



## Public Safety & Transportation Committee Report

### City of Newton In City Council

**Wednesday, March 23, 2016**

Present: Councilors Ciccone (Chair), Blazar, Norton, Yates, Cote and Lipof

Absent: Councilor Harney and Fuller

Also Present: Councilors Albright and Baker

City Staff: Chief David MacDonald and Sgt. Jay Babcock, Newton Police Department; Shane Mark, Director of Operations, Department of Public Works; Robert DeRubeis, Commissioner Parks & Recreation Department; Maura O'Keefe, Assistant City Solicitor

**#197-15      Discussion on policy or ordinance to deal with the use of drones**

ALD. ALBRIGHT, on behalf of a constituent requesting a discussion with the Chief of Police and the Commissioner of Parks and Recreation on the use of drones in the City of Newton to discuss what means and methods could become policy or ordinances to deal with an increase of privacy complaints as well as uses of more serious consequences. [08/14/15 @ 11:51 AM]

**Action:**      **Approved 4-0-1, Councilor Yates abstaining, Councilor Lipof not voting**

**Note:**          Councilors Albright and Baker, Chief MacDonald, Commissioner DeRubeis and Ms. O'Keefe joined the Committee for discussion on this item.

Councilor Albright stated that she docketed this item on behalf of a constituent who expressed concerns that their privacy is being violated due to pilotless air crafts (drones). Councilor Albright stated that herself, Councilors Baker and Norton met with Maura O'Keefe, Assistant City Solicitor to create a draft City Ordinance regarding drones.

Councilor Baker stated a draft City Ordinance was created to be proactive to address privacy issues, and safety concerns before drones become problematic. The Ordinance sets ground rules informing all drone operators. A drone can operate for an extended period of time with significant range including cameras and visual reproduction. Drones have important functions but it is important to deal with noise emitted and privacy issues. He then said that the Federal Aviation Administration (FAA) has jurisdiction over airspace above 400 feet. It has been left to local municipalities to protect the privacy interests and the general safety of the public.

Councilor Norton stated that “Peeping Toms” remain a concern. Therefore, she worked with Councilors Albright and Baker and Ms. O’Keefe to create a draft ordinance especially since the FAA encourages local municipalities to protect the privacy interests and the general safety of the public.

Ms. O’Keefe stated that this draft is flexible. She added that the City’s police powers under Home Rule Legislation, seeks to protect the ability of the City’s residents to enjoy private property without disturbance, and public property without injury. This draft ordinance also pays particular attention to the public safety concerns associated with the operation of pilotless aircraft. There are three general areas of concern that this ordinance seeks to address public safety, privacy and nuisance. Ms. O’Keefe then stated that it is necessary to educate the public and incorporate a registration process to inform them of safe operations within the boundaries of the City.

Councilors addressed their comments and questions:

Comments:

Massachusetts General Real Estate Law prohibits drones flying in the airspace over homes is considered trespassing which could be enforced.

Questions:

What is the existing policy for hobbyists to operate drones in open parks?

When a permit is issued, would it reflect a range of time, not a particular day or time?

How is the flying of drones enforced?

Please explain the FAA registering process?

Does the FAA have flying jurisdiction less than 400 feet?

Ms. O’Keefe answered this ordinance prohibits using technology to further invade private property. There are nuances of the bundle of property rights but not as explicit as the real estate law but it is something that may be considered. It is necessary to draw boundary lines to prohibit flying drones over private properties. The FAA registration process for hobbyists to register their drones includes registering on-line where you will be issued a certificate of registration for affixing to the drone. The FAA has jurisdiction over navigable air space, generally over 500 feet or 1,000 feet depending on the population density.

Commissioner DeRubeis answered that most of the time; the Parks & Recreation Department is contacted requesting permission to fly a drone which is appreciated. Permission is usually granted if the park does not have an event. He does prohibit large size groups desiring to fly numerous drones. He then said that permits can be issued with a rain date on them. Administratively, it is more difficult because of the three day range and parks where there is no scheduled event. He said that this draft ordinance is a good tool. It has to be determined what parks and times drones will be permitted to fly.

Chief MacDonald answered that registering the drone with an FAA number and photographs with the City would allow the department to identify the individual. Enforcement would remain difficult. He then stated that data from 2012 to the present depicts that there have been four reports of ‘Peeping Toms’. There has been one incident for a drone. Drones are not an issue at this

time, but agreed that the City must be proactive. He said that this draft ordinance would be beneficial if drones became an issue.

Councilor Ciccone opened the discussion to members of the public who were present. Residents expressed their concerns regarding pilotless aircrafts. They stated that drones are noisy, disruptive and invade privacy. The residents in attendance support assigning parks and times where drones will be allowed to fly. They agree that the draft ordinance is a good working tool. A resident suggested the Committee consider differentiating between commercial drone uses versus hobbyists use. A resident stated that drones are educational to children by engaging them into STEM (science, technology, engineering and math) education that is essential for student success.

