		20		25		25		25		25		25		25
Leftover capital projects		122		89.4		31										
SALE OF CEMETERY L		0		0		0		0		0		0		0		0
BMLD-Transfer in (was F		650		650		650		650		650		650		650		650
Ash Landfill Stab		0		0												
KENDALL & OTHER		0		0		75		0		0		0		0		0
OVERLAY RESERVE		450		1048		450		450		450		450		450		450
TOTAL TRANSFERS & OTHER		6335		4700.4		3044.9		2561		2061		2061		2061		2061

8. THE TOWN IS AWARE THAT GASB 45 WILL BE EFFECTIVE FOR FISCAL YEARS FY08 AND THEREAFTER. RIGHT NOW HEALTH BENEFITS ARE ON A "PAY AS YOU GO BASIS". LIABILITY WILL RIVAL THE LIABILITY FOR RETIREMENT BENEFITS. RETIREEE HEALTH WILL BE BOTH FOR TOWN AND ALL SCHOOL EMPLOYEES (INCLUDING TEACHERS). TEACHERS RETIREMENT BENEFITS PAID BY STATE.

9 SCHOOL NON-SALARY EXPENSE (OVERSTATEMENT IN FY 02 IN THIS CATEGORY & UNDERSTATEMENT IN HEALTH INSURANCE)

Appendix 1

BUDGET PROJECTIONS

Hagg

16-Nov-09	#59	FY 08		FY09		FY10		FY11		FY12		FY13		FY14		FY15
Level FY10		BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD
UTILITIES				1348.7		1383										
MAINTENANCE				511.5		455										
TRANSPORTATION				689		665										
TEACHING				1705.6		1484										
TECHNOLOGY				497		333										
PSYCHOLOGICAL SVCS				340		400										
CUSTODIAL				407		409										
FUEL						0										
OTHER/Sources				-384		-485										
TOTAL SCHOOL NON-SALARY		5073	0.8%	5113	-9.2%	4844	3.0%	4784	3.0%	4927	3.0%	5075	3.0%	5227	3.0%	5384
9A. SCHOOL UNION CONTRACT HAVE NOT YET BEEN SETTLED																
9B. SPED Out of District Tuition began to be mitigated in FY04 by the Circuit Breaker cash received from the state.																
10 STATE CHARGES	MBTA	1412		1409		1435										
	OTHER	93		109		75										
TOTAL STATE CHARGE		1505	0.9%	1518	-0.8%	1510	2.5%	1547	2.5%	1586	2.5%	1626	2.5%	1666	2.5%	1708
11 TOWN NON-SALARY																
UTILITIES & ENERGY S		996	47.1%	1465	-2.5%	1428										
OUTSIDE SERV.		2172	4.8%	2276	-8.2%	2136										
SUPPLIES		951	18.2%	1124	-4.8%	1070										
CAPITAL		548	-11.9%	483	-10.1%	434										
OTHER (& INSURANCE		394	1.6%	400	-4.0%	384										
TOTAL TOWN NON-SALARY		5081	13.6%	5749	-5.2%	5452	3.0%	5616	3.0%	5784	3.0%	5958	3.0%	6137	3.0%	6321
12. SOLID WASTE COLLECTION																
DISPOSAL		730		784		640		0		0		0		0		0
COLLECTION		1588	0	1636	0	1685	0	0	0	0	0	0	0	0	0	0
TOTAL SOLID WASTE		2318		2419		2325	3.0%	2394	3.0%	2486	3.0%	2540	3.0%	2617	3.0%	2695
12.A FUEL ADJUSTMENT																
TOWN		0		0		0		0		0		0		0		0
SCHOOL		0		0		0		0		0		0		0		0
		0		0		0		0		0		0		0		0
13 SEWER & WATER REVENUE																
SEWER		5,652	23.9%	7,001	3.6%	7,252	3.5%	7,506	3.5%	7,769	3.5%	8,041	3.5%	8,322	3.5%	8,613
WATER		4,500	13.6%	5,114	-1.8%	5,021	8.0%	5,423	8.0%	5,857	8.0%	6,326	8.0%	6,832	8.0%	7,378
CHAPTER 90-ROAD		404	-0.6%	401	-0.5%	399	0.0%	399	0.0%	399	0.0%	399	0.0%	399	0.0%	399
SUB-TOTAL ENTERPRISE		10,556		12,516		12,673		13,328		14,025		14,765		15,553		16,390
SEWER & WATER EXPENSES																
SEWER		5,652		7,001		7,252		7,506		7,769		8,041		8,322		8,613
WATER		4,500		5,114		5,021		5,423		5,857		6,326		6,832		7,378
CHAPTER 90-ROAD		404		401		399		399		399		399		399		399
TOTAL RESTRICTED		10,556		12,516		12,673		13,328		14,025		14,765		15,553		16,390
Health Insurance Breakout																
TOWN - TOWN ESTIMATE		4,124	-8.7%	3,765	-6.3%	3,529	7.0%	3,776	5.0%	3,985	5.0%	4,163	5.0%	4,372	5.0%	4,590
SCHOOL - TOWN ESTIMATE		5,474	-8.9%	5,094	-2.0%	4,992	7.0%	5,342	5.0%	5,609	5.0%	5,889	5.0%	6,184	5.0%	6,493
These salary accounts include: wages, medicare match & all other fringes (except health)																
SALARIES & WAGES - TOWN		14,907	5.6%	15,742	2.6%	16,150	3.0%	16,635	3.0%	17,134	3.0%	17,648	3.0%	18,177	3.0%	18,723
SALARIES & WAGES - SCHOOL (9a)		23,925	5.8%	25,303	3.7%	26,228	3.0%	27,014	3.0%	27,825	3.0%	28,660	3.0%	29,519	3.0%	30,405
Salaries include associated Medicare, Workers Comp & other direct benefits																
Town and school contracts are settled through 6/30/07																

BUDGET PROJECTIONS

16-Nov-09	#59	FY 08		FY09		FY10		FY11		FY12		FY13		FY14		FY15
Level FY10		BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD	% INCR	BUD
Salaries	% Town	38.4%		38.4%		38.1%		38.1%		38.1%		38.1%		38.1%		38.1%
	% School	61.6%		61.6%		61.9%		61.9%		61.9%		61.9%		61.9%		61.9%
TOTAL PROPERTY TAXES (FROM ABOVE)		59,951		62,513		64,456		67,665		69,283		71,448		73,471		75,711
EST TAX RATE FROM OPER BUD (A)		10.24		10.17		9.99		10.48		10.74		10.54		10.84		11.17
EXPENSE REDUX/OPERATING O'RID REQ'D (FROM ABOVE)		0		1		-23		3,761		6,171		6,782		6,633		7,376
INCREMENTAL TAX RATE FROM O'RIDE (B)		0.00		0.00		0.00		0.58		0.96		1.00		0.98		1.09
OPERATING BUDGET TAX RATE (A+B)		10.24		10.17		9.98		11.07		11.69		11.54		11.82		12.26
TAX RATE FROM APPROVED NEW CAPITAL EXPENDITURES (C)																
TOWN HALL COMPLEX (\$12MM) INCL																
Each \$1M of Annual Debt Service																
NEXT \$10MM CAPITAL EXPEND																
TOTAL TAX RATE (A + B + C)		10.24		10.17		9.98		11.07		11.69		11.54		11.82		12.26
INCREASE OVER PRIOR YEAR-Rate		-1%		-1%		-2%		11%		6%		-1%		2%		4%
TAX ON \$719,000(FY05) ASSESSED HOME																
		\$ 8,635	\$ 885	\$ 9,004	\$ 930	\$ 9,281	\$ 976	\$ 10,802	\$ 1,025	\$ 11,982	\$ 1,076	\$ 12,423	\$ 1,130	\$ 13,357	\$ 1,186	\$ 14,547
		4.3%		4.3%		3.1%		16.4%		10.9%		3.7%		7.5%		8.9%

The base value of \$719,000 in FY05 for an average single family home in Belmont has been carried forward on all the assumptions. Although the value will increase over time, most homes will appreciate at relatively the same percentage. The tax rate itself is not a viable figure but the total taxes on the "average home" valued at \$719,000 in January of 2005, should be reasonably accurate based on these assumptions. FY06 and forward assumption of a 7% increase in the average single family tax valuation. This was modified to 5% with market slowdown

Another way to look at the tax impact would be to look at every additional \$1M of appropriations on the tax rate. In FY07, another \$1M of appropriations would be equal to 17 cents

Appendix 2

Excerpt from CPOC Report

VII. Summary of Recommendations and Conceptual Ideas

1. Endorse the rebuilding of the Wellington Elementary School as soon as possible.
2. Prioritize the construction of the first phase of the High School renovation plan consistent with availability of State aid but balanced by concern for the ever increasing need for additional Science Classroom and Lab Space. Construct a tunnel under the railroad tracks behind the High School to facilitate emergency access and expand field capabilities.
3. Get written approval from the Massachusetts Board of Library Commissioners to re-site the Library on the North side of Concord Avenue.
4. Engage a design professional to consider the development possibilities for the incinerator site and the synergies with the recommended changes in the Concord Avenue corridor with a new library, new police station and potential relocation of recreation resources
5. Construct a new Library Building on the opposite side of Concord Avenue with the possibility of combining usage- i.e. basement level locker room facilities for the athletic complex and ADA compliant bathroom facilities accessible from the exterior of the building.
6. Maintain the existing Public Library Building to be retrofitted for a new Police Station use.
7. Sell the Municipal Light Department Building for commercial redevelopment. This should be combined with Police Station and Royal Road.
8. Create a new access road connecting the Town Yard to Pleasant Street enabling maximum usage of the site without unnecessary disruption of residential neighborhoods.

VII. Attachments

1. Summary of properties reviewed
 2. Complete list of studies reviewed
 3. List of Properties
 4. List of people interviewed
-

Best Practices

Financial Planning

Hans Larson, Executive Director, Town of Wellesley

Having worked for the majority of my career in the private sector, and as a relative newcomer to municipal government, it has been fascinating to experience firsthand the differences between private and public sector governance. As one might expect, there are many similarities, but also some significant differences. A municipality's finance director acts in much the same capacity as a private sector CFO. While fund accounting is difficult for corporate finance professionals to grasp, the basic workings of business and financial controls in a corporation and municipality are similar. Whereas in a corporation, revenue growth, net income and return on investment are overarching objectives that serve to integrate the goals and intentions of individual business units, municipal boards and departments are freer to pursue their own service and policy priorities. In addition, working with town meeting as well as the multiple boards and committees within a municipality certainly requires a more deliberate approach and a greater emphasis on process than dealing with a corporation's board of directors.

The Town of **Wellesley** has a proud tradition of strong financial planning, as evidenced by our fully funded pension plan, favorable bond rating and low tax rate. We are striving to continue this tradition by proactively responding to a number of new financial challenges. We have learned a number of lessons from the town's past experiences, as well as from our ongoing successes and failures. I have attempted to encapsulate some of those lessons in the planning maxims summarized below.

Focus on environmental changes and set priorities based on the level of financial risk

The increasing costs associated with health insurance, Other Post-Employment Benefits (OPEB), public education and building renovations/maintenance have dominated our financial planning discussions in recent years. The financial risk associated with these challenges has warranted a heightened level of focus, which has led to the development of long-term plans for mitigating their impact. For example, we have worked with the other communities in the West Suburban Health Group (a health insurance purchasing consortium) to develop a new set of health insurance plans, which offer lower premiums and the potential of greater consumer accountability. We are now collectively bargaining for the town-wide adoption of these plans.

Recognizing the rapidly increasing pay-as-you-go cost of retiree medical benefits, we obtained special legislation to allow us to both create a funding vehicle and to support the resulting trust fund via a Proposition 2½ funding exclusion. Last year we obtained approval from town meeting and voters for such an exclusion; we are now funding the Annual Required Contribution as defined in the Governmental Accounting Standards Board (GASB) Statement No. 45.

A recent comprehensive assessment of the condition of our schools and other town buildings identified the need for an improved financial plan for the long-term maintenance of the buildings. This was particularly imperative in light of the escalating cost of renovation and

continued on page 10

maintenance work, and changes in the Massachusetts School Building Authority (MSBA) reimbursement program. To gain more transparency and accountability in this area, we consolidated responsibility for maintenance of all buildings under a single standalone department. This is also intended to insure that maintenance of the town's infrastructure is not subordinated to other budget priorities. Work is ongoing to improve the financial plan for the long-term maintenance of our buildings, but in the meantime, town meeting will have better visibility to the condition of the buildings, and be in a better position to monitor the town's performance in this area.

Gain buy-in for your strategy

The success of major strategic initiatives requires active support from various boards and constituencies. Our health insurance and facilities maintenance initiatives have required the full support of the Board of Selectmen, School Committee, Board of Public Works, Library Trustees, Recreation Commissioners, Advisory Committee, as well as other boards. Voter approval of the OPEB funding exclusion required a significant campaign to educate town meeting members and the voters on this complex issue. Gaining this support has required multiple years of public emphasis on the financial implications of these issues. It has also required us to give the impacted boards, taxpayers and residents every opportunity to help shape the town's action plan. I have come to appreciate that the scope and quality of this process within a municipal environment is more important than speed of execution, which is typically the higher priority in the private sector.

Simplify

Many of our current financial planning challenges, especially health insurance, OPEB, and the body of law pertaining to these areas, are extremely complicated. Helping town meeting members and voters understand these issues

and the town's strategies for dealing with them has required us to limit the focus of presentations and discussions to the key concepts and analogize to better known concepts, e.g., pension liabilities. We have also found it helpful to reiterate these key concepts in multiple forums, to reinforce everyone's appreciation of the issue.

Create a dashboard

All successful corporations use some type of "dashboard" for monitoring the financial health and leading indicators for their business. This promotes the early identification of business issues and trends and promotes the development of more effective plans. This tool is also useful in municipal government environments. In Wellesley, our dashboard includes the following elements:

- Forecasted trend in state aid, new growth, interest income and other local revenues;
- Forecasted trend in reserve levels;
- Funded status of retirement obligations (pension and OPEB);
- Impact of historical and projected levy increases, overrides and exclusions on the median tax bill; and,
- Condition of major infrastructure elements for each of the town's buildings.

Continuous visibility of these and other variables has helped to avoid financial surprises and proven helpful to sustaining commitment to the town's major strategic initiatives. (Please see Editor's note below for more on "dashboards.")

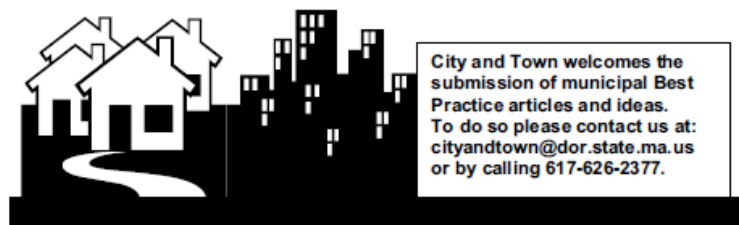
Emphasize the need for accountability

Wellesley has historically supported Proposition 2½ overrides to sustain the town's investment in its schools and other municipal services. At each annual town meeting, much attention is given to projections of potential overrides in upcoming years. In recent years, we have improved the quality of these projections by holding each board publicly accountable for variances between their budget requests and their prior year projections.

Conclusion

While communities differ in terms of the specifics of their financial planning challenges, the tools and approaches that are useful in addressing those challenges are common and similar to those used in the private sector. Assessing the level of financial risk and setting priorities accordingly, gaining buy-in for strategic initiatives, improving the quality of management information, and holding individuals and groups accountable for performance are each equally relevant in the public and private sectors. Continuous improvement in our approaches to these and other financial planning tasks is critical to the good health of our cities and towns. ■

Editor's note: The metaphor of a dashboard espoused above has begun to enter the municipal lexicon. A dashboard, like the opening page of DLS' Gateway, is typically real-time data collected and modeled within web-based software. The metaphor compares the representation of data critical to a community's performance to an automobile's dashboard, where analogous real-time information about the performance of the vehicle is always accessible and up-to-date for the driver.



City and Town welcomes the submission of municipal Best Practice articles and ideas. To do so please contact us at: cityandtown@dor.state.ma.us or by calling 617-626-2377.

Appendix 4

A HISTORY OF EFFORTS TO TAX BEYOND THE LIMITS OF PROP 2 ½

April 1987	Debt Exclusion (2976y-1330n) (Annual Election)	Renovation of Winn Brook and Burbank (\$100,000 @ ATM 86 for design) (\$10.8m @ ATM 87 for project) (\$ 2.5m @ STM Aug 87/bids) (\$1.2m@ STM Dec 88) (\$317,000/Reserve fund 94) (Town report of 88 says cost \$15,027,000—can't find other approp prior to reserve fund transfers in 94)
April 1990	Override \$2,094,000 (3027y-2558n) (Special election/Saturday) (There was an article on ATM Warrant to initiate collection fees, article was dismissed on passage of override)	Solid Waste collection and disposal
April 1993 (failed)	Debt Exclusion (2835y-3925n) (Annual Election)	Chenery, 911, Ambulance, 5 year Capital plan
December 1993 (failed)	Override \$1,116.111 (1758y-3919n) (Special election/with debt excl)	Municipal and School programs
December 1993 (failed)	Debt Exclusion (2290y-3383n) (Special election/with override)	911, ambulance, 5 year capital plan (total was to be \$5,580,555)
April 1994 (failed)	Capital Outlay Exclusion (2213y-2241n) (Annual Election)	911, ambulance, ADA at library (total was to be \$500,000)
November 1994	Debt Exclusion (7357y-4649n) (State election)	Chenery replacement (\$20,705,350)
May 2001	Override \$3,000,000 (3084y-1965n) (Special election with debt excl)	Town and School (\$1 m capital/roads \$1.2m schools \$800,000 town)

May 2001	Debt Exclusion (2753y-2247n) (Special election)	Athletic Complex (\$2.2m)
April 2002	Debt Exclusion (4337y-3169n) (Annual election)	Town Hall Complex (\$10,550,000)
June 2002	Override \$2,400,000 (2938y-2728n) (Special Election)	Town and School
April 2004	Debt Exclusion (2636y-2094n) (Annual Election)	Fire Stations (\$1.5m land acq 2003 (\$200,000 design 2003) (\$11,400,000 constr)
Nov 2005	Debt Exclusion (2189y-1557n) (Special Election)	Senior Center (\$120,000 design 2003) (\$6,328,456 constr includes \$1m in private funding and \$150,000 in state grant)
June 2008 (failed)	Override \$2,000,000	Roads
June 2009	Debt Exclusion (3849y-2022n) (Special Election)	Wellington School

Appendix 5

2008/2009 gifts to the Town of Belmont as of 12/21/2009

Category	Amount
Senior Center	\$750,000.00
Woodland sewer	\$54,054.00
Burbank-Maeve Goulding	\$52,189.00
Belmont Education Foundation	\$52,025.32
Police defibrillators	\$27,000.00
McLean-Conservation	\$26,545.74
Police surveillance camera system	\$22,000.00
Shade trees	\$13,800.00
Belmont Against Racism	\$9,300.00
Fire safety gift	\$8,100.00
Conservation gift	\$7,877.81
Library	\$6,600.00
Belmont 150th	\$5,587.00
Roads/crosswalk	\$5,220.00
Belmont Education Fund	\$4,250.00
Ambulance study	\$3,000.00
Cultural Council-Gallery	\$2,737.00
Concord Consortium	\$1,800.00
Burbank	\$1,660.00
Ftech training	\$1,235.00
Teen center	\$1,000.00
Youth Commission	\$854.00
Capital endowment	\$580.00
Human Rights Commission	\$525.00
Winn Brook	\$392.62
Chenery Middle School	\$300.00
SPED advisory	\$180.00
Animal Control	\$150.00
Council on Aging	\$100.00
	\$1,059,062.49
Expendable Trust Funds	\$50,387.22

10-Apr-09

In kind gifts		
Belmont Second Soccer	New Town Field surface	
Garden Club	Maintenance of various sites and water for Central Delta	
Lion's Club	Watering of Town Common/purchasing flowers	\$590
	Funded annual lighting of track	\$2,000
Viktoria Hasse	84 hours of record management research and storage	
Police Auxiliary Officers	3,792 hours of service; calculated equivalent cost \$83,689	
Scott White painting	Painting hanging in Library	
Stone Soup Magazine	Children's magazine subscription	
Wreath	Donated to the library	
Historical Society	Irrigation at Wellington Station	\$220
Garden Club	Center Bridge various plantings	
	Trapelo Rd./Common St. delta -rose bushes	
	Payson/Elm st. delta-rose bushes and two new flower beds	
Desco Associates	Waverley Square parking area green space	\$990
Belmont Boosters	Tap and pipes for turf field	\$4,500
	New scoreboard-girls varsity softball field	\$7,100
Brendan Grant Foundations	New shed-varsity diamond	\$10,000
	Infield varsity and JV diamond	\$4,000
	Backstop JV field	\$10,800
	Varsity field backstop pads	\$400
	Batting cage-Wenner field House	\$7,000
	Town Field Irrigation	\$2,000
	New dugouts for the girls varsity softball field	\$7,200
Belmont Soccer	Sodding, seeding fertilization and irrigation	\$25,000
	of PQ, Grove St., Concord Ave. and JV	
	soccer fields	
Belmont 2nd Soccer	Complete turf renovation with new irrigation	\$120,000
	system at Town Field	
Belmont Lacrosse	Funded 50% maintenance of the turf field	\$2,900
	Funded annual lighting of track	\$2,000
Belmont Youth Baseball	Complete rebuilding of 2 Grove S. diamonds	\$25,000
	New benches and concrete pads at Grove St.,	\$10,000
	Concord Ave. and JV fields	
	Infield mix at PQ and Grove Street fields	\$2,000

ADDITIONAL STRATEGIES FROM WORKING GROUPS

HISTORIC PRESERVATION STRATEGIES

- Update National Register of Historic Places (HDC)
- Publish guide listing required and suggested design alternatives (promote use of natural, traditional and sustainable building materials) (PB/HDC)
- Appoint an Historic District Commission member to the Planning Board (BOS)
- Appoint a Sustainable Belmont member to the Historic District Commission (BOS)
- Engage in more public outreach and education and listening (on matters of historic preservation) (HDC)
- Formulate criteria for selecting specific historic resources needing protection. (i.e., buildings that are at risk due to being on sites where zoning allows greater density or subdivision, being in a constant state of decline, having the historic characteristics obscured, where development plans do not include reuse) (HDC)
- Inventory landmark buildings, open spaces, and update 1982 Inventory of Historic Properties (HDC)
- Update Scenic Roads designations (Somerset Street is the only designated 'scenic road') (PB)
- Propose new Historic Districts (a house can be a district) (HDC)
- Create a historic plaque program (HDC)
- Use traffic calming measures to slow down traffic within the neighborhoods (OCD/TAC)
- Enhance buffers between commercial and residential areas through stronger regulation of site design to avoid parking lots, loading, dumpsters, lighting, etc. adjacent to neighborhood housing. (PB)
- Provide landscaping guide for homeowners and commercial owners/tenants. (PB?)
- Develop guidelines for public/private sharing in care of street trees and right-of-ways. (OCD/BOS)
- Encourage underground placement of utilities. (BOS/PB/OCD)

COMMERCIAL DEVELOPMENT STRATEGIES

- Review requirements for Liquor Licenses, reduce 130-seat requirement for all alcohol and 39 seat requirement for wine/beer, increase number of licenses (BOS)
 - For townhouse and possibly mixed-use developments, consider separating cost of parking from cost of housing in order to reduce cost of housing, rate of auto ownership and encourage shared parking. (PB)
 - Eliminate parking requirement for outdoor dining (PB)
- Provide traffic calming in commercial areas as well as residential areas for the safety of pedestrians and cyclists. (OCD/TAC)
- Investigate possibility of private shuttle service between commercial and residential areas and transit stations. (BOS)
- Develop a palette of recommended street furnishings for each district (PB/Design Committee?)
- Establish uniform street lighting/traffic signals, signage for each district. (PB/Design Committee?)
- Refine signage guidelines, potentially as a component of design guidelines. (PB/Design Committee?)

