

Town of Acton

Application for a Special Permit

To The

Board of Selectmen

RECEIVED  
OCT 11 2013

TOWN CLERK, ACTON

Please type or print your application.

Indicate the special permit/s requested. The fee for a Special Permit is \$250 unless otherwise noted.

Recreation	Nursing Home	Restaurant
Hotel, Inn or Motel	Combined Business & Dwelling	Lodge or Club
Veterinary Care	Commercial Kennel	Commercial Recreation
Commercial & Trade School	Amusement Facility	Freestanding Sign
Warehouse	Mini-Warehouse	Heating Fuel Sales/Service
Light Manufacturing	Scientific Research/Development/Production	Outdoor MANUFACTURING
Reduced Parking Fee = \$100	Drive-Up Bank Fee = \$1000	Service Station Fee = \$1000

If this application is made concurrently with a site plan application, then the fee will be \$100 in all cases.

APPLICANT

Name & Address

Jacob Abraham  
39 Pope rd Acton MA 01720

Telephone

978 263 9861

OWNER

Name & Address

Acton Realty LLe.

852 Main st

Acton M.A.

Telephone

978-263-6800

SITE

Location and Street Address of the Property

848 MAIN ST

Tax Map & Parcel Number CS-39

Area of Lot 8.3 ac.

Zoning District SM

If any other permits or site plans have been granted for the property, give the file numbers:

*Thomas...*

Six (6) + CD completed copies of this application and supporting materials including plan sheets, if any, are required at the time of submission. A certified abutters list taken from the most recent town tax list and certified by the Town Assessor must be included with this application. At a minimum, a 1"=1200' location map must be provided with each copy of the application showing the subject site in relation to other lots, roads, and natural features. Sufficient supporting information must be provided to fully explain the purpose and plans of the applicant -- attach additional sheets and plans as necessary. The Board may require additional information as it deems necessary. Each copy of any plan sheets shall be folded so that it will fit neatly into a letter sized file folder.

Board of Selectmen  
Acton, MA

Jacob Abraham  
39 Pope Rd.  
Acton, MA

Permit Application for  
Outdoor Manufacture of  
Firewood at  
848 Main St.

Dear members of the Board of Selectmen,

I am seeking a special permit to manufacture firewood under zoning bylaw 3.6.3 on a parcel of land located in an industrial zone in north Acton at 848 Main St. I had previously been manufacturing firewood there until it was brought to my attention, through an enforcement letter to my landlord, that it was against the zoning bylaws to perform such an activity at that location. When I looked closer into the issue, and with the help of the planning department, I found there was no provision to manufacture anything outdoors in the Town of Acton at all. I felt this was an oversight and started the process to have the bylaws changed at Town Meeting. The bylaws have been changed and I am now applying for a special permit to manufacture firewood.

After many meetings with planning board that many members of the Robbins Mill development attended, I feel that I understand the core issues that bothered the nearby residences. The main issues to my understanding are noise, views, and public safety.

I have performed extensive noise testing at the site, as well as off site to be able to better understand what would need to be done to make sure we are compliant with the DEP's noise regulations. Attached is a document listings decibel readings at the site itself as well as the equipment I would be using to manufacture the firewood tested off site. While the manufacturing equipment was within the DEP limit, it was clearly a concern of the abutting property. We are proposing a change in location, moving the processor 55 feet further away for a total distance of over 150 feet from the lot line, and re-arranging to make stored wood reflect sound away from the Robbins Mill complex, as well as a section of wooden fencing directly across the motor of the processor to reflect even more sound. Any special permit would not override the DEP's noise limits. If there was a complaint of excessive noise it would still go through the proper process of notifying the Board of Health and then the DEP.

We are planning a change in location and storage that would alleviate any views to make sure we meet the current bylaw standards (screening to be reasonable and feasible). The main change will be that we will not be stockpiling wood for seasoning near the property line. Attached are overhead pictures showing before the operation started, how we were operating, and how we plan on operating under a special permit. There is 60 feet of natural woods from the property line to any storage and we will install a natural wood fence along part of the inside tree line to help further block views.