Ms. O'Keefe answered that this draft ordinance addresses hobbyists drone users. Commercial drone use is heavily regulated by the FAA, which is pre-empted from municipal regulations. The FAA is still in the process of formulating their regulations, their regulations may alter the registration process or parts of this draft may be preempted, but we have to be pro-active.

Councilor Albright asked if this draft ordinance should be reviewed to reference commercial drone use? Ms. O'Keefe answered that she expects changes but it is the will of the docketers. Councilors Albright, Baker and Norton urge the Committee to approve a new City Ordinance.

Without further discussion, Councilor Blazar moved approval. Committee members agreed 4-0-1, Councilors Yates abstaining and Lipof not voting. Councilor Yates abstained as he missed the conversation.

Committee Clerk's note: On 03/24/16, I received an email, on file from the constituent requesting Councilor Albright docket this item. He attended this discussion and spoke briefly. His email in part stated "fully support the proposed draft ordinance (Docket #197-15) created by the Public Safety and Transportation Committee. We hope that the City Council, as a whole, will pass the city ordinance when it comes before them".

**#326-14 Discussion and plan to replace parking meters**

ALD. ALBRIGHT, requesting a discussion and a plan to replace all Newton parking meters within two years. [08/19/14 @ 9:16 AM]

**Action: No Action Necessary 5-0, Councilor Lipof not voting**

**Note:** Councilor Albright and Mr. Mark joined the Committee for discussion on this item.

Mr. Mark stated that the Department of Public Works is excited to report that a plan to replace Newton parking meter technology is complete. The City is in final negotiations with a vendor and anticipate that smart parking technology options will come to fruition this summer. Details will be provided during budget discussions by the Executive Department.

Mr. Mark stated that it would not be necessary for the City to purchase new parking meters; the technology will work on existing meters. The City anticipates replacing parking meters in the

municipal parking lots with Kiosks. The Kiosks would be sheltered in order to block the sunlight, illuminated at night and is user friendly.

'Smart' phone technology

Smart phone technology would allow a driver to pay at a parking meter using a 'smart' phone application; coin would no longer be required. Text messages would be sent informing the driver that the meter is due to expire, upon receipt the driver could extend the meter time using the app.

'Flip' phone technology

Drivers with flip phones are allowed to pay for meter parking using Kiosks. Kiosks accept coin or credit card; dollar bills are not accepted.

Council members and Councilors present asked the following:

Does the City anticipate revenue increasing or decreasing with new parking technology?

Does the City anticipate a decrease or increase in the amount of written violations?

Mr. Mark answered that the vendor anticipates revenue increasing by approximately 20-40%; he expects a decrease in the amount of written violations because drivers will use the new user friendly technology. The technology will also assist the parking control clerks in writing violations.

Without further discussion, Councilor Norton moved no action necessary. Committee members agreed 5-0, Councilor Lipof not voting.

**#80-16 Discussion on alternative bus routes impacting the closing of the Elliott Street Bridge**  
COUNCILOR YATES, requesting a discussion with the Massachusetts Department of Transportation and Massachusetts Bay Transportation Authority to work with the City to develop alternative routes for bus route 59 that lessen the impact of closing the Elliot Street (Cooks) Bridge. [02/22/16 @ 4:45 PM]

**Action:** **Held 5-0, Councilor Lipof not voting**

**Note:** Mr. Mark joined the Committee for discussion on this item.

Mr. Mark stated that he has been communicating through e-mail with the Senior Transportation Planner of the MBTA regarding the closure of the Elliott Street Bridge because City Councilors and residents have expressed their concerns about the MBTA plan for re-routing the affected bus stops.

On February 3, 2016; Mr. Mark asked the MBTA the following:

- 1) Acknowledgement of the bridge closure from July through December?
- 2) Working on a detour route?
- 3) Is/will notify the affected riders along the route as to new routes, buses and locations of stops?

On February 3, 2016; the MBTA replied to Mr. Mark regarding his questions. The MBTA answered yes, to his three questions and informed him that there would be minimal impact on the Newton side of the route.

Councilor Yates raised concerns asking why the MBTA thought that closing the Elliot Street Bridge would only be minimal impact on the Newton side of the route. Mr. Mark answered that he did not know their reasons.

On March 21, 2016; the MBTA provided Mr. Mark with an e-mail informing him that on March 23, 2016, they would be reviewing the current route and proposed changes.

Mr. Mark stated that it is necessary to inform affected riders of changes to new routes, buses and locations of stops. He awaits confirmation from the MBTA that they will notify affected riders of these changes by placing signs with effective dates. If the MBTA does not place signs, the City will.