- Create a resource guide for existing businesses including desired suggestions and examples for new signage and facades. (OCD/PB?)
- Develop positive program and schedule meetings with landlords to discuss renovation needs (OCD)
- Increase time limits to avoid ticketing. (BOS/OCD)
- Use enforcement personnel to “assist” consumers first and enforce regulations second. (BOS/PD)
- Keep a single tax rate (BOS)
- Address issues of town services (e.g. snow and trash removal) that affect commercial areas (BOS/Town Administrator/DPW/Merchants)
- Delegate to a private/public organization authority to address issues that would improve appearance, conditions and experience of the district. (BOS/OCD)

OPEN SPACE STRATEGIES

- Encourage ‘daylighting’ existing underground streams to provide greater natural amenities, control floods and establish better drainage. (Con Com)
- Convene an inter-departmental working group, with the support of Friends groups, to identify additional recreational uses that could be established (BOS/Town Administrator)
- Identify the true costs of maintenance and current sources of funding – both public and private, and the percentage share contributed each by the town and by private sources. (Town Administrator/Recreation/DPW)
- Convene an inter-departmental working group, to identify opportunities for coordinating the maintenance of playfields, playgrounds and parks across departmental jurisdictions and private organizations for greater efficiencies and cost savings. (Town Administrator/School Dept./DPW)
- Identify important vistas that should be maintained throughout town. (HDC/PB?)
- Utilize existing pavement more efficiently: consider on-street residential parking in selected higher density neighborhoods to prevent loss of yards to accommodate parking needs (BOS/PB)
- Prioritize preservation of trees and open spaces in site planning and design for both public facilities and private development projects. (PB)
- Develop strategies to better maintain open spaces and streetscapes in the commercial centers (BOS/OCD/DPW)

TRANSPORTATION AND ENERGY STRATEGIES

- Promote use of existing trails with clear signage (Habitat/McLean/Rock Meadow) (OCD/McLean Land Management/Con Com)
- Encourage street closures for fairs and events. (BOS/business associations to be organized?)
 - Improve the number and legibility of on-street bike lanes and investigate the use of the “cheviot” symbol to indicate bike accommodations where there are no bike lanes. (OCD/TAC)
 - Provide safe, attractive, well-lit transit shelters for train stations and bus stops (BOS/OCD/MBTA?)
 - Provide clear signage to transit stations and visibly post schedule, “how to” information and real-time transit information at stations and on-line (BOS/OCD/MBTA?)

- Seek transit service to Alewife (consider diverting existing 128 shuttles to/from Waltham) (BOS)
- Advocate for/Provide cross-town (inter-town/Arlington/Belmont/Watertown/etc) and intra-town service (BOS)
- Advocate for more frequent and reliable transit service (BOS/State Representative)
- Encourage retail serving local neighborhoods, and business services to facilitate home-based working. (OCD/PB)
- Seek Zip Car locations in town (BOS/OCD)
- Promote carpooling among municipal employees and residents through web-based ride-share programs (BOS/Town Administrator/SB)
- Establish access to Leonard Street for pedestrians coming from rear parking lots (OCD/BOS)
- Create safe, attractive walking connections to remote parking for stations. (OCD)
- Consider allowing residential on-street parking in selected neighborhoods where space for off-street parking is limited in order to protect yards and open spaces. (BOS/PD)
- Adopt site plan regulations that require parking to be accommodated to the side and rear of buildings. (PB)
- Increase residential, commercial, and municipal recycling (SWARAC/DPW)
- Promote composting and reuse (SB/SWARAC)
- Adopt a by-law requiring the salvage and recycling of building demolition debris (BOS/OCD)
- Investigate pros and cons of becoming a “Green Community” with a goal to apply for the designation within one year if it is in the best interest of the Town. (BOS/SB/BMLD)
- Adopt regulations to achieve energy efficiency in construction and renovation, including siting considerations, increased density to reduce average energy use, and the ability to take advantage of decentralized energy production. (BOS/PB/OCD)
- Implement “time-of-use” metering and pricing. (BOS/BMLD)
- Promote BMLD’s energy audits and conservation incentive programs. (BMLD/Town Administrator)
- Establish zoning norms for alternative energy equipment/installations. (PB)
- Explore and provide incentives for local energy generation, both public and private. (BOS/BMLD?)
- Identify conservation measures in the school buildings and use them as teaching tools. (School Dept.)
- Organize environmental/energy fairs or other events with student participation. (School Dept./SB)
- Establish administrative oversight and responsibility for energy use issues, including energy audits for all buildings, usage data gathering, reporting and continuing to keep current with developing energy conservation technologies. (BOS)
- Establish energy conservation procedures for all staff and users of municipal buildings (Energy Committee/Town Administrator)
- Install energy saving upgrades. (CBC/Energy Committee/Buildings & Grounds Managers)
- Explore feasibility of new ESCO project and/or in-house energy audit and infrastructure upgrade program. (Energy Committee)

HOUSING STRATEGIES

- Reduce on-site parking requirements for housing in village centers that is accessible to public transportation (PB)
 - Prioritize housing as reuse alternative for historic buildings located in walking distance to transit and commercial centers. (BOS/CPOC)
 - Allow accessory/in-law apartments (PB/Housing Trust)
 - Allow three-family structures in areas where they are historically located (PB/Housing Trust)
 - Encouraging building renovation by providing tax relief for improvements compatible with sustainability and historic preservation (BOS)
 - Allow division into multiple units of existing homes, retaining single family appearance. (PB/Housing Trust)
 - Require LEED check list for all new development (PB/OCD)

PUBLIC FACILITIES & FINANCE STRATEGIES

- In order for the Town to develop a fiscally sustainable strategy going forward, the Town needs to develop a Capital Asset Management Plan for catching up on deferred maintenance and capital projects. (BOS/Town Administrator/School Department)
- The Town also needs to consider how the budget can be shifted to allow for a gradual increase in the annual capital budget allocation to the level that is needed for sustainable asset management; the Capital Budget Committee recommends an annual rate of \$3M. (BOS/WC)
- Funds need to be set aside in the department operating budgets for maintenance and recurring capital expenses. (BOS/WC)
- A stabilization fund for pavement management is needed to ensure that regular funding is dedicated for this purpose and are available in coordination with the construction season. (BOS/WC)
- Capital improvements should be coordinated so that various projects such as pavement repair, water and sewer and streetscape improvements may be timed and/or combined for efficiency. (BOS/OCD/DPW)
- Opportunities should be created to engage in public/private partnerships to fund the maintenance of assets. (BOS/OCD)
- Establishing an estimated time frame for major capital projects well in advance (such as the library or pool) could help to facilitate fundraising efforts to defray their cost to the taxpayer. (BOS/CPOC)
 - More publicly accessible documentation (utilizing the Town's website) will clarify the issues, as well as historic and current efforts. (BOS/Town Administrator)
 - Criteria and goals for asset management and funding should be identified. (BOS/WC)
 - A set of guiding principles, benchmarks, and strategies for capital facility investment, asset management, new growth and commercial tax base can help to ensure that financial sustainability is a shared objective across departments and committees, and connect specific actions (such as zoning or other regulatory changes) to financial goals. (BOS/WC/CBC)
 - Need to communicate more clearly, both to the public and internally, what efforts have been made to reduce costs, increase revenues, and shift budget allocations, providing a clear, well documented Capital Asset and Financial Management Plan. (BOS)
 - Goals of fiscal sustainability should be correlated with Town priorities regarding public investment in buildings and infrastructure, and other public improvements. (BOS)



Mapping a Sustainable Belmont

On-line Survey March 2010 Summary Report

April 8, 2010

Prepared by: Chris Kluchman
Eaton Planning



Introduction

Mapping a Sustainable Belmont was a web-based and print survey that was part of the public outreach associated with the Belmont Comprehensive Plan project. This survey was available from March 8 to March 31st 2010 and was the second on-line survey during the Comprehensive Plan process. The first survey was taken by over 500 people in April 2009.

Purpose

In conjunction with other outreach efforts, the second survey informed people about the Comprehensive Plan and sought feedback on specific recommendations and strategies being proposed as part of the draft plan. Other public participation methods used in the second part of the project included:

- Kickoff meeting in September 2009;
- Six working committees that met several times each to analyze specific topic areas and make recommendations;
- Three workshops during December 2009 and January 2010 to review the intersection of the working group suggestions;
- Executive Summary presentation at a joint Planning Board/Comprehensive Plan Committee meeting in February 2010;
- Public Forum held on March 23, 2010, at the Beech Street Center including presentation and discussion of recommendations; and
- Project website with updates and project materials and reports.

Survey Distribution

The survey was available from March 8, 2010 through March 31, 2010. In addition to being available via a link on the Town's web page, an email notice with a direct link to the survey was sent to email lists of Town Meeting members, and other public email lists. Paper copies of the survey were available at the Office of Community Development and at the Town Library. There was a press release and subsequent notice in the Belmont Citizen-Herald.

Number of responses

There were a total of 308 responses to the survey. 304 were completed on-line, and 4 were submitted as "paper copies".

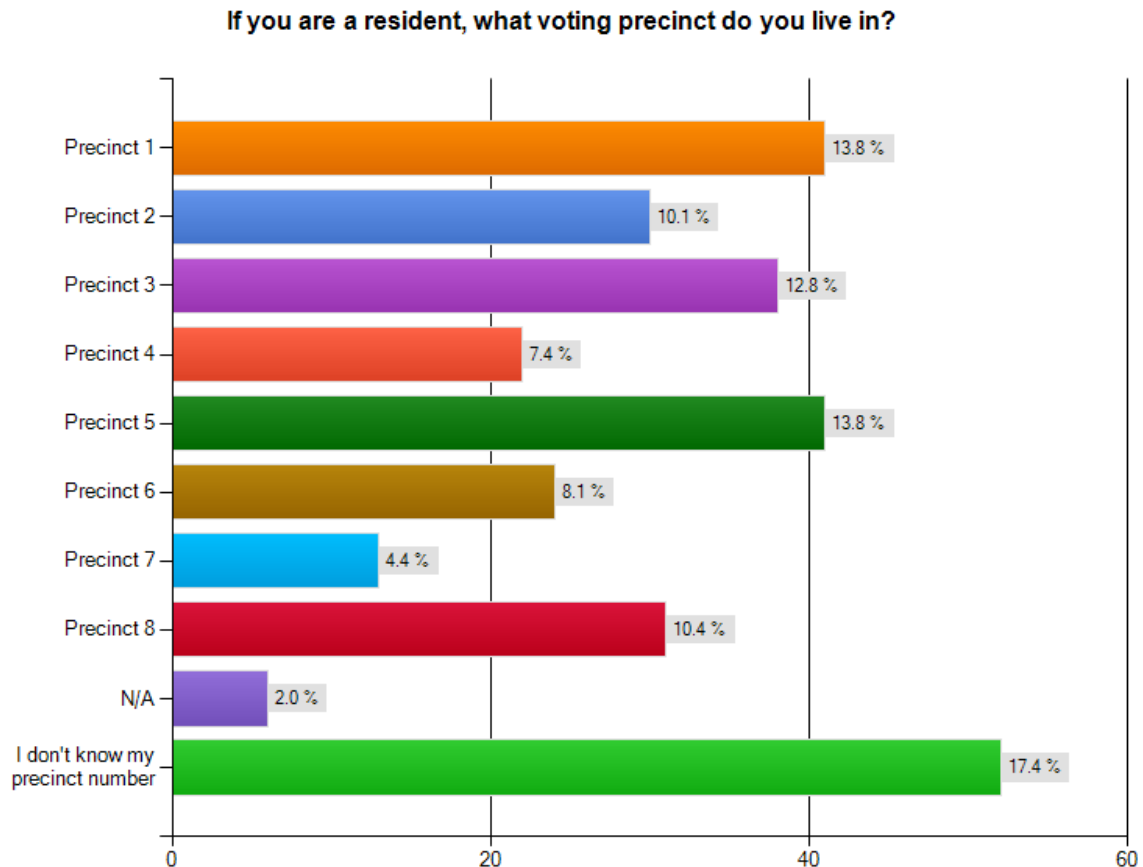
Survey Qualification

The survey is not a scientific survey with a random selection of respondents. It represents a self selected group that chose to take the survey. Therefore, the results should not be extended to represent the views of the community of Belmont as a whole, rather as the opinions of people who took the time to answer the questions.

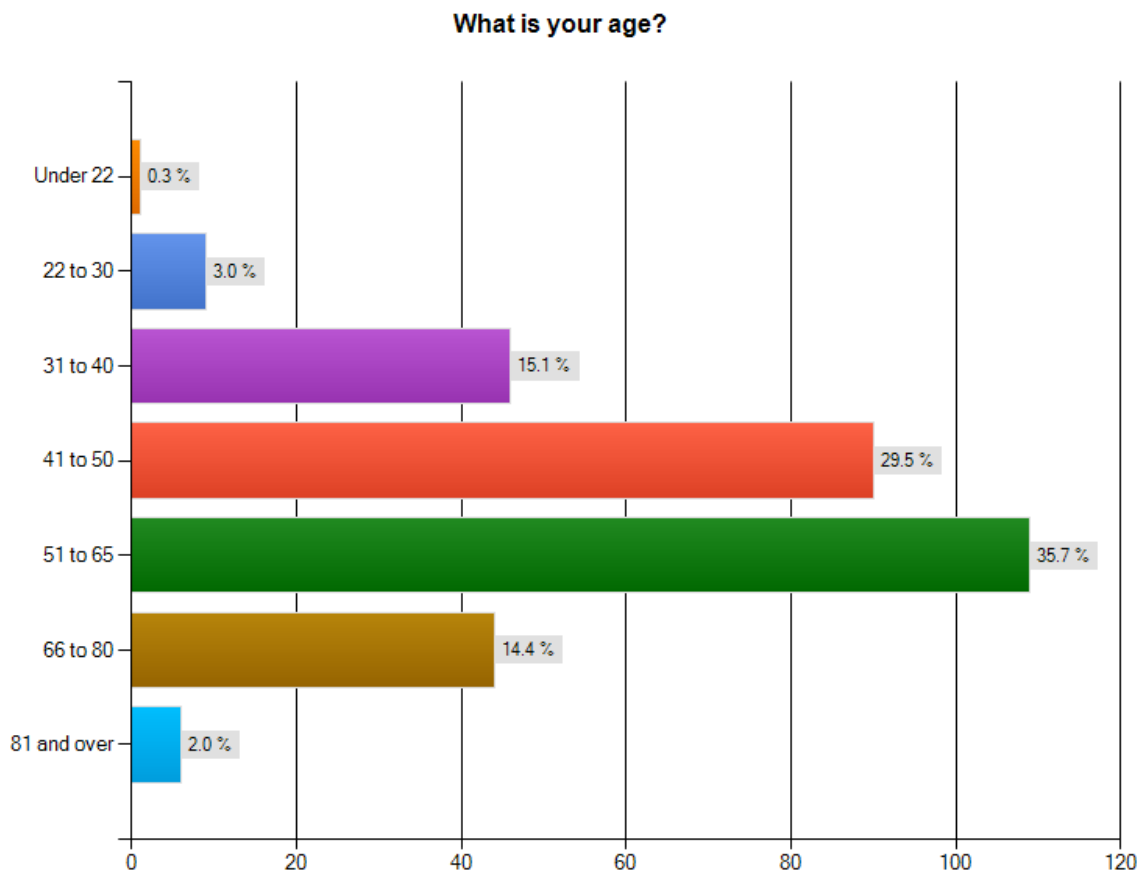


Demographics of respondents

Respondents represented all of the precincts in the Town; Precincts 5 and 1 each made up over 13% of respondents, while Precinct 7 had the lowest distribution with 4%. Over 17% did not know which precinct they lived in.



Participants were most likely to be between 51 and 65 years old.



Response to Vision Statement and Map

Many people had comments about the Vision Statement and the Map. Generally, the comments break down into 5 groups:

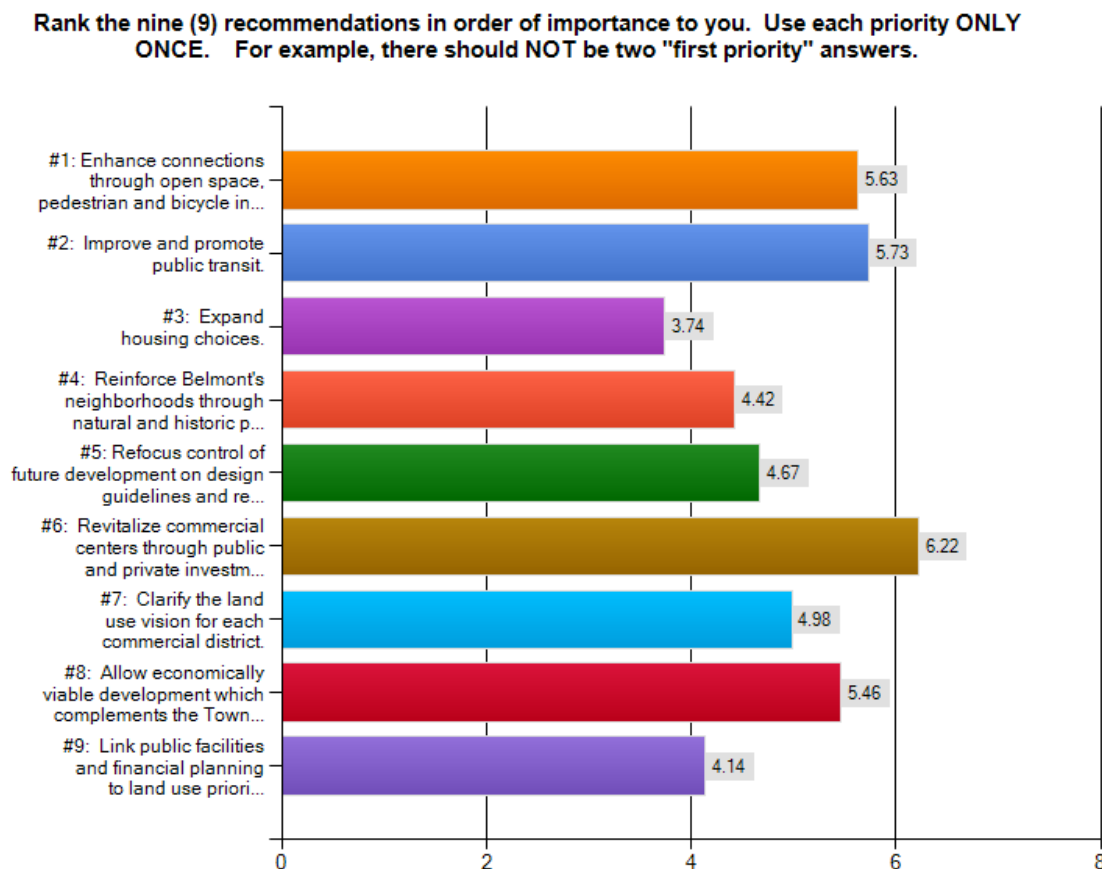
	Support Vision	Don't Support Vision	Suggestions for additions to Vision	Don't Understand vision and/or map	Feel strongly about one issue (positive or negative)
Number	78	14	29	7	45
Percent	45%	8%	17%	4%	26%



Prioritization of Nine Recommendations

The survey had two different ways for people to show their priorities among the nine recommendations. One was to rank each from first to ninth priority. In this exercise, the top three priorities were:

First Priority Revitalize Commercial Centers through public and private investment
Second Priority Improve and promote public transit
Third Priority Enhance connections



The following chart shows the average ranking for the nine recommendations.

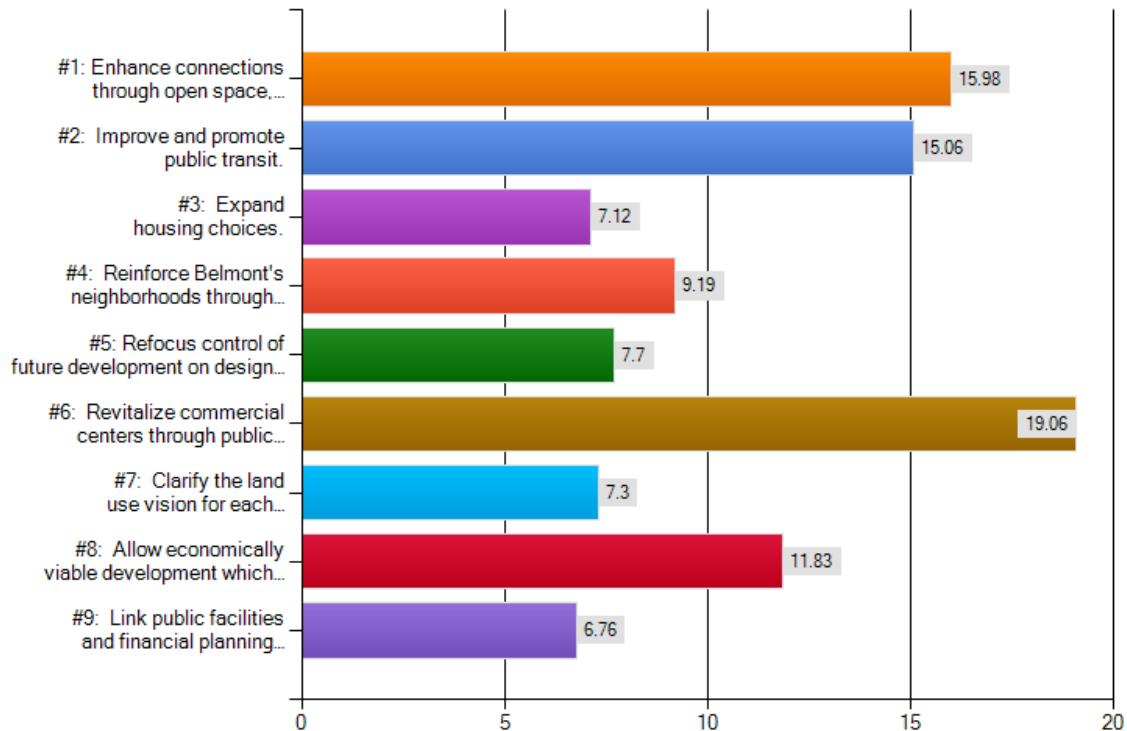
The second prioritization asked people to rank recommendations by designating dollar values to the nine recommendations. The same top three priorities come forward from this exercise as the above, although the second and third priorities are switched. This indicates that respondents think it is slightly more important for the town to spend more money building connections such as bike paths than it is to spend money to support transit.

First Priority Revitalize Commercial Centers through public and private investment
Second Priority Enhance connections
Third Priority Improve and promote public transit



The following chart shows the average dollars assigned to each of the nine recommendations.

Rank the nine (9) recommendations in terms of how funding should be allocated. You have \$100 to allocate to the set of recommendations. Fill in the amount you would spend on each. Use 0 for none. Your answer must add up to 100 (don't use \$ sign). For example you might allocate 40 to #1, 40 to #7, and 20 to #9, and 0 to the remaining recommendations.



Each of the priority exercises had the same **fourth priority** – Allow economically viable development which complements the Town's historic character.

Most and Least supported Strategies for each of the nine Recommendations

1. Enhance Connections

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support	Adopt "Safe Routes to School"	55.4% (124)
Highest Percentage Do not support	Improve or create Railroad Crossings	13.8% (31)

2. Improve and Promote Public Transit

Most/Least Support	Strategy	Percentage
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			(#)
Highest Short Term Action	Percentage Support	Advocate for bus connections to Alewife Station and between town's commercial centers via MBTA or local/private shuttle`	47.1% (105)
Highest Percentage Do not support		Encourage concentrated housing in Waverley Square, Trapelo Road Corridor and Belmont Center near train stations	31.3% (70)

3. Expand Housing Choices

	Most/Least Support	Strategy	Percentage (#)
Highest Short Term Action	Percentage Support	Promote residential uses such as condominiums, townhouses, mixed use buildings with ground floor retail and adaptive reuse of historic buildings, especially in areas near public transportation	40.2% (90)
Highest Percentage Do not support		Allow accessory housing units (in-law apartments) in existing homes	14.8% (33)

Note: The four strategies for this recommendation had very close results. See detailed results below.



4. Reinforce Belmont's neighborhoods

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support <i>Short Term Action</i>	Develop guidelines for neighborhood streetscape improvements, street trees, and plantings on town owned properties	42.0% (95)
Highest Percentage Do not support	Pass a demolition delay by-law to require a time delay (perhaps 6 months or a year) prior to demolishing historic properties	23.0% (52)

5. Refocus control of future development on design guidelines

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support <i>Short Term Action</i>	Include technical/professional and community input in design review process	36.9% (82)
Highest Percentage Do not support	Allow more flexibility and greater density governed by design and impact analysis	20.7% (46)

Note: Two of the four strategies in this recommendation had high number of responses that indicated "Need more info"; including 29.8% (65) for the strategy "Allow more flexibility and greater density governed by design and impact analysis." See detailed results below.

