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City of Cambridge

HEALTH AND ENVIRONMENT

*Vice Mayor Henrietta Davis, Chair
Councillor Anthony D. Galluccio
Councillor Brian Murphy*

In City Council January 6, 2003

The Health and Environment Committee conducted a public meeting on Friday, December 13, 2002 at eleven o'clock and twenty-six minutes A.M. in the Sullivan Chamber.

The purpose of this meeting was a follow-up meeting in the issue of noise including leaf blowers with the city staff and to discuss a work plan.

Present at the meeting were: Vice Mayor Davis, Chair of the Committee, Councillor Brian Murphy, Richard Rossi, Deputy City Manager, Julia Bowdoin, Assistant to the City Manager, Nancy E. Glowa, Deputy City Solicitor; Lisa Peterson, Commissioner of Public Works, Greg Garber, Public Works, Stuart Dash, Director of Land Use, Planning and Zoning, Community Development Department, Iram Farooq, Zoning and Land Use Project Planner, Community Development Department, Robert Bersani, Inspectional Services Committee, Richard Scali, Executive Director, License Commission, Andrea Boyer, License Commission and Donna P. Lopez, Deputy City Clerk.

Vice Mayor Davis opened the meeting and stated the meeting is to focus on a follow up from city staff.

The Committee heard from Richard Rossi, Deputy City Manager, who stated that research was done with other communities. A local landscaper and equipment manufacturer are here and will outline the procedure followed and the latest technology. The License Commission, he said, did an experiment with a leaf blower. The city has ideas on how to deal with this problem.

The Committee heard from Jim Kelly, President, Cambridge Landscaping Company, Inc., 100 Smith Place, who stated that he has been in business for twenty-three years and employs seventy-five employees. He provides training for his employees. He has an established procedure that he wants his employees to follow when using a leaf blower. Work cycles are predictable. Leaf blowers reduce fatigue. Noise from a leaf blower should be for only a few minutes. If there is a problem his company is willing to compromise and work around the issue to resolve the problem. Conversation, he said, can alleviate conflict. His employees use rakes and then use a larger blower to vacuum the debris. Two-cycle machines are used for small areas and small jobs. He informed the committee that he had one complaint this fall on a leaf blower. A copy of Mr. Kelly's testimony is attached (**ATTACHMENT A**).

Mr. Rossi stated that the city may want to use the "Best Business Practice" followed by Mr. Kelly.

The committee heard from Jim Stantial, EDM Corporation, who stated that manufacturers are working on noise reduction and emission standards. Equipment changes year

by year. Old equipment is in the field; new equipment has no industry standards on noise. The noise level is in the 60-70 dBA. Year by year it is coming down.

Vice Mayor Davis asked what is the best equipment to use. Mr. Stantial responded electric is quieter. Four-cycle machine are quieter and better on emissions. Electric machines, however, cannot generate the power needed for landscaping.

Councillor Murphy asked if there were noise standards in California. Mr. Stantial responded in the negative.

Councillor Murphy asked the price range for the new backpack leaf blower. Mr. Stantial responded \$350-\$500. Vice Mayor Davis asked how long is the equipment kept. Mr. Stantial stated that a landscaper will use the machine for three years.

Mr. Rossi informed the committee that Julia Bowdoin and Nancy E. Glowa did research in communities across Massachusetts and Canada.

Julia Bowdoin stated that twenty communities in California have leaf blower bans in effect. Attorney Glowa stated that Newton has enacted a leaf blower ordinance. Two other communities have proposed a ordinance banning leaf blowers and the proposed ordinance have failed. Ms. Bowdoin would provide a summary of the information found on the Web.

(ATTACHMENT A.1) Attorney Glowa informed the committee that most communities have struggled with how to implement this type of a ban.

Vice Mayor Davis stated that multiple leaf blowers is the problem. She asked if the research revealed anything on this issue. Mr. Rossi stated that in neighborhoods where there are large lawns, lawn mowers and leaf blowers are used at the same time. A decision needs to be made whether it is better to do all the work at the same time or split up the work. Attorney Glowa stated that legally this could be unattainable. Background noise can be measured but it would be difficult to draft and enforce. Ms. Bowdoin stated that a combination of things such as new machines, proper machine maintenance and training can improve the problem.

