August 2, 2021

TO: Mayor Mark Freda
Princeton, New Jersey
Copy: Council President Leticia Fraga
Councilmembers:
   Davis Cohen
   Eve Niedergang
   Dwaine Williamson
   Mia Sacks
   Michelle Pirone Lambros

From: Larry Will

Reference:

Dear Mayor Freda:

This letter should be of interest to you because it deals with the leaf blower, the use of which has been put in question before the city council by Quiet Princeton. This issue can become quite complex and as such, will require some detailed study to
learn and comprehend the facts. It is my experience, however, that most of the time, people not interested in engineering or technical matters, are not so inclined to understand details presented by an engineer. But in this letter, you will find the facts. As you read this document, you will also find links to credible sources for my statements.

I am not a stakeholder in your community’s leaf blower issue, nor am I trying to interfere with any decision you deem necessary. But I am a source of facts about the design and use of cordless and gasoline powered leaf blowers that will be enlightening to you. I am a retired Vice President of Engineering for Echo Inc., a leading manufacturer of powered handheld lawn care products. Now I am an engineer and as such, I tend to be quite technical. But I will try to avoid that as much as possible in this letter. I would like to start by providing you with a link to a brief summary of my qualifications and credentials.

Phyllis Teitelbaum and Anthony Lunn, the founders of Quiet Princeton, who are trying to convince you that leaf blowers are bad, are well meaning, conscientious, and dedicated to improving the environment, but they are not professionals. What I mean by not being professional is that none of the members of this organization are in any way professionally involved in the use, development, or accreditation of the leaf blower. As a result, they really do not know or understand how they work, how they have been improved over the years, or how valuable these tools are to those that use them. These people can only quote claims made by others. They have no way of knowing if what they are restating is true. Have they cited qualified tests as justification, or is what they say simply inuendo or opinion? Some of the background material they show is true in concept, but the impact on the environment, as it relates to the leaf blower, is not true.

This is the mission of Quiet Princeton:

In the future, Quiet Princeton may wish to:

- Meet with institutions in town about leaf blowers and other sources of noise and pollution
- Talk to organizations in town that may wish to coordinate their efforts with ours
- Investigate the use of a new generation of electric leaf blowers and other quieter, non-polluting lawn maintenance equipment
- Consider the development of ordinances to control noise and pollution problems
Taken from the “Skeleton” ordinance submitted by Quiet Princeton:

The objectives of this ordinance are to reduce a significant source of noise and of particulate and volatiles pollution in our community, to further the goals of the Princeton Climate Action Plan, to reduce exposure of workers to noise and pollutants, and to reduce hazardous and seriously disturbing impacts on the health and wellbeing of residents of the community.

Clearly, this organization is dedicated to the banning of gasoline-powered leaf blowers and other lawn care equipment. Their search for facts, if that is really part of their mission, is focused only on the statements that support their point of view. Their primary view is to convince you that leaf blowers are evil and must be eliminated from use in Princeton New Jersey.

I know the leaf blower has been a hot button for some people for a long time, especially in your area of the country. But I must say that if you support a blower ban based on what these anti-leaf blower advocates tell you, you are being misled. There is no legitimate reason for banning gasoline-powered leaf blowers, except for noise, because everything else you hear and see is either false, misrepresented, or unsubstantiated. So, with that in mind, what should you do? It’s simple. Ban only the noisy blowers. Before explaining how and why that can be done, let me address how you are being misled.

I do not know everything you have been told about blowers, but I can guess. I have heard it all before. Health hazards are always brought up. Here is something that I am reasonably sure you do not know. There is a group of people, from outside your community, working hard to have gasoline-powered leaf blowers banned throughout the East coast. The initial reason was, and still is for that matter, that some of them are noisy and therefore irritating. The concept of citing health hazards as the reason for a ban is contrived. It was initiated by Peter and Susan Kendall of Orinda, California. You can read all about them in the New Yorker, October 25, 2010 issue. Because sound was not a compelling enough reason for banning leaf blowers in their hometown, Ms. Kendall said, “I would (in the future) try to get the law classified not under noise but under health and safety…”

Many anti-leaf blower advocates have created websites that dedicate themselves to demeaning the leaf blower. So, the Kendall’s and others, no doubt including Quiet Princeton, have searched the Internet for the names of dignitaries and organizations that provide statements supporting their mission, regardless of the truth. Local people that are strongly against the leaf blower are eager to believe what they read, using these falsehoods to justify their cause. Some of the statements you hear even defy logic. I am sure you know from your experience with the media that if something is said often enough, by many different people, or put in print by many
sources, regardless of the facts, people will tend to believe it as being true. They then will proceed to confidently restate these unproven hypotheses emphatically.

So, what are the particulates and volatile pollutants the proposed ordinance is referring to? They are greenhouse gasses (CO$_2$), hydrocarbon emissions, and dust.

