

Belmont Citizens Forum

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A Newsletter for Belmont Residents

November 2003

Town Weighs Alternatives for Uplands Property

By Jim Graves

Belmont Town Meeting has yet to vote on a developer's proposal to construct 250 condominium apartments on the Belmont Uplands, just off Acorn Park Drive adjacent to Route 2, because town boards need more time to review the project.

Among other things, the Belmont Planning Board is considering the adequacy of water mains and fire truck access to the site. On October 4, the Fire Department sent a letter to the board identifying three major issues. The first issue is access for emergency vehicles to all sides of the multi-story residential building; it appears that the structure will require an encircling 18-foot wide road to satisfy this concern. The second issue is that "as currently planned the development is out on an 'island' and will only be fed by one water main." It seems likely that a second water main will have to be built, presumably at the developer's expense. The third issue is that the parking structure is in the middle of the residential building with no external access except for the in and out ramp. The fire department says it lacks the specialized equipment needed to extinguish fires in the parking structure. "There is much work that must be completed on this issue," the department noted.

The Belmont Conservation Commission also has questions about the project. On October 14, Belmont resident Fred Paulsen presented a letter to the Board of Selectmen from a group of citizens asking that the Conservation Commission be allowed to review the proposed development and provide a recommendation and comments *before* the

plans are presented to Town Meeting. Typically, the Conservation Commission reviews only technical issues of compliance with state environmental law. The Selectmen agreed to this request.

The ConCom has since heard presentations from O'Neill Properties, the landowner, and various conservation experts. During a meeting with the developer, ConCom members expressed serious concern about the sewage that would be routed through the Oliver Road area of the Winn Brook neighborhood. Basements there already flood during large storms, sometimes with raw sewage. *E. coli* bacteria are leaking into Little Pond from sewer pipes in the area. According to Glenn Clancy of Belmont's Office of Community Development, the

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Environmental Events Calendar

Alewife Sewer Backups. Come be part of a discussion pertaining to the causes of flooding in the Alewife area. **Tuesday, November 25, 6:30 p.m.** in the Selectmen's Conference Room on the second floor of Arlington Town Hall. This is one of a series of meetings of the Tri-Community Working Group, a group of residents and municipal employees representing Arlington, Belmont, and Cambridge. The group will begin by discussing sewer backups and ways in which the three municipalities can prevent them. Selectman Will Brownsberger will attend.

Using Beetles to Control Invasive Plants. Hear Lexington science teacher Laura Krich discuss the work that Diamond Middle School students are

doing to stop the spread of purple loosestrife, an attractive but invasive plant, on Lexington conservation land. Krich, a 30-year veteran of the Lexington schools, is currently developing a project that would allow students to map the spread of invasive plants through satellite global positioning technology.

Thursday, December 4, 8 p.m. in the far conference room of the National Heritage Museum, at the corner of Marrett Road and Massachusetts Avenue in Lexington. Her presentation will follow a brief annual meeting of the Citizens for Lexington Conservation. Refreshments will be served.

Shrubs in Winter. Even though the leaves are gone from most shrubs, you can still learn to recognize them. Join Boot Boutwell at Habitat Wildlife Sanctuary to explore branching patterns, growth habits, bark, persistent fruits, galls, and other characteristics that can help you identify native Massachusetts shrubs such as witch-hazel, highbush blueberry, spicebush, and maple-leaved viburnum.

Saturday, December 6, 9:30 a.m. - 1 p.m. There is a \$30 dollar fee for Mass Audubon members and a \$36 fee for non-members. Co-sponsored by the New England Wildflower Society. Please register by calling (617) 489-5050. Meet at the Habitat Wildlife Sanctuary, 10 Juniper Road, Belmont.

"Practice" Christmas Bird Count. Join Habitat staff at the Massachusetts Audubon Sanctuary, 10 Juniper Road, Belmont for a practice session in preparation for the National Audubon Society's Christmas Bird Count. Please dress warmly and bring binoculars. **Sunday, December 7, 8 - 11 a.m.** This walk is free, but please register by calling (617) 489-5050. The national Christmas Bird Count will take place on the following Sunday, December 14.

Cambridge Quadrangle Planning. Cambridge's Community Development Department is holding a public meeting to discuss plans for development of the commercial area between Concord Avenue and the railroad tracks (behind Burger King).

Wednesday, December 10, 7 - 9:30 p.m. at the Tobin School, 197 Vassal Lane, Cambridge, just off Fresh Pond Parkway. For more information, call (617) 349-4600 or check www.cambridgeMA.gov for details on the Concord-Alewife Planning Study.

—Stacey Fabiano

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Belmont Citizens Forum, Inc.

is a not-for-profit organization that strives to maintain the small-town atmosphere of Belmont, Massachusetts, by preserving its natural and historical resources, limiting traffic growth, and enhancing pedestrian safety.

We do this by keeping residents informed about planning and zoning issues, by participating actively in public hearings, and by organizing forums on key subjects. Our newsletter is published six times a year (January, March, May, July, September, and November). Published material represents the views of the authors and not necessarily those of the Belmont Citizens Forum.

Letters to the editor may be sent to
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You may read this newsletter on-line
at www.belmontcitizensforum.org

Residents Mull Changes to Trapelo Rd. Corridor

By Meg Muckenhoupt

On September 5, 1958, the last Belmont Street/Trapelo Road trolley rolled off the tracks, clearing the way for what many residents describe as a 60-foot-wide free-for-all along Belmont's main street. It is unclear whether the road is two, three, or four lanes wide, and the paucity of pavement markings adds to the confusion. As Bob Rosen, owner of Belmont Medical Supply, put it at a recent planning workshop, "No one knows where to drive."