A major concern brought up by the residence of Robbins Mill was the threat of a potential fire. We had the Fire Chief and Deputy Chief come out for a site visit during the planning stages for a bylaw change, and they found that as long as we performed our usual "house keeping" and kept our piles below 20 feet in height there was no fire code violation or threat of fire. There is no ignition source near the wood.

Another concern was the type of equipment being used. Our processor runs using a small diesel motor that turns a hydraulic pump. All functions of the processor, log in-feed, cutting, splitting, and loading of the firewood are performed through the hydraulic pressure generated from the pump. This is the same type of technology used in most construction equipment, including the highway, water, and conservation department's dump trucks, sanders, excavators, backhoes, bobcats, and front end loaders.

Additionally there was a concern of the potential of sawdust from the cut off saw causing particulate air pollution. The saw on the machine is a hydraulically run chain saw (.404 pitch) that produces small wood chips, not the type of dust like a planner or sander. These chips do not readily travel as was pointed out in a planning board meeting by both Mr. Charter and Mr. Bartl.

A constant concern within the Town, and State, is that of invasive species of insects. The main current concern is that of the Asian Long Horn Beetle. I am ALB certified to work within quarantined zones and I understand what to look for and how to avoid the spread. All of the wood being used is transported to the property by us. It is picked up on site so we know where it came from. No other person or business ever brings wood into the property, ever.

Attached you will find our noise meter readings with a copy of the DEP's noise regulations, a chart with some decibel levels and real world examples, pictures showing the property and a site plan showing where we propose to manufacture the wood, my ALB compliance certificate, and the original complaint letter that describes the concerns of the closest resident.

**Noise Levels  
Pertaining to Permit for  
Outdoor manufacturing  
Of Firewood**

All reading taken on A rating using Extech model # 407732 with NIST certificate # 93925

**Meter Reading at lot line**

1. Neighboring businesses active 7:00 am until past 5:00 pm
  - a. 57 Db
2. Log truck actively loading logs
  - a. 63 Db

**Firewood Processor measured off site in an open field actively processing and loading wood.**

1. @ 200 Ft 63 Db
2. @100 Ft 67 Db
3. @ 50 Ft 70 Db

## **Noise Pollution Policy Interpretation**

Noise is a public health concern that falls within the scope of Massachusetts Department of Environmental Protection (MassDEP) authority as a form of regulated air pollution (M.G.L. Chapter 111, Sections 142A-M provide statutory authority for MassDEP's Air Pollution Control Regulations, 310 CMR 7.00).

### **Definitions (310 CMR 7.00)**

- *Noise* is defined as "sound of sufficient intensity and/or duration as to cause a condition of air pollution."
- *Air pollution* means "the presence in the ambient air space of one or more air contaminants or combinations thereof in such concentrations and of such duration as to: (a) cause a nuisance; (b) be injurious, or be on the basis of current information, potentially injurious to human health or animal life, to vegetation, or to property; or (c) unreasonably interfere with the comfortable enjoyment of life and property or the conduct of business."

### **When Does MassDEP Evaluate Noise Impacts?**

MassDEP evaluates how noise may affect people when 1) the agency reviews applications for approval under its air pollution regulations (310 CMR 7.02) for construction of facilities that will generate more than threshold amounts of pollutants such as nitrogen dioxide, sulfur dioxide, carbon monoxide, volatile organic compounds, particulate matter, and substances that are toxic

in air; and 2) the agency responds to complaints from the public about noise generated by an existing source:

- When reviewing applications for pre-construction approval of new sources of air pollution, MassDEP examines the potential increase in sound levels over ambient conditions and the impacts of noise at both the source's property line and at the nearest residence or other sensitive receptor (e.g., schools, hospitals) located in the area surrounding the facility and occupied at the time of the permit review. *Please note: MassDEP requires that an air approval be obtained when a proposed facility is expected to emit more than threshold amounts of specific pollutants. If noise is the only air pollutant expected to be emitted by a facility, a pre-construction air approval is not required.*
- When MassDEP responds to a complaint about an existing source of noise, it focuses on protecting affected people at their residences and in other buildings that are occupied by sensitive receptors from nuisances and the public health effects of the noise. *Please note: An existing source of sound may or may not have needed a MassDEP air approval before it was built.*