6. Revitalize commercial centers through public and private improvements

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support <i>Short Term Action</i>	Public/Private Partnerships: Business association(s) to undertake common marketing promotions and maintain features such as trashcans and benches in commercial areas.	53.1% (119)
Highest Percentage Do not support	Lease parking spaces from property owners to create new shared municipal parking that is funded by parking fees.	13.0% (29)

Note: The strategy "Lease parking spaces from property owners to create new shared municipal parking that is funded by parking fees" had high number of responses that indicated "Need more info" 30.1% (66). See detailed results below.



7. Clarify the land use vision for each commercial district.

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support <i>Short Term Action</i>	Define use, size, parking requirements and approval process that are sufficiently flexible to make new investments economical	43.0% (95)
Highest Percentage Do not support	Undertake further planning to determine the vision for future land use and design for each commercial area.	6.8% (15)

8. Allow economically viable development which complements the Town's character

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support <i>Short Term Action</i>	Establish a more predictable approval process for commercial development that focuses on design criteria and impact analysis	53.9% (118)
Highest Percentage Do not support	Reduce on-site parking requirements for new development: (e.g. allow on-street parking areas and shared parking lots to count; establish fee in-lieu process to fund future municipal parking areas).	16.6% (37)

9. Link public facilities and financial planning to land use priorities

Most/Least Support	Strategy	Percentage (#)
Highest Percentage Support <i>Short Term Action</i>	Create a financial management plan that provides a sustainable level of funding for maintenance of public facilities and infrastructure and public services.	51.6% (113)
Highest Percentage Do not support	Undertake planning for the next phase of public building projects considering land use context and vision for the affected neighborhood.	4.6% (10)



Note: The four strategies for this recommendation had very close results. See detailed results below.



Question 1

Belmont: Mapping a Sustainable Future, March 2010

Which of the following apply to you? (check all that apply)

Answer Options	Response Percent	Response Count
Belmont Resident	94.1%	286
Belmont Resident - Business Owner	3.9%	12
Non-resident - Business Owner	1.3%	4
Non-resident - Property Owner	1.3%	4
Other	2.0%	6
<i>answered question</i>		304
<i>skipped question</i>		4

Question 2

Belmont: Mapping a Sustainable Future, March 2010

What is your age?		
Answer Options	Response Percent	Response Count
Under 22	0.3%	1
22 to 30	3.0%	9
31 to 40	15.1%	46
41 to 50	29.5%	90
51 to 65	35.7%	109
66 to 80	14.4%	44
81 and over	2.0%	6
<i>answered question</i>		305
<i>skipped question</i>		3



Question 3

Belmont: Mapping a Sustainable Future, March 2010

If you are a resident, what voting precinct do you live in?		
Answer Options	Response Percent	Response Count
Precinct 1	13.8%	41
Precinct 2	10.1%	30
Precinct 3	12.8%	38
Precinct 4	7.4%	22
Precinct 5	13.8%	41
Precinct 6	8.1%	24
Precinct 7	4.4%	13
Precinct 8	10.4%	31
N/A	2.0%	6
I don't know my precinct number	17.4%	52
<i>answered question</i>		298
<i>skipped question</i>		10

Question 4

Open response question – summarized above.



Question 5

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #1: Enhance connections through open space, pedestrian and bicycle infrastructure Concern: Investment and maintenance of transportation infrastructure does not reflect the Town's priority of being a "walkable" community.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Establish a program for regularly funding maintenance and reconstruction of sidewalks.	55	61	75	9	22	4	226
Improve pedestrian connections among open spaces, neighborhoods, and commercial centers.	61	45	65	16	27	9	223
Improve or create railroad crossings, e.g. at Alexander Ave., Belmont Center, White St. and/or Clark. St.	43	46	55	31	40	10	225
Provide bicycle parking and storage at transit stations, recreational fields, trail heads, village centers and other destinations.	82	45	47	19	16	10	219
Incorporate pedestrian and bicycle safety in roadway projects.	99	39	49	14	22	2	225
Adopt "Safe Routes to School" policies and promote walking and biking to school.	124	25	41	14	16	4	224
Identify opportunities to partner with the private sector to fund bike and pedestrian projects.	96	30	48	23	28	2	227
answered question							229
skipped question							79



Question 6

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #2: Improve and promote public transit. Concern: Low ridership at commuter rail stations is partly why the MBTA may eliminate one of the two train stops in Belmont. Bus routes may be reduced as well. The Town needs to demonstrate support for transit infrastructure to maintain this service.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Encourage concentrated housing in Waverley Square, Trapelo Road Corridor and Belmont Center near train stations.	48	33	29	70	38	4	222
Consider adaptive reuse of public buildings to create housing opportunities within walking distance to Belmont Center.	60	48	37	34	42	3	224
Provide additional on and off-street commuter parking at locations to be determined.	61	39	39	37	42	4	222
Advocate for bus connections to Alewife Station and between the town's commercial areas via MBTA or local/private shuttle service.	105	36	44	18	19	1	223
Improve pedestrian connections and amenities at train stations and bus stops, including pathways, signage, shelters, furniture and information.	89	45	37	23	21	4	219
Provide incentives, such as dedicated parking revenues for streetscape improvement and maintenance, to residential areas that provide on-street commuter parking.	65	36	29	42	43	9	224
answered question							226
skipped question							82



Question 7

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #3: Expand housing choices. Concern: There is a shortage of housing options in Belmont for seniors, empty nesters, adults without children, young adults and households with average or lower incomes.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Promote residential uses such as condominiums, townhouses, mixed use buildings with ground floor retail, and adaptive reuse of historic buildings, especially in areas near public transportation.	90	31	36	32	30	5	224
Allow accessory housing units (in-law apartments) in existing homes.	88	28	33	33	31	10	223
Define dimensional, design, and site plan criteria to facilitate renovations and improvements, while protecting the character of historic neighborhoods; including yards, vistas, and historic features.	64	40	39	20	51	10	224
Adopt energy efficiency building code standards and incentives for improving housing stock.	88	30	44	20	39	4	225
answered question							226
skipped question							82



Question 8

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #4: Reinforce Belmont's neighborhoods through natural and historic resource protection. **Concern:** Historic buildings and open spaces are distinctive features that define Belmont's small town character and quality of life, but many of these are threatened by changes.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Adopt criteria for acquiring open land, conservation easements and restrictions for the preservation of privately held open spaces.	78	32	44	29	35	9	227
Develop guidelines for neighborhood streetscape improvements, street trees, and plantings on town owned properties.	95	45	40	14	26	6	226
Pass a wetlands bylaw that would increase natural resource protection.	86	26	39	32	36	6	225
Pass a demolition delay bylaw to require a time delay (perhaps 6 months or a year) prior to demolishing historic structures.	81	15	27	52	41	10	226
Modify zoning to protect yards and small neighborhood open spaces.	90	19	31	29	48	6	223
Adopt the Community Preservation Act (CPA) to provide funding for historic preservation, affordable housing and open space projects.	79	21	24	42	50	11	227
answered question							229
skipped question							79



Question 9

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #5: Refocus control of future development on design guidelines and review process. Concern: Current zoning regulations do not ensure compatibility of new development with the historic character and development patterns in the commercial areas and neighborhoods.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5- 10 years)	Do not support	Need more info	No opinion	Response Count
Adopt stronger design criteria specific to each residential and commercial neighborhood.	68	33	23	43	49	7	223
Allow more flexibility and greater density governed by design and impact analysis.	62	26	19	46	65	4	222
Include technical/professional and community input in design review process.	82	36	34	17	42	11	222
Provide density incentives for developments that meet design criteria and build public improvements.	64	28	22	40	62	6	222
<i>answered question</i>							225
<i>skipped question</i>							83



Question 10

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #6: Revitalize commercial centers through public and private improvements. need of better traffic flow and enhanced public spaces and sidewalks.					Concern: Commercial areas are in		
Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Physical Improvements: Leonard Ave/Concord Street/Common Street intersection.	84	40	44	22	33	1	224
Physical Improvements in commercial centers along Trapelo Road and Belmont Street to complement the design of the Trapelo Corridor reconstruction project	77	55	50	14	27	0	223
Streetscape and pedestrian improvements to the Concord Avenue/Bright Road intersection.	56	50	57	28	27	6	224
Public/Private Partnerships: Business association(s) to undertake common marketing promotions and maintain features such as trashcans and benches in commercial areas.	119	28	40	8	22	7	224
Public/Private Partnerships: A Business Improvement District and/or dedicated surplus parking revenues to improve services in commercial areas.	80	35	34	15	53	5	222
Parking Management plan: (e.g. free up on street parking spaces for patrons, install meters to discourage all day parking, provide free employee parking in remote location, identify dedicated parking for employees and commuters.)	91	33	28	26	39	6	223
Lease parking spaces from property owners to create new shared municipal parking that is funded by parking fees.	57	37	27	29	67	6	223
answered question							225
skipped question							83



Question 11

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #7: Clarify the land use vision for each commercial district. Concern: Belmont's commercial zoning districts do not reflect the current development patterns, functions and unique character.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Undertake further planning to determine the vision for future land use and design for each commercial area.	89	42	30	15	35	9	220
Develop new commercial zoning districts that reflect the desired vision for each commercial area, including a range of uses and distinctive design.	72	45	30	12	55	6	220
Define use, size, parking requirements and approval process that are sufficiently flexible to make new investments economical.	95	43	24	9	43	7	221
answered question							223
skipped question							85



Question 12

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #8: Allow economically viable development which complements the Town's historic character. Concern: The Town is missing opportunities for higher value commercial development because of limits in the zoning regulations in commercial districts. These limits are an obstacle to attracting businesses to provide the goods and services that Belmont residents want.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Modify height and building size requirements in commercial areas subject to a strengthened design review process.	96	25	26	35	39	1	222
Establish a more predictable approval process for commercial development that focuses on design criteria and impact analysis	118	27	34	9	30	1	219
Establish stronger design criteria for all development that is specific to each commercial area.	103	28	32	12	45	1	221
Reduce on-site parking requirements for new development; (e.g. allow on-street parking areas and shared parking lots to count; establish fee in-lieu process to fund future municipal parking areas.)	85	23	24	37	48	6	223
<i>answered question</i>							223
<i>skipped question</i>							85



Question 13

Belmont: Mapping a Sustainable Future, March 2010

RECOMMENDATION #9: Link public facilities and financial planning to land use priorities. Concern: Decisions about capital facilities and budgeting need to consider comprehensive land use vision and goals for economic development, housing, open space, historic resources and transportation.

Answer Options	Support Short Term (1-2 years)	Support Medium Term (3-5 years)	Support Long Term (5-10 years)	Do not support	Need more info	No opinion	Response Count
Undertake planning for the next phase of public building projects considering land use context and vision for the affected neighborhoods.	67	52	37	10	45	7	218
Create a financial management plan that provides a sustainable level of funding for maintenance of public facilities and infrastructure, and public services.	113	31	41	5	25	4	219
Establish priorities for funding capital improvements, infrastructure and planning to implement the Comprehensive Plan.	108	35	41	5	23	7	219
Foster awareness and understanding of a plan for financial stability among residents and public officials	105	37	38	5	26	7	218
<i>answered question</i>							222
<i>skipped question</i>							86



Question 14

Rank the nine (9) recommendations in order of importance to you. Use each priority ONLY ONCE. For example, there should NOT be two "first priority" answers.

Answer Options	First priority	Second priority	Third priority	Fourth priority	Fifth priority	Sixth priority	Seventh priority	Eighth priority	Ninth priority	Rating Average	Response Count
#1: Enhance connections through open space, pedestrian and bicycle infrastructure	54	34	20	18	11	16	16	20	32	5.63	221
#2: Improve and promote public transit.	28	43	27	24	30	16	27	16	10	5.73	221
#3: Expand housing choices.	13	9	23	16	21	18	25	33	63	3.74	221
#4: Reinforce Belmont's neighborhoods through natural and historic protection.	19	17	21	25	20	22	24	40	33	4.42	221
#5: Refocus control of future development on design guidelines and review process.	7	19	26	22	39	33	40	22	13	4.67	221
#6: Revitalize commercial centers through public and private investments.	58	24	34	27	20	20	14	14	10	6.22	221
#7: Clarify the land use vision for each commercial district.	10	25	26	36	27	34	26	26	11	4.98	221
#8: Allow economically viable development which complements the Town's historic character.	20	41	27	30	23	25	20	20	15	5.46	221
#9: Link public facilities and financial planning to land use priorities.	12	9	17	23	30	37	29	30	34	4.14	221
answered question											221
skipped question											87

Question 15

Belmont: Mapping a Sustainable Future, March 2010

Rank the nine (9) recommendations in terms of how funding should be allocated. You have \$100 to allocate to the set of recommendations. Fill in the amount you would spend on each. Use 0 for none. Your answer must add up to 100 (don't use \$ sign). For example you might allocate 40 to #1, 40 to #7, and 20 to #9, and 0 to the remaining recommendations.

Answer Options	Response Average	Response Total	Response Count
#1: Enhance connections through open space, pedestrian and bicycle infrastructure	15.98	3,532	221
#2: Improve and promote public transit.	15.06	3,328	221
#3: Expand housing choices.	7.12	1,573	221
#4: Reinforce Belmont's neighborhoods through natural and historic protection.	9.19	2,032	221
#5: Refocus control of future development on design guidelines and review process.	7.70	1,701	221
#6: Revitalize commercial centers through public and private investments.	19.06	4,212	221
#7: Clarify the land use vision for each commercial district.	7.30	1,614	221
#8: Allow economically viable development which complements the Town's historic character.	11.83	2,615	221
#9: Link public facilities and financial planning to land use priorities.	6.76	1,493	221
<i>answered question</i>			221
<i>skipped question</i>			87

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Belmont Comprehensive Plan

Summary Report Mapping Belmont's Renewal

June 24, 2009

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Introduction

Mapping Belmont's Renewal was a web-based and print survey that was part of the public outreach associated with the Belmont Comprehensive Plan project. The comprehensive plan in Belmont will pull together information about the Town including:

- ⊕ Economic trends
- ⊕ Sustainability as it impacts land use and economic growth
- ⊕ Relevant background information on land use, housing, natural resources, public facilities, transportation, infrastructure, and historic resources
- ⊕ Zoning and implementation

Purpose

In conjunction with other outreach efforts, the survey sought to tell people about the Comprehensive Plan and to seek feedback on areas of concern and preferences about choices and priorities for future Town decisions. Other public participation methods used in Phase I of the project included:

- ⊕ Stakeholder interviews with development and property owner representatives;
- ⊕ Comprehensive Plan Committee made up of Town leaders from diverse groups and backgrounds (14 members);
- ⊕ Public Forum held on April 15th at Belmont High School (approximately 85 attendees); and



- ⊕ Four small group meetings held in May 2009 (approximately 40 attendees).

Survey Distribution

The survey was available from April 15, 2009 through May 27, 2009. In addition to being available via a link on the Town's web page, an email notice with a direct link to the survey was sent to email lists of Town Meeting members, and other public email lists (approximately ___ people). Paper copies of the survey were available at the Office of Community Development, Town Library, and handed out on "Town Day" a community event on Saturday May 16, 2009.

Number of responses

There were a total of 508 responses to the survey. 465 were completed on-line, while 39 were submitted as "paper copies".

Survey Qualification

The survey is not a scientific survey with a random selection of respondents. It represents a self selected group that chose to take the survey. Therefore, the results should not be extended to represent the views of the community of Belmont as a whole, rather as the opinions of people who took the time to answer the questions. The size of the responses represents approximately 3% of the adult population in Belmont.

Summary

Top Issues

The highest priority issues were **schools, fiscal stability and thriving commercial areas**. When asked for an open ended response about most important assets, the most frequently cited were

- Good school system,
- Proximity to Boston and Cambridge/good location, and
- Small town feel.

In the open ended response for the most important challenges cited these most frequently:

- Fiscal stability and budget
- Road and sidewalk repair;
- Enhancing the vitality of business areas; and
- Maintaining the Town's infrastructure (buildings, water/sewer).

Commercial Vitality

Respondents felt that the commercial areas are NOT stable and that the Town should make changes to help these areas thrive.

Commercial areas used by respondents most frequently were: Belmont Center, Waverly Square and Cushing Square. Sixty-five percent (65%) said they visit Belmont Center on a weekly basis.



On the other hand, Sixty percent (60%) and forty-two percent (42%) visit East Belmont and Central/Palfrey Squares only a few times a year or never.

Most common reasons for going to Belmont's commercial centers	
Convenient to my home/work	79%
Able to walk to many different services and shops	77%
Want to purchase items locally	71%

Most common reasons for shopping outside of Belmont's commercial centers	
Cannot find what I need [in Belmont]	54%
Parking is inconvenient	42%

People would like to see MORE: **restaurants, shops, cultural activities** and **preservation of historic buildings**. Bakery in Belmont Center was a frequent write-in request for type of shop desired.

Parking

The survey did not ask specifically about the need for more parking. Respondents said that inconvenient parking was a reason that they did not shop in Belmont's centers – so whether or not it is true that there is adequate parking – the perception of those taking the survey is that it could be more convenient. When asked about choices related to parking 80% of respondents supported or strongly supported **shared parking** between commercial and institutional uses. Fifty-six percent (56%) supported or strongly supported allowing **parking in residential areas near commercial centers**. However, thirty percent opposed such measures. The response to **parking meters** in commercial areas was split: opposed by fifty percent (50%), 34% support, and 16% were neutral. Using **publically owned land for parking** had moderate support, with 44% in support or strongly support, but with 31% neutral. Comments to this item noted that the description for this element was unclear to some.

Access to Commercial Areas/Transportation

Improved **sidewalks and on-road bicycle** connections had the highest amount of “strong support” with 40%, and a total of 77% support + strongly support. Improved **bus connections** between Alewife, Arlington Center, and Watertown square were supported/strongly supported by 78%. **Shuttle service** was supported by 45%.

Relocation/consolidation of the commuter rail stations was split between opposed and neutral: 38% and 45% respectively with only 16% in support.

Residential Development

Mixed use building got strong support, with 56% saying Yes to more of that development type. This was in contrast to the 52% that said No to more apartments. Responses for more detached houses and townhouses were more evenly split between Yes, No and No Opinion.



MORE	Yes	No	No Opinion
Apartments	23%	52%	25%
Detached homes	24%	49%	31%
Attached homes (townhouses)	30%	43%	27%
Mixed use (residential over retail)	56%	24%	20%

The answers to Question 13 were supported in the responses to choices about residential development in Question 18 where twice as many people opposed multifamily apartments as support them. When rating choices for housing supply, mixed use and smaller units received support by 59% and 55% respectively.

Public Spaces

Seventy-eight percent (78%) supported improving non-vehicular travel by pedestrian and bicycle connections; while 75% supported enhanced public spaces in commercial areas (such as adding benches, tables, other amenities). Enhancing school facilities and municipal facilities got slightly lower support with 68% and 64% respectfully.

Write in responses support for a new library and for a multi-use approach to the senior center. Other comments noted that municipal facilities should ne planned for improvement only after funding is identified.



Question 1

Mapping Belmont's Renewal -- April 2009		
Which of the following apply to you? (check all that apply)		
Answer Options	Response Frequency	Response Count
Belmont Resident	70.2%	355
Belmont Property Owner	70.9%	359
Belmont Renter	11.1%	56
Student	0.8%	4
Belmont business owner of a home based business	7.3%	37
Business that rents or owns commercial space in Belmont	1.4%	7
Employee who works in Belmont	6.3%	32
Other (please specify)	1.6%	8
answered question		506
skipped question		2

Question 2

Mapping Belmont's Renewal -- April 2009		
What is your age?		
Answer Options	Response Frequency	Response Count
Under 22	0.4%	2
22 to 30	2.4%	12
31 to 40	18.8%	95
41 to 50	28.1%	142
51 to 65	32.6%	165
66 to 80	16.6%	84
81 and over	1.2%	6
answered question		506
skipped question		2

Question 3

Mapping Belmont's Renewal -- April 2009		
If you are a resident, what voting precinct do you live in?		
Answer Options	Response Frequency	Response Count



Precinct 1	19.2%	87
Precinct 2	8.8%	40
Precinct 3	10.8%	49
Precinct 4	9.1%	41
Precinct 5	11.5%	52
Precinct 6	11.7%	53
Precinct 7	9.1%	41
Precinct 8	13.0%	59
N/A	6.8%	31
<i>answered question</i>		453
<i>skipped question</i>		55

Question 4

Mapping Belmont's Renewal -- April 2009		
How long have you lived in Belmont?		
Answer Options	Response Frequency	Response Count
Less than 5 years	23.0%	115
6 to 10 years	15.6%	78
11 to 20 years	16.6%	83
Over 20 years	44.0%	220
Does not apply to me	0.8%	4
<i>answered question</i>		500
<i>skipped question</i>		8



Question 5

Mapping Belmont's Renewal -- April 2009		
How long do you plan to stay in Belmont?		
Answer Options	Response Frequency	Response Count
Less than 5 years	6.6%	33
6 to 10 years	8.8%	44
11 to 20 years	15.1%	75
Over 20 years	33.5%	167
Don't know	34.5%	172
Does not apply to me	1.4%	7
<i>answered question</i>		498
<i>skipped question</i>		10

Question 6

Mapping Belmont's Renewal -- April 2009		
What are Belmont's most important assets?		
Answer Options	Response Frequency	Response Count
1.	100.0%	425
2.	92.9%	395
3.	81.4%	346
<i>answered question</i>		425
<i>skipped question</i>		83



Open ended responses to “What are Belmont’s most important assets?”

Asset	Number of people who mentioned	Percent total surveys
Schools	305	60%
Proximity to Boston and Cambridge/Location	270	53%
Small town atmosphere (small size, sense of community, quality of life)	110	22%
Open Spaces/Trees/Parks and Recreation	97	19%
Access to Public Transportation	73	14%
Safety/low crime	54	11%



Question 7

Mapping Belmont's Renewal -- April 2009		
What are Belmont's most important challenges?		
Answer Options	Response Frequency	Response Count
1.	100.0%	423
2.	93.4%	395
3.	80.1%	339
<i>answered question</i>		423
<i>skipped question</i>		85

Open ended responses to “What are Belmont’s most important challenges?”

Challenges	Number of people who mentioned	Percent total surveys
Fiscal Stability/Budget/High Taxes	277	65%
Poor condition of roads and sidewalks	217	51%
Lack of support for business development	101	24%
Public infrastructure maintenance such as water, sewer, stormwater, and capital projects such as public buildings (excluding people who just said “roads” or “potholes”)	94	22%



Question 8

Mapping Belmont's Renewal -- April 2009

Rank the following concerns in terms of their priority (these are functions the Town can influence).