Typically, drivers barrel down this corridor during the middle of the day, ignoring local businesses. But when rush hour arrives, cars crawl. Planners expect the coming development at McLean Hospital, as well as the planned and potential building in Waltham on the Fernald School, Olympus Hospital, and Met State properties, to further increase the number of vehicles on Trapelo Road.

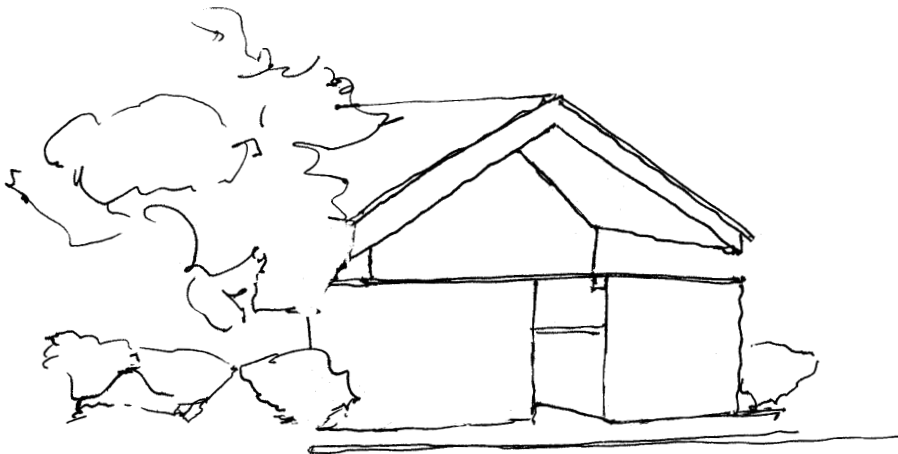
In the past year, the town embarked on a long-term planning process for this corridor. The goal is to make the Belmont Street/Trapelo Road a more civilized place, where automobiles, pedestrians, and bicycles can travel safely at sensible speeds, and young children, senior citizens, and parents with strollers can actually cross the street. At a series of "design workshops" sponsored by the Belmont

Planning Board and the Traffic Advisory Committee, Belmont residents have been asked to give specific suggestions for improving this roadway. Ideas gleaned from these workshops will help the town prepare to apply for state transit improvement program (Chapter 90) funds and Federal regional road rebuilding money in five to ten years.

The design process will be slow, in part because the town does not have accurate traffic information about the road. The last traffic count was done in 1982, and the town has not set aside any money to do a new one. Even modeling the traffic on Belmont/Trapelo is difficult, said Andrew McClurg, a Planning Board member and professional traffic planner, because no one can say how many lanes it has now. The Cecil Group's final report on economic development along Trapelo Road/Belmont Street, including recommendations for improving the roadbed, should be available in late December.

Clearly, different portions of Trapelo Road need different remedies. Bustling Cushing Square needs to accommodate delivery trucks, and the Grove Street intersection may require four lanes of traffic to function. However, the portion of Belmont Street across from the Oakley Country Club is mostly residential. According to McClurg, a carefully designed single-

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Trapelo Road, *continued from page 3*

lane boulevard with green trees and wide sidewalks there would tell drivers rushing in from Cambridge: “You’re in Belmont. We’re polite here....It would establish where the driver should be on the road, and what to expect.” With *consistent* design from one end of the road to the other, he added, lane changes can be managed.

Changing the Lanes

The town now has a 76-foot-wide right-of-way for the entire length of Trapelo Road, with two 30-foot travel lanes and eight feet for parking on either side. Generally, town and city traffic lanes are only 12 feet wide. As Linda Nickens, vice chair of Belmont’s Traffic Advisory Committee, put it at the October 7 workshop, “The goal is to make Trapelo Road a street, not a highway.”

Most of the time, traffic on Trapelo Road is “strung out,” said McClurg at the October 28 workshop. Cars drive in single file, he pointed out, with only a few vehicles entering the middle lanes to make turns.

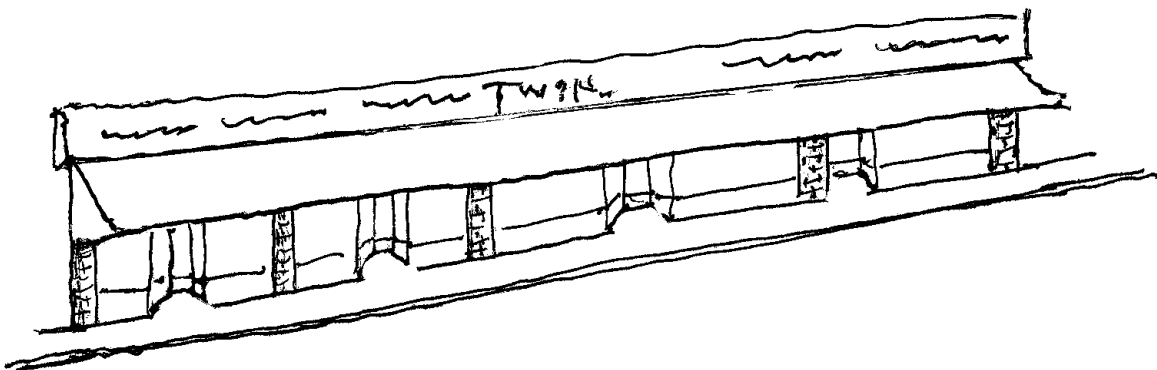
The road is marked for four lanes at intersections with traffic signals, but in between drivers must fend for themselves. Pedestrians can’t predict when or where a car might swerve out of traffic. One option is to simply paint lane markings, and officially certify that Belmont has a four-lane highway running through the middle of town. At the workshops, residents were divided about the effect of this change. One participant said, “If you add lanes to