### **Where Are MassDEP's Noise Criteria Applied?**

The [MassDEP noise pollution policy](#) describes criteria that MassDEP uses to evaluate noise impacts at both the property line and the nearest occupied residence or other sensitive receptor. When noise is found to be a nuisance or a threat to health, MassDEP requires the source to mitigate its noise.

Noise levels that exceed the criteria at the source's property line by themselves do not necessarily result in a violation or a condition of air pollution under MassDEP regulations (see 310 CMR 7.10 U). The agency also considers the effect of noise on the nearest occupied residence and/or building housing sensitive receptors:

- In responding to complaints, MassDEP measures noise levels at the complainant's location and at other nearby locations that may be affected (e.g., residences and/or buildings with other sensitive receptors). If the noise level at a sensitive receptor's location is more than 10 dB(A) above ambient, MassDEP requires the noise source to mitigate its impact.
- A new noise source will be required to mitigate its sound emissions if they are projected to cause the broadband sound level at a residence or building housing sensitive receptors to exceed ambient background by more than 10 dB(A).
- A new noise source that would be located in an area that is not likely to be developed for residential use in the future (e.g., due to abutting wetlands or similarly undevelopable areas), or in a commercial or industrial area with no sensitive receptors may not be required to mitigate its noise impact on those areas, even if projected to cause noise levels at the facility's property line to exceed ambient background by more than 10 dB(A). However, a new noise source that would be located in an area in which housing or buildings containing other sensitive receptors could be developed in the future may be required to mitigate its noise impact in these areas.

This policy has been designed to protect affected residents and other sensitive occupants of nearby property, but not necessarily uninhabited areas in and around the source's property. Sources of noise may need to implement mitigation if residences or buildings occupied by sensitive receptors are developed where they may be affected by the source's noise.

This is pulled directly from the DEP website. Once again it shows that a new use, such as firewood, would have to meet the noise standards since the residences are in place.

<http://www.mass.gov/dep/air/laws/noisepol.htm>

Data from <http://www.gcaudio.com/resources/howtos/loudness.html>

## Decibel (Loudness) Comparison Chart

Here are some interesting numbers, collected from a variety of sources, that help one to understand the volume levels of various sources and how they can affect our hearing.

Environmental Noise	
Weakest sound heard	0dB
Whisper Quiet Library at 6'	30dB
Normal conversation at 3'	60-65dB
Telephone dial tone	80dB
City Traffic (inside car)	85dB
Train whistle at 500', Truck Traffic	90dB
Jackhammer at 50'	95dB
Subway train at 200'	95dB
<i>Level at which sustained exposure may result in hearing loss</i>	<i>90 - 95dB</i>
Hand Drill	98dB
Power mower at 3'	107dB

Snowmobile, Motorcycle	100dB
Power saw at 3'	110dB
Sandblasting, Loud Rock Concert	115dB
<i>Pain begins</i>	<i>125dB</i>
Pneumatic riveter at 4'	125dB
<i>Even short term exposure can cause permanent damage - Loudest recommended exposure <u>WITH</u> hearing protection</i>	<i>140dB</i>
Jet engine at 100'	140dB
12 Gauge Shotgun Blast	165dB
Death of hearing tissue	180dB
Loudest sound possible	194dB

#### OSHA Daily Permissible Noise Level Exposure

Hours per day	Sound level
8	90dB
6	92dB
4	95dB
3	97dB
2	100dB
1.5	102dB
1	105dB
.5	110dB
.25 or less	115dB