Answer Options	Top priority	Second priority	Third priority	Fourth priority	Fifth priority	Sixth priority	Seventh priority	N/A	Rating Average	Response Count
Housing Choices	7	18	27	42	58	91	138	10	5.50	391
Traffic Congestion	16	37	38	49	64	89	107	4	5.01	404
Public Facilities	16	65	87	96	64	45	26	0	3.92	399
School System	160	96	58	41	29	14	15	5	2.48	418
Thriving commercial areas	43	62	87	81	71	49	22	2	3.75	417
Fiscal Stability	165	103	57	41	34	13	7	0	2.39	420
Energy Use	15	39	65	54	80	91	59	2	4.62	405
Other (please specify)										99
<i>answered question</i>										437
<i>skipped question</i>										71



Question 9

Mapping Belmont's Renewal -- April 2009						
Please respond to the following statements						
Answer Options	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Response Count
Belmont commercial areas are stable	68	190	112	66	7	443
The Town should NOT make any changes to encourage commercial areas to thrive	169	176	48	33	12	438
The amount of convenient parking limits the success of commercial areas	23	96	90	180	56	445
There is adequate public infrastructure and transit for me to easily access local and regional commercial areas	21	101	74	182	61	439
The number, type and variety of housing in Belmont is just right	22	88	127	154	46	437
Recreational facilities (parks, playgrounds) are adequate in all areas of Belmont	18	104	103	181	36	442
There are not enough informal gathering spaces in Belmont.	32	95	163	112	35	437
Comments						105
answered question						449
skipped question						59



Question 10

Mapping Belmont's Renewal -- April 2009						
Commercial areas (Centers/Squares) in Belmont that I use (check all that apply)						
Answer Options	Weekly	2-3 times a Month	Once a month	Few times a Year	Never	Response Count
Belmont Center	296	81	46	27	3	453
Brighton Street at Hills Crossing	52	57	59	121	130	419
Brighton Street at Pleasant Street	41	59	38	121	150	409
Central/Palfrey Squares (Trapelo Road near movie theater)	83	92	74	118	64	431
Concord Avenue at Bright Road	46	36	46	92	196	416
Cushing Square	189	118	65	61	13	446
East Belmont Street	52	60	54	132	115	413
Waverley Square	172	86	76	75	17	426
Other (please specify)						34
<i>answered question</i>						453
<i>skipped question</i>						55

Question 11

Mapping Belmont's Renewal -- April 2009		
Reasons I GO to Belmont's Center/Squares (check all that apply)		
Answer Options	Response Frequency	Response Count
Bump into neighbors	22.6%	101
Convenient to my home/work	78.5%	350
Can find what I need	59.2%	264
Want to purchase items locally	71.1%	317
I feel safe and secure	57.8%	258
Able to walk to many different services and shops	77.1%	344
Other (please specify)	14.8%	66
<i>answered question</i>		446
<i>skipped question</i>		62

Question 12

Mapping Belmont's Renewal -- April 2009		
Reasons I do NOT go to Belmont's Center/Squares (check all that apply)		
Answer Options	Response Frequency	Response Count



Too many chain stores	5.0%	18
Not within walking distance from my home/place of work	19.9%	71
No restaurants	22.1%	79
Stores are empty	22.7%	81
Parking is inconvenient	42.3%	151
Buildings and facades are not attractive	16.5%	59
Cannot find what I need	54.1%	193
Other (please specify)	26.9%	96
<i>answered question</i>		357
<i>skipped question</i>		151



Question 13

Mapping Belmont's Renewal -- April 2009

In the future, would you like to see MORE of the following:

Answer Options	Yes	No	No opinion	Response Count
Recreational facilities	246	90	86	422
Detached homes	101	187	130	418
Attached homes (townhouses)	127	184	116	427
Historic buildings protected and preserved	315	46	67	428
Mixed use (residential over retail)	241	103	84	428
Apartments	97	223	108	428
Diverse population (for example, socio-economic, ethnic, age group)	203	105	121	429
Cultural activities (for example, community theater, art displays, museums, public gardens)	305	61	60	426
Restaurants	322	62	40	424
Shops (for example, food stores, pharmacy, hardware)	309	57	44	410
Services (for example, exercise studio, dentist, doctor)	206	107	108	421
Other (please specify)				86
<i>answered question</i>				444
<i>skipped question</i>				64



Question 14

Mapping Belmont's Renewal -- April 2009						
Please respond to choices affecting VITALITY OF COMMERCIAL AREAS [Note – there is a separate section on Parking below]						
Answer Options	Strongly oppose	Oppose	Neutral	Support	Strongly Support	Response Count
Add places to sit/gather informally such as benches, tables, and wider sidewalks	6	29	80	194	127	436
Allow mixed use buildings (residential over retail)	36	44	93	137	124	434
Allow smaller establishments to serve wine and beer	18	30	52	167	168	435
Encourage "big box" retail in commercial areas	150	118	83	55	24	430
Increase marketing and commercial area identity	16	37	158	161	58	430
Promote public/private partnerships such as Business Improvement Districts	8	15	131	211	61	426
Reduce Zoning Bylaw parking requirements for new businesses	27	47	149	149	50	422
Town support for facade and sign improvements	13	47	113	183	68	424
No change	96	65	85	13	10	269
Other (please specify)						49
<i>answered question</i>						442
<i>skipped question</i>						66



Question 15

Mapping Belmont's Renewal -- April 2009						
Please respond to choices affecting the AMOUNT OF PARKING						
Answer Options	Strongly oppose	Oppose	Neutral	Support	Strongly Support	Response Count
Allow shared parking among existing commercial and institutional uses (such as places of worship)	6	8	69	232	114	429
Allow parking in residential areas near commercial centers during business hours	43	85	58	178	64	428
Construct public or public/private financed parking garages	52	82	94	148	49	425
Place parking meters in commercial areas	71	145	70	108	38	432
Use street right-of-way and publically owned land to increase surface parking	27	74	128	147	34	410
No change	60	57	92	14	15	238
Other (please specify)						56
answered question						437
skipped question						71



Question 16

Mapping Belmont's Renewal -- April 2009

Please respond to choices affecting ACCESS TO COMMERCIAL AREAS

Answer Options	Strongly oppose	Oppose	Neutral	Support	Strongly Support	Response Count
Build "Park and Ride" facilities at the Waverly Square T station and on Trapelo Road corridor	42	79	92	155	53	421
Fund public transit service (such as a shuttle) between Belmont's commercial areas	46	89	97	135	56	423
Improve bus connections to Alewife, Arlington Center and Watertown Square	12	20	60	200	133	425
Improve off street bike paths	33	23	56	149	166	427
Improve sidewalks and on-road bicycle connections	18	17	60	159	164	418
Relocate/consolidate commuter rail stations	64	95	187	46	24	416
No change	64	56	71	8	12	211
Other (please specify)						75
answered question						436
skipped question						72



Question 17

Mapping Belmont's Renewal -- April 2009						
Please respond to choices affecting HOUSING SUPPLY						
Answer Options	Strongly oppose	Oppose	Neutral	Support	Strongly Support	Response Count
Increase the supply of multi-family apartments	85	119	109	74	26	413
Encourage smaller units for seniors, singles, and young families	36	42	109	167	62	416
Encourage mixed use (apartments over retail) in commercial areas	38	55	81	161	85	420
Support public and private efforts to add to the affordable housing stock	68	62	98	131	51	410
No change	49	43	88	28	18	226
Other (please specify)						35
<i>answered question</i>						430
<i>skipped question</i>						78



Question 18

Mapping Belmont's Renewal -- April 2009						
Please respond to choices about PUBLIC SPACES						
Answer Options	Strongly oppose	Oppose	Neutral	Support	Strongly Support	Response Count
Enhance public spaces in the commercial areas (such as adding benches, tables, other amenities)	10	21	76	203	118	428
Improve pedestrian and bicycle connections so that non-vehicle travel is easier	21	17	56	154	176	424
Improve school facilities (buildings and recreational fields)	21	28	87	134	154	424
Replace and improve municipal facilities (such as the Library, skating rink)	37	47	69	143	128	424
No change	69	54	68	7	7	205
Other (please specify)						66
answered question						437
skipped question						71

Question 19

Mapping Belmont's Renewal -- April 2009	
Please keep me informed by e-mail about other "Mapping Belmont's Renewal" events and opportunities for input. My E-Mail Address:	
Answer Options	Response Count
	217
answered question	217
skipped question	291

Question 20

Mapping Belmont's Renewal -- April 2009		
I do not have access to e-mail, please mail me a hard copy of notices related to "Mapping Belmont's Renewal".		
Answer Options	Response Frequency	Response Count



Name:	88.9%	16
Address:	88.9%	16
Address 2:	5.6%	1
City/Town:	94.4%	17
State:	100.0%	18
ZIP/Postal Code:	94.4%	17
<i>answered question</i>		18
<i>skipped question</i>		490

Question 21

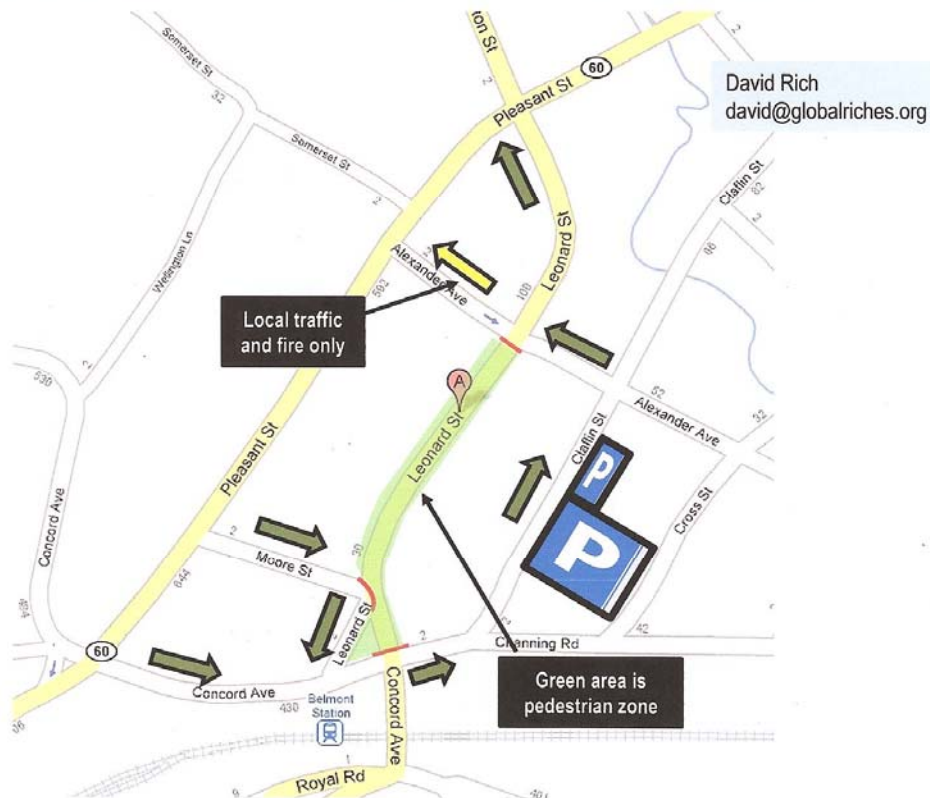
Mapping Belmont's Renewal -- April 2009	
Please add any additional Comments or feedback you have below.	
Answer Options	Response Count
	142
<i>answered question</i>	142
<i>skipped question</i>	366

See detailed summary report for text of comments received. Attached is an illustration submitted as additional suggestion.



Attachment

Making Belmont Center A Destination



- Traffic routed around Leonard street with 3 car barriers (in red)
 - Green arrows in diagram show new “one way” street directions
 - open to delivery vehicles during specified hours
- Claflin St. restructured to support flow of traffic
- Parking structure adds 2nd level parking above Claflin lot.
 - Top level for long term, ground level two hours or less (perhaps front row 30 mins no meter).
 - Exit on Cross St.
 - Consider large solar installation on roof
- Fire station exit routes from center roughly equivalent
- Nice space for a small plaza / park by growing the triangle near the train station creating a sense of entry to the area
- Perhaps compensate Bank of America for the loss of their Leonard st parking area by allowing development of a 3 story bldg on that spot
- Encourage Macy’s to install a pedestrian friendly shopping façade (windows!)

Regulatory Strategies in the Belmont Comprehensive Plan

The purpose of this list is to highlight specific strategies in the Comprehensive Plan that are linked to future regulatory changes. Most of these are changes to the current Zoning Bylaw. There is a group of strategies included at the end of the report that relate to non-zoning regulatory changes. This list is not a full expression of these strategies, it is as a summary.

Table 1 is organized into the following categories:

Major Recommendations	
Goal or objective	
	Recommended Zoning Strategy

Table 1 Zoning Strategies

1. Enhance open space, pedestrian, and bike and connections.	
1.1 Partner with the private sector to fund open space and pedestrian infrastructure.	
A. Provide incentives and/or flexibility respecting use and dimensional regulations in order to facilitate access to open space and pedestrian corridors.	
B. Provide zoning incentives to development which creates improvements to public space and pedestrian infrastructure.	
1.2 Reduce auto dependency.	
A. Require or provide zoning incentives to new development to install and maintain non-auto infrastructure such as providing bicycle parking, bicycle lockers, showers, and other facilities within their new development.	
2. Improve, support, and promote public transit.	
2.1 Promote walkable/bikeable community near transit stations and bus routes	
A. Allow more uses and larger square footages for by-right development near transit stations and routes with design standards and specific controls for mitigation of impacts	
B. Change zoning to allow/encourage a variety of housing types and mixed use in Waverley and Belmont Center and along the Trapelo Road Corridor	
C. Reduce minimum parking requirements in areas near transit (for example, within ¼ mile from bus routes and ½ mile of commuter rail)	
2.2 Accommodate additional off-street commuter parking	
A. Provide zoning incentives for development which creates additional structured or air-rights parking and/or pedestrian/bicycle improvements near transit stations	
3. Expand housing choices.	
3.1 Provide housing appropriate for seniors, young adults, and households with average or lower income.	
A. Allow/promote residential uses such as condominiums, townhouses, mixed use structures with ground floor retail, and adaptive reuse of historic buildings. Potential locations to consider include Trapelo Road, Brighton Street, near Belmont Center, Concord/Bright and Cushing Square.	
B. Allow accessory housing units in existing buildings to accommodate multigenerational	

households and families with multiple working adults, consider accessory units for areas near transit service
3.2 Facilitate sustainable home improvements while protecting and enhancing the character of Belmont's neighborhoods.
A. Adopt energy efficiency building code standards and incentives (See also Strategies 1.3.A & B)
B. Allow/encourage modification of dimensional and design standards to protect scenic vistas, yards, open spaces, and historic character
4. Reinforce Belmont's neighborhoods through natural and historic resource protection.
4.1 Encourage preservation of historic and open space resources.
A. Enact density bonuses for preservation. Provide flexibility with respect to dimensional and use requirements for projects which preserve historic structures and/or open space resources.
B. Establish dimensional and site design standards (yards, setbacks, parking, etc.) reflecting predominant conditions and natural/historic resources specific to each neighborhood.
C. Allow flexibility respecting use and dimensional regulations in order to preserve scenic vistas, yards, and historic features, or to facilitate access to open space and pedestrian corridors.
D. Establish advisory site planning criteria that emphasize protection of historic and natural resources such as structures, waterways, specimen trees, and vistas
5. Refocus control of future development on design guidelines and review process.
5.1 Improve design review standards and land use review process.
A. Establish Design Standards and Guidelines as well as advisory design criteria specific to each commercial area and residential neighborhood that reflect the unique character of each neighborhood (current and desired character).
B. Consider site planning standards with screening and buffering requirements (including parking lots, loading, dumpsters, and lighting), to mitigate impact of commercial uses on neighboring residential areas.
C. Eliminate redundant "Building Setback Lines" so that all site design requirements are regulated through zoning.
D. Establish stronger design review process which balances input from historic preservation, site planning, transportation planning, urban design/architecture, community, and developer perspectives.
5.2 Encourage sustainable design for homes and businesses.
A. Adopt energy efficiency building code standards and incentives (Stretch Code).
B. Provide zoning incentives for LEED compliance or other green building and energy efficiency measures.
C. Allow flexibility with respect to dimensional, parking and use regulations for development which meets design criteria, especially in cases where the exemption will facilitate historic preservation, enhance open space, or provide other public benefits.
D. Remove existing impediments to streetscape amenities in Zoning Bylaw. For example,

the zoning bylaw requires a restaurant adding outdoor seating to add off-street parking spaces (often very difficult or impossible).
E. Consider zoning incentives to encourage historic preservation, LEED standards, streetscape and open space improvements, underground parking and/or use of air rights, where appropriate.
6. Clarify the land use vision for each commercial district.
A. Replace existing commercial district classifications with new districts that are specific to each commercial area that more clearly reflect their distinct character and role.
B. Define use, dimensional, parking, and design regulations that reflect existing conditions and vision for the future

7. Allow economically viable development which complements the Town's historic character.
7.1 Allow commercially viable development.
A. Modify underlying height and building dimension requirements in commercial areas to allow economically feasible development subject to design review
B. Simplify approval requirements: <ul style="list-style-type: none"> • Modify major development rules, with a tiered approach for review levels based on project impact and scale allowing for administrative site plan review for small projects, more intensive public review process for projects of major impact. • Eliminate requirement for Town Meeting approval • Allow more uses by right for development which meets Design Standards and Guidelines • Focus approval requirements on design standards and mitigation of impacts, rather than use and dimensional standards
C. Revise Parking Regulations to reduce minimum parking requirements, allow off-site parking to meet requirements, encourage/allow shared parking and other relevant updates to the parking standards.
D. Establish fee-in-lieu of on-site parking process in zoning bylaw. (Fees should be dedicated to parking and/or commercial district improvements.)
8. Revitalize commercial centers through public and private improvements.
8.1 Partner with the private sector to fund physical improvements in commercial centers.
A. Add zoning requirements/ incentives to get streetscape amenities such as wider sidewalks, benches, awnings, outdoor seating or other open space improvements from new development projects.
B. Consider incentives through approval requirements for development which provides underground parking, historic preservation, or other public improvements.
9. Link public facilities and financial planning to land use priorities.
A. Consider fiscal impacts of land use and zoning policies
B. Consider fiscal impact criteria for review of proposed major development projects
C. Promote leadership support of zoning changes that are consistent with financial management, capital asset planning and Comprehensive Plan.
9.1 Supplement property tax base with new development, redevelopment, and improvements to existing structures.
A. Promote zoning changes consistent with Comprehensive Plan which will enable appropriately scaled development of housing, mixed uses and commercial development on vacant land or underutilized public buildings.

Table 2. Other Regulatory Mechanisms outside the Zoning Bylaw.

1. Ease Liquor License requirements for restaurants. Related to recommendation 8.
2. Consider mechanisms to protect historic resources such as a Demolition Delay by-law, which would require a waiting period before demolition of certain buildings. Related to

Recommendation 4.
3. Consider mechanisms to increase natural resource protection such as a wetlands by-law. Related to Recommendations 4.

Possible Zoning Reform Approaches

The table below is an abbreviated summary of four approaches to changes to the zoning by-law. The Zoning Audit has more detail about what these reforms might look like. These are not exclusive and the best approach may be a combination of these ideas such as changing regulations in the residential areas and considering a version of form-based zoning in some of the commercial districts. Decisions about specific changes will be part of the subsequent process of Plan implementation.

Zoning Reform	Advantage	Disadvantage
Strengthen existing design standards and consider a tiered review process	Requires zoning by-law revisions but can be separated from changes to districts and uses and therefore may be easier to adopt	Does not address the need for additional uses in commercial areas, nor the economic feasibility of zoning restrictions by itself
Create additional Overlay Districts for commercial areas	Provides development incentives through regulatory change tailored to a specific area without changing underlying district.	Applies zoning reform to a limited area. Can be phased over time. Not as comprehensive as new districts.
Create new Commercial Districts	Updates and improves definitions, uses, standards, and review process for each commercial area with different standards for each area.	Preparation and passage of large-scale zoning change will require time and broad support.
Town-wide or area-specific Form-Based Zoning	Applies built form-focused regulations throughout the town-wide, while allowing use and dimensional flexibility to meet housing and commercial needs.	Comprehensive and complicated zoning change will require extensive planning, education, and funding to prepare and obtain public support.



Belmont Comprehensive Plan and Zoning Review

Zoning Audit

Prepared for:
Office of Community Development

Prepared by
Eaton Planning
April 1, 2010

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Overview

This report is a review of the Town’s zoning districts in light of the Comprehensive Plan project. The primary purpose of this task is a **gap analysis** comparing the desired vision and goals in the Comprehensive Plan to the Town’s existing Zoning By-Law. The report consists of the following sections:

- Purpose and Background
- By-Law Audit Analysis
 - Summary Table
 - Analysis of Development Thresholds
 - Analysis of Land Use Districts, Uses and Dimensional Standards
 - Analysis of Definitions and Miscellaneous Provisions

Purpose and Background

Project Organization and Purpose

The Belmont Zoning By-Law was last comprehensively revised in 1988 and has been updated to capture changes in Federal and state laws, as well as certain changes approved by Town Meeting since that time. There are many reasons why the zoning by-law is changed periodically: to address changes in state laws, and to improve the quality of life in the Town’s neighborhoods. However, incremental edits made over time create a piecemeal structure in the by-law. This is a *holistic* by-law review done as part of the Comprehensive Plan project. This review informs the Town to areas in the current by-law that may present obstacles to achieving the Town’s desired goals and objectives.

How will this audit be used?

The audit is written for a “planning savvy” audience such as the Town Planning Board, Board of Selectmen and/or Town Meeting Members. The intent of the audit is to “drill down” into the existing by-law and give some specific options for zoning reform that can be undertaken after the Comprehensive Plan is adopted.

Zoning Documents Reviewed

The consultant reviewed the Town of Belmont Zoning By-Law last updated March 27, 2008.

By-Law Audit and Analysis

First is a Matrix that compares the Zoning By-law topic by topic against the generalized goals and objectives of the Comprehensive Plan as developed in Phase I and II. The matrix uses shorthand “symbols” to indicate problem areas, where the existing code is meeting, partially

meeting or not meeting the goals. **The goals for the matrix are derived from the Vision in the draft Comprehensive Plan (March 2010):**

- **Neighborhoods, village centers, parks and playgrounds are interconnected** through a network of roads, public transit, sidewalks and open space pathways. Safe pedestrian and bicycle routes provide access to commercial centers, schools and other public amenities and regional transit, reducing reliance on the automobile.
- **Open spaces and vistas provide connections to the beauty of the natural world** and offer places for community gathering and interaction. Tree-lined streets, yards and small open spaces provide breathing room and beauty in neighborhoods.
- **Historic properties and aspects of the town are preserved and are complemented by new buildings** which sustain the unique character of each neighborhood, while serving the needs of new generations.
- **Appropriate renovations and improvements increase property values**, provide improved energy efficiency, and a broader range of housing to meet the needs of twenty-first century households.
- **Commercial centers are revitalized through public improvements and redevelopment of underutilized properties.** New developments support vibrant businesses and lively streetscapes, and also offer smaller housing options with easy walking access to goods, services and transit.

The categories of the by-law in this matrix include the following:

1. Permitted uses in Commercial Zoning Districts
 - a. Permitted uses
 - b. Dimensional standards
 - c. Site and design standards
 - d. Procedures
2. Permitted uses in Residential Zoning Districts
 - a. Permitted uses
 - b. Dimensional standards
 - c. Site and design standards
 - d. Procedures
3. Definitions and Miscellaneous Provisions

Summary of Findings

This summary table highlights the assessment of the current by-law, districts, standards and procedures which are most deficient with respect to the vision in the Comprehensive Plan. The zoning by-law has major deficiencies where it is obstructing or is silent to guiding development to meet this vision. Gaps are apparent with respect to facilitating the all of the goals listed above.

Summary Table of Belmont Zoning Audit: existing by-law to Comprehensive Plan Goals

Goals that relate to Zoning	Revitalized Commercial areas	Expanded Housing Choice	Connections between centers, neighborhoods and parks	Historic Preservation and compatible development	Tree lined public streets and protection of natural resource	Investment in properties and energy efficient remodels
Commercial Zoning Districts						
Permitted Uses	○	○	n/a	n/a	n/a	○
Dimensional Standards	○	○	○	○	○	○
Site and Design standards	○	○	○	○	○	○
Procedures	○	○	●	n/a	n/a	○
Residential Zoning Districts						
Permitted Uses	○	○	○	● and ○	●	○
Dimensional Standards	○	○	n/a	○	○	○
Site and Design standards	○	○	●	○	○	○
Procedures	○	○	○	○	○	○
Miscellaneous Provisions						
Definitions	○	○	●	○	●	●
Major Project Review	○	○	●	●	●	○

Key: ● = Strong support for goal in by-law
 n/a= not applicable

● = Medium support for goal in by-law

○ = Little/No support for goal

Second is a detailed analysis of each of the zoning districts. That review lists the purpose, dimensional standards, location and context, and *possible ideas* for changes. Miscellaneous provisions such as non-conforming development and change of use are also included in the overview. The analysis is divided into the following topic areas:

1. Procedures including design and site plan review
2. Land Use Districts including permitted uses and dimensional standards
3. Miscellaneous Provisions and Definitions

Analysis of Development Thresholds

Change of Use in non-conforming buildings and uses (Section 1.5)

Purpose: This section of the Zoning by-law requires new uses and expansion or redevelopment of existing non-conforming buildings to meet current zoning requirements.

Observations and Constraints: This section is an impediment to new uses and redevelopment of existing commercial areas, where the intensity of the existing buildings is far greater than that allowed in the current zoning by-law. The thresholds that trigger certain reviews are provided in this section: for example, a change or “substantial expansion” requires a Special Permit from the Planning Board. Let’s say you own a 1 story building on Trapelo Road that occupies 100% of the lot and does not have off-street parking. In order to expand the building for your tenant or make changes, a Special Permit is required. It is possible to have a more administrative review for changes to non-conforming structures. The prospect of a discretionary process, such as the Special Permit, discourages investment in such buildings. There is no guarantee that a Special Permit will be approved, and many property owners are hesitant to enter into a design process for improvements without a more certain outcome. A Site Plan Review, for example, as defined by Massachusetts State Law is a much more certain approval process.