what is working now, it will become *less* safe to cross.” Whitcomb Street resident Paul Estin compared a four-lane Trapelo Road to Route 20, saying it would have “faster traffic and no safe space.” Other residents echoed this complaint; they specifically mentioned cars speeding past the “wasteland” surrounding the shuttered VW dealership. Many participants favored narrowing the road in this area to a single lane, but some business owners demurred. “This area will be filled in. With stores, people will slow down,” said Brothers Pizza owner Nick Markantonis. He favored a four-lane roadway, saying: “You have to have traffic flowing....if the road is narrow, it will hurt businesses.”

Brookside Avenue resident Catherine Stalberg suggested that Trapelo Road become a three-lane road, with one lane in each direction and a separate, distinct turning lane in the center, to allow cars to move out of traffic.

Median Strips, Wider Sidewalks Discussed

McClurg suggested that the town have just one lane in each direction, with either median strips or sidewalks taking up the extra space. A median strip in the center of a road creates a “refuge island,” he said. That gives pedestrians a place to pause and wait for traffic to slow before they continue across the street. It also makes nearby lanes narrower and keeps drivers from turning left and blocking traffic, except at designated cross streets. (All intersections with traffic signals would keep the four-lane markings they have now, so that motorists waiting to turn left would not hold up those behind.)



Unfortunately, median strips also force residents who want to turn left out of their driveways to drive around the block. Paul Estin said that median strips can “speed up traffic,” as drivers feel less threatened by cars coming towards them from the opposite lane. Emergency services personnel (fire fighters, EMTs, and their colleagues) dislike median strips that restrict access. They make no sense, for instance, near the new fire station site at 297 Trapelo, just west of Flett Road.

An alternate way to narrow the roadway is to install wider sidewalks. With 76 feet of right-of-way, Belmont has plenty of room to do this. Markantonis observed that it is illegal for local restaurants and cafés to put tables on Belmont’s narrow sidewalks; there simply is not enough room for pedestrians and diners. Wider sidewalks would allow for outdoor dining. More trees, shrubbery, and pedestrian amenities like benches and trashcans would encourage Cushing Square shoppers to stroll and shop and linger, instead of running back to their cars and attempting to *drive* across the street. The “sidewalks” near the VW dealership are particularly uninviting, and often consist of asphalt driveways. A more welcoming streetscape there would reinforce the notion that Trapelo Road is for polite driving, not racing.

Pros and Cons of Bicycle Lanes

The State of Massachusetts requires four to five feet of space for bicycles (in addition to parking) on new roads. However, some residents were skeptical of adding bicycle lanes to Trapelo Road. At the October 28 meeting, Estin, a Massachusetts Bicycle Coalition member, said that roads with frequent intersections and driveways are poor choices for separate bike lanes because the bicycles constantly have to dodge turning cars. Cambridge resident Ted Hamann observed at the November 4 workshop that the bicycle lanes on Huron Avenue in Cambridge are constantly used by delivery trucks and double-parked cars, forcing cyclists to swerve out into traffic.

Other residents worried that plodding MBTA buses would completely clog the road, bringing traffic to a halt as they stop in the middle of the street to take on passengers. “Part of the solution is for

the MBTA to use the stops,” said McClurg at the October 28 workshop. “.... The problem is a managerial issue with the T.”

Defining bus stops more clearly with cutouts in the curbing could also address this problem.

Shorter Crosswalks Are Safer

The July 30 death of Belmont resident Rita Scafidi in a crosswalk at the intersection of Trapelo and Sycamore Street highlighted the hazards of the existing road configuration. Two years before Scafidi’s death, selectmen approved \$150,000 to improve three Trapelo Road intersections (Poplar, Willow, and Hawthorne) with new sidewalks, curbing, and crosswalk markings, but that work did not begin until this fall.

At the October 28 workshop, McClurg mentioned three major ways to improve crosswalks: make cars turn more slowly, have pedestrians cross shorter distances, and make the crosswalks more obvious to cars. Traffic engineers commonly reduce the radius of a corner to slow cars, by forcing them to turn the wheel harder and drive more carefully through the turn. The town has recently narrowed the Hawthorne/Trapelo intersection to just one lane in each direction by “bumping out” the sidewalks on either side and adding traffic bollards (metal posts).

Road Models for the Future

Several participants at the workshops cited Route 20 in Weston and Route 9 in Newton as examples of what they do *not* want in Belmont: a congested, uncrossable four-lane highway. For models of a future Belmont Street/Trapelo Road, residents mentioned the recent renovations in Brighton Center and Huron Avenue in Cambridge, although Adam Tocci, owner of Belmont Car Wash, stated that local commercial real estate brokers told him that business had fallen off since the “improvements” on Huron Avenue began to slow traffic.

Professional planners argue, however, that pedestrians are good for business and that any redesign should take their needs into account for reasons of safety as well as economics. The question is: how?

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Belmont Citizens Forum Committee Meetings

**Planning/Zoning Committee
Monday, December 8, 7:30 p.m.**

Join us for a discussion on the redesign of Trapelo Road/Belmont Street. Two volunteers from the Historic District Commission, Caroline Darbyshire and Matthew Genta, will be present to discuss landmark buildings in this corridor and ways to encourage preservation. Those interested in attending should call Sue Bass at (617) 489-4729.