#### NIOSH Daily Permissible Noise Level Exposure

Hours per day	Sound level
8	85dBA
6	86dBA
4	88dBA
3	89dBA
2	90dBA

1.5	92dBA
1	94dBA
.5	97dBA
.25 or less	100dBA
0	112dBA

### Perceptions of Increases in Decibel Level

Imperceptible Change	1dB
Barely Perceptible Change	3dB
Clearly Noticeable Change	5dB
About Twice as Loud	10dB
About Four Times as Loud	20dB

### Sound Levels of Music

Normal piano practice	60 -70dB
Fortissimo Singer, 3'	70dB
Chamber music, small auditorium	75 - 85dB
Piano Fortissimo	84 - 103dB
Violin	82 - 92dB
Cello	85 -111dB
Oboe	95-112dB
Flute	92 -103dB
Piccolo	90 -106dB
Clarinet	85 - 114dB
French horn	90 - 106dB
Trombone	85 - 114dB
Tympani & bass drum	106dB
Walkman on 5/10	94dB
Symphonic music peak	120 - 137dB
Amplifier, rock, 4-6'	120dB
Rock music peak	150dB

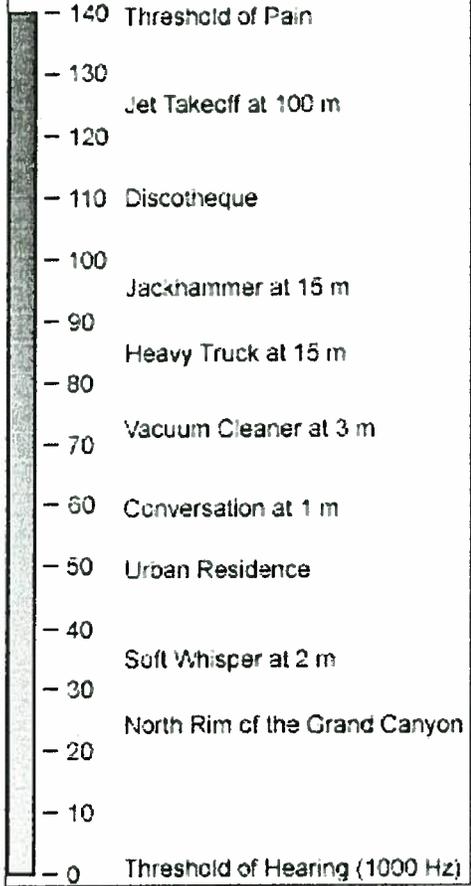
## NOTES:

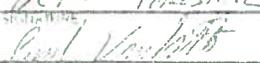
- One-third of the total power of a 75-piece orchestra comes from the bass drum.
- High frequency sounds of 2-4,000 Hz are the most damaging. The uppermost octave of the piccolo is 2,048-4,096 Hz.
- Aging causes gradual hearing loss, mostly in the high frequencies.
- Speech reception is not seriously impaired until there is about 30 dB loss; by that time severe damage may have occurred.
- Hypertension and various psychological difficulties can be related to noise exposure.
- The incidence of hearing loss in classical musicians has been estimated at 4-43%, in rock musicians 13-30%.
- Recent NIOSH studies of sound levels from weapons fires have shown that they may range from a low of 144 dB SPL for small caliber weapons such as a 0.22 caliber rifle to as high as a 172 dB SPL for a 0.357 caliber revolver. *Double* ear protection is recommended for shooters, combining soft, insertable ear plugs and external ear muffs.

Statistics for the Decibel (Loudness) Comparison Chart were taken from a study by Marshall Chasin, M.Sc., Aud(C), FAAA, Centre for Human Performance & Health, Ontario, Canada. There were some conflicting readings and, in many cases, authors did not specify at what distance the readings were taken or what the musician was actually playing. In general, when there were several readings, the higher one was chosen.