Megan Brook, 103 Inman Street, suggested adding dust to the noise and emission issues of leaf blowers.

The committee heard from Greg Garber, Superintendent of Parks & Forestry in the Public Works Department who stated that bids are being solicited from landscapers for the maintenance of the city parks for the next three years. The specs will require that equipment must comply with EPA, Phase 2, and must not be older than three years. Other specs include the use of the leaf blower, only one used at a time and rakes and brooms used for debris. He stressed proper equipment maintenance to reduce noise. He also encouraged the use of nozzles on the leaf blowers. The nozzle should be the longest possible type for the equipment. Stiehl has a backpack blower that is used for dust control. Councillor Murphy asked what is the cost of this equipment. Mr. Garber responded \$400-\$500 range. The contract will be for one year with the

option to renew for one-two years. Ms. Peterson stated that there is standard language in with regard to State, Federal and local ordinances.

The committee heard from Mr. Scali who informed the Committee that the License Commission conducted an experiment and checked the dBA levels of the city's leaf blowers. Ms. Boyer outlined the experiment conducted on November 14, 2002. A small hand held gas leaf blower had a dBA level of 66.6 to 66.8; a backpack gas leaf blower had a dBA level of 71.9 – 72. The experiment was done behind City Hall. Mr. Scali stated that being audible fifty feet away is an automatic violation. Standards should be realistic. Hours of limitation should be addressed. Complaints, he said, are negotiated or mediated. Lawn mowers and leaf blowers are automatic noise violations, stated Ms. Boyer. Multiple machines in multiple locations may make the noise feel overpowering.

Vice Mayor Davis opened the meeting to public comment.

Chris Young, 56 Concord Avenue, stated that truck noise at night is the worse. There are routine violations that are ignored. Low frequency noise and noise spikes penetrate through walls. He stressed doing monitoring of noise at night.

Ms. Jo M. Solet, 15 Berkeley Street, stated that she was disappointed that the ban was not being considered. Leaf blowers are not used efficiently. Rakes should be used. She would like to see the statistics showing how it is better for Mr. Kelly's workers to use leaf blowers. The License Commission should have teeth to enforce the ordinance. Violators should pay when they violate, she said.

Megan Brooks stated that the License Commission will not come out and check what is happening. Police need to be trained to use small decibel readers.

John Garrity, 36 Linnaean Street, stated that Cambridge is densely populated. Small yards with two people working machines is unnecessary. He wanted this meeting to be held when more people could attend.

Karen Carmean, 1657 Cambridge Street, stated it is a net loss using a leaf blower. When you have to raise your voice you are hurting your ears. She informed the committee that the Berkeley Public Library has a tool library.

Councillor Murphy asked if equipment is being made to meet the Tier III standards. Mr. Garber responded in the negative. Husquvana makes equipment in Tier II. Councillor Murphy asked if a test was done on rakes versus leaf blower. Mr. Garber stated that there is an increase factor of four – five times work efficiency.

Vice Mayor Davis asked that the best practices be used. She thanked all attendees. She stated that at the January 31, 2003 meeting the Community Development Department will outline the proposed visual and acoustical recommendations on roof top mechanicals.

E-mail was received from Lloyd M. Aiello, M.D., 2 ½ Berkeley Street regarding the evaluation of noise pollution, which is attached (**ATTACHMENT B**).

The meeting adjourned at twelve o'clock and twenty-four minutes p. m.

For the Committee,

Hennetta Davis
Vice Mayor Davis, Chair

by @

100 Smith Place, Cambridge, MA 02138
(617) 661-8591 Fax (617) 661-3900

Leaf blowers are an important and effective tool in the landscape industry. They improve productivity, reduce worker fatigue, and reduce workplace injuries. In a typical landscape maintenance program blowers are used on a scheduled basis for varying amounts of time. Typically a blower would be used for greater amounts of time during spring clean-up, which occurs once a year and fall clean-ups which occur 2-3 times a year. Blowers are used for very short periods of time once a week during grass cutting season May through October.