**Traffic & Transportation Committee
Wednesday, December 10, 7:30 to 9 p.m.**

The group will hear a presentation on traffic-calming initiatives in the town of Arlington. For information, please call (617) 484-1844.

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The Planning Board encourages all interested residents to attend its next design workshop on Tuesday, December 2 at the Chenery Middle School, 95 Washington Street. In the meantime, you may view roadway design possibilities at the following websites.

For pictures of real-world applications of traffic-calming street design, see the Pedestrian and Bicycle Center Image library, http://www.pedbikeimages.org/category_front.cfm?categoryId=67

The Transportation Alternatives Project publishes a guide on traffic calming and street design entitled "Streets for People" at <http://www.transalt.org/info/streets4people/index.html>

The Street Design page of the non-profit Local Government Commission contains links to many sites on street design, safety, emergency response vehicles, and traffic calming.

<http://www.lgc.org/transportation/street.html>

Meg Muckenhoupt is the incoming editor of the Belmont Citizens Forum.

Help Shape the Future of Metro Boston

**Monday, November 24, 7 p.m.
Belmont High School**

The Metropolitan Area Planning Council, the planning agency for the 101 communities of Greater Boston, invites you to attend a regional meeting on the theme: *Tell Us What You Want to See for the Future of the Metro Boston Region*. What qualities do you appreciate most about your community, your neighboring communities, and the metropolitan Boston region?

What challenges does the region need to overcome? What features would you like to see maintained or improved for your generation and the next? This is an unusual opportunity for Belmont residents and others from the western suburbs to offer their views to the people who can make a difference. Don't miss it. The only other meetings in this series will be held at Northeastern University and at the Revere City Hall. For more information, contact Heidi Samokar at (617) 451-2770 or hsamokar@mapc.org. You may also visit www.MetroFuture.org

“Green” Buildings Conserve Energy & Money

By Tom Shapiro

When most people think of energy conservation, they think about weather stripping their windows or waiting until the dishwasher is full before running it. But Boston architects Martha Pilgreen and Richard Jones and their colleagues have taken the idea of resource conservation to a whole new level.

Their so-called “green buildings” are designed from the ground up to stay warmer in winter and cooler in summer, to channel rainwater for landscape maintenance, and to make use of recycled materials. These buildings are called “green” not only because they preserve environmental resources but because they save money. At a Friends of the Belmont Citizens Forum meeting on October 1, Pilgreen and Jones, of the architectural firm Perry Dean Rogers, reported that building owners actually profit over time from using sustainable design techniques. The slightly greater outlays for design and construction are usually recovered within five to seven years through lower operating expenses, and maintenance costs remain lower than average thereafter.

Green buildings are also healthier to live and work in. It’s been estimated that “sick buildings” (those suffering from indoor air pollution and other health hazards) cost the U.S. over \$150 billion a year in lost productivity.

Perry Dean Rogers recently completed a green building for Harvard University. If such sustainable design techniques were more widely employed, the architects said, they could have a major environmental and financial impact. According to the U.S. Green Building Council, buildings consume 30 percent of all the energy used in the United States, including 60 percent of the electricity. They also produce 35 percent of the carbon dioxide and 49 percent of the sulfur dioxide emissions.

Site Selection is Key

Pilgreen and Jones explained that there are five major components to green building design: the selection of a site, the structure’s orientation toward the sun, the way water is handled, the choice of materials, and the comfort of the occupants.

Sustainable design integrates these factors with the building program, the mechanical systems, the use patterns, and the overall design in order to balance environmental concerns with performance.

In choosing a site, the first step is to determine whether an existing structure can be rehabilitated or preserved. This is the ultimate in recycling. Older structures can be revitalized by using underground or other underutilized space within an existing building envelope. Land can also be found through so-called brownfield development, which involves reclaiming contaminated industrial property for new uses. In residential construction, it is important to site new housing close to existing infrastructure such as trains, schools, shops, and utility lines.

Once a site is chosen, the orientation of a building can have an impact on solar glare and heat gain. Solar glare strains the eyes and affects comfort, while solar heat gain increases air conditioning costs. Sustainable design considers the solar load on each facade of a building over the course of a day, and through the seasons of the year, in order to develop a building design that maximizes light, minimizes heat gain, and reduces electricity usage.

Recycling Storm Water

Retaining rainwater on the site and using it for irrigation reduces water consumption as well as run-off. Belmont, of course, is very familiar with sewage back-up resulting from heavy storm water run-off into the sewer system.

One sustainable design technique employed by Perry Dean Rogers is to channel rainwater from the building roof into an underground storm water retention tank, from which water can be slowly leaked back into the ground at manageable rates. This recycled water can also be used for irrigating plants. Landscaping with indigenous plants eliminates the need to water at all.

Another innovative technique is a roof garden, which absorbs water while insulating the ceiling of the building from solar heat and cold. Pilgreen and Jones pointed out that proper grading and a reduction

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ConCom Ponders Future of Silver Maple Forest

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neighborhood's sewer and stormwater pipes both need major work. In some sections, he said, there is so much deterioration that there are effectively no pipes. Clancy said that over the next two years the pipes will be re-lined and, where necessary, replaced. Members of the Conservation Commission, mindful of the town's budget crunch, expressed skepticism about this timetable. As one member said, "Town years are like dog years. It may take decades before this work gets funded and completed."