Without discussion, Councilor Yates made a motion to hold this item pending the MBTA place signs of changes notifying affected riders or that the City place signs once notified of the MBTA bus route changes. Committee members agreed 5-0, Councilor Lipof not voting.

**#105-16      Extension of time for police to inspect taxicabs and public autos**  
POLICE DEPARTMENT, requesting an extension of time of **Sec. 19-309. Requirements as to vehicles generally** (b) Annual inspection of vehicles, of the Revised Ordinances of the City of Newton. [03/11/16 @ 10:35 AM]

**Action:**      **Approved 5-0, Councilor Lipof not voting**

**Note:**      Sgt. Babcock joined the Committee for discussion on this item.

Sgt. Babcock said that he docketed this item aware of a deadline per City Ordinance for inspections. Due to the Sweet Tomatoes crash investigation, the Police Department is not able to conduct taxi and public auto inspections on time. City Ordinance requires "all vehicles licensed pursuant to the provisions of the ordinance which are used for transporting persons shall be inspected annually by the chief of police in March or October of each year". Sgt. Babcock is requesting an extension to May 2, 2016 to inspect vehicles for hire.

Without discussion, Councilor Yates made a motion to approve this item. Committee members agreed 5-0, Councilor Lipof not voting.

At approximately 9:15 pm, Councilor Yates made a motion to adjourn. Council members agreed 5-0, Councilor Lipof not voting.

**Respectfully submitted,**

**Allan Ciccone, Jr. Chair**

CITY OF NEWTON  
LAW DEPARTMENT  
INTEROFFICE MEMORANDUM

To: Councilor Ciccone, Chair, and Members of the Public Safety and Transportation Committee  
From: Maura O’Keefe, Assistant City Solicitor  
RE: Docket Item # 197-15  
Date: March 15, 2016

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**Introduction**

This memorandum is provided on behalf of Councilors Albright, Baker and Norton as a brief explanation about the creation of the draft ordinance for discussion in connection with the above referenced Docket Item #197-15.

**General Background**

The proliferation of the use of pilotless aircraft, commonly referred to as drones, has created a need to address certain concerns connected to their operation. This increased use has transpired faster than Congress, the Federal Aviation Administration (“FAA”), and the Commonwealth can enact appropriate legislation and regulations. It has been left to local agencies and municipalities to fill a legislative void to protect the privacy interests and the general safety of the public.

In creating an ordinance to regulate the operation of pilotless aircraft, it is necessary to take care in respecting the singular authority of the FAA and its jurisdiction over the airspace above 400 feet, larger aircraft, and commercial pilotless aircraft. This jurisdiction, while comprehensive, still leaves ample room for the City of Newton to regulate the use of pilotless aircraft in a way that protects the interests of its residents.

There are three general areas of concern that this ordinance seeks to address: public safety, privacy and nuisance. Building on existing tenets of privacy protection and utilizing the

City's police powers under Home Rule Legislation, this proposed ordinance seeks to protect the ability of the City's residents to enjoy private property without disturbance, and public property without injury.

**The Draft Ordinance: Pilotless Aircraft Operation**

Because this is a novel and growing area of municipal regulation, careful examination was made of the by-laws of any early adopting communities, such as Chicago and Miami, among others. In order to address the central areas of concern, it was also imperative to examine any pertinent existing statutes, to fully understand a context for the changing technology. For example, this ordinance is intended, in part, to compliment the City's Trespass and Peeping Tom ordinance at Section 20-61, the right to privacy as referenced in the General Laws Chapter 214 §1B,<sup>1</sup> as well as the City's Noise Ordinance, Sections 20-13 – 20-19.

Employing the City's police powers, this draft ordinance also pays particular attention to the public safety concerns associated with the operation of pilotless aircraft. The enumerated prohibitions, again tracking the federal regulations, generally bar reckless operation, demand that the operator maintain safe control of the pilotless aircraft at all times, and refrain from operating in a way that could cause injury.

**Education and Registration**

The registration requirement for the draft ordinance serves two main purposes, and is meant to work in conjunction with the existing FAA registration process. First, it assists the City, through the Clerk's office, in identifying owners of pilotless aircraft that are in violation of the

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<sup>1</sup> The statute states in its totality: "A person shall have a right against unreasonable, substantial or serious interference with his privacy. The superior court shall have jurisdiction in equity to enforce such right and in connection therewith to award damages."

ordinance. The registration process tracks the federal requirements<sup>2</sup>, but adds a few key components. In addition to the FAA registration, this ordinance requires that pilotless aircraft owners provide photographs of the aircraft, showing that the registration number has been properly affixed to the aircraft, along with the make, model and serial number of each pilotless aircraft in possession of each owner.