Data from <https://www.osha.gov/SLTC/noisehearingconservation/>

**Typical A-Weighted Sound Levels**  
(dB, re: 20  $\mu$ Pa)



UNITED STATES DEPARTMENT OF AGRICULTURE WILDLIFE AND PLANT HEALTH INSPECTION SERVICE PLANT PROTECTION AND QUARANTINE		<small>Please report any falsification of information or other violation permitted by this form to the nearest          responsible authority for the time of the violation. Violations include: (1) providing false information          and/or making the information not submitted and/or analyzed; (2) providing false information          (a) to any Department of Agriculture agency; (b) to any State or Federal agency; (c) to any          regulatory authority; (d) to any other person; (e) to any other person; (f) to any other person; (g) to any other person.          MA, DC, 20251. Where required, use the OMB number and the Number on the form.</small>	
<b>COMPLIANCE AGREEMENT</b>			
1. NAME AND MAILING ADDRESS		2. LOCATION	
Charles L. Abraham Ace Brothers Tree Service P.O. Box 2732 Acton, MA 01720		Ace Brothers Tree Service 39 Pope Road Acton, MA 01720	
3. REGULATED ARTICLES			
All Asian Longhorned Beetle (ALB) regulated articles as defined below.			
4. APPLICABLE FEDERAL QUARANTINE REGULATIONS			
MA General Laws, Chapter 266, Section 11P, M. G. L. c. 132, §§ 8, 11, & 12; and M. G. L. c. 128, §§ 16, 24 and 31; and the Plant Protection Act of June 20, 2009, as amended, Section 412 (a), 7 U.S.C. 7712 (a)			
5. We agree to the following			
I/we acknowledge the duly issued and effective State Amended Order to Suppress and Control Nuisance Conditions and Regulated Articles ("Amended Order") as may be amended from time to time and/or Federal regulation governing ALB Regulated Areas and Regulated Articles. When undertaking my activities or working within the Regulated Area, I/we agree to comply with the provisions of the Amended Order and/or Federal regulations by following the measures outlined in this agreement including any attachments to this agreement and subsequent notifications of new conditions which may become required by the MA Department of Conservation and Recreation and the United States Department of Agriculture during the course of this eradication program. A true and accurate copy of the Amended Order is attached hereto and incorporated herein as Exhibit A.			
In consideration of being allowed to undertake activities otherwise prohibited by the Amended Order, the undersigned guarantees and covenants that these measures will be followed:			
1. Employers will ensure that each employee engaged in any activity on any Regulated Article within the Regulated Area is in possession of a quarantine certificate for disposal of regulated material and/or has affixed to his/her vehicle an ALB Eradication Program decal certifying that they or an employee has attended a training workshop provided by state/federal inspectors with respect to the management of Regulated Articles within the Regulated Area.			
2. Any Regulated Article, as defined in the attached Amended Order, which is larger than 24 inch in diameter cannot be moved from the Regulated Area unless it has been chipped on site to less than one inch in two dimensions.			
3. If the Asian Longhorned Beetle or signs of infestation are found during operations, work must be discontinued and the ALB Program Office must be notified at 508-852-8110. Work shall not continue until the ALB Program Official has authorized such.			
4. Employers will inform their employees about the boundaries of the regulated area and the governing regulations and Amended Order.			
5. Employers will inform their employees of any changes to the regulated area.			
6. A copy of this compliance agreement will be kept at the work site.			
7. The term "Regulated Area" shall have the same meaning as the term "Affected Area" as defined in the Amended Order.			
8. The undersigned hereby acknowledges and agrees that a breach of this agreement shall constitute a violation of the Amended Order and the Plant Protection Act.			
6. SIGNATURE		7. TITLE	
		Site Foreman	
8. DATE SIGNED		9. AGREEMENT NUMBER	
2/7/13		MA-ALB-160	
10. DATE OF AGREEMENT		11. DATE OF SIGNATURE	
2-7-13		2-7-13	
12. PHOTOGRAPH (Name and Title)		13. ADDRESS	
Chuck Baker Site Foreman		MA ALB Eradication Program 151 W. Baylston Drive Worcester, MA 01605 508-852-8110	
14. SIGNATURE		15. ADDRESS	
		MA ALB Eradication Program 151 W. Baylston Drive Worcester, MA 01605 508-852-8110	
16. SIGNATURE		17. ADDRESS	
		MA ALB Eradication Program 151 W. Baylston Drive Worcester, MA 01605 508-852-8110	
PHOTOFORM 510			
10/5/12			

**Kristin Alexander**

**From:** Patricia Jones [pattykj@gmaii.com]  
**Sent:** Tuesday, November 15, 2011 5:27 PM  
**To:** Planning Department  
**Subject:** What's going on next door to me....