A consultant to the developer acknowledged that sewage from the complex is slated to pass through other pipes in town that currently have inadequate capacity, so bigger pipes would need to be installed in other Belmont neighborhoods too.

On November 13, the Conservation Commission met to work on its draft recommendation for the property. Ideally, some members said, this land should become part of the Alewife Reservation in order to protect the wildlife and the rare silver maple forest on the site. The commission is likely to recommend that the land not be developed at all. If the town decides to proceed with development anyway, the commission was considering recommending a development-free buffer zone between the buildings and the wetlands, preservation of at least a few trees (the silver maple forest would be eliminated under the O'Neill proposal), and a reduction in outdoor lighting and high-intensity recreation on the fragile habitat of the Uplands. The ConCom hopes to finalize and deliver its recommendations to the Selectmen and the Planning Board in the next few weeks.

Square Footage Versus Traffic

Brian O'Neill, President of O'Neill Properties, has touted the benefits of residential versus commercial building on the site. The condominium complex would be 58 feet high versus 98 feet for the previously proposed office building. It would have a 500-car parking garage instead of a 793-car commercial garage. And it would produce between 60

and 70 percent less traffic during rush hour.

On the other hand, the residential building would contain more square footage: 400,000 versus 245,000 for the commercial space. (Note: Both the residential and commercial square footage figures exclude the garage and any other utility structures.)

The residential proposal is for 250 one- and two-bedroom condominium units, of which 25 percent must be affordable, in keeping with the town's inclusionary zoning bylaw. Also, 25 percent of the units would be reserved for individuals aged 55 or older. (A single unit could count as both senior and affordable housing.)

How much will this project be worth to the town? Revenue projections have been presented by both the developer and the town's consultant, Judi Barrett. Barrett estimates that the development will generate about \$700,000 per year in net tax revenue (tax revenue minus incremental municipal expenses). On the expense side, Barrett assumes that there will be between 30 and 40 school-age children living in the 250 condominium units. However, given the attractiveness of Belmont's schools, a higher number of new students is possible, especially if some of the two-bedroom units are converted to three-bedroom units, as the Belmont Housing Trust recommends. On the revenue or tax assessment side, Barrett's projections (posted on www.town.belmont.ma.us) assume that the 1300- to 1500- square-foot apartments will sell for market prices of \$455,000 to \$525,000 per unit. Some local realtors say that these figures are unrealistically high. Single-family homes in Belmont can be purchased for this price.

What are the next steps? The Planning Board was scheduled to meet on November 25 to continue discussing revisions to the zoning by-law proposed by the developer. The Selectmen will take up proposed revisions to the Memorandum of Agreement in the next couple of months. No date has been set for Town Meeting to vote on the proposal, but it is possible that it may not be considered until the annual Town Meeting in April.

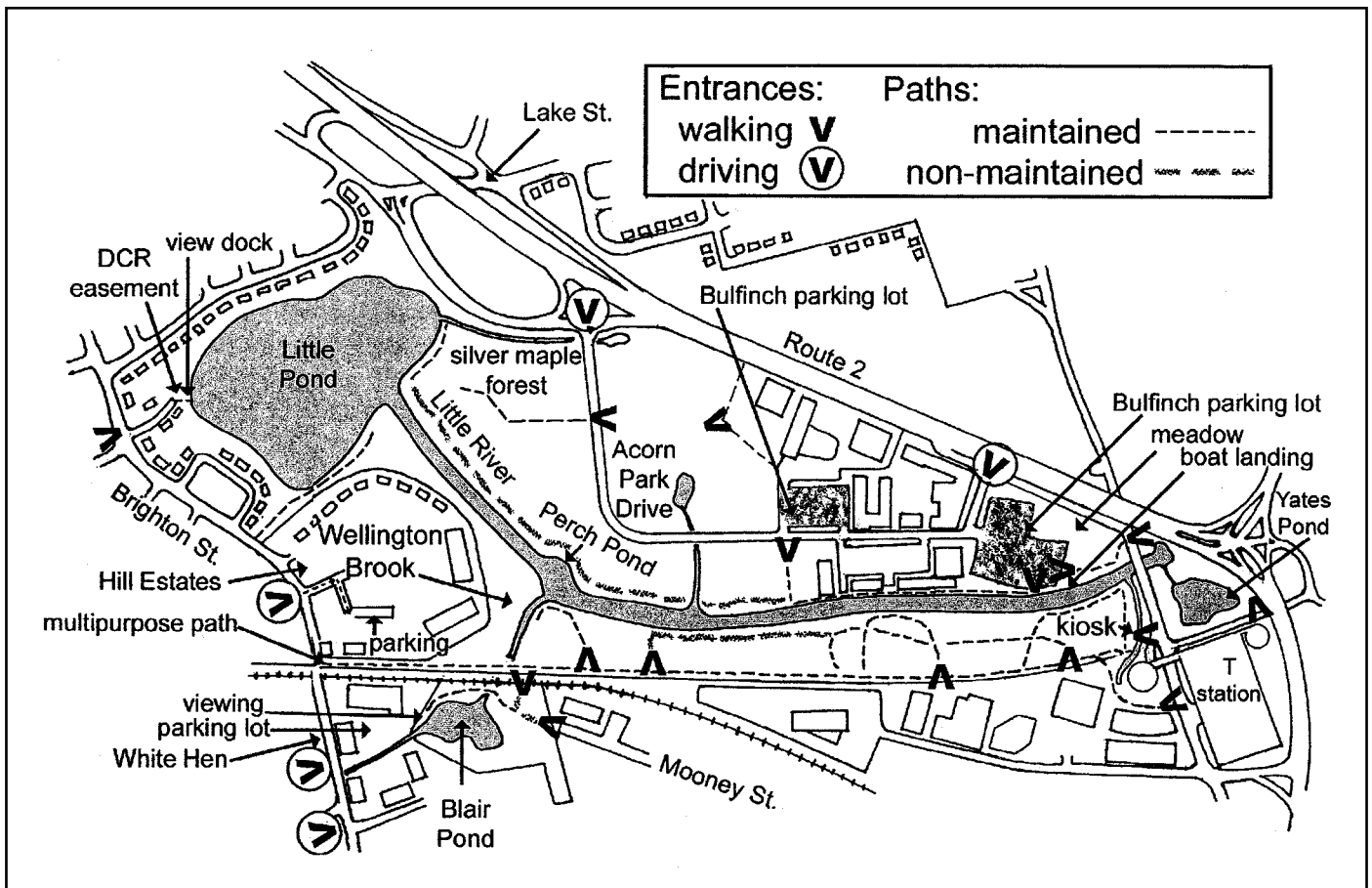
Jim Graves is a Precinct 2 Town Meeting Member and president of the Belmont Citizens Forum.