Second, it is also proposed that there be an educational component to the registration process. Upon registration, the Clerk's Office would provide materials concerning the permitting process, contact information, and a copy of the ordinance, for example.

### **Conclusion**

In general, the purpose of the ordinance is to balance the interests of all residents by creating a safe environment for everyone, without inhibiting the proper enjoyment of a burgeoning pastime.

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<sup>2</sup> The FAA requires that any pilotless aircraft weighing between 0.55 lbs. and 55 lbs. be registered. The applicant must provide a name, physical address, mailing address and email address. The cost is \$5 per applicant. In return, the FAA provides a singular registration number for the applicant to affix to each pilotless aircraft owned by the applicant.



**ITEM # 197-15: DRAFT ORDINANCE FOR DISCUSSION PURPOSES**

Pilotless Aircraft Operation

Purpose: The use of pilotless aircraft has become increasingly prevalent and has a significant impact on the safety and security of the people of the City of Newton. In order to protect the privacy of residents throughout the City, and to prevent nuisances and other disturbances of the enjoyment of both public and private space, regulation of pilotless aircraft is required. The following section is intended to promote the public safety and welfare of the City and its residents. In furtherance of its stated purpose, this section is intended to be read and interpreted in harmony with all relevant rules and regulations of the Federal Aviation Administration, and any other federal, state and local laws and regulations.

(1) Definitions:

Pilotless Aircraft – an unmanned, powered aerial vehicle, weighing less than 55 pounds, that is operated without direct human contact from within or on the aircraft.

(2) Registration: The owner of a pilotless aircraft shall register each pilotless aircraft with the City Clerk’s office, prior to operation. The cost of registering a pilotless aircraft shall be \$TBD. Owners must have proof of registration in their possession when operating a pilotless aircraft. Registration shall include the following:

- (a) The owner’s name, address, email address and phone number;
- (b) The make, model, and serial of each pilotless aircraft to be registered;
- (c) A copy of the owner’s Federal Aviation Administration Certificate of Registration for pilotless aircraft;
- (d) A photograph of each pilotless aircraft, clearly indicating that each pilotless aircraft is marked with the Federal Aviation Administration registration number.

(3) Operating Prohibitions. The use and operation of all pilotless aircraft within the City shall be subject to the following prohibitions.

- (a) No pilotless aircraft shall be operated:
  - (i) over private property at an altitude below 400 feet without the express permission of the owner of said private property;
  - (ii) at a distance beyond the visual line of sight of the Operator;
  - (iii) in a manner that interferes with any manned aircraft;
  - (iv) in a reckless, careless or negligent manner;

- (v) over any school, school grounds, City property, conservation land, or sporting event without prior permission from the appropriate City Department;
- (vi) for the purpose of conducting surveillance unless expressly permitted by law or court order;
- (vii) for the purpose of capturing a person's visual image, audio recording or other physical impression in any place where that person would have a reasonable expectation of privacy;
- (viii) over any emergency response efforts;
- (ix) with the intent to harass, annoy, or assault a person, or to create or cause a public nuisance;
- (x) in violation of federal or state law, or any Ordinance of the City of Newton.

(b) The Chief of Police, or designee, may prohibit the use or operation of pilotless aircraft where it is allowed, or allow the operation of pilotless aircraft where it is prohibited, during an impending or existing emergency, or when such use or operation would pose a threat to public safety.

(4) Permit Required: No person shall use public property to launch or land a pilotless aircraft without a permit issued by the appropriate jurisdictional Department, Board or Commission of the City of Newton.

(5) Noise Ordinance: All Operators shall comply with the Noise Ordinance at Section 20-13, as amended, at all times while operating pilotless aircraft within the City.

(6) Penalties: A violation of any section of this Ordinance shall be punishable by a fine of not more than \$(TBD).

(7) Separate Violations: Action taken pursuant to this section shall not bar any separate action by any other City Department for any other violations.

(8) Severability: If any provision of this section is held to be invalid by a court of competent jurisdiction then such provision shall be considered severable from the remaining provisions, which shall remain in full force and effect.

(9) Regulations: The City and its Departments may promulgate rules, regulations and policies for the implementation of this Ordinance.

## Danielle Delaney

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**From:** David A. Olson  
**Sent:** Wednesday, March 02, 2016 9:29 AM  
**To:** citycouncil  
**Cc:** Danielle Delaney  
**Subject:** FW: Drones  
**Attachments:** SomeThoughtsonDronesv3.docx.pdf

**From:** Kenneth Glusman [<mailto:kenneth.glusman@gmail.com>]  
**Sent:** Tuesday, March 01, 2016 4:12 PM  
**To:** David A. Olson  
**Subject:** Drones

Dear Mr. Olson,

I'm very concerned about the effect that drones will have on the quality of life in Newton. Would you please circulate the attached memorandum to all of the city councillors? Thank you.