Hi Kristin This is the letter I sent to Mike Thanks/Pat

Hello Mike

I live in the Robbins Brook community on North Main St. My husband and I purchased a new condo almost 6 years ago here and we were the first to move in at the south end of the development built by Stephen Vazza. At the time, Deck Homes was our neighbor to the south of us and our properties were divided by an 8 ft rock (concrete) wall and an 8 ft plastic fence. Although I was unhappy with the noise level that came from the Deck Homes after we moved in I had no idea that the situation could get much worse than that.

Since 2006 the Deck Homes has evolved into Acorn Homes and when that operation began we were happy to experience quiet, and an assurance from the owner that the property would be used only for office/administration. However, that didn't last long and soon we began to watch trees falling in their back yard. Although our rock wall and fence separate us in the front of our condo, our back yard flows into the back yard of the Acorn Homes on ground level. We watched as many many trees were cut down and when my husband inquired about it the owner told him that he was just clearing some land in order to deposit snow.

At this time there are empty holes into the Acorn Homes back yard and through these holes I can see mountains of timber. Most of this has been brought in to the yard by the truckload. Also taking up residence in the back yard are wood splitting machinery and loading machinery -conveyor belts, bob cats, dumpsters, etc.

My original concern was the noise that all this "wood splitting" operation entailed. I had a sound level reading taken and my suspicions were confirmed about the noise from this activity being well over the EPA limits (10% over ambient). I called the owner and spoke to him about this, asking questions about how long he planned to continue this operation and what exactly was he doing there that related to the Acorn business etc.

His reaction was, "I'm processing wood and I pay a lot of money in taxes here and I can do anything I want" and then later, "If I want to I can pave over the whole back yard and park my trucks there." I supposed he said this to me to intimidate me. I was intimidated. And the months have gone by and the operation has continued.

This youtube video <http://www.youtube.com/watch?v=OxQVTBY7FXO> shows you some of what goes on at random times during the week and on weekends. This video was shot on a Saturday. I have called

the town. spoken to the town planning department who urged me to call them when things are in "full swing" so that they can witness it themselves but most of the time this goes on during weekend hours and I've been unable to coordinate with them. They did confirm that he does not have a permit to be doing this kind of business in the town however, they also cautioned me that some people might not care about paying a fine and are unconcerned with getting permits -especially when what they are doing is not acceptable.

My neighbor, Bill Flood has been contacting you regarding a fire station in North Acton. After talking with Bill and showing him the video I sent to you he suggested I speak with you. With so much dried wood, piled 15 or so feet high right next to my "plastic fence" we now have a dangerous fire hazard not 10 feet from my front door.

Given the state of the economy I understand the hesitation to pursue a fire station, but I'm so concerned about the fact that this pile of wood can easily catch fire and devastate this entire neighborhood of over 55's -not to mention the Assisted Living home and other elderly living here.

**My question to you is this. Can you help me eliminate this wood splitting operation that I'm certain is unapproved by the town and/or state so that my home value is not severely impacted by this activity just next door, so that my safety and the safety of the hundreds of residents of Robbins Brook is not compromised and so that the annoying noise level is brought down to EPA standards?**

I left a phone message on your number. My apologies, I wasn't aware that it was your home phone until I left the message. My phone number is 978 274 2297. I live at 47 Hartland Way, Acton. My cell phone is 978 273 6367.

Please respond, either by replying to this email, or by calling either of those phone numbers even if you cannot help me. As I mentioned, I have been so intimidated by his remarks that I have been hesitant to do anything about this but now, in light of the fire hazard, I am very concerned.

Thank you and I look forward to hearing from you soon.

Patricia Jones