Possible Changes:

1. Amend the standards and criteria (“substantial expansion” and “substantially more detrimental”) for approval in Section 1.5.2, 1.5.3 and possibly 1.5.4 to clarify what is meant by “change”.
2. Amend the uses, intensities and dimensional standards of certain (commercial) districts to allow uses and development patterns similar to those built in Belmont (including provision for design review and mitigation), thereby eliminating the grandfathered nonconformity.
3. Consider a procedure less discretionary than a Special Permit to review non-conforming use and non-conforming development proposals. One approach is to use a hierarchy of trigger thresholds so that the projects with less impact are reviewed at the administrative level and larger impacts have a greater review process. For example, increases in building square footage of 10% or less go to administrative review, 11 to 25% expansions get a site plan review, and greater than 50% expansions have a Special Permit.

Major Project Review (Section 3.5)

Purpose: This section requires a Concept Plan review and approval by two-thirds of Town Meeting of all development larger than 40,000 square feet and located within a Business District.

Observations and Constraints: This is a restrictive provision that limits the current development or redevelopment of large sites in Belmont's business districts. Because there are so few parcels in Belmont that will be developed/redeveloped, this provision may serve to "freeze" rather than encourage new development in Town. A 2/3 majority in Town Meeting is a difficult hurdle for many projects. Such a requirement is unusual in modern zoning by-laws because it creates a hurdle that is too high for reasonable investment risk in purchasing a property, getting an option on a property or investigating design options.

A super majority at Town Meeting is the opposite of certainty for a developer or property owner. It is likely that this provision has stopped development of projects larger than the existing Shaw's Market, which fell just below the 40,000 square foot threshold. Many people in Belmont would like a larger market, but the policy for Town Meeting review of projects 40,000 square feet and up is one of the main reasons there is no such proposal.

Possible Changes:

1. Consider removing the provision entirely.
2. Consider changing the approval body from Town Meeting to the Planning Board, with an appeal to the Board of Selectmen.
3. Consider using this provision as an option for "planned development" process for districts, sites, uses that are unique, and might have special impact to the Town. This could have a Board of Selectman or Town Meeting review process. Such process and district would be triggered at the applicant's option.

4. Consider a “tiered approach” for review of projects. This allows for certain uses and certain sizes to be assigned to a specific review process, while others can proceed based on square footage trigger. The following diagram and table give a general picture of what an approach might look like.

The tiered review threshold would result in many decisions made by administrative or Planning Board review, as illustrated in Figure 1 below. The bottom of the pyramid shows the lowest level of review, which may apply to the most permit requests (for example, to change the use from one store to another). As the decision – making level and procedures increase in complexity, there are fewer applications. Thus, the projects with truly town-wide impact are reviewed by the Town’s legislative body.



Figure 1 Diagram of a sample Tiered Permit Process

The use of **site plan review** in Massachusetts legal framework for zoning (Massachusetts General Laws Chapter 40 A), gives an applicant more certainty than a special permit does. In a site plan review process, the proposed use cannot be denied, but site dimensions and site layout can be modified by the decision making body.

The following table is an excerpt from the proposed review process for the City of Springfield – the thresholds would not be the same for Belmont. It is presented **as an example only**.

Illustration of Tiered Review Thresholds from the city of Springfield, MA

The specific thresholds would need to be tailored to Belmont's specific needs; this is given as an example only.

Table 4-2 Tiered Review Thresholds				
	Tier 1 Administrative Site Plan Review	Tier 2 Planning Board Site Plan Review	Tier 3 Planning Board Special Permit Review	Tier 4 City Council Special Permit Review
Thresholds for New Structures with Uses Designated "T" in the Use Table				
Multi-Family Dwellings	3 to 5 dwelling units	6 to 15 dwelling units	Not Applicable	16 and more dwelling units
Non-residential use or mixed-use building Floor Area	less than 20,000 square feet	20,000 to 49,999 square feet	50,000 to 149,999 square feet	150,000 or more square feet
Building Height or height of any structure	less than 50 feet	50 to 74 feet	75 to 149 feet	150 feet or more
Thresholds for Reuse of Existing Structures with Uses designated "T" in the Use Table				
Multi-Family Dwellings	3 to 10 dwelling units	11 to 25 dwelling units	26 to 50 dwelling units	51 and more dwelling units
Non-residential use or mixed-use building Floor Area	less than 30,000 square feet	30,000 square feet to 74,999 square feet	75,000 square feet to 224,999 square feet	225,000 square feet or more
Building Height or height of any structure	less than 75 feet	75 to 111 feet	112 to 224 feet	225 feet or more

Design and Site Plan Review (Section 7.3)

Purpose: This section of the Zoning by-law has vague language such as project should be “...*planned and designed to minimize impacts on its abutters, the neighborhood and the environment.*” The process is described as one which has “...*an orderly review process where site plans of proposed projects can be approved with reasonable conditions...*” The process applies to non-residential development greater than 2,500 square feet, requires 6 or more parking spaces, or reduces parking and other external site changes.

Observations and Constraints: The 2,500 square foot threshold for review is low and the types of site changes that “trigger” the Design and Site Plan Review are also strict. The provisions that the process does not have to be duplicated where a Special Permit is required and that the Planning Board may waive requirements for alterations/redevelopment are good practices that reduce time streamline the application process.

Possible Changes:

1. Consider a tiered threshold (as described and illustrated above) where some projects are reviewed and approved by staff.
2. The approval guidelines mostly refer to existing standards – which must be adhered to regardless of this process. Consider adding review criteria that address goals and purposes (such as those being identified in the Comprehensive Plan). In addition, pictures such as Figure 2 below can help applicants to understand the desired outcome.
3. Incorporate new provisions to relate the project impact to mitigation requirements.
4. Consider incentives to applicants to provide public benefits as part of their project. Examples of public benefits are: underground parking, streetscape enhancements such as benches and outdoor seating areas, and affordable housing units. The Cushing Square Overlay District that is in place in the by-law includes many of these incentives.
5. Pursue “form based zoning” for portions of the town. Form based zoning is explained in the next few pages.

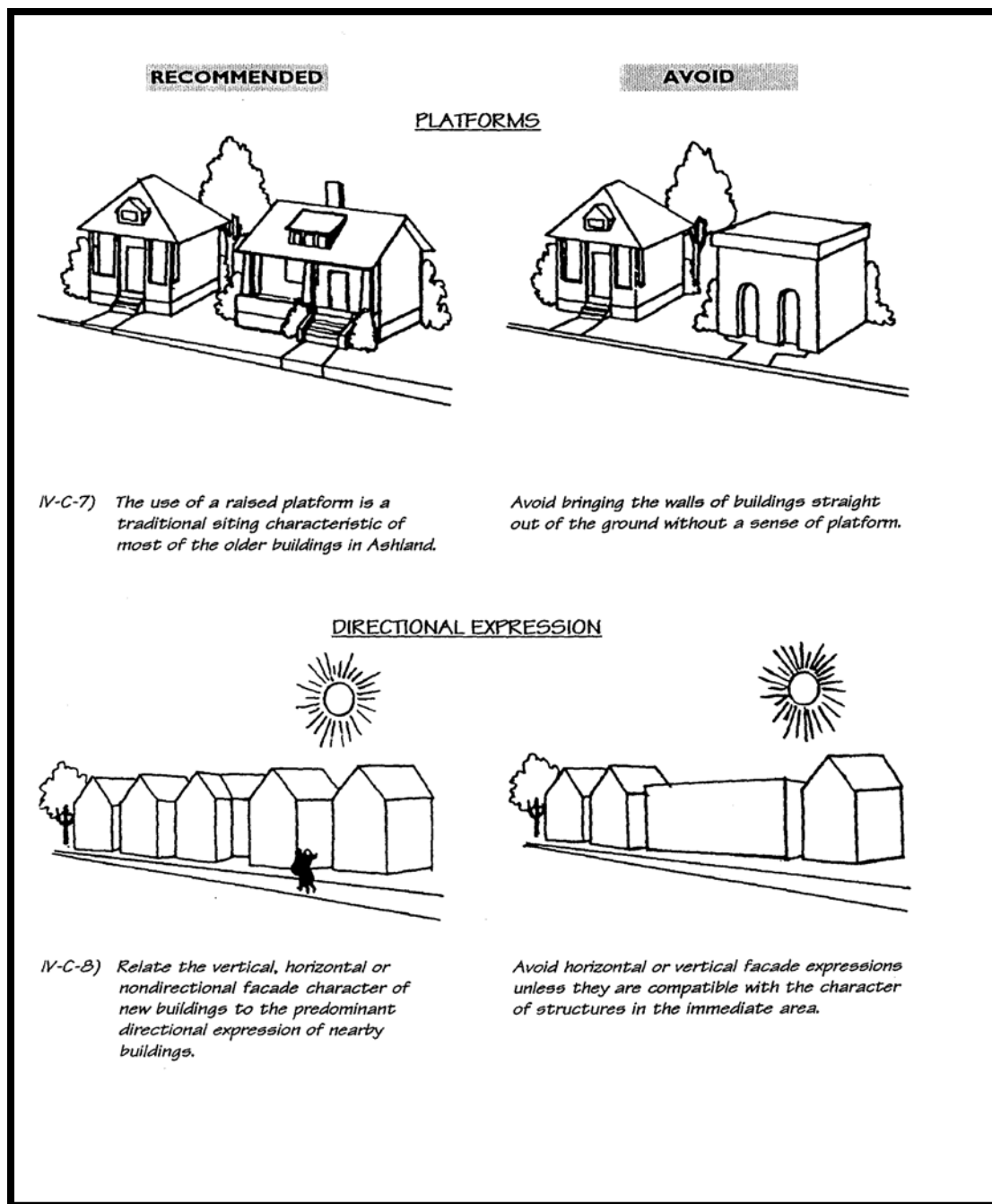


Figure 2 Illustration of Design Guidelines

What is Form Based Zoning?

Form based Zoning means an ordinance that:

1. Maps its applicability to property in a regulating plan (which may be part of a zoning map, project plan, or other planning and zoning graphic). The organizing principle of the regulating plan is urban form rather than the use categories that characterize conventional Euclidean zoning. Such organizing principles could be the new urbanist “transect,” neighborhoods, districts or corridors; or a street based mapping system where the

standards for buildings on private property vary according to the type of street fronting the property.

2. Coordinates the street and block standards with standards for building placement, height, form and mass to create a desired form and character for the public realm.
3. Provides standards for building placement and height that prescribes precise building façade location requirements (e.g. through build-to lines and frontage build-out requirements) to achieve specific desired urban design results, particularly in the context of pedestrian-oriented urbanism.
4. Includes standards for building and/or frontage types that correlate to the zones shown on the regulating plan, detailing the relationship of buildings, building facades, and building entrances to the streetscape so that the buildings collectively shape public spaces to create a desired urban design result.

There is an example of form based zoning adopted by a Massachusetts community, shown in Figure 3 Example of Form Based District. This example from South Weymouth, MA illustrates the description they developed for the Neighborhood Commercial “form”.

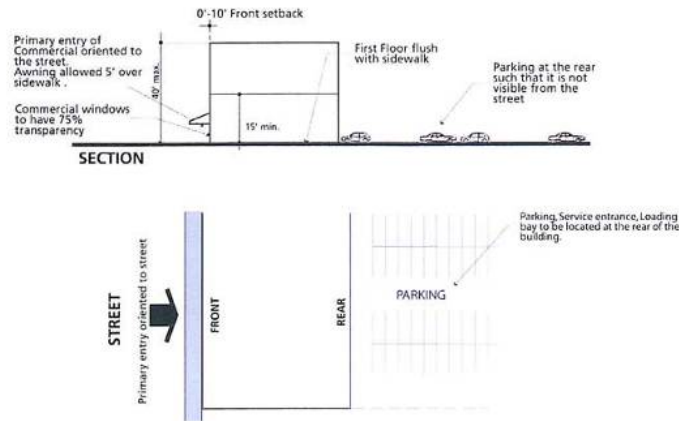
Development Impact Report (DIR) (Section 7.5)

Purpose: This section of the Zoning by-law provides for an extended review by applicants whose projects may have considerable impact on the Town. It provides detailed information about the type and content of the report that must be written.

Observations and Constraints: The DIR is a good concept for certain projects – and provides for a meaningful and professionally completed report. However, the provision that allows the Planning Board to require a DIR “*during a review of any application for a non-residential or multi-family structure or use which could have significant, deleterious environmental, physical or social impacts on the neighborhood and/or the Town and its infrastructure*” [emphasis added] is very broad and should contain information about what types of applications this might apply to. It could lead to requirements for “objectionable” projects or uses and discrimination against applicants if used indiscriminately.

Possible Changes:

1. Consider adding descriptive language or numerical triggers for these projects. A DIR could also be indicated in the use table as required for certain uses.
2. Consider adding definition of the term “*significant, deleterious environmental, physical or social impacts*” to clearly communicate what types of projects this might affect.
3. Consider adding terms such as Traffic Impact Analysis and Fiscal Impact Analysis to the Definitions section where these studies are described in more detail.

NEIGHBORHOOD COMMERCIAL (NC)

LOT OCCUPATION	Lot Area	1 acre maximum
	Lot Coverage	90% maximum
BUILDING SETBACKS	Front	0 feet minimum - 10 feet maximum
	Side	No required setback
	Rear	3 feet minimum
FRONTAGE		N/A
BUILDING HEIGHT	Principal Building	40 feet maximum
	Out Building	N/A
PARKING	Spaces	3 spaces minimum - 4 spaces maximum/ 1000 sq.ft. Gross Floor Area
	Area	N/A
	Access	Front, side or rear access not to exceed 20 feet width.
USES		Commercial
DISTRICT		Village Center District, Mixed-Use Village District, Residential District and Shea Village Commercial District
<small>Note: No Parking and Loading Bays required for Commercial under 4,000 sq. ft. Gross Floor Area. Commercial greater than 4,000 sq. ft. Gross Floor Area requires 1 parking space/ additional 300 sq. ft. Gross Floor Area and Loading Bays as per Regulations.</small>		

Figure 3 Example of Form Based District

Analysis of Land Use Districts, Permitted Uses and Dimensional Standards

The following analysis presents the stated purpose (intent) of each district, and its regulations for minimum lot area and maximum building height and coverage. In order to facilitate comparisons of permitted development intensity among the districts, we have also computed the maximum residential density (for districts where residential uses are permitted) and maximum floor area ratio implied by the other intensity regulations. Floor area ratio (FAR) is a term that means the gross floor area of a building on a lot divided by the lot area. Floor Area Ratio is important as a measure of the ratio of square footage in a building to its lot size as shown in Figure 4.

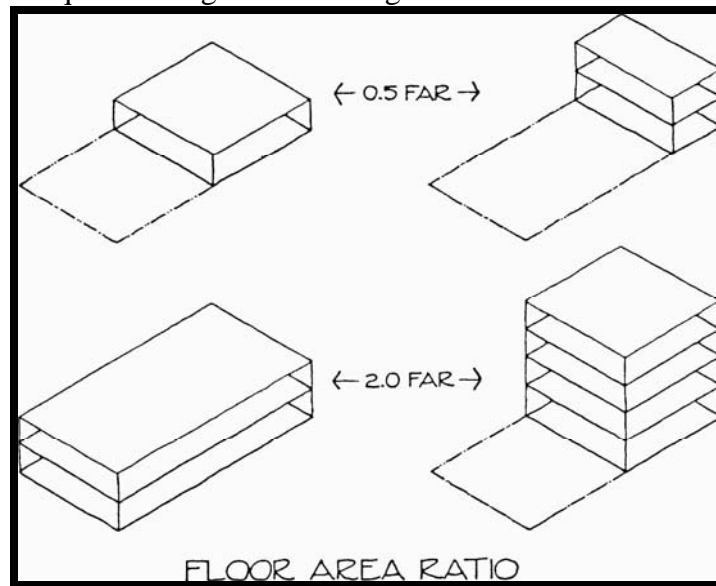


Figure 4 Floor Area Ratio

FAR is used in zoning by-laws to describe buildings (especially commercial or mixed use buildings) in place of the more traditional “setbacks, yards, and height” limits found in most zoning by-laws. Belmont’s commercial zoning districts have a maximum FAR listed, but our analysis shows that this allowed FAR is more an “implied” FAR. By this we mean that the actual FAR cannot be met when a project is built in accordance with other dimensional regulations and limitations in that district. For example, while the maximum FAR of a district might be a ratio of 1.5, the implied FAR might be much less because of off-street parking requirements, setbacks, and building height limits.

Following the summary tables for each district, we identify the general locations of the districts as currently depicted on the Zoning Map, and conflicts or inconsistencies between the regulations and actual land use and development patterns. Where appropriate, we have suggested potential approaches for addressing identified problems.

Table of existing Zoning Districts in Town

Commercial	Residential	Overlay Districts	Special Purpose
Local Business I	Single Residence A	Cushing Square	McLean
Local Business II	Single Residence D	Oakley Neighborhood Smart Growth	Belmont Uplands
Local Business III	Single Residence B		
General Business	Single Residence C		
Parking Lot	General Residence		
	Apartment House		

Business Districts**Local Business I**

Local Business I	
Lot Area & Residential Density	
minimum lot area	No minimum.
minimum lot frontage	20 feet
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	28' /2 (allows up to 32' by SP)
maximum floor area ratio	1.25 (up to 1.5 by SP). Other analysis for the Comprehensive Plan shows that neither of these FARs are attainable due to requirements for open space, setbacks, parking, etc.
maximum lot coverage	35%
minimum open space:	No minimum
setbacks	5' front, side and rear 0', 6' (when next to residential district = height of building)

Purpose: Most intense commercial and business development district

LBI is mapped in Belmont Center, Waverley Square and Cushing Square. Uses permitted outright include a range of business activities: restaurant up to 10,000 square feet. Uses permitted by Special Permit (SP) include: detached SF residential, two family, lodging, fast food, outdoor storage, restaurants over 10,000 square feet, place of assembly or amusement, office, other retail, manufacturing of products sold at retail on premise. Prohibited uses: Take out restaurant, elderly housing and apartment buildings.

Observations and Constraints: Current regulations do not allow new projects to re-create historic, mixed use development pattern. There is a discrepancy between the intensity and range of uses that are built and the relative limited uses and dimensional standards allowed in the current by-law. For the town's most intense commercial retail center zoning – this is a limited

district. Furthermore, the desired mix of permitted uses and available sites for new or infill development varies in each of the areas where LBI is mapped. A clearer vision for each commercial center (rather than district) should guide revisions to the commercial districts.

Possible Changes:

1. Reduce front setbacks to 0' and allow greater lot coverage to get development similar to the historic pattern.
2. Allow mixed use or multi-family residential, specify residential density and/or increase Floor Area Ratio (FAR) for mixed use projects [similar to Cushing Square Overlay District]
3. Consider replacing LBI, II, and III with unique districts such as those recommended in the Comprehensive Plan land use element (mixed use, neighborhood, and transition)
4. Consider a “commercial center” district similar to Cushing Square Overlay that specifies more flexibility and greater design standards.
5. Consider drastically reducing parking requirements for new uses, change of use, and redevelopment of existing sites.
6. Broaden list of permitted uses, or use a more “form based” approach for the LBI properties.

Local Business II

Local Business II	
Lot Area & Residential Density	
minimum lot area	No minimum.
minimum lot frontage	20 feet
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	28' /2 (allows up to 32' by SP)
maximum floor area ratio	1.05* Other analysis for the Comprehensive Plan shows that this FAR is not attainable due to requirements for open space, set-backs, parking, etc.
maximum lot coverage	35%
minimum open space:	No minimum
Setbacks	10' front, side 0' when next to res district = height of building, and rear 20' or building height when next to res district

Purpose: Small to medium size commercial retail district.

Observations and Constraints: The LBII district is only mapped between Pleasant Street and the MBTA commuter rail line, just east of the McLean hospital property. This narrow band of land includes the Shaw's grocery store, Belmont Car Wash, a car dealer, landscaping business and a vacant car dealership building. For a portion of this area, there is *General Business* along the east side of the train tracks which is developed with the Belmont Municipal Light (BML) and Water Department storage yards, and vehicle and equipment repair/storage yards. Uses allowed in LBII are almost identical to LBIII, with the exception that LBII allows motor vehicle repair, sales, and service stations by Special Permit (as does GB) whereas LBI and LBIII prohibit these uses. The Town needs a clearer vision for the Waverley Square/Pleasant Street area before making changes to this LBII area.

Possible Changes

1. Sub-divide district with inclusion of parcels adjacent to Waverley Square being included in the LBI Mixed Use district.
2. Consider higher density commercial district zoning for this area as part of a transit station area development if there is a consolidation of Belmont's train stations.
3. Consider a Light Industrial district for this area allowing for service stations. Or merge this district with LBI or LBIII and getting rid of the distinction of a district created just to allow service stations. Most service stations in Town are non-conforming uses in LBIII.

1. Merge this district with LBI or LB III and eliminate the distinction in the permitted uses where LBII allows everything in LB1 and auto service stations. In fact, most service stations in Town are non-conforming uses in LBIII.

Local Business III

Local Business III	
Lot Area & Residential Density	
minimum lot area	No minimum.
minimum lot frontage	20 feet
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	28'2 (allows up to 32' by SP)
maximum floor area ratio	1.25 (up to 1.5 by SP) Other analysis for the Comprehensive Plan shows that neither of these FARs are attainable due to requirements for open space, setbacks, parking, etc.
maximum lot coverage	35%
minimum open space:	No minimum
Setbacks	10' front, side 0' when next to res district = height of building, and rear 20' or building height when next to res district

Purpose: Retail & service convenience, compact and convenient to neighborhoods
LBIII is mapped along Trapelo Road at Central/Palfrey Squares, on the south side of Waverley Square, at the Pleasant Street/Brighton Street commercial area, along Brighton Street near Hittenger Street, along Concord Avenue near the intersection Bright Road, and East Belmont Street. LBIII allows for a limited range of commercial activities, with no residential uses allowed outright or by special permit.

Observations and Constraints: This district is the closest district to a neighborhood business district. But the districts that are mapped and the limited number of uses, lack of allowed height and parking constraints do not allow for appropriate development in the areas mapped as LBIII districts.

Possible Changes listed by area**Trapelo Road at Central/Palfrey Squares**

1. Create a Transition District where office and residential is allowed over retail and the front setback is eliminated (where appropriate) to make the area more consistent with existing development.

South side of Waverley Square

1. Assuming the parking limitations are addressed, allow for more intense development to match the existing scale and form of mixed use, “main street” type buildings.

Pleasant Street/Brighton Street commercial area

1. This area needs more work to develop a consensus around the desired uses and vision for this area. Because this area has little “vision” it is possible that a range of uses from office, mixed use, and/or housing is appropriate.

Brighton Street near Hittenger Street

1. Consider expanding the Light Industrial district in this area to create a larger light industrial “Neighborhood”.
2. Because this area has little “vision” it is possible that a range of uses including housing and municipal uses is appropriate.

Concord Avenue near the intersection Bright Road

1. Consider a better defined Neighborhood Commercial district at Concord/Bright area to introduce housing and/or small scale commercial in this area.
2. Refine the dimensional standards for the Concord/Bright area to allow existing building footprints to be retained without being non-conforming.

East Belmont Street

1. Consider a better defined Neighborhood Commercial district to encourage housing and/or small scale commercial redevelopment in this area.

General Business

General Business	
Lot Area & Residential Density	
minimum lot area	No minimum.
minimum lot frontage	20 feet
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	36'
maximum floor area ratio	N/A
maximum lot coverage	N/A
minimum open space:	No minimum
Setbacks	5' front, side and rear 0', 6' or when next to res district = height of building

Purpose: Provide a limited amount of commercial activities.

Observations and Constraints: The General Business district is only mapped in two areas in Town; Hill's Crossing on Brighton Street including the High School and Clay Pit Pond and the Department of Public Works (DPW) and Water and Light Department facilities across the tracks from Pleasant Street. There are a limited amount of uses that are permitted outright, with many uses allowed by special permit. *Uses permitted outright:* parking areas, lodging, municipal use, noncommercial greenhouse, and keeping of livestock. *Special Permit:* It is the **only district in town that allows for manufacturing and warehousing**. It *prohibits* residential and mixed use development, except conversion of large public buildings.

Possible Changes:

1. Consider using a municipal use district or a light industrial district instead of GB for the DPW yards.
2. Consider changing the name of this district, as it is not really a "General Business" district (in terms of location and uses allowed). Consider naming this district "Light Industrial."

Parking Lot

Parking Lot	
Lot Area & Residential Density	
minimum lot area	N/A
minimum lot frontage	N/A
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	N/A
maximum floor area ratio	N/A
maximum building coverage	N/A
minimum open space:	N/A

Purpose: Commercial or Municipal off-street parking lot

Observations and Constraints: The Parking Lot district is mapped only on 3 existing municipal parcels: the parking lots in Belmont Center and Cushing Square and the area above the MBTA Waverley Square train station. The uses are limited to surface parking, certain utilities such as wireless and satellite dishes, garage for more than 3 vehicles, agriculture, Dover Amendment uses, and municipal uses.