Kenneth Glusman

SOME THOUGHTS ON DRONES

KENNETH GLUSMAN

**Executive Summary**

I recommend that you watch this 14 second video before reading this paper.

<https://www.youtube.com/watch?v=xqHrTtvFFIs>

Recently promulgated federal regulations allow extensive use of drones weighing less than 55 pounds (including payload). At the same time, the FAA has made it clear that state and local regulation of drones is permitted, so long as the local laws do not conflict with federal regulations. **The current position of the FAA is that localities can regulate or even ban drones at low altitudes.**

The potential abuses of drones are numerous and very serious. They include invasion of privacy, noise, harassment, accidental collision, and intentional harm to persons and property. On the other hand, the beneficial uses of drones in urban and suburban areas are limited and the need for them is far from compelling.

Newton would be better off without any drones. However, if the decision is made to allow the use of drones by hobbyists, it would be wise to restrict their use to areas that are far away from buildings and people on the street. This could be done by designating park areas for drone use, and only during designated hours. The use of commercial drones should be banned for now. Since there is no compelling case for the use of drones for commercial purposes, let other communities try them out first. We can profit from their experience.

I have attached a model ordinance at the close of this paper.

**Discussion**

What is a Drone?

A “drone” as that term is commonly used for non-military purposes is an unmanned, remotely-controlled aircraft that can hover. Drones available at retail are usually a form of helicopter. Unlike model aircraft of the past, they can lift some fairly heavy objects (depending on the size of the drone). For example, the DJI Phantom 3 Professional Quadcopter weighs four pounds. It can stay in the air for more than 20 minutes. It is noisy; one user said that close-up it sounds like a swarm of bees. It costs about \$1000, and comes equipped with a camera that can send video back to the operator. It has GPS capability; the manufacturer claims that it can find its way back to its controller if contact is lost.

Larger drones can carry objects as heavy as pistols (or more), but they are more expensive.<sup>1</sup>

### Who Wants Drones?

1. The probable recreational user of a drone is a young male. As a group, young males are more impulsive and have less judgement than any other segment of the population. As a result, we can see that the drone is a device that has a high potential for abuse, and that it will likely be in the hands of those most likely to abuse it.
2. Next, there are the potential users of drones for “legitimate” governmental or commercial purposes. These could be law enforcement, delivery services, hobbyists, and a host of others. The problem with legitimate use is determining whether the risks and abuses of drones can be justified by the alleged benefits. In addition, even conceding the occasional benefits of drones, we have to decide whether we want to live in a world full of noisy devices buzzing through the air. See below.
3. Then there are the outright sociopaths and psychopaths--criminals, perverts and terrorists. For these types, the drone is an excellent vehicle for invading privacy, doing harm or causing fear without getting caught.

### Why Worry About Drones?

1. Concerns about drones fall into the following categories: privacy, safety, noise, security, and a general view that one should not have to worry about ducking these things whenever one is out of doors.
  - a. Even the small drones are quite noisy.
  - b. Drones are radio-controlled, and sometimes the system does not work, leaving an uncontrolled drone in the air. The technological ability of drones to avoid flying into things is an open question.
  - c. The number of drones in the air over Newton at any given time is theoretically unlimited, *and* they are now so inexpensive that almost anyone can buy one. Thus, we now must contemplate a world in which the air will be filled with noisy flying objects that can take pictures and video, broadcast sound, and sport bright, flashing lights; and occasionally out of control.
  - d. Drones can carry cameras, loudspeakers, firearms, explosive devices and lights.

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<sup>1</sup> A loaded Glock .357 pistol holds 16 rounds and weighs about 32 oz. loaded. The DJI Phantom would not lift this much weight, but there are plenty of drones that will.

2. Misuse of drones is already common.
  - a. In Ocean City, MD, someone used a drone to follow a group of teenage girls around on the beach and then on the street. Of course, they were quite frightened, and they had no idea who was doing it. The city has now banned drones completely.
  - b. Someone flew a drone into the hand of a performer (Enrique Iglisias) at a concert, injuring him.
  - c. There are already drone-mounted firearms in the United States, in the hands of private citizens, some, if not all, of whom are quite unstable. I predict that the first assassination from a drone is less than two years away.
  - d. Drones have interfered with forest fire control efforts by interfering with aircraft over the fire area.
  - e. There have been numerous near misses in which drones came close to airplanes. The FAA frequently receives reports of drones operating in flight-restricted air space, often close to airports (including Logan Airport).
  - f. The FAA has received half a dozen reports since February, 2015, of drones flying over or near stadiums in Arizona, Pennsylvania and other states. On Oct. 14, 2015, a drone operating at a low altitude over Daytona Beach Municipal Stadium in Florida struck someone, causing a "mild abrasion," an agency report said.
  - g. Here is a link to a good article in the New York Times that lists some drone abuses.  
  