WHAT LIVES AT THE BELMONT UPLANDS?

Great blue heron, beaver, muskrat, mink, and painted turtle are among the species that require upland habitat to survive in the Alewife area on the Belmont/Cambridge border. Coyote, weasel, fox, deer, and rabbit (or their sign) have also been spotted in the vicinity. According to a new book published by the Friends of Alewife Reservation, *The Biodiversity Study of Alewife Reservation Area*, the undeveloped land around the Alewife T station is home to 16 species of mammals and more than 80 species of birds that breed, migrate, or winter there, including great horned owls, bald eagles, pheasants, hawks, kingfishers, and woodcocks.

“Although the beaver is the mascot of MIT,” writes naturalist Peter Alden, one of the book’s authors, “does anyone at the university know that beavers are felling trees by a quiet river known as Little River within Cambridge city limits?”

Conservation advocates view the rare silver maple forest on the Belmont Uplands property abutting the state-owned Alewife Reservation as a buffer that shields an amazingly diverse wildlife population



This map, from *The Biodiversity Study of Alewife Reservation*, shows how to approach the Alewife Reservation on foot or by car.

from heavily developed properties nearby. Some species need the higher ground to den, nest, or breed, while feeding in wetter areas close to Little River.

The forest, which sits about 20 feet above sea level, is a relic of past land use. Before 1903, the property was cleared, its swamps were drained, two houses were built, and farm animals were raised there. Two or three massive multi-trunked silver maples date to that time; their seeds produced the stand of maples on the site today. These trees need damp soil to thrive, and it is unusual to find so many of them in one place. According to Alden, there is no other forest like this within eight miles of Beacon Hill.

Biologist David Morimoto of Lesley University has written: “The size of the silver maple forest and of the Alewife Reservation is small compared to a large tract of forest in western Massachusetts, but it is highly significant because it is embedded in a largely deforested and heavily populated urban area.” If development is allowed to proceed at the

Uplands, he said at a recent ecology forum, large predators are likely to desert the area. This will create an ecological imbalance and an increase in the population of mice and other rodents in the Alewife reservation and surrounding properties.

The biodiversity book incorporates new wildlife surveys funded by the Riverways Program of the Massachusetts Department of Fisheries, Wildlife, and Environmental Law Enforcement. In addition to Peter Alden, who has authored 14 nature books including the *National Audubon Society Field Guide to New England*, and David Morimoto, the new book’s authors include Charles Katuska, a certified Professional Wetlands Scientist who has a Masters of Forest Science from Yale University. Copies of the biodiversity guide may be purchased for \$10 each from Friends of Alewife Reservation, Box 161, 1770 Massachusetts Avenue, Cambridge, MA 02140. For more information, see www.friends-ofalewifereservation.org.

—Jim Graves

Green Building, *continued from page 7*

in “hard scape,” such as asphalt, on the property can reduce storm water run-off too. Semi-permeable materials may be used for patios and other surfaces that do not need to be plowed.

Floor Plans and Materials

Sustainable design techniques dictate the use of recycled materials, such as ceramics and glass, and renewable materials, such as wood and cork, rather than materials like vinyl flooring, which is made from non-renewable petroleum. Open floor plans, with movable partition systems for walls, allow a building to be adapted over time without the need for reconstruction.

For health reasons, the use of “low-VOC” materials, which contain fewer volatile organic compounds (like formaldehyde and chlorofluorocarbons), is encouraged. Many companies now manufacture low-VOC paints.

Another innovative approach is to put forced-air climate control systems under the floors instead of

in the ceilings. This is a more efficient way to heat and cool a house or office because, in winter, the hot air rises from the floor and, in summer, cool air does not have to descend through rising warm air.

Information on sustainable design is available on several web sites, including www.sustainable.doe.gov, www.usgbc.org, www.solstice.crest.org/index.shtml, www.buildinggreen.com, www.geonetwork.org

The United States Green Building Council has a certification program for buildings with a LEED certificate (Leadership in Energy and Environmental Design). Additional information about the Green Building Council is available at www.usgbc.org

At this site you will also find the text of a comprehensive report entitled *The Costs and Financial Benefits of Green Building*.

Perry Dean Rogers has a brief description of a sustainable design project the firm recently completed for Harvard University at <http://www.perrydeanrogers.com/> under Architecture: Sustainable Design.

Tom Shapiro is a lawyer who lives in Belmont.