Possible Changes:

1. Consider eliminating this district. Parking Lot districts are usually “holding districts” to require a zone change for other uses. It does not belong in a hierarchy of land use districts.
2. Map the existing Parking Lot areas with either a new Municipal District or with the adjacent commercial zoning.

Overlay Districts

Cushing Square

Purpose: Most intense commercial and business development district

Cushing Square Overlay District	
Lot Area & Residential Density	
minimum lot area	No minimum.
minimum lot frontage	20 feet
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	28'/2 (allows up to 36'/3 by SP, and 48'/4 by SP in accordance with section 8.4)
maximum floor area ratio	2.75 for 3 story, 3.0 for > 3 story (>15,000 sf lot). Other analysis for the Comprehensive Plan shows that these FARs are attainable due to requirements for open space, set-backs, parking, etc.
maximum lot coverage	
minimum open space:	No minimum

The overlay district allows for mixed use (with residential above) buildings and provides an incentive for larger projects with Special Permit from the Planning Board provided underground parking is included. The Overlay district does NOT apply to uses that are allowed outright in the underlying zoning (mostly LBI). The overlay district *prohibits* banks/Credit Unions, drive through uses, adult entertainment and outdoor storage. Existing uses may continue and be part of new project. The district has lower parking ratios than base district land uses and allows for reduction by PB. It promotes mixed use residential by allowing 48'/4 stories with residential above. The overlay district includes a special design and site plan review process.

Oakley Neighborhood Smart Growth Overlay District (40R)

Oakley Neighborhood Smart Growth Overlay District	
Lot Area & Residential Density	
minimum lot area	See units per acre.
minimum lot frontage	50 feet (Single and two family); 90' 3 family
minimum lot area/unit	N/A
maximum residential density	8, 12 or 15 du/acre
Building Height and Coverage:	
maximum building height (ft/stories)	36'
maximum floor area ratio	N/A
maximum lot coverage	Ranges from 25% to 40%
minimum open space:	Ranges from 50% to 40%

Purpose: Provide more intense residential development in an appropriate location that is served by transit and include design guidelines to achieve context-sensitive design. This recently adopted overlay district has 4 subdistricts described in Section 6C of the zoning by-law, which is consistent with MGL 40R. It has its own site plan review process and specifies certain uses and residential densities that are more intense than the underlying districts. The density ranges from 8, 12 to 15 units per acre, depending on the subdistrict, and there is a requirement for a certain percentage of affordable housing units. The overlay district contains its own off street parking standard, design standards, and administrative site plan review. The site plan review process includes a maximum review time of a complete application of 120 days. If there is no local decision in 120 days, then the application is deemed approved.

Residential Districts

Possible Changes

1. Generally, because of the emphasis on a neighborhood – based framework in the Comprehensive Plan, the Town might consider aligning residential zoning districts with the neighborhood boundaries, which need to be defined.
2. Zoning changes should reflect the development patterns of the surrounding neighborhood, allow for modest changes that retain historic character and setbacks, and permit accessory dwelling units in certain cases.
3. Provide zoning incentives for compliance with LEED and other green building and energy efficiency standards.

Single Residence A

Single Residence A	
Lot Area & Residential Density	
minimum lot area	25,000 sf.
minimum lot frontage	125 feet
minimum lot area/unit	N/A
maximum residential density	1.7 du/acre
Building Height and Coverage:	
maximum building height (ft/stories)	36/2.5 (allows up to 60'/4 stories with larger setbacks)
maximum floor area ratio	N/A
maximum lot coverage	20%
minimum open space:	50%

Purpose: Single-family, low density

The Single Residence A district is the Town's lowest residential density district and is mapped on Belmont Hill, between Concord Avenue on the south, and Park Avenue on the north, Pleasant Street on the east and McLean Hospital/Belmont Country Club on the west. Uses allowed outright are single family residential. Special permit uses include public building conversion to residential, elderly housing and cluster development. Two family and 3 units or more are prohibited.

Further Research: are these existing lots at or above the minimum lot size? Are there any lots that could be subdivided such as Belmont Hill School or Belmont Country Club?

Single Residence D

Single Residence D	
Lot Area & Residential Density	
minimum lot area	25,000 sf.
minimum lot frontage	125 feet
minimum lot area/unit	N/A
maximum residential density	1.7 du/acre
Building Height and Coverage:	
maximum building height (ft/stories)	36/2.5 (allows up to 60'/4 stories with larger setbacks)
maximum floor area ratio	N/A
maximum lot coverage	20%
minimum open space:	50%

Purpose: Single family, low density

The Residence D district has the same dimensional requirements as SRA except SRD has a 25' rear yard setback, whereas SRA has a 40' rear yard setback. It is mapped on the Town owned DPW storage yard at the corner of Concord Avenue and Mill Street and on the Belmont Country club. Uses allowed outright are single family residential. Special permit uses include public

building conversion to residential, elderly housing and cluster development. Two family and 3 units or more are prohibited.

Possible Changes: Consolidate with SRA as Residence D is only mapped on the golf course.

Single Residence B

Single Residence B	
Lot Area & Residential Density	
minimum lot area	12,000 sf.
minimum lot frontage	90 feet
minimum lot area/unit	N/A
maximum residential density	3.6 du/acre
Building Height and Coverage:	
maximum building height (ft/stories)	36/2.5 (allows up to 60' with larger setbacks)
maximum floor area ratio	N/A
maximum lot coverage	25%
minimum open space:	50%

Purpose: Single-family, low-moderate density

The Single Residence B district is mapped on the neighborhood, bounded by Pleasant Street to the east, Route 2 to the north, and Park/Clifton Street to the west. Uses allowed outright are single family residential. Special permit uses include public building conversion to residential, elderly housing and cluster development. Two family and 3 units or more are prohibited.

Further Research: are these existing lots at or above the minimum lot size?

Possible Changes

1. Is this area mapped with this district really distinct enough to merit its own dimensional standards? Consider combining with SRC.

Single Residence C

Single Residence C	
Lot Area & Residential Density	
minimum lot area	9,000 sf.
minimum lot frontage	75 feet
minimum lot area/unit	N/A
maximum residential density	4.8 du/acre
Building Height and Coverage:	
maximum building height (ft/stories)	36/2.5 (allows up to 60' with larger setbacks)
maximum floor area ratio	N/A
maximum lot coverage	25%
minimum open space:	50%

Purpose: Single & two-family, moderate density

SRC is the largest residential district, covering most of the neighborhoods between Pleasant Street and the Cambridge boundary. Uses allowed outright are single family residential. Special Permit uses include public building conversion to residential, elderly housing and cluster development. Two family and 3 units or more are prohibited.

Further Research: are these existing lots at or above the minimum lot size? Are there any lots that could be subdivided?

Possible Changes

1. Consider new Transition District for the SRC areas along Trapelo Road where there are residential structures being used as businesses (dentists, lawyers, funeral homes). These are good uses and development pattern, but it could not be replicated.
2. Allow two family and possibly three family dwellings on the proposed transit areas. Especially along Trapelo Road, allow townhouses condominiums, and accessory apartments. Modify the setback and parking requirements for these housing types in this transit friendly area.

General Residence

Purpose: Single/two family residential dwellings

General Residence	
Lot Area & Residential Density	
minimum lot area	7,000 sf.
minimum lot frontage	70 feet
minimum lot area/unit	Not more than 1,000 sf for MF units
maximum residential density	6-7 du/acre
maximum lot coverage	30%
minimum open space:	50%
Building Height and Coverage:	
maximum building height (ft/stories)	33/2.5 (allows up to 60' with larger setbacks)
maximum floor area ratio	N/A
maximum lot coverage	20%
minimum open space:	40%

General Residence is mapped in the Waverley Square area, north of Cushing Square and north of Belmont Street near the Cambridge boundary in the southeast corner of Belmont. Uses allowed outright are single and two family residential. Special permit uses include public building conversion to residential and elderly housing. Other apartment buildings (3 units or more) are prohibited. The average lot size of General Residence properties is 5,000 square feet.

Possible Changes:

1. Make maximum height 36' instead of 33' for consistency with other residential districts.
2. Consider reducing the minimum lot size to match the average built lots.
3. Consider replacing portions of GR with unique districts such as Neighborhood and Transition which allow greater density/intensity along Trapelo/Belmont Corridor, and provide for reduced parking requirements due to the immediate proximity to frequent transit service along Trapelo Road. Allow two and possibly three family dwellings and accessory dwelling units.

Apartment House

Apartment House	
Lot Area & Residential Density	
minimum lot area	85,000 sf.
minimum lot frontage	100 feet
minimum lot area/unit	Not more than 1,200 sf/unit
maximum residential density	35 du/acre
Building Height and Coverage:	
maximum building height (ft/stories)	60' (no stories indicated, but generally 4-5 stories)
maximum floor area ratio	N/A
maximum lot coverage	30%
minimum open space:	40%

Purpose: Garden apartment

The Apartment House district is built out with the Hill Estate Senior Apartment complex. It is located adjacent to the Commuter Rail Line at the border with Cambridge, just east of Brighton Avenue. The District prohibits single family detached housing and mixed uses. Uses allowed: two family, conversion to residential, elderly housing and apartment house. Does not allow cluster development (Section 6.5).

Possible Changes:

1. The per unit square footage requirement for this district is larger than GR, which should be changed to reflect the higher density of the AH district.

Special Districts

McLean District

Purpose: Mixed use development with existing hospital campus, moderate density residential, office and affordable housing. This district was created in 1999 after an intense planning process that mapped 6 subdistricts on the property and planned for future buildout. Dimensional and Use regulations are included in Section 6A (each subdistrict has its own dimensional standards). There are requirements for a site plan review, parking and access, and stormwater management standards.

Belmont Uplands District

Belmont Uplands District	
Lot Area & Residential Density	
minimum lot area	9 acres
minimum lot frontage	500 feet
minimum lot area/unit	N/A
maximum residential density	N/A
Building Height and Coverage:	
maximum building height (ft/stories)	98'/4 stories for buildings 36'/3 stories for a parking structure
maximum floor area ratio	1.0 Other analysis for the Comprehensive Plan shows that this FAR is not attainable due to requirements for open space, set-backs, parking, etc.
maximum lot coverage	20%
minimum open space:	65%
Maximum impervious surface	35%

Purpose: Office, research and development, open space and structured parking. Dimensional and Use regulations are included in Section 6B and not in Sections 3 and 4 as the other districts. There are requirements for a site plan review, parking, and stormwater management standards.

Miscellaneous Provisions and Definitions

Off-Street Parking and Loading (Section 5-1)

A detailed analysis of current parking standards and recommendations to make improvements are included in the Comprehensive Plan as an Appendix.

Definitions and Abbreviations (Section 1-4)

Purpose: to clarify specific terms for the users of the Zoning By-law. Users include applicants, neighbors, Town staff and decision making bodies. The definitions should avoid including standards within them, which should be contained within the body of the by-law text.

Observations and Constraints: The definitions are extremely important in determining the built environment. Most of the definitions seem up to date, and some include illustrations which are helpful for users. As part of a comprehensive revision to the Zoning by-law, it is important to review the definitions and terms to see that new terms are added to the definitions section and existing definitions are updated as needed.

Possible Changes:

1. Conduct a detailed review of definitions for consistency with goals for the built environment and new zoning districts.
2. Consider expanding the section to include additional terms and illustrations related to design guidelines as shown in Figure 5.

3. Review definitions and other terms for updates as needed due to changes in state law and/or amendments to the by-law.
4. Use special font within the text of the By-law to identify defined terms so that the reader is prompted to check the definitions section. This is an example of a defined terms font. Defined terms can also be indexed so that users can look up terms at the back of the by-law and find places where the terms are used.

Signs

Although the Sign standards are an important part of the aesthetic quality of commercial areas, a detailed analysis is beyond the scope of the Comprehensive Plan zoning review.

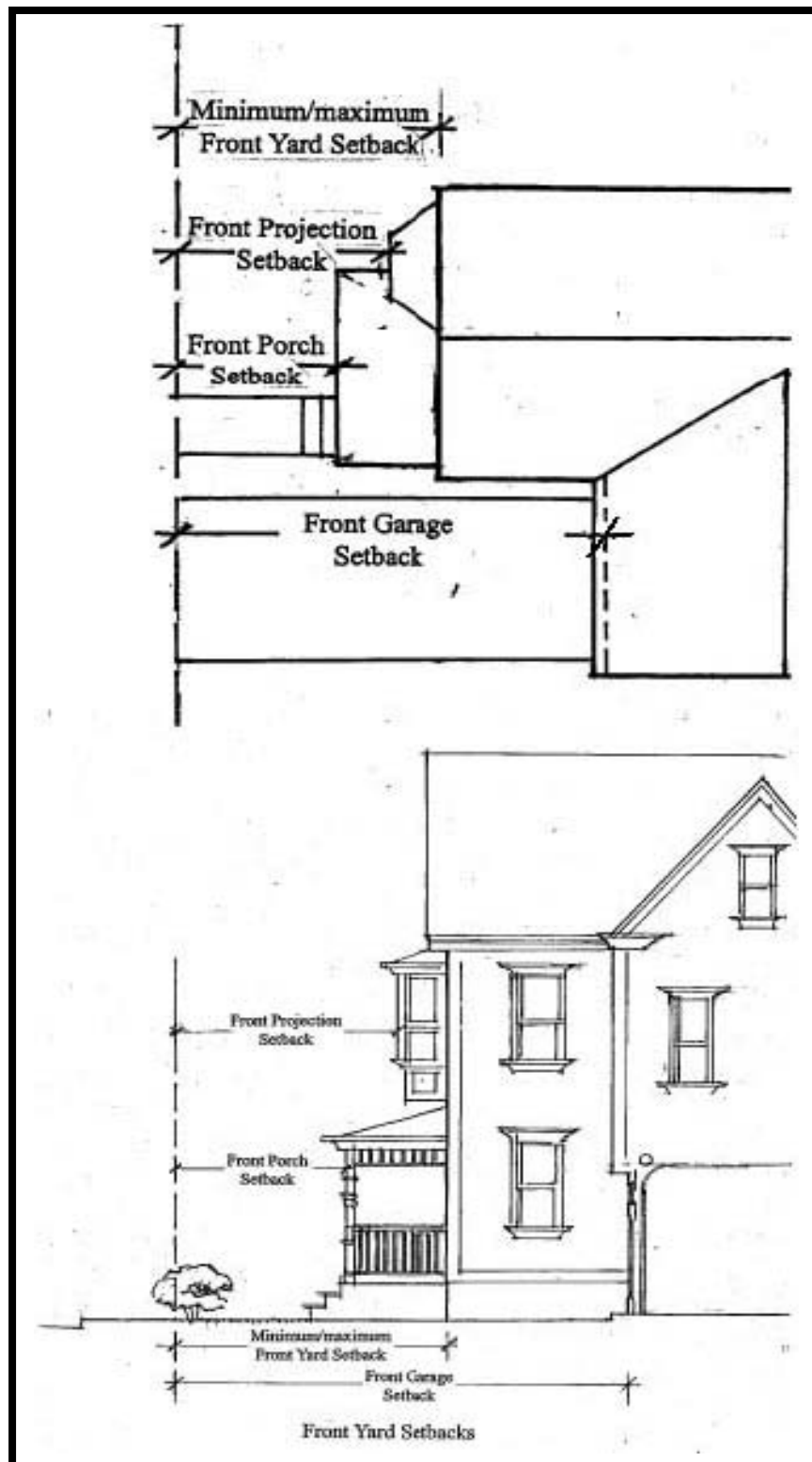


Figure 5 Illustration of Defined Terms

Summary List of all Recommendations

Possible Changes to Local Business I

1. Reduce front setbacks to 0' and allow greater lot coverage to get development similar to the historic pattern.
2. Allow mixed use or multi-family residential, specify residential density and/or increase Floor Area Ratio (FAR) for mixed use projects [similar to Cushing Square Overlay District]
3. Consider replacing LBI, II, and III with unique districts such as those recommended in the Comprehensive Plan land use element (mixed use, neighborhood, and transition)
4. Consider a “commercial center” district similar to Cushing Square Overlay that specifies more flexibility and greater design standards.
5. Consider drastically reducing parking requirements for new uses, change of use, and redevelopment of existing sites.
6. Broaden list of permitted uses, or use a more “form based” approach for the LBI properties.

Possible Changes to Local Business II District

1. Sub-divide district with inclusion of parcels adjacent to Waverley Square being included in the LBI Mixed Use district.
2. Consider higher density commercial district zoning for this area as part of a transit station area development if there is a consolidation of Belmont’s train stations.
3. Consider a Light Industrial district for this area allowing for service stations. Or merge this district with LBI or LBIII and getting rid of the distinction of a district created just to allow service stations. Most service stations in Town are non-conforming uses in LBIII.
4. Merge this district with LBI or LB III and eliminate the distinction in the permitted uses where LBII allows everything in LB1 and auto service stations. In fact, most service stations in Town are non-conforming uses in LBIII.

Possible Changes for Local Business III listed by area

Trapelo Road at Central/Palfrey Squares

1. Create a Transition District where office and residential is allowed over retail and the front setback is eliminated (where appropriate) to make the area more consistent with existing development.

South side of Waverley Square

1. Assuming the parking limitations are addressed, allow for more intense development to match the existing scale and form of mixed use, “main street” type buildings.

Pleasant Street/Brighton Street commercial area

1. This area needs more work to develop a consensus around the desired uses and vision for this area. Because this area has little “vision” it is possible that a range of uses from office, mixed use, and/or housing is appropriate.

Brighton Street near Hittenger Street

1. Consider expanding the Light Industrial district in this area to create a larger light industrial “Neighborhood”.
2. Because this area has little “vision” it is possible that a range of uses including housing and municipal uses is appropriate.

Concord Avenue near the intersection Bright Road

1. Consider a better defined Neighborhood Commercial district at Concord/Bright area to introduce housing and/or small scale commercial in this area.
2. Refine the dimensional standards for the Concord/Bright area to allow existing building footprints to be retained without being non-conforming.

East Belmont Street

1. Consider a better defined Neighborhood Commercial district to encourage housing and/or small scale commercial redevelopment in this area.

Possible Changes to General Business District

1. Consider using a municipal use district or a light industrial district instead of GB for the DPW yards.
2. Consider changing the name of this district, as it is not really a “General Business” district (in terms of location and uses allowed). Consider naming this district “Light Industrial.”

Possible Changes to the Parking District

1. Consider eliminating this district. Parking Lot districts are usually “holding districts” to require a zone change for other uses. It does not belong in a hierarchy of land use districts.
2. Map the existing Parking Lot areas with either a new Municipal District or with the adjacent commercial zoning.

Possible Changes to Residential Districts Generally

1. Generally, because of the emphasis on a neighborhood – based framework in the Comprehensive Plan, the Town might consider aligning residential zoning districts with the neighborhood boundaries, which need to be defined.
2. Zoning changes should reflect the development patterns of the surrounding neighborhood, allow for modest changes that retain historic character and setbacks, and permit accessory dwelling units in certain cases.
3. Provide zoning incentives for compliance with LEED and other green building and energy efficiency standards.

Possible Changes to the Single Residence D District

1. Consolidate with SRA as Residence D is only mapped on the golf course.

Possible Changes to the Single Residence B District

1. Is this area mapped with this district really distinct enough to merit its own dimensional standards? Consider combining with SRC.

Possible Changes to the Single Residence C District

1. Consider new Transition District for the SRC areas along Trapelo Road where there are residential structures being used as businesses (dentists, lawyers, funeral homes). These are good uses and development pattern, but it could not be replicated.
2. Allow two family and possibly three family dwellings on the proposed transit areas. Especially along Trapelo Road, allow townhouses condominiums, and accessory apartments. Modify the setback and parking requirements for these housing types in this transit friendly area

Possible Changes to the General Residence District

1. Make maximum height 36' instead of 33' for consistency with other residential districts.
2. Consider reducing the minimum lot size to match the average built lots.
3. Consider replacing portions of GR with unique districts such as Neighborhood and Transition which allow greater density/intensity along Trapelo/Belmont Corridor, and provide for reduced parking requirements due to the immediate proximity to frequent transit service along Trapelo Road. Allow two and possibly three family dwellings and accessory dwelling units.

Possible Changes to the Apartment House District

1. The per unit square footage requirement for this district is larger than GR, which should be changed to reflect the higher density of the AH district.

Possible Changes to Definitions Section

1. Conduct a detailed review of definitions for consistency with goals for the built environment and new zoning districts.
2. Consider expanding the section to include additional terms and illustrations related to design guidelines as shown in Figure 5.
3. Review definitions and other terms for updates as needed due to changes in state law and/or amendments to the by-law.
4. Use special font within the text of the By-law to identify defined terms so that the reader is prompted to check the definitions section. This is an example of a defined terms font. Defined terms can also be indexed so that users can look up terms at the back of the by-law and find places where the terms are used.

Parking Principles as Applied to Belmont

While improvements to Belmont's walking, biking and transit networks will have a very positive impact and attract trips away from personal automobiles, significant shifts from driving will only be possible if the current subsidy for driving is reduced or eliminated. Without addressing the financial incentive given for driving, large reductions in traffic are not possible.

Many American cities have revealed this subsidy for driving with dramatic results. Placed in the control of business owners, they have realized it is far cheaper to subsidize transit, walking and biking than it is to continue to support the automobile. In the hands of government, communities have been willing to dramatically curtail the convenience of driving for the sake of other modes, resulting in significantly reduced pollution impacts, increased development, and reduced tax rates. In the hands of residents, homeowners have recognized the value of their garages or driveways and transformed their travel habits in return for greater housing affordability.

The following section describes the existing subsidy for driving and several parking and transportation demand management (TDM) practices that can be implemented to achieve the shifts to transit, walking and biking that may be necessary in Belmont to retain its livable character.

Revealing Parking Subsidies

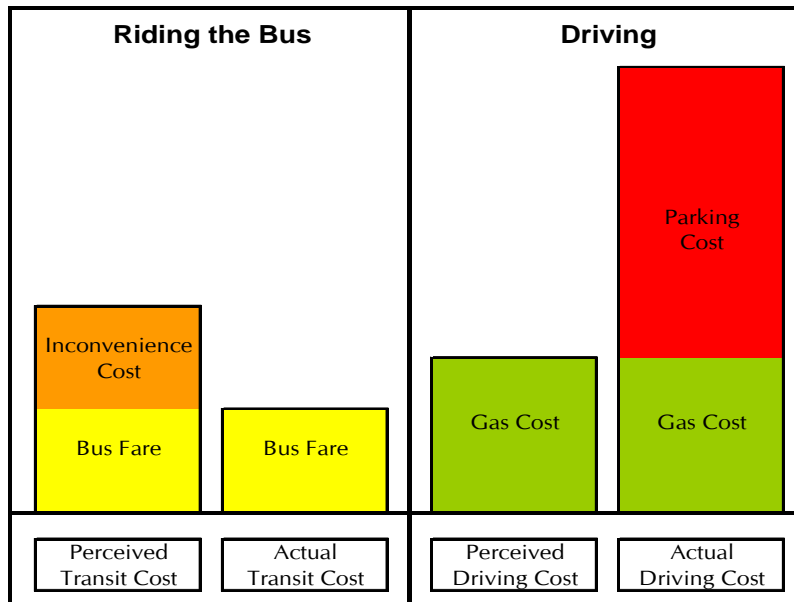
Central to understanding the need for the recommended parking and TDM programs below is understanding the role that parking plays in the development and daily life of Belmont or, for that matter, any urban district in America. Parking has a unique role in American life that has largely been overlooked by planners, developers and drivers alike. Unlike any other form of transportation, the cost of parking is disassociated from its mode of transportation: the car. Just like planes, boats, and trains have terminals, the automobile must have a terminal at each and every destination – the parking space. However, 99-percent of all terminal arrivals are free to the driver in America, and there are estimated to be over 8 terminals per driver on average. The user rarely pays the real cost to park. For example, at the average land value in Belmont of \$2.5M per acre, an average 300 square foot parking space is worth \$17,000. Amortized over the life of an average mortgage, this is over \$150 per month – but nobody in Belmont charges \$150 per month to park. Generally, parking is free of charge, resulting in a full subsidy per space of at least \$150 per month.