Our company through its weekly training sessions has addressed the issues of proper and improper blower use. Questions asked by management of the employees help us to use their experiences in the field to teach the proper blower technique. We ask has anyone complained to you about the noise, dust, or fumes. Occasionally we get a story. If not we discuss the past and present complaints received by our office. This system seems to work. We've only received one complaint this fall and we had over 25 employees a day working on leaf clean-up in November.

We tell our employees to hand rake and hand pick planting beds - don't blow them. Blowing removes mulch and other organic matter from the beds. We are a plant care company.

We should not be removing nutrients from the beds, only to have to supplement the plants later. We encourage the use of 4 cycle rolling blowers on large areas.

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They run cleaner, they move more air at lower RPM's, their quieter and because they have bigger fans they get the job done quicker.

Hand blowers and Bac-pacs are to be used on smaller or odd shaped areas. We tell them to do everything possible to reduce blowing time -shut it off as soon as your done-no excessive idling. Don't run at full throttle, run as quietly as possible -the job will get done.

Keep away from air handlers, be careful of people, pets, structures and cars. Blow everything into piles and take it away. No blowing into the street or onto another person's property.

Since leaf blowing is from the contractors perspective a scheduled activity it seems to me that if someone has a problem a mutually agreeable schedule to perform this work can be worked out. My company has done this on many occasions. We've had customers where we could work only on Friday afternoon, not before noon, or only on Wednesday. It is far better to work with people than against them.

The incentive for contractors who have many clients to service, is great. It's far better to be cooperative and sensitive to the publics needs rather than to ignore them.

We hope that through training and cooperative attitude and a system of equipment updating that we can help to put this issue to rest.

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Leaf blowing is important to a City like Cambridge. First no blowers means larger crews are needed to keep schedules. Landscape laborers are in very short supply. Most companies would hire more employees if they could find them. The labor is not available. Bigger crews mean more trucks are needed to get the crews to the site and as we all know parking is at a premium in Cambridge. Repetitive motion such as raking, leads to more workplace injuries according to OSHA. Schedules would not be kept and leaves would not get cleaned-up. All we have to do to see this condition is to look around Cambridge today. Because of the early snowfall leaf clean-up has not been completed.

So what does no leaf blowers accomplish? It increases the time needed to clean a site by many times. It increases work fatigue, dissatisfaction and injuries. It means leaf clean-up would not get done in a timely maner causing infrastruture problems such as clogged catch basins, clogged drains, puddles, ice, slick sidewalks and roadways from the accumulations of wet leaves. The standing water in clogged sewers and catch basins are also a breeding ground for mosquitoes which over winter as adults and carry diseases, such as West Nile Virus. Our company intends to continue its customer clean-up effort as the weather permits this winter to help alleviate these problems. I hope the city and others do the same.

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Finally the economic side: clean-up and maintenance work gets a lot more expensive for everyone. Business will pass the cost on. The city will pass it on in the tax rate.

Beyond working to schedule around sensitive areas, employee and user education, time line, infrastructure problems, public health problems, and economics, there is another area where action is needed. The equipment used in our city should meet or exceed the latest federal standards, the power equipment industry is and has been addressing issues related to leaf blowers for many years.

Equipment should be updated by contractors.

Equipment should be as technologically advanced as possible and no more than 3 years old. When purchasing equipment we should purchase the most environmentally friendly tools available. I tell vendors that I want the quietest most environmentally friendly equipment available. Don't tell me it meets standards I want to exceed the standards "because perception is reality". If someone finds it offensive, its offensive.

Today I have brought with me Mr. Bill Stantial of E.D.M.

Distibutors. E.D.M. is a power equipment distibutor located in Agam, Mass. Bill is here to speak about government regulations and innovations in power equipment.