Contradictions Mark Junction Brook Hearing:

Employees and consultants of McLean Hospital contradicted one another repeatedly during a hearing before an administrative law judge who is considering whether to declare Junction Brook on the McLean property a perennial or intermittent stream. The distinction will determine how close to the

brook American Retirement Corporation may build. The Massachusetts Rivers Protection Act restricts construction within 200 feet of a river or perennial stream, but ARC plans to build just over 100 feet away from Junction Brook.

James Rooney, the administrative law judge



Does McLean Stream Flow Year Round?

hearing the case for the state Department of Environmental Protection, ruled last spring that the top of the brook could be perennial even if the bottom runs dry in late summer, as it has in recent years. At that time, McLean and the Belmont Citizens Forum stipulated that there were no reported instances when the top three quarters of the 800- to 900-foot-long brook had been observed dry. It seemed that the only purpose for the September hearing would be to mark the precise spot where the perennial portion at the top became intermittent.

Then, last summer, McLean filed written testimony from four employees or consultants who said they had seen the brook dry at the top in 1997, 1998, 1999 and 2000. Judge Rooney would have to decide whether they were more credible than witnesses who said they had never seen the top three-quarters of the brook dry.

The hearing began on September 18 with five witnesses from Belmont – Barbara Passero, Roger Wrubel, Murray Ruben, Martha Eakin, and Sumner Brown – who testified for the Citizens Forum that they had often walked near Junction Brook but had never seen it dry at the top.

Witnesses Sequestered

The following day, the McLean witnesses testified. Four of the hospital's witnesses, the ones who planned to testify to facts rather than technical issues, were sequestered so they could not hear one another's testimony. Andrew Healy, McLean's director of facilities, said he saw Junction Brook bone dry at the top (not a trickle of water, no puddles, not even damp rocks) in the summers of 1997, 1998, 1999, and said the stream was also dry at the top in 2000, 2001, and 2002. A few minutes later, Thomas Gallagher, another McLean employee, remarked, "Those rocks would always be wet, you know, even if it wasn't running." Gallagher testified that he saw the brook "not flowing" – the legal standard – in 1998, 1999, and 2000.

Gallagher described in some detail two pipes that he said carry the water for Junction Brook out of the stones under Main Road, where the brook emerges from a culvert. One pipe is between six

and eight inches in diameter, the other is a couple of inches smaller, he said; the material of each is about an inch thick. A third McLean witness, Alexander McPherson, an equipment operator for the hospital, remembered only one pipe, which he said juts out of the rocks about 3 to 5 inches. He described the pipe as about 18 inches in diameter and made of galvanized metal. McPherson said he had seen the top of Junction Brook dry in 1998, 1999, and 2000.

No Pipes Visible

However, as McLean's own expert, Frank Di Pietro of Vanasse Hangen Brustlin, and the Citizens Forum's witnesses testified, you cannot see any pipes when you stand at the top of Junction Brook. "There is a stone wall on the outside of the culvert . . . You really can't see, and I didn't climb in to see the drain pipes," DiPietro said. McLean's expert said he made many observations of Junction Brook in August and September of 2001 and 2002 and never saw it dry at the top. On the driest days he sometimes visited the brook three times to track how far down the flow continued at morning, noon, and evening. The highest point at which flow ever ceased, he said, was about 200 to 225 feet above Pleasant Street. Asked by Judge Rooney to describe the lowest flow he saw at the top, DiPietro said, "It seemed consistent with what other people [the Citizens Forum's witnesses] had mentioned yesterday as their observation for the low flow."

McLean's fourth fact witness, Catherine Wilkie of Pressley Associates, a landscape architect, said she made an observation of no flow above the midpoint of the stream but had no memory of when that was or what precisely she saw. Her only field records were photographs of the bottom and middle of the brook taken on July 31, 1997 and a single imprint on a map submitted to the Belmont Conservation Commission. Near the bottom of Junction Brook are the words "Channel dry. Observed dry on 7/31/97."

It is difficult to estimate when Judge Rooney might issue a ruling.

—Sue Bass

In rainy periods, leaky sewer pipes soak up groundwater, making them more likely to surcharge – that is, to fill with more than they can hold. Belmont's sewer pipes also surcharge because rainwater is sometimes pumped directly into the pipe. Some households do this inadvertently, because a contractor accidentally hooked up their sump pumps or gutter drains to the town's sewer pipe rather than the storm drain. Some household sewer lines may also be accidentally hooked up to the town's storm drain system. That may explain why Winn's Brook, for example, violates state water quality standards approximately 75 percent of the time.

For all these reasons, Belmont's sewer and storm system is inadequate. When our sewer pipes surcharge, they either flood, adding loads of sewage-contaminated water to local streams and ponds, or they back up, putting that sewage-contaminated water into residents' basements. About once every two years, residents of the Winn Brook neighborhood, where the sewer lines are very shallow, get sewage in their basements.