This economic reality has been a way of life for Americans since the automobile began to proliferate as a means of transportation. Federal subsidies, local land use regulations, and development costs have largely hidden the cost of parking from the user, forcing it to be absorbed in many other aspects of our economy, such as housing and insurance costs, taxes, and the cost of goods and services. Many sources including the Federal government place the annual national subsidy for parking infrastructure in America at over \$300B in 2002 dollars⁹. In 2002, the budget for national defense was \$349B.

⁹ Sources include Mark Delucchi, University of California at Davis; Todd Littman, Victoria Transport Policy Institute; and the Office of Technology Assessment, U.S. Congress.

In the past several years, many communities have begun to rationalize the subsidy that is given to driving through the hidden cost of parking (see example in Figure 1). Communities such as Pasadena California, Boulder Colorado, Austin Texas, and Arlington County Virginia have recognized that their transit, walking and biking infrastructure was receiving far less subsidy if any at all. These communities, along with many large and small businesses throughout America¹⁰, also began to recognize that the cost of building superior transit, walking and biking facilities was much cheaper than building more parking, especially in places like Belmont that have high land values and high construction costs. Often driven by the accountants at their private partners¹¹, these communities quickly recognized that the massive amount of money directed at parking could instead be directed at broader community improvements that simultaneously reduced the demand for parking. Today, these communities have extensive and attractive multi-modal transportation systems that are financed almost entirely by the cost savings of not building parking structures.

Figure 1 Real Versus Perceived Out-of-Pocket Costs



Belmont stands to learn a great amount from the experiences of these communities and businesses. By recognizing the growing modal inequity that is propagated by huge parking subsidies, Belmont can redirect this enormous parking cost into community improvements that can achieve the goals of this study while preserving vital mixed-use neighborhoods for years to come.

¹⁰ Parking cash-out programs have been very successful at businesses such as Microsoft, Google, Wyeth Pharmaceuticals and Genentech. Their significant cost savings and employee retention benefits are not well-publicized, largely because these businesses are seeing huge competitive advantages.

¹¹ For example, see Boulder's Central Area General Improvement District, where downtown parking construction decisions are managed by business members who directed investment in alternative modes of transportation when presented with the true cost of building new parking.

Understanding Parking Demand

For years (indeed, perhaps since the invention of the motorcar) the citizens of Belmont have complained to their elected officials that there is too much traffic. Various controls have been put in place to control this problem, from speed bumps to stop signs, new parking garages to roadway expansions, and development review to strict zoning regulations. To prevent circling for parking and spill-over into neighborhoods, minimum parking requirements have been stringently adhered to in commercial districts. For half a century, virtually every city in America has had minimum parking requirements to prevent the perils of congested downtowns without enough parking, and yet not only has traffic congestion gotten worse, it is projected to steadily worsen over the next 20 years. Our problem has been to address traffic through supply-side solutions while ignoring the effect those policies have had on demand. By providing lots of roads and lots of parking, the traffic has come.

The Failure of Minimum Parking Requirements

Why was it believed that setting minimum parking requirements would alleviate traffic congestion? By the 1920s, the new problem of "spill-over parking" had already arrived in many downtowns. Automobiles filled up all of the curb parking in front of shops and apartments, and any nearby private parking, and then sometimes spilled over into nearby neighborhoods, crowding the streets there. In search of free parking near their destination, motorists often took to circling about, waiting for a space to open up. Instead of searching for parking, many motorists simply double-parked, clogging traffic lanes and greatly increasing congestion. Perhaps most importantly, well-known traffic engineers pointed out that if enough off-street parking were built to meet all possible demand, it would be much easier to prohibit on-street parking. The streets could then be filled from sidewalk to sidewalk with moving traffic.

The essential concept of minimum parking requirements was that if each destination provided ample parking, with enough spaces available so that even when parking was free there would be plenty of room, then there would be plenty of spaces at the curb. Motorists would no longer need to circle the block looking for a space, and so traffic congestion would be lessened.

Minimum parking requirements, however, had unintended consequences for traffic. Belmont, like most communities, set minimum parking requirements that were simply high enough to satisfy the demand for parking even when parking was given away for free. The predictable result was that most destinations wound up with free parking.

Dozens of studies have now demonstrated that when parking is given away free of charge, people drive more. The amount of extra driving induced is substantial. Removing or reducing parking subsidies - subsidies that have been in good part created by minimum parking requirements - reduce vehicle trips by an average of 25% in locations throughout the United States. Given the Comprehensive Plan's goals, the role played by parking requirements cannot be overlooked in Belmont.

Parking & Transportation Demand Management Strategies

The following program suggestions are derived from a review of best parking and transportation demand management practices conducted in communities throughout the United States, as applied to Belmont.

A) Pursue a “Park Once” Strategy

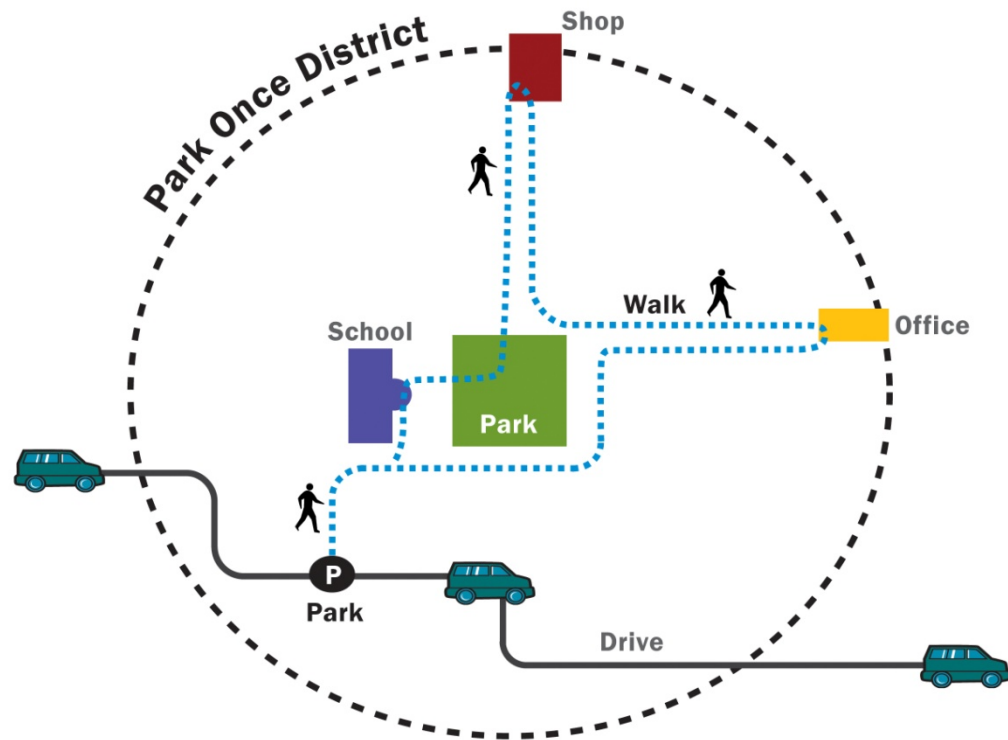
The typical pattern of individual buildings, each with its own parking supply, requires two vehicular movements and a parking space to be dedicated for each visit to a shop, office, or residence. To accomplish three errands in this type of environment requires six movements in three parking spaces for three tasks. With most parking held in private hands, spaces are not efficiently shared between uses, and each building's private parking would ideally be sized to handle a worst-case parking load. Most significantly, when new buildings are required to provide such worst-case parking ratios, the result is often pedestrian-hostile buildings that hover above parking decks.

When the practice of building individual private lots or garages for each building is adopted, the result is also a lack of welcome for customers: at each parking lot, the visitor is informed that his vehicle will be towed if he or she peruses any place besides the adjacent building. When this occurs, nearby shopping malls gain a distinct advantage over a district with fragmented parking. Mall owners understand that they should not divide their mall's parking supply into small fiefdoms: they operate their supply as a single pool for all of the shops, so that customers are welcomed wherever they park.

The compactness and mixed-use nature of Belmont's commercial districts lend themselves to this kind of "Park Once" strategy. Operating the downtown parking supply as a single shared pool results in significant savings in daily vehicle trips and required parking spaces, for three reasons:

1. **Park once.** Those arriving by car can easily follow a “park once” pattern: they park their car just once and complete multiple daily tasks on foot before returning to their car (see Figure 2).

Figure 2 “Park Once” District



Based on an original illustration by Walter Kulash.

2. **Shared Parking among Uses with Differing Peak Times.** Spaces can be efficiently shared between uses with differing peak hours, peak days, and peak seasons of parking demand (such as office, restaurant, retail and residential).
3. **Shared Parking to Spread Peak Loads.** The parking supply can be sized to meet *average* parking loads (instead of the *worst-case* parking ratios needed for isolated buildings), since the common supply allows shops and offices with above-average demand to be balanced by shops and offices that have below-average demand or are temporarily vacant.

To implement a "Park Once" strategy, parking in Belmont's commercial districts should be managed as a public utility, just like streets and sewers, with public parking provided in strategic locations. In the future, development should be prohibited (or strongly discouraged through TDM ordinances, impact fees, or maximum parking requirements) from building privately-controlled parking: in cases where certain tenants, such as new offices, require a guarantee of a certain number of spaces at particular hours (e.g., Monday through Friday, 9 a.m. to 5 p.m.), they should be provided with the opportunity to lease those spaces from the public supply, with the exclusive right to use them during the hours required. As described above, such arrangements leave the parking available during evening and weekend hours for other users (e.g., with the patrons of restaurants), resulting in an efficient sharing of the parking supply and lower costs for all.

Implementation of simple signing improvements helps motorists easily find shared parking facilities when they chose not to seek on-street parking. Current signing for and visibility of most of Belmont's public lots, for example, is very poor, and the pedestrian experience entering and exiting them is not welcoming. These highly valuable assets should be made significantly more inviting and secure for all users.

Overall, the benefits of fully implementing a "park once" strategy in Belmont's commercial districts include:

- More welcoming of customers and visitors (fewer "Thou Shalt Not Park Here" signs scattered about).
- Allows for fewer, strategically placed lots and garages, resulting in better urban design and greater development opportunities.
- Enables construction of larger, more space-efficient (and therefore more cost-effective) parking facilities.

Finally, and perhaps most importantly, by transforming motorists who once passed by or circled for parking into pedestrians getting out of their cars and shopping, a "park once" strategy is an immediate generator of the pedestrian activity that animates our the streets and generates the patrons of street friendly retail businesses.

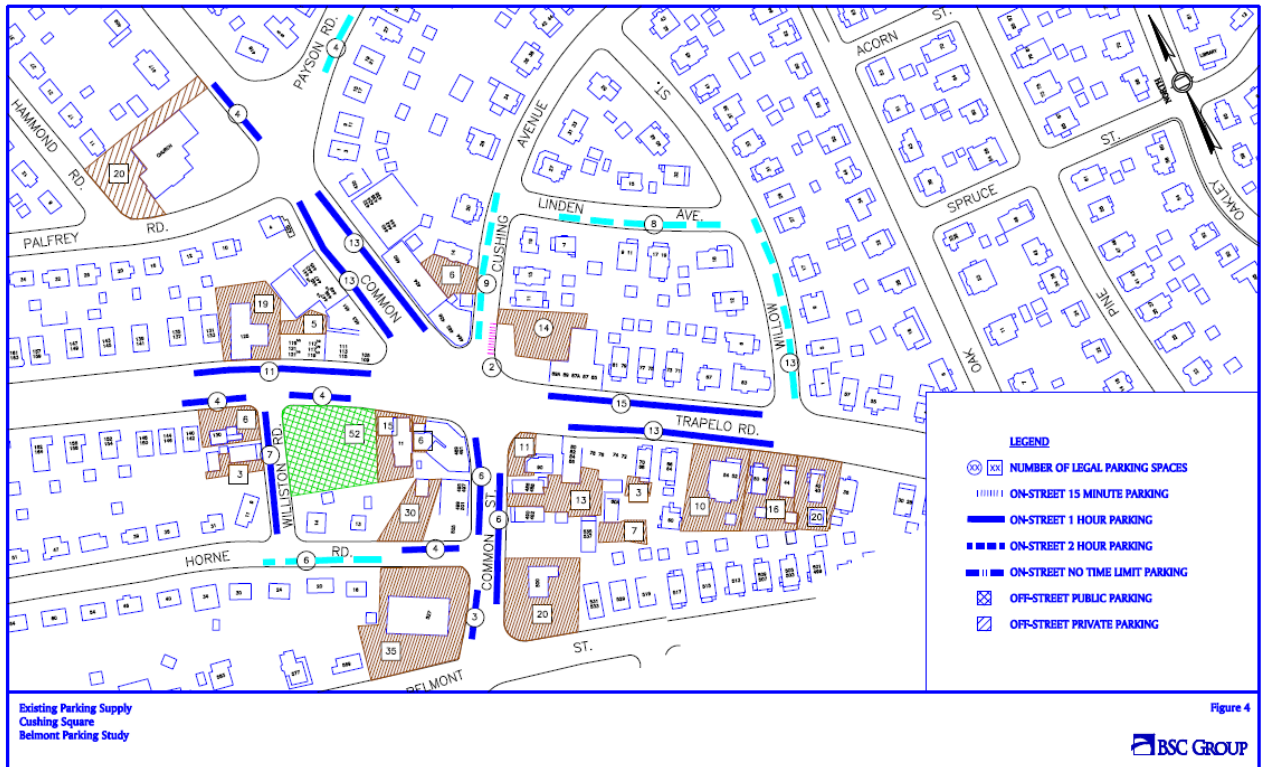
Application to Belmont

Sharing existing private parking fields in Belmont's commercial districts can optimize their efficiency and often result in a greater supply of parking than is currently available. In Cushing Square, for instance, of 320 off-street spaces, 268 are in private hands and not shared (see brown hatching in Figure 3). Sharing this supply among many using with different peak demands would result in an effective increase in supply. If the Town offered landowners a lease payment to operate and maintain these spaces, the removal of fences between adjacent lots could result in a greater supply of spaces as well by eliminating redundant circulation and increasing the efficiency of existing paved areas.

Signing strategies are a simple initial approach that brings very low cost and great effectiveness to commercial districts. A consistent signing program for municipal and shared lots can help infrequent as well as regular visitors know how to find parking they might not have seen before. Towns such as Framingham (inset) have developed simple and effective signs that guide motorists to parking from their cars – as well as guiding pedestrians back to the parking lot. Such a strategy would be particularly beneficial for the underutilized and generally unnoticeable municipal lots in Cushing Square and Belmont Center.

Figure 3 Cushing Square Parking Inventory





B)Pricing Parking

Many downtown districts suffer from a common problem. The most visible and most convenient parking spaces are frequently entirely full, while simultaneously, parking spaces just behind or just under a building -- or a block away -- sit largely vacant. The result is often a perceived parking shortage, even when a district as a whole has dozens of vacant parking spaces available. In many downtowns, employees occupy the best spaces, even when time limits are instituted to try to reserve these spots for customers.

Always available, convenient, on-street customer parking is of primary importance for Belmont's businesses to succeed, in turn creating a welcoming environment for pedestrians. To create vacancies and rapid turnover in the best, most convenient, front door parking spaces, it is crucial to have price incentives to persuade some drivers -- especially employees -- to park in the less convenient spaces (in remote lots or in available on-street parking a block or two away): higher prices for the best spots and cheap or free prices for the less convenient, underused spaces.

Motorists can be thought of as falling into two primary categories: bargain hunters and convenience seekers. Convenience seekers are more willing to pay for an available front door spot. Many shoppers and diners are convenience seekers: they are typically less sensitive to parking charges because they stay for relatively short periods of time, meaning that they will accumulate less of a fee than an employee or other all-day visitor. By contrast, many long-stay parkers, such as employees, find it more worthwhile to walk a block to save on eight hours worth

of parking fees. With proper pricing, the bargain hunters will choose currently underutilized lots, leaving the prime spots free for those convenience seekers who are willing to spend a bit more. For Belmont merchants, it will be important to make prime spots available for these people: those who are willing to pay a small fee to park are also those who are willing to spend money in stores and restaurants.

What are the Alternatives to Charging for Parking?

The primary alternative that communities can use to create vacancies in prime parking spaces is to set time limits and give tickets to violators. Time limits, however, bring several disadvantages: enforcement of time limits is labor-intensive and difficult, and downtown employees, who quickly become familiar with enforcement patterns, often become adept at the "two hour shuffle", moving their cars regularly or swapping spaces with a coworker several times during the workday. Even with strictly enforced time limits, if there is no price incentive to persuade employees to seek out less convenient, bargain-priced spots, employees will probably still park in prime spaces.

For customers, strict enforcement can bring "ticket anxiety", the fear of getting a ticket if one lingers a minute too long (for example, in order to have dessert after lunch). As Dan Zack, Downtown Development Manager for Redwood City, CA, puts it, "Even if a visitor is quick enough to avoid a ticket, they don't want to spend the evening watching the clock and moving their car around. If a customer is having a good time in a restaurant, and they are happy to pay the market price for their parking spot, do we want them to wrap up their evening early because their time limit wasn't long enough? Do we want them to skip dessert or that last cappuccino in order to avoid a ticket?" Repeatedly, surveys of downtown shoppers have shown that the *availability* of parking, rather than price, is of prime importance.

What is the Right Price for On-Street Parking?

If prices are used to create vacancies and turnover in the prime parking spots, then what is the right price? An ideal occupancy rate is approximately 85% at even the busiest hour, a rate which leaves about one out of every seven spaces available. This provides enough vacancies that visitors can easily find a spot near their destination when they first arrive. For each block and each parking lot in Belmont's commercial districts, the right price is the price that will achieve this goal. This means that pricing should not be uniform: the most desirable spaces need higher prices, while less convenient spots are cheap or may even be free. Prices should also vary by time of day and day of week: for example, higher at noon, and lower at midnight.

Ideally, parking occupancy for each block of on-street spaces and each lot should be monitored carefully, and prices adjusted regularly to keep enough spaces available. In short, prices should be set at market rate, according to demand, so that just enough spaces are always available. If this principle is followed, then there need be no fear that pricing parking will drive customers away. After all, when the front-door parking spots at the curb are entirely full, under-pricing parking cannot create more curb parking spaces for customers, because it cannot create more spaces. And, if the initial parking meter rate on a block is accidentally set too high, so that there are too many vacancies, then a policy goal of achieving an 85% occupancy rate will result in lowering the parking rate until the parking is once again well used (including making parking free, if need be).

Do Not Institute Time limits

Once a policy of market rate pricing is adopted, with the goal of achieving an 85% occupancy rate on each block, even at the busiest hours, then time limits need not be instituted. With no time limits, much of the worry and "ticket anxiety" for downtown customers disappears.

Return Revenue to the District

All surplus proceeds beyond what is currently being provided to the Town's general fund plus any additional equipment cost should be directed to alternative transportation programs and infrastructure in the districts where the fees are collected.

Assessment of Belmont Center

Based on the results of the 2008 Belmont parking workshops, a clear Park Once strategy evolved for Belmont Center. As noted in Figure 3 below, there are four distinct fields of parking in the center:

- **Field A: Leonard Street: Highest Demand; Lowest Availability.** Belmont Center's main street, Leonard is the last place people will find spaces during daytime shopping hours, but it is the first place people look. Belmont's parking enforcement is targeted mostly here to discourage employees from parking in customer spaces.
- **Field B: Private Parking in Rear: Second Highest Demand; Uncertain Availability.** The closest spaces to the rear entries of the eastern strip of stores and restaurants is 2-hr. parking signed "For Customers of Stores Facing Lot Only," followed by a threatening tow "at owner's expense" warning. Even when spaces are available, the distinction between which stores apply and the threat of being towed if you're not watching your car are not helpful for attracting customers.
- **Field C: Claflin Street Parking: Lowest Demand; Highest Availability.** The next furthest field of parking used to be Claflin Street. It is a free 2-hr. parking field, but signing is confusing with many thinking it is part of the paid parking in Field D. These spaces always have some availability.
- **Field D: Claflin Lot: High Demand; Low Availability.** The only pay parking in Belmont Center, this lot began charging \$0.40 per hour or \$2 per day in 2004. The lot is heavily utilized for long-term parking by employees and commuters who can avoid the 2-hr. time limit imposed everywhere else in the Center. The \$2 per day fee is clearly not low enough to encourage turnover.

Figure 3 Parking Fields in Belmont Center



In general, the cost and convenience of Belmont Center's parking fields does not match their ideal role in the Center. Parking in the most desirable Leonard Street spaces is free and therefore unavailable most of the time (Field A), while parking far away in the Claflin lot costs money (Field D). Customers are not well-accommodated in the somewhat exclusively-signed spaces close to the backs of shops (Field B), while the most available parking is not evident or welcoming to customers (Field C). With some simple changes in operations – plus the signing and circulation changes recommended above – this can be corrected to the benefit of all parties concerned.

C) Protect Residential Neighborhoods

A commonly used and simple strategy to protect residential neighborhoods from “spill-over” parking is the “resident-only” sticker program. Residential parking permit districts are typically implemented in residential districts near large traffic generators such as central business districts, educational, medical, and recreational facilities but have several limitations.

Most notably, conventional residential permit districts often issue an unlimited number of permits to residents without regard to the actual number of curb parking spaces available in the district. This leads to a situation in which on-street parking is seriously congested, and the permit functions solely as a “hunting license” - simply giving residents the right to hunt for a parking space with no guarantee that they will actually find one. (An example of this is Boston's Beacon Hill neighborhood, where the City's Department of Transportation has issued residents over 4,000

permits for the 983 available curb spaces in Beacon Hill's residential parking permit district, a 4-to-1 ratio.)

An opposite problem occurs with conventional residential permit districts in situations where there actually are surplus parking spaces (especially during the day, when many residents are away), but the permit district prevents any commuters from parking in these spaces even if demand is high and many motorists would be willing to pay to park in one of the surplus spaces.

In both cases, conventional residential parking permit districts prevent curb parking spaces from being efficiently used (promoting overuse in the former example and underuse in the latter).

To avoid these problems, communities have begun offering an alternative program to allow *Residential Parking Benefit Districts* on existing residential blocks if approved by a majority vote of residents on that block. These programs have the following basic features:

- Significantly increased permit costs to begin reflecting the land value of parking spaces and enormous infrastructure cost required to support driving.
- Limiting quantities of resident permits to the number of available curb spaces, ultimately warranting even higher permit costs based on simple supply and demand economics.
- Returning all surplus revenue into neighborhood transportation improvements, streetscape improvements, landscaping or other programs as decided by neighborhood organizations.
- Selling commuter passes in limited quantities that preserve on-street availability for residents, and similarly dedicating the net revenue to neighborhoods.

Residential parking benefit districts have been described as “a compromise between free curb parking that leads to overcrowding and [conventional residential] permit districts that lead to underuse... [parking] benefit districts are better for both residents and non-residents: residents get public services paid for by non-residents, and non-residents get to park at a fair-market price rather than not at all.”

Application to Belmont

Whether residential parking protection is done by simple permits or through a quantity-controlled parking benefit district, Belmont's neighborhoods might want to consider implementing the program in areas that feel an impact from customer and employee parking in commercial districts – particularly around Waverly Square and along other parts of Trapelo Road. The benefits of implementing residential parking benefit districts would include the following:

- Excessive parking spillover into adjacent neighborhoods will be prevented.
- The most powerful measures to reduce traffic from new developments – such as unbundling parking costs and implementing parking cash-out programs (see below) – can be implemented.
- Scarce curb parking spaces are used as efficiently as possible.
- Need for additional costly off-street parking capacity is reduced.

- Residents will be guaranteed to find a parking space at the curb.
- New funds may be available for neighborhood improvements.

D) Developing a Parking Cash-Out Incentive Program

Many employers in Belmont provide free or reduced price parking for their employees as a fringe benefit. Under a parking cash-out requirement, employers will be able to do this *on the condition that they offer the cash value of the parking subsidy to any employee who does not drive to work.*

Employees who opt to cash-out their parking subsidies would not be eligible to receive free parking from the employer and would be responsible for their parking charges on any days when they do drive to work.

Benefits of Parking Cash Out

The benefits of parking cash out are numerous, and include:

- Provides an equal transportation subsidy to employees who ride transit, carpool, vanpool, walk or bicycle to work. The benefit is particularly valuable to low-income employees, who are less likely to drive to work alone.
- Provides a low-cost fringe benefit that can help individual businesses recruit and retain employees.
- Employers report that parking cash-out requirements are simple to administer and enforce, typically requiring just one to two minutes per employee per month to administer.