[http://www.nytimes.com/2014/11/27/technology/personaltech/as-drones-swoop-above-skies-thrill-seeking-stunts-elic-it-safety-concerns.html?\\_r=1](http://www.nytimes.com/2014/11/27/technology/personaltech/as-drones-swoop-above-skies-thrill-seeking-stunts-elic-it-safety-concerns.html?_r=1)
3. It should be apparent that drones can be used to facilitate criminal activity at much lower risk to the perpetrator than if he had to be present in person. Think of a drone as potentially a vehicle to carry a gun with eyes, that can travel through the air for miles, go around corners, fire at its victim(s), and then quickly disappear. Even the apprehension of the drone does not mean that the criminal will ever be found. Drones allow for convenient peering into houses at the upper floors, a practice that was previously beyond the ability of the average peeping tom. No doubt drones will replace automobiles as the vehicle of choice for drive-by shootings (a great savings in gasoline).
4. This is only the beginning.
  - a. Lawmakers in New York City have already raised the alarming prospect of drones in the hands of terrorists. We often read of the exciting possibilities of drones. Well, one has to

admit, this is pretty darn exciting.

- b. How do you feel about drones hovering over playgrounds or schoolyards?

### What is the Current State of the Law Regarding Drones?

#### Federal Regulation

1. The federal government (through the Federal Aviation Agency) recently released regulations on drones.
  - a. The FAA claims sole jurisdiction of the airspace above 400 feet above the ground. It claims that the states have no power to regulate above that level. There is extensive regulation of drones weighing more than 55 pounds, or that fly above 400 feet.
  - b. Drones weighing .55 pounds or less are completely unregulated. These are the inexpensive toys.
  - c. As far as the FAA is concerned, drones that weigh more than .55 pounds and less than 55 pounds may be used for non commercial purposes at any time and place, so long as they do not fly higher than 400 ft. above the ground, *and* the owner registers the drone with the FAA. The FAA does suggest that drone users follow community guidelines as promulgated by the major hobby clubs. Of course, most drone users will not know or care about what the hobby clubs think, and their rules do not have the force of law.
  - d. The regulation requires *registration* of drones weighing up to 55 pounds. As of this minute it is perfectly legal for a ten year old boy to fly a 54.9 pound object all over Newton at any hour of the day or night, so long as it is properly registered.
  - e. It is difficult to see what useful purpose registration serves. In no way does it protect our safety or our privacy. It will still be impossible to identify the owner of a registered drone that flew away, which will be 99+% of them.<sup>2</sup>

#### State and Local Regulation

1. The FAA has sensibly decided that it should be up to the states and cities to decide what can be done with drones, where, and when. In its December 17, 2015, Fact Sheet, the FAA stated that such matters were left to local regulation, up to 400 feet above the ground. Far from saying that it has the sole power to regulate drones, the FAA's position is as follows: *State and local restrictions affecting UAS [drone] operations should be consistent with the extensive federal*

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<sup>2</sup> There is a great similarity to the recent proposal to register Newton landscapers as a way of controlling leaf blower noise. The registration of landscapers will do nothing to limit leaf blower noise, but it does look like the city is doing something about the problem. You just have to hope that nobody thinks about it for more than 30 seconds.

*statutory and regulatory framework pertaining to control of the airspace, flight management and efficiency, air traffic control, aviation safety, navigational facilities, and the regulation of aircraft noise at its source.*

2. Of course, peeking in windows or firing a gun in the city would violate other laws. **The fact that the bad things drones might be used for are already illegal is not the point. The point is that drones make it all too easy to do illegal and anti-social things and get away with them scot free. That's why we can't have drones.**
3. The drone industry is well and truly geared up to fight off regulation.

<http://www.nytimes.com/2015/12/28/technology/faa-drone-laws-start-to-clash-with-strict-local-rules.html?hpw&rref=technology&action=click&pgtype=Homepage&module=well-region&region=bottom-well&WT.nav=bottom-well>

4. Until recently, the drone industry argued strenuously that local regulation of their products would not be allowed under the doctrine of federal pre-emption. However, the FAA's Fact Sheet of December 17, 2015, has rendered moot a discussion of federal pre-emption, at least for now. The FAA's position is that even a complete ban on drones in a city is not precluded by federal law.
5. There are already hundreds of proposals to limit drone use and many have been enacted.<sup>3</sup> Most of them are limited in scope (such as not allowing them at concerts), but a few, such as Ocean City's, ban drones entirely.