Here are the facts:

**Greenhouse gas:**

Excerpt from Professor Ian Plimer's book in a brief summary: PLIMER:

"Of course, you know about this evil carbon dioxide that we are trying to suppress - it's that vital chemical compound that every plant requires to live and grow and to synthesize into oxygen for us humans and all animal life."

"Okay, here's the bombshell. The volcanic eruption in Iceland. Since its first spewing of volcanic ash, it has, in just FOUR DAYS, NEGATED EVERY SINGLE EFFORT you have made in the past five years to control CO$_2$ emissions on our planet - all of you.

[https://www.leafblowernoise.com/#Consider_greenhouse_gasses](https://www.leafblowernoise.com/#Consider_greenhouse_gasses)

To say that leaf blowers are a serious source of greenhouse gas is an uninformed statement. Ten ounces of fuel through a leaf blower (10 minutes running time) generates about the same amount of CO$_2$ as that found in a couple cases of beer.

**Hydrocarbon emission:**

It is illegal for a city such as Princeton to ban leaf blowers because of exhaust emission.

[https://www.leafblowernoise.com/#Can_Leaf_Blowers_be_regulated_locally_to_reduce_emissions](https://www.leafblowernoise.com/#Can_Leaf_Blowers_be_regulated_locally_to_reduce_emissions)

Don't believe the diatribe you hear about leaf blower exhaust emission being worse than a Ford Pickup, or other vehicles for that matter.

[https://www.leafblowernoise.com/edmonds%20test%20response2.pdf](https://www.leafblowernoise.com/edmonds%20test%20response2.pdf)
Dust:

Only PM10 and PM2.5 particulate matter is hazardous to your health and leaf blowers are not the source of that constituent in the atmosphere.

https://www.leafblowernoise.com/#Are_leaf_blowers_hazardous_to_your_health

Take a look at what the source of this matter really is.

https://www.leafblowernoise.com/Table%203%2011%20San%20Joaquin%20Valley%20PM10.doc

Okay, now what about noise? Well, the industry took notice of blower noise more than 20 years ago and deliberately addressed this issue in response to complaints. Much has been done to reduce the noise from all gasoline powered leaf blowers, spending millions of dollars to make an alternative to noisy blowers available to the consumer.

To understand how sound reduction is quantified, note that for every six dB(A) reduction in sound magnitude (from any starting point on the measurement scale), the actual volume, or sound pressure, is reduced by 50%. This much sound reduction is hard to accept as being true for the average person because we cannot comprehend from experience what a 50% reduction sounds like. The best thing to do is to witness an actual leaf blower sound comparison, but I know that it is not easy to arrange this. An alternative is to check out the video of an actual demonstration developed for the comparison of leaf blowers on my website. Note that battery-powered blowers are not as quiet as one might think.

In the case of a gasoline-powered leaf blower, sound level is measured at 50 feet to replicate what a bystander will experience. The published values are obtained per the industry Standard (ANSI B175.2). A “Quiet” leaf blower is 65 dB(A) or less, measured per this Standard. Is it silent? No! But this is at least a seventy-five percent reduction in sound or 12 dB(A), from a typical noisy leaf blower at 77 dB(A). Quiet leaf blowers are only 85 dB(A) at the ear of the operator, not requiring hearing protection according to OSHA.

Quiet leaf blowers have been available for a long time, however, not all leaf blowers are quiet. Therefore, I encourage you to learn more about these quiet blowers before summarily banning them along with the noisy ones.

Fortunately, because of the industry’s foresight, any city that wants to limit the sound emanating from a gas-powered leaf blower can easily determine sound magnitude in the field without testing. The consumer can also determine compliance with local
sound limitations at the point of purchase via the attached label. This decal has been on all quiet gasoline powered leaf blowers manufactured in the United States for at least the past fifteen years. If there is no label on a unit, it does not comply.

I know you will want to do something about the leaf blower to please those that want them banned. But you must consider the impact this will have on those that use them. For the professional user, this can be a game changer, and not in a good way. It can actually put some contractors out of business.

In the back of your mind, you may be thinking that because there are other cities that have banned blowers, you can’t go too far wrong to follow their precedent. But you should have questions:

- How will a ban be enforced?
- Will homeowners with leaf blowers be upset?
- How does this impact the elderly?
- What will be the cost impact to the homeowner and landscape contractor?
- Will current users comply with your ordinance?
- Will people use time consuming tools, or will they just leave the debris where it lies?

If you decide to check this out for yourself, you can talk to council members from cities that already have a ban, but don’t overlook talking to the enforcers, local lawn care providers, and homeowners to learn the true impact.

If you made it to this point in my letter, I commend you for your dedication toward finding the truth about leaf blowers. I say this because to my wife, engineering stories can be quite boring. If engineering stories are boring to you, before you believe all the negative claims you hear about the leaf blower, ask an engineer friend, or better yet, ask the city’s engineer to check out my website, links to references, and the appendix to this letter. Ask him if what I am saying has merit. And then ask him what the facts are. Knowing the facts will help you arrive at the best decision for Princeton in this matter.

Best Regards,

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Click: APPENDIX for details and links to references.