In addition to these benefits, the primary benefit of parking cash-out programs is their proven effect on reducing auto congestion and parking demand. Most employers implementing a cash-out program can reduce their overall parking construction or leasing costs by at least 25-percent. The cost to cash-out each participant is more than compensated by the reduction in parking cost to the employer.

E) “Unbundling” Parking Costs

Parking costs are generally subsumed into the sale or rental price of housing for the sake of simplicity, and because that is the more traditional practice in real estate. But although the cost of parking is often hidden in this way, parking is never free. The expected cost for each space in a new Belmont condominium garage is over \$25,000 per space. Given land values in the area, surface spaces will be nearly as valuable.

Unbundling requires some changes to status quo practices, since providing anything for free or at highly subsidized rates encourages use and means that more parking spaces have to be provided to achieve the same rate of availability. For both below-market rental units and market-rate condominiums, the full cost of parking should be unbundled from the cost of the housing itself, by creating a separate parking charge. This provides a financial reward to households who decide to dispense with one of their cars and helps attract that niche market of households who wish to live in a walkable, transit-oriented neighborhood where it is possible to live well with only

one car (or even no car) per household. Unbundling parking costs changes parking from a required purchase to an optional amenity, so that households can freely choose how many spaces they wish to lease. Among households with below average vehicle ownership rates (e.g., low income people, singles and single parents, seniors on fixed incomes, and college students), allowing this choice can provide a substantial financial benefit. Unbundling parking costs means that these households no longer have to pay for parking spaces that they may not be able to use or afford.

It is important to note that construction costs for residential parking spaces can substantially increase the sale/rental price of housing. This is because the space needs of residential parking spaces can restrict how many housing units can be built within allowable zoning and building envelope. For example, a study of Oakland's 1961 decision to require one parking space per apartment (where none had been required before) found that construction cost increased 18% per unit, units per acre decreased by 30% and land values fell 33%.

As a result, bundled residential parking can significantly increase "per-unit housing costs" for individual renters or buyers. Two studies of San Francisco housing found that units with off-street parking bundled with the unit sell for 11% to 12% more than comparable units without included parking. One study of San Francisco housing found the increased affordability of units without off-street parking on-site can increase their absorption rate and make home ownership a reality for more people. In that study, units without off-street parking:

- Sold on average 41 days faster than comparable units with off-street parking
- Allowed 20% more San Francisco households to afford a condominium (compared to units with bundled off-street parking)
- Allowed 24 more San Francisco households to afford a single-family house (compared to units with bundled off-street parking)

Charging separately for parking is also the single most effective strategy to encourage households to own fewer cars, and rely more on walking, cycling and transit.

F) Parking Impact Fees

Parking in-lieu fees have been in place in dozens of communities throughout America for years. By making a payment to the municipality, new developments can waive their minimum parking requirements. The fee is usually utilized for transportation improvements, particularly shared public parking facilities. An in-lieu fee has several advantages, as summarized by Donald Shoup¹²:

- 1) Enables developers on constrained sites to build less parking.
- 2) Encourages development of shared parking facilities financed by in-lieu fees. A public parking facility shared by many users requires fewer total spaces than multiple individual developments due to the inherent overlap of peak demand times.

¹² "In Lieu of Required Parking," Donald Shoup.

- 3) Shared public parking facilities financed by in-lieu fees can be placed strategically to serve many while reducing the potential impact to pedestrian and bicycle movements. This also frees up development parcels to create appropriate urban streetscapes without curb cuts and garage entrances.
- 4) Eliminates the need for zoning variances, fairly leveling the playing field for all developers and allowing planning boards to focus on design features as opposed to parking quantities.
- 5) Allows for historic preservation by enabling redevelopment of buildings without adding new parking.

In-lieu fees can be an effective method for cost-effectively providing parking in remote locations out of the control of individual land owners. By using fees to subsidize remote parking at locations with cheaper construction or leasing costs, communities can facilitate development financing while establishing a means to encourage appropriate development standards for participating developers. When fees are set appropriately, more efficient and better quality designs can be enabled while appropriate parking is provided off-site. If fees also are designated to other transportation infrastructure or programs, Belmont can avoid overbuilding parking and focus on alternative infrastructure.

G) Establish a Car-Sharing Program

Car-sharing operators use telephone and Internet-based reservation systems, which allow their members a hassle-free way to rent cars by the hour with members receiving a single bill at the end of the month for all their usage. The shared cars are located in convenient neighborhood locations.

Car-sharing has proven successful in reducing both household vehicle ownership and the percentage of employees who drive alone because of the need to have a car for errands during the workday. As a result, car sharing can be an important tool to reduce parking demand.

For residents, car sharing reduces the need to own a vehicle, particularly a second or third car. Recent surveys have shown that more than half of car-share users have sold at least one vehicle since joining the program in the San Francisco Bay Area.¹³ For employees, car sharing allows them to take transit to work, since they will have a vehicle available for errands during the day.

H) Parking Requirement Changes in Zoning

Several modifications to existing zoning codes have been successful in the United States at encouraging better utilization of parking resources and promoting the flexibility necessary to support many alternative transportation programs. These zoning changes address parking requirements that no longer match the existing use patterns and desired planning context for their communities.

¹³ April 2002 survey by Nelson\Nygaard Consulting Associates for City CarShare.

Eliminating Front Yard Parking

Front-yard parking greatly detracts from the pedestrian experience in urbanized areas, separating pedestrian-oriented facades and entrances from walking paths.

Revised Off-Street Parking Distance Requirement

It is often mandated that required off-street parking in residential zones be located on the same lot with the principal building or use. Where it cannot be provided on the same lot, it must typically be located not more than 300 feet away. This distance does not reflect the amount of time it may take to walk to convenient off-site parking. At a moderate walking speed of 3.5 feet/second, a motorist can walk 300-feet in about 90 seconds. Given the walkable nature of Belmont's streets, this maximum requirement would be far too low, especially when encouraging shared parking, walking, and infill development. This requirement should be eliminated or at least revised to a more reasonable walking time of 5 or 10 minutes, or at least 1,000 to 2,000 feet.

Removing Minimum Parking Requirements

Currently, Belmont's zoning has minimum parking requirements for a variety of land uses. The reduction or elimination of minimum parking requirements has occurred in many communities in the United States where on-street parking management programs are in place to prevent any adverse spill-over effects. Since many users may not need parking, requiring its construction can be a costly imposition. Where the market demands more parking, there are no restrictions.

Allowing Shared Use Parking As-of-Right

The efficiencies of sharing parking between uses are clearly documented, and a variety of methods to allow and incentivize it have been used throughout the United States. In general, the goal is not only to share the demand peaks of multiple uses on one site, but to share with other sites across other existing and planned parking facilities.

Requiring TDM Plans

Transportation Demand Management ordinances have been utilized to great success in the United States. The measures require new development to monitor trips and provide incentives to get employees and residents out of their cars.

Transit Station Principles as Applied to Belmont

The transportation network associated with a rail station must be carefully balanced to create a safe and inviting environment for non-motorized modes and buses. Walkable environments include not just sidewalks, but elements like seating, signage, and trees that make the area inviting.

A) Pedestrian Accommodation

Pedestrian access maintains the urban vitality needed to support the dense mixed use character and transportation objectives of having a train station within a core suburb. Successful pedestrian networks offer high levels of pedestrian service in four key measures:

- Safety,
- Convenience,
- Comfort, and
- Attractiveness.

Safety involves keeping vehicle speeds, pedestrian exposure to traffic, and vehicle volumes down to levels that reduce conflicts between cars and people. Convenience entails delineating clear paths to the train station through design gestures and helpful wayfinding, while comfort means providing adequate walking paths and sidewalks. Attractive environments draw people in by providing use, beauty, and company.

A successful rail station starts at the focus of activity, which is the rail station site. The station must be permeable to pedestrians, bicycles, buses, and cars in order to integrate it effectively into the surrounding neighborhood and promote successful transit-oriented development (TOD), safe spaces, and positive reinforcement of the existing built environment. Many train stations have been built in existing neighborhoods that are completely out of character with their surroundings. A successful station includes compatible architectural elements, similar scales to surrounding buildings, pedestrian-friendly and transparent facades on all sides, and welcoming entries near all possible points of approach by all modes of transportation.

Clear and accommodating pedestrian access to the station area is critical to the success of good stations. In order to create a welcoming active environment to support safe residential areas and local supporting retail activity, pedestrians must find walking to and from the station an easy, pleasurable, and un-complicated experience. Several pedestrian accommodation principles should be maintained around a station:

Circulation and Connectivity

The roadway system should provide overall connectivity. For pedestrians, this means a continuous sidewalk or side-path network with frequent street-crossing opportunities that do not

require pedestrians to travel out of their way to reach destinations. Once a pedestrian has reached a crosswalk, a clear series of design characteristics should be followed:

- Clarity: The crosswalk should make it obvious to motorists that pedestrians can be expected to cross, and pedestrians should be guided to the designated crosswalk;
- Predictability: Crosswalk placement should be predictable, and should increase in proximity to the station, where more pedestrians can be expected to cross;
- Visibility: In the rail station area, crosswalks should be clearly marked, signed, and illuminated so that motorists and pedestrians are visible to each other;
- Limited Exposure: There should be limited conflicts with traffic, and crossing distances should be reasonably short or made shorter through the incorporation of curb extensions or pedestrian refuges;
- Clear Crossing: The crosswalk should be free of all obstacles or hazards and is accessible to all users.

Safety

To maximize safety, optimal vehicle speeds should be 20 miles per hour, with a posted speed limit of no greater than 25 MPH. Among the features that can encourage adherence to posted speed limits are:

- Rigorous enforcement of existing speed limits;
- Utilization of portable or permanent radar devices which show the posted speed limit and the motorist's actual speed;
- Traffic calming features to narrow the roadway, including curb extensions, center medians and on-street parking;
- Striping or other visual treatments to visually reduce travel lane widths, including bicycle lanes, curb lines, and other innovative treatments;

Ensuring adequate lighting is another crucial element in providing adequate pedestrian safety. Lighting should be placed at regular intervals along a roadway to provide a uniform level of light, and should be present at all crosswalks to maximize pedestrian visibility. In rail station districts, pedestrian-scale lighting should also be considered to increase security and create a sense of "place".

Design elements such as shorter blocks, narrower rights of way, curb extensions at intersections, less frequent curb-cuts, and driveways that give visual emphasis to the continuation of the sidewalk are a few basic design elements that can minimize pedestrian risk exposure. Turning options should be minimized for vehicles along key pedestrian routes.

Traffic Engineering Elements

Traffic elements such as traffic and crosswalk signals, crosswalk and curb ramp treatments, and signal timings should be designed with pedestrians in mind and should maximize convenience, comfort, and safety levels. In terms of crossing times, cycle lengths should be minimized so that

pedestrians do not have to wait an unreasonably long time to cross. Related to this, crossing times should be adequate to allow pedestrians to cross in a reasonable amount of time (assuming the average pedestrian walks at 4 feet per second). The use of concurrent and protected pedestrian crossing phases where feasible is preferred over push-button actuated pedestrian phases that can cause significant delays to pedestrians. Any concurrent phase should also have a leading pedestrian interval (LPI). Where concurrent or protected phases are not feasible, exclusive pedestrian phases should be accommodated on recall without the use of actuation buttons.

Landscaping and Aesthetics

Aesthetics play an important role in supporting station access. Sidewalks and plazas should be visually appealing and physically inviting. Appealing streetscape design can be an effective means of announcing the uniqueness of the rail station environment, and encourage initial visits to the area. When combined with quality land uses, such aesthetics can play an important role in drawing and maintaining the vitality that marks successful stations.

Convenience

Pedestrian walkways leading to the station should be well maintained, safe, and well-lit. They should be sufficiently broad to comfortably handle the expected pedestrian traffic peaks. Signage should be adequate to lead individuals, especially those unfamiliar with the area, to the station. Pedestrian levels of service along connecting routes between major origins and destinations should be emphasized. Nearby uses along walking paths should provide commuters and the local community with daily needs, minimizing additional vehicle trips.

Application to Belmont

While Belmont is blessed with two commuter rail stations located directly in walkable commercial districts, both are visually and physically isolated – often entirely unseen by visitors. Waverly Station is in an ideal below-grade location, but vertical access is foreboding and poorly signed, with no escalators or elevators. Belmont Center station is in a historic station building, but it is separated from the center by the rail bed, with only one poorly marked tunnel to the platform. Neither station is ADA accessible and both lack basic signing, adequate lighting, and any



Pedestrian access to Belmont Center station

compelling features to attract pedestrians.

B) Bicycle Access

Integrating bicycles is beneficial for rail stations as bicycles extend travel options in a low-cost and low-impact manner. There are three fundamental components to bicycles and rail stations:

- Connecting the station to the cycling network;
- Including safe and secure bicycle parking at stations; and
- Ensuring that bicycles can be brought on board transit so that they may be used at both ends of a journey.

Rail station stations should be woven into the bicycle network, which may include on and off-street routes, and people need to have a secure place to lock up their bike at the station. The following principles should guide bicycle accommodation in a rail station.

Connecting Transit to Bikes

Dedicated bicycle facilities should connect to the station area but not conflict with pedestrian movements. Signage near the station should direct cyclists to bike parking, local points of interest and distant destinations, in much the same way that wayfinding is provided for pedestrians and drivers.

Maps and information kiosks are useful at disseminating information. The transit map should contain information about bicycle facilities; the local bicycle map should show where the transit stops and lines are. The goal is one map per journey, not one map per mode.

Bike Parking

The lack of a secure parking space keeps many people from using their bikes for basic transportation. Leaving a bicycle unattended, even momentarily, is not an option for most urban bicyclists. Finding a bike rack that doesn't work or isn't conveniently located can discourage future bike use. The design and placement of appropriate bicycle parking should be incorporated into rail station planning throughout the surrounding area, as well as at the rail station. This can include special zoning requirements for the provision of



Chicago, IL Bike Map

Note: the map identifies preferred bike routes, transit services and transit stations that offer secure bike parking.



bike storage for new developments, including locker shower facilities at larger employers. Bike racks should be as close as possible to the rail station or the front door of businesses for security and convenience.

Shared Use Lanes

Shared use lanes are an effective method for designating bicycle routes to and from the rail station. The signing and chevron pavement markings are an easy retrofit that provide great value to bicyclists and motorists, especially where full bike lanes cannot be accommodated in the available right-of-way.

Station area bike parking, Washington DC

The AASHTO guide describes signed shared roadways (bike routes) as "those that have been identified by signing as preferred bike routes" and goes on to describe the reasons why routes might be so designated:

- Continuity between bicycle lanes, trails or other bicycle facilities
- Marking a common route for bicyclists through a high demand corridor
- Directing cyclists to low volume roads or those with a paved shoulder
- Directing cyclists to particular destinations (e.g. park, school or commercial district)

The AASHTO guide recommends considering a number of factors before signing a route:

- The route provides through and direct travel
- The route connects discontinuous segments of shared use paths or bike lanes
- Bicyclists are given greater priority on the signed route than on the alternate route
- Street parking has been removed or limited to provide more width
- A smooth surface has been provided
- Regular street sweeping and maintenance is assured
- Wider curb lanes are provided compare to parallel roads
- Shoulders are at least four feet wide



In all cases, shared use roadway signing should include information on distance, direction and destination, and should not end at a barrier such as a major intersection or narrow bridge.

Bike Lanes

In several key locations within Belmont, bike lanes are a preferable method for safely defining bicycle routes, especially close to rail stations. The designation also has the advantage of reducing through vehicle speeds by better-defining the vehicle travel lane. Bike lanes are defined as "a portion of the roadway which has been designated by striping, signing and pavement marking for the preferential or exclusive use by bicyclists". Bicycle lanes make the movements of both motorists and bicyclists more predictable and as with other bicycle facilities there are advantages to all road users in striping them on the roadway. In general, bicycle lanes should always be:

- One-way, carrying bicyclists in the same direction as the adjacent travel lane
- On the right side of the roadway

- Located between the parking lane (if there is one) and the travel lane

Application to Belmont

Both of Belmont's rail stations entirely lack any form of bicycle accommodation: bicycle parking or connected bicycle facilities.

C) Transit Interface

Beyond the commuter rail connection central to the rail station district, connectivity to feeder transit services is also important. These services encourage development of the rail station as a hub, and provide a focal point where services can locate and take advantage of high daily pedestrian volumes. The following practices are recommended to maximize the advantages of feeder services on the development of the rail station community.

Interservice connectivity

Effective feeder service must connect the rail station to other areas where people want to go. Feeder service should be focused on remote locations that do not provide the same retail and commercial services as near the rail station itself, so that travelers come to utilize not only the commuter rail service, but the businesses that aren't available to them at the remote location.

Transfers between different transit modes or routes frequently require travelers to change grade (i.e., from the depressed/raised train platforms to an at-grade bus line). Each change of grade adds a disincentive to travelers, as it increases travel time and effort, and increases the potential to miss connecting service. Connections points should be developed to minimize the number of grade changes. Where grade change is necessary, escalators and elevators should be installed along the most direct alignment to bus stops.

In addition, transit connections should always provide a safe and active environment (both actual and perceived). Placing commercial developments along the connections provides travelers with services and offers an opportunity for businesses to serve high trafficked areas, while allowing security personnel to maximize their focus.

Interservice coordination

Scheduled transfers between modes should include sufficient time for travelers to connect without having to run. Peak period service should be frequent enough so missing a connection does not require a long wait. Off-peak service should include timed transfers between multiple operators to allow rail station developments to function as hubs.

Interservice information exchange

A critical part of modal connectivity is providing information that draws on all transit services, so riders do not need to know in advance or even care which service will take them where they want to go. Comprehensive information should be provided at the commuter rail platforms and at station-area bus stops so that riders perceive all transit as one linked system. This information should include schedules, maps, service bulletins and real-time information about all routes

accessed from the station-area, as well as information about all routes that can be accessed. In this way, travelers can plan their trip at their origin, instead of making forced decisions mid-trip.

Assessment of Belmont Transit Connections

Both of Belmont's rail stations exhibit no planning and accommodation for feeder transit connections. While Belmont Center has periodic bus service, it is oriented inbound of the commuter rail station and does not directly connect to it. This does not benefit potential commuter rail riders. Similarly at Waverly, the trackless trolley routes to Harvard Square act as their own transit spine, originating at the Waverly Station as opposed to serving it. There is little attraction to riding the bus outbound to board an inbound train, and there is no bus service to the west of the station.

D) Transit-Oriented Development

Rail station planning should begin by recognizing the fact that mixed-use transit-oriented development (TOD) generates less parking demand than separate freestanding developments and a park and ride lot¹⁴. Furthermore, through its denser, transit-supportive, and pedestrian-focused urban design, the rail station environment offers potential for decreased vehicle use and ownership. These factors justify seeking strategies for aggressively minimizing the use of development opportunity area for vehicle storage.

TOD is commonly defined as mixed-use development, designed to maximize access to, and promote use of, public transportation, with an emphasis on pedestrian circulation and accessibility. Typical elements of this design strategy include:

- **Elevated densities** – Increased population and employment densities place more potential riders within walking distance of transit stations/stops;
- **Mixed-uses** – Retail, office, residential, and public spaces promote concentrations of public activity around rail station/stops, increasing the physical and cultural prominence of transit in the community, as well as facilitating trip chaining linked to transit (i.e., stopping at a dry cleaners or day care facility on the way to the train during a morning commute, instead of making separate trips); and
- **Pedestrian orientation** – Placing daily goods and services, as well as recreational destinations, within walking distance of residents reduces incentives for car ownership and use, supporting transit use for commuting and other regional travel.

TOD has been promoted for decades in the United States as a means of promoting smart growth, expanding lifestyle options, boosting transit's share of trips (especially commuter trips), and revitalizing neighborhoods. It is promoted as a means of redressing a number of the ill effects attributed to urban and suburban sprawl, including traffic congestion, air pollution, open space consumption, and a diminishing sense of civic connection in modern residential communities.

TOD's clustered mixture of land uses and elevated density levels, all in close proximity to transit options, offer a stark alternative to the traditional forms of development associated with sprawl. Its unique combination of dense, walkable surroundings and mobility options beyond private

¹⁴ Urban Land Institute, "Shared Parking", 1983.

automobile use has proven appealing to a number of growing demographic segments in the United States, especially singles, childless couples, “empty-nesters,” and the soon-to-be-retiring “baby-boom” generation.

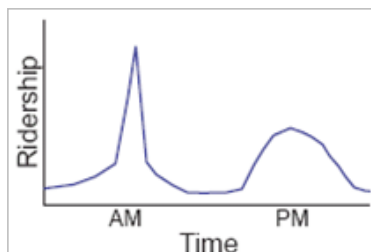
More recently, steady increases in both fuel costs and commute times across the country have increased interest in mobility options among all demographic groups. Several recent Federal initiatives have explicitly sought to promote TOD:

- New transit joint development policies, including a more permissive interpretation of Federal common-grant rules;
- Criteria for the Federal Highway Administration’s “New Starts” program that explicitly favor coordinated transit and land use in evaluating proposals for major capital investments in transit; and
- The Location Efficient Mortgage (LEM) program, underwritten by Fannie Mae, that makes it easier to qualify for a loan to purchase a home situated near transit.

E) Station Parking

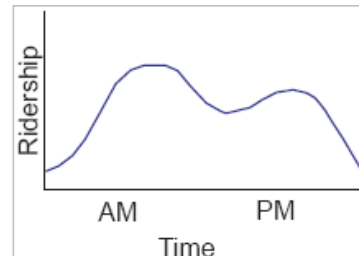
Transit agencies have realized two significant benefits from TOD. First, agencies have seen great revenue potential from leasing underutilized properties to TODs. Secondly, TODs create significantly higher ridership. Most noticeably, progressive transit agencies have recognized that the unique ridership profile of TOD produces much higher daily ridership than park & ride lots, without the peak hour capacity crunch created by commuters (see Figure below). This revelation has been significant for the planning and siting of park & ride facilities.

Ridership trends “Before” TOD



- Overloads station infrastructure (stairs, platforms) morning peak
- Under capacity midday
- Rush to find free parking spots morning peak

Ridership trends “After” TOD



- Marginal cost per rider decreases
- Spreads out peak ridership
- Efficient midday utilization
- Parking pricing evens out morning rush

Traditional commuter rail parking policy has been to maximize parking at every stop in order to maximize ridership. With the results of TOD assessments clearly demonstrating the higher ridership of walkable station areas, agencies have begun re-evaluating that policy and altering their replacement parking programs – especially since most transit agencies don’t actually want to also be in the parking business. This has resulted in distinct station pro formas on new and revitalized commuter rail lines that define several levels of station design:

- **Park & Ride Stations.** Generally located in under-developed areas with good highway access, these stations are oriented to large park and ride lots or garages and see almost all ridership coming from single-occupant motorists. These facilities intercept regional trips that would otherwise enter congested urban cores.
- **Suburban Stations.** These stations are a hybrid that recognizes the context of surrounding land uses but continue to try to accommodate some commuter parking, generally by local residents with poor feeder transit, biking, or walking access. Often the more limited parking supply is somewhat separate from the station to emphasize walking, biking, and bus access, and parking is sometimes by local municipal permit only.
- **TOD Stations.** In key development areas, TOD stations may provide some commuter parking open to the public – like a park & ride – or reserved for local permit holders – like a suburban station. However, the emphasis is on dense mixed-use development near the station creating the majority of ridership.
- **Older Urban & Village Stations.** On older commuter rail systems, many station areas have developed as part of the surrounding urban fabric. They are located in village centers or neighborhood squares and often have little or no parking. Ridership profiles are very fixed, with most riders arriving at the station with set routines and expectations. Regional access to these stations is difficult, and commuter parking is hard to find.

Parking regulation and pricing at rail stations varies dramatically by the agency. In general, most park & ride stations have a low daily fee, much below the average price to maintain a parking structure (which is over \$7/day at current construction financing rates). In high demand areas, these prices have increased to meet demand, though typically the municipality has to enact measures to control spill-over demand, including heavy enforcement. In locations where park & ride parking is more scarce, spill-over parking also tends to be less of a problem, and local controls can include resident permits and time-limits.

Assessment of Belmont

No commuter parking is provided for Waverly Station, but riders are free to park on nearby residential streets that do not have time-limits. Generally, the Town seeks to discourage this by posting nearby streets with time-limits. At Belmont Center, commuters frequently park in the most distant Claflin Street lot, which is primarily designed for employee parking. Closer on-street parking is heavily regulated to prevent commuter parking.

The heavy restrictions against commuter parking, combined with the poor walking, biking and transit access, generally mean that Belmont entirely discourages the use of its rail stations.