#### What Should Newton Do About Drones?

1. Deciding what to do about drones is a classic cost/benefit analysis. Drone proponents like to say that it is wrong to penalize an entire class of people because a few of them will abuse the drones. They do not recognize that the drones themselves are the problem. Moreover, it is perfectly valid to prohibit any activity with low social value and a high potential for abuse or harm (for example, illegal drugs or hunting in populated areas). Drones are a perfect example of this. They have a huge potential for harm or abuse and their social utility is limited, in spite of the hype they have received. Over time there may well appear legitimate uses for drones that have relatively low potential for abuse or harm (monitoring crop health in Iowa or forest fires in Oregon, for example). These can be permitted on a case by case basis. That's the safe and sensible way to do it. Keep in mind that most of the drones we would have to deal with here in Newton will be toys.

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<sup>3</sup> My personal favorite comes from Tennessee and a few other states, where it is illegal to use a drone to harass a hunter or angler. Apparently, anti-hunting forces were using drones to scare away the game. Otherwise, there is amazingly little regulation of civilian use of drones. That will soon change.

<sup>4</sup> I have no view at the moment as to whether the city administration should be allowed to grant waivers, although it would seem safer to keep that power in the hands of the Board.



2. It would be all too easy to say “Well, let’s wait and see whether this is really a problem.” By the time we find out for sure that we have a problem, it will be much harder to solve it. Leaf blowers are the perfect example of an issue that should have been dealt with 20 years ago. Now, it is probably be too late. The time to deal with drones is now, while some semblance of common sense can be brought to bear.
3. What should Newton’s drone law provide? If the safety, security, and peace of mind of your citizens are your goals, ban drones completely. Short of that, drones should not be allowed where they can cause trouble. I have provided a draft ordinance below. I am sure that it will need refinement, but as a concept piece, it’s OK for now.
  - a. Using drones well away from any built-up area or in an indoor facility could be permitted, so that hobbyists can use them in ways that have low potential for harm or abuse.
  - b. What about delivery drones? From what I have been reading, these will be a nightmare, but the technology is nowhere near ready for use. These drones will be relatively heavy and noisy, and will create many problems. By the time of the first decapitation, it will already be too late to solve the problem, lest Amazon’s bottom line be affected. It is not clear that cities will have the power to ban them. Here is a link to a good article on problems with delivery drones.  
  
<http://spectrum.ieee.org/automaton/robotics/aerial-robots/amazon-latest-drone-promo>
  - c. My proposed law would make it almost impossible to use drones commercially in Newton because (other than golf courses or colleges) there is little private property in Newton that has that much open space. There is a good reason for this: commercial drones should not be used in populated areas where the potential for harm is relatively great. Should some business use of a drone seem so beneficial, and at the same time free of potential harm or abuse, that it ought to be allowed, then that business can come before the Board and ask for legislative relief. But caution should be the order of the day—it is just too difficult to stuff the evil genie back into the bottle.
  - d. As always, enforcement will be a problem. This is not a reason to throw up our hands and sigh “What can we do?” It is a challenge that we will have to face, and do the best we can. The technology to stop drones operating in our towns does exist (or it might be better to say, there are claims that such technology exists), fortunately.<sup>5</sup>

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<sup>5</sup> <http://www.digitaltrends.com/cool-tech/battle-innovations-anti-drone-gun/>. Because the drones are controlled by radio, their signals can be jammed. Generally, jamming is illegal, but we can be sure that harassed citizens who cannot get help from their governments will turn to self-help. It may also be possible to disable drones using sound waves. [http://www.aviationtoday.com/rw/topstories/Study-Sound-Waves-Can-Disable-Drones\\_85780.html](http://www.aviationtoday.com/rw/topstories/Study-Sound-Waves-Can-Disable-Drones_85780.html).

- e. I cannot say too many times: **We should not have to look up into the sky and wonder whether every drone we see is going to be used solely for lawful purposes. We should not have to listen to the noise. We should not have to live that way. We cannot have drones in our neighborhoods.**