Summary of Leaf Blower Research

12/23/2002

The following is a summary of the information found through a web-based search for information concerning leaf blowers and municipal noise regulations. This summary represents only a small amount of the information available on the web about leaf blowers and municipal noise ordinances. More specific information searches can be done if necessary.

Background

The following history of the leaf blower has been adapted from the February 2000 California Air Resources Board Report (the "CARB" report").

"The leaf blower was invented by Japanese engineers in the early 1970s and introduced to the United States as a lawn and garden maintenance tool. Drought conditions in California facilitated acceptance of the leaf blower as the use of water for many garden clean-up tasks was prohibited. By 1990, annual sales were over 800,000 in the U.S., and the tool had become a ubiquitous gardening implement. Soon after the leaf blower was introduced into the U.S., its use was banned in two California cities, Carmel-by-the-Sea in 1975 and Beverly Hills in 1978, as a noise nuisance. By 1990, the number of California cities that had banned the use of leaf blowers was up to five. There are currently twenty California cities that have banned leaf blowers, sometimes only within residential neighborhoods and usually targeting gasoline-powered equipment. Another 80 cities have ordinances on the books restricting their usage or noise level or both. Other cities have considered and rejected leaf blower bans. Nationwide, two states, Arizona and New Jersey, have considered laws at the state level, and five other states have at least one city with a leaf blower ordinance.

Many owners of professional landscaping companies and professional gardeners believe that the leaf blower is an essential, time-and water-saving tool that has enabled them to offer services at a much lower cost than if they had to use rakes, brooms, and water to clean up the landscape. A professional landscaper argues that the customer demands a certain level of garden clean-up, regardless of the tool used. The issues continue to be debated in various public forums, with each side making claims for the efficiency or esthetics of leaf blower use versus rakes and brooms. Leaf blower sales continue to be strong, however, despite the increase in usage restrictions by cities."

The following are summaries of selected individual programs, by-laws or ordinances around the U.S. and in Canada.

Landscapers Involved with Neighborhoods and Kids "LINK"

This program was organized in Abington, PA in 1998. The LINK program has one main goal: to encourage users of gas-powered leaf blowers to operate at half-throttle when

within 150 feet of residences (or whatever variation will achieve a decibel level of 60db when measured 150 ft. away). The mission of LINK is to provide relief for migraine sufferers, asthmatics, young children and residents overall from gas-powered leaf blowers, while still allowing professionals to effectively collect debris without additional cost to homeowners. The program has been endorsed by Echo, Incorporated, a maker of leaf blowers.

City of Vancouver, Canada

Noise By-law Amendments – Leaf Blowers (June 15, 2001)

The amendments to the by-law include the following provisions:

- A maximum decibel level of 65 for gas-powered blowers used within 50 meters of residential properties, when measured at the greater distance of 15 meters or at a point of reception, effective at the end of 2002.
- Leaf blowers are to be run at the lowest effective throttle setting.
- Hours of use between October 1 and April 30th are: 8:00 am – 6:00 pm Monday through Friday; 9:00 am – 5:00 pm Saturdays; and use of leaf blowers is not permitted on Sundays and Holidays.

In addition, the By-law includes a requirement that the municipality monitor the success of the regulations each year and make changes as necessary.

City of Berkeley, California

Noise Ordinance (Section 14)

“.....it shall be unlawful for any person, including any city employee, to operate any portable machine powered with a gasoline engine used to blow leaves, dirt, and other debris off sidewalks, driveways, lawns or other surfaces within city limits.

- a. Notice of this prohibition shall be posted in all stores selling such gasoline powered machines within city limits.

Montgomery County, Maryland (Department of Environmental Protection)

Leaf Blower Noise Law

In July of 1989, the Montgomery County Council amended the County Noise Ordinance to specifically regulate noise from leaf blowers. It was reconfirmed in 1990 and 1996.

The Ordinance includes the following provisions:

- A person must not sell, buy, offer for sale, or use a leaf blower at any time that has an average sound level exceeding 70dBA at a distance of 50 feet.
- The DEP may inspect, and on its request a person must produce, any leaf blower that is sold, offered for sale, or used in the county, to determine whether the leaf blower complies with the law. A person who relies in good faith on a manufacturer's written

representation of the sound level of a leaf blower that has not been modified is not subject to a penalty for violation.