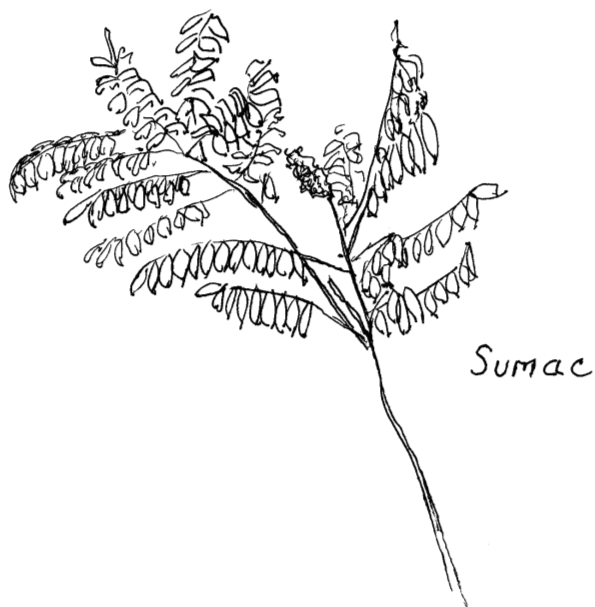
The U.S. Environmental Protection Agency has declared Belmont in violation of the Clean Water Act. We are under orders to clean up this mess, and the town has begun to do so. Last spring, Belmont

Town Meeting authorized \$1 million for the first year's work on a federally mandated multi-year sewer and storm drain program. Between November 3 and November 14, the Office of Community Development threaded a TV camera through pipes leading to houses in three neighborhoods of precincts 7 and 8 to determine whether the household storm drains are connected to the town's storm drains and the sewer lines to the sewer pipes or whether some lines are hooked up to the wrong pipes.

Of course, this problem is not the fault of McLean Hospital or Northland Residential Corporation, but it does make sense to insist that the pipes are fixed before another gallon of sewage is added to the mess. Developers generally are asked to help fix such problems before they are allowed to build anything new. In fact, the Memorandum of Agreement signed by McLean and the town, requires McLean to pay for some help. For every gallon of sewage added by the new development per day, the developers will pay to eliminate five gallons of inflow and infiltration, at the rate of \$1.26 per gallon. That's a one-time payment of \$252,000 from Northland Residential, or a total of \$760,000 from all the McLean developers. This is a miniscule contribution, however, to solving an enormous problem.

An appeal to the state Department of Environmental Protection (DEP) is the natural and appropriate way to challenge the adequacy of the town's deal with McLean. Once the agreement was signed by the Board of Selectmen, it could not be modified except by a higher authority like the DEP. After Northland applied for its sewer connection permit earlier this year, the Belmont Citizens Forum requested a public hearing to air the sewer issues. When that request was denied, a formal appeal was the only avenue left.

The appeal also cites the impending destruction of four historic buildings in the townhouse zones – Hope, West, North, and Ledge cottages – which are relics of an era before psychotropic drugs, when fresh air, country food, and exercise were an important part of the treatment for mental patients. Frederick Law Olmsted, who recommended that McLean purchase the Belmont property and influenced the design of the landscape, later was committed to McLean as a patient and died there. He is



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popularly believed to have lived in Hope Cottage.

Those four cottages and a fifth building (which is in the zone to be developed for a senior complex) were advertised as available to anyone who wanted to haul them away and preserve them on another site. However, since people were also told that it would cost about \$1 million apiece to move the buildings, there were apparently no takers. The buildings are at issue in the sewer appeal because no state permits can be issued to those who violate historic preservation regulations. Those regulations require that developers adopt “all prudent and feasible means to eliminate, minimize, or mitigate adverse effects” on buildings eligible for listing on the State Register of Historic Places, as these five buildings are.

Sue Bass is a vice president of the Belmont Citizens Forum and one of the 16 appellants in the sewer case.

Correction:

The name of Belmont’s animal control officer, John Maguranis, was misspelled in the May 2002 and March 2003 issues of this newsletter. We apologize for the error.

New Editor Named

In January 2004, local writer Meg Muckenhaupt will become the editor of the *Belmont Citizens Forum*. She replaces Sharon Vanderslice, who has edited this newsletter for the past four years. “We are lucky to have found someone with Meg’s energy, enthusiasm, and skill,” said Vanderslice. “She is a great addition to the organization.”

Muckenhaupt began her career in journalism as a reporter for a community newspaper in New Jersey and has more than eight years of experience writing and editing for publications. She has also written three books, taught courses on writing and computer graphics for college students and corporate executives, and is an experienced community organizer and organic gardener. She is a graduate of Harvard University and lives in Arlington with her husband and two-year-old son. She can be reached at editor@belmontcitizensforum.org

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People Are Asking

Why Appeal Sewer Permits for Development at McLean?

By Sue Bass

Sixteen Belmont residents supported by the Belmont Citizens Forum have filed an appeal of sewer connection permits granted to Northland Residential Corporation for 121 townhouses on the McLean Hospital property. The appeal cites both the impending demolition by the developer of four historic cottages and the fact that sewage from the townhouses will go into pipes that regularly surcharge in heavy rains, flooding local streams and ponds with sewage-contaminated water and backing the mess up into residents' basements.

Northland estimates that its townhouses, to be called "the Woodlands," will generate about 40,000 gallons of sewage a day. That sewage is to leave

McLean in a new pipe down to Pleasant Street and there enter town pipes paralleling the railroad tracks beside Pleasant Street. These pipes run into Belmont Center and down Channing Road to Brighton Street. There the McLean sewage will cross the railroad tracks and run south a short distance to Flanders Road, where sewers from several parts of Belmont meet at a meter of the Massachusetts Water Resources Authority.

Unfortunately, many of the Belmont pipes through which the sewage must flow are broken and leaking sewage into the ground water. According to the Mystic River Watershed Association, Belmont's ground water is badly polluted. MyRWA volunteers have tested local brooks before they enter a culvert, when they leave it, and while they are flowing above ground. The tests show that our brooks pick up more bacteria when they're flowing underground, exposed only to ground water, than when they are above ground, exposed to droppings from dogs and geese.

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