- Violators are subject to a civil fine of \$500 for the first offense, \$750 for subsequent offenses, and other relief as allowed by law.
- Power tools and lawn and garden equipment may be operated during daytime hours (7 am weekdays, 9 am weekends and holidays to 9 pm every day) in excess of the receiving property line noise standards. At all other times, the maximum receiving property line limit of 55dBA for residential and 62dBA for commercial/industrial properties prevails.

Village of Scarsdale, New York

Seasonal Leaf Blower Ban

The Village Board enacted an ordinance banning the use of leaf blowers between June 1 and September 30 each year. In addition, landscapers are not allowed to use any power leaf blower that is louder than 75 decibels.

Sunnyvale, California

On January 1, 2000, Sunnyvale's restrictions on leaf blower noise went into effect. The restrictions include the following:

Blowers must be new models and have a manufacturer's certification that they can operate at 65 decibels or lower when measured at 50 feet.

Fines increase for each offense. The first violation is \$25, the second \$50, and the third \$75. Homeowners would be responsible for paying the fine.

From: Aiello, Lloyd M. [Lloyd.M.Aiello@joslin.harvard.edu]
Sent: Friday, December 13, 2002 11:41 AM
To: Henrietta Davis
Cc: Donna Lopez; Aiello, Lloyd M.
Subject: Health and Environment Committee Evaluation of Noise Pollution

December 13, 2002

TO: Vice Mayor Henrietta Davis
Chair of the Health and Environment Committee of the City of Cambridge

FROM: Lloyd M. Aiello, MD
2-1/2 Berkeley Street
Cambridge, MA 02138

Cc: Donna P. Lopez, Deputy City Clerk

DISCUSSION

1) In my opinion, The Cambridge License Commission may not always follow strictly the Ordinance. Sometimes the Commission measures noise levels at the windows of affected properties. Since maximum noise levels in the Ordinance are based on lot line measurements, the License Commission measurements may permit substantially higher noise levels to intrude into the outdoor and interior spaces of neighboring properties than the Ordinance, properly enforced, would allow - in my opinion.

2) As you probably know, A-weighting and C-weighting frequency curves have different impacts. While A-weighting frequency characteristics range from 500-10,000 Hz, the human ear is sensitive from 32 to 20,000 Hz. Music sound levels are characteristically measured by C-weighting in which frequencies measured are from 32 to 10,000 Hz. Many people such as musicians and pilots are very sensitive to the lower frequencies of 32 to 500 Hz and to higher frequencies of 10,000 to 20,000 Hz. Measuring the A-curve only does not reflect qualitative impact on noise levels effectively. Additionally, the collectivity of multiple HVAC frequencies may at times be "in phase" and thus additive. All of these characteristics, especially when they include the low and high frequencies, may create a chronic ambient noise that is not only very disturbing but also may result in permanent hearing loss, circulatory and cardiac problems, and mood and learning alterations.

SOLUTIONS

- * "Noise pollution" control as part of the Cambridge Historic Commission mandate to preserve Historic Cambridge
- * Clear interpretation of the ordinances of the City of Cambridge
- * Enforcement of these ordinances
- * Revisions of the ordinances to include A and C weighting
- * Urge the vendors to upgrade the design and function of the hardware (R&D) to meet noise requirements of the City of Cambridge.

COMMENTS

By not complying with the ordinances of the City of Cambridge, one overlooks the essential needs of this Historic community, their own community, the property owners in Cambridge who recently experienced up to a 30% increase in their taxes, and the public - all of whom contribute to the cultural, spiritual and economic health of this city.

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Committee Report #4

Committee Report from Vice Mayor Henrietta Davis, Chair of the Health and Environment Committee, for a meeting held on December 13, 2002 as a follow-up meeting on the issue of noise including leaf blowers with the city staff and to discuss a work plan.

In City Council January 6, 2003

**REPORT ACCEPTED.
PLACED ON FILE.**