### Model Drone Law

1. For purposes of this section, a “UAS” is any powered, unmanned aircraft capable that weighs .55 pounds or more. No person shall
  - a. operate a UAS at an altitude of less than 400 feet above ground level in the airspace over the City of Newton, or
  - b. operate a UAS that is controlled from, launched or landed within the City of Newton, regardless of where the UAS is actually flown.
2. Section 1 shall not apply to any person, lawfully and properly acting within his or her official capacity as an employee or agent of the governments of the United States or the Commonwealth of Massachusetts, including any political subdivision or agency thereof.<sup>6</sup>
3. Section 1 shall not apply to the operation of a UAS within a fully enclosed building, or within 400 feet of a building, provided that the UAS operator has the prior, written consent of the owner (or all of the owners, if there is more than one) of such building. With respect to areas not fully enclosed within a building, nothing in this section shall be construed to (a) allow the operation of a UAS within 400 feet<sup>7</sup> of any private or public property, unless the owner(s) of such property have previously consented in writing to such operation, (b) allow the operation of a UAS before 9:00 o’clock a.m. or after 7:00 o’clock p.m., (c) allow the operation of a UAS out of the direct line of sight of the operator, (d) allow the operation of a UAS at an altitude of more than 400 feet above ground level, or (e) allow the operation of any UAS weighing more than seven pounds, including payload.<sup>8</sup>
4. The Mayor may designate places and times at which the operation of drones for recreational purposes is permitted over property owned by the City. The Mayor may impose additional restrictions on the operation of UAS for the purpose of preserving the safety, security and quality of life of the citizens of Newton. With respect to areas not fully enclosed within a building, nothing in this section shall be construed to (a) allow the operation of a UAS within 400 feet of any private property, unless the owner(s) of such property have previously consented in writing to such operation, or of any public right of way, (b) allow the operation of a UAS before 9:00 o’clock a.m. or after 7:00 o’clock p.m., (c) allow the operation of a UAS out of the direct line of sight of the operator, (d) allow the operation of a UAS at an altitude of more than 400 feet above

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<sup>6</sup> If there are to be restrictions on drone use for law enforcement or other governmental purposes, it makes more sense to have them apply at the state level.

<sup>7</sup> I chose 400 feet for two reasons: safety and noise. Drones can make a lot of noise, especially at a drone park where we would expect to see and hear several flying at the same time, and so should be kept well way from residences.

<sup>8</sup> Seven pounds, loaded, is still quite a large hobby drone.

ground level, or (e) allow the operation of any UAS weighing more than seven pounds, including payload.

5. Any violation of this [chapter] shall be punished by a fine not in excess of \$500 and, in addition, if there has been a previous violation of this [chapter] by the person operating the UAS, the UAS and any device used to control the UAS shall be confiscated by the City, forfeited, and destroyed.
6. Whenever possible, this [chapter] shall be construed so as not to conflict with state or federal law. Should any provision of this [chapter] be declared by a court of competent jurisdiction to be invalid, the remaining provisions of this [chapter] shall remain in full force and effect.

## Comments on Draft Ordinance Regulating the Use of Drones

Kenneth Glusman

The City Council is about to begin a consideration of drones. Should they be allowed in our city at all, and if so, when and where? Drones are dangerous and noisy, and can be used for a host of abuses. Roman Pirozek of Queens, New York, found out the hard way how dangerous drones can be. His remotely controlled helicopter flew into his head and killed him.

<http://nypost.com/2013/09/05/man-decapitated-by-remote-controlled-toy-helicopter/>. In that case, the person killed was the operator and not some completely innocent bystander. But it could have been anyone. As the City Council ponders this matter, it should keep in mind that the stakes can be very high. If any given city councilor is ready to vote in favor of allowing the use of drones in our neighborhoods, that councilor should have ready a response to the parent, child or spouse of someone who is killed or seriously injured by a drone, who asks: “How could you have permitted this?”

It is a great comfort to me that the city council is addressing this issue now. Unless we take action soon, the proliferation of drones is going to change the way we live, and not in a good way. They will be cheap and probably become ubiquitous over time. It will be quite common to see and hear drones, to have to duck to avoid them, to have them crashing into persons and property. Our privacy, already under assault in so many ways, will be severely compromised.

There is a lot to like in the proposed ordinance (if you don't like drones). On the other hand, it is fairly complex and some of it is open to interpretation. And, it will be difficult to enforce. This leads me to conclude that the better approach would be to restrict the use of drones to designated places away from residential and commercial areas. Such a rule would be easy to understand and enforce. If you see a drone and it isn't in a “drone park,” you know it is being flown illegally. No need to consider who has given consent, how much noise the drone is making, or the intentions and purposes of the operator. I think we get to the same place in terms of the scope of the law, but on a more direct and enforceable path.

### Summary of the Proposed Ordinance

The proposed ordinance applies to drones (pilotless aircraft) weighing less than 55 pounds. It does not exempt drones weighing less than .55 pounds, as the federal rule does. All drones subject to the ordinance must be registered with the city, and the registration materials include a photograph of the drone, as well as information to identify the owner, plus contact information.

The ordinance allows the use of registered drones in the city, except as specified. Areas in which drones may not be used include: (1) at a height of under 400 feet over any private property without the owner's consent, (2) over any city property, without the city's consent, (3) out of the line of sight of the operator. Also, drones may not be launched or landed from or on any public

property (which I assume is a broader term than city property) without the owner's consent. As a practical matter, this means that the use of drones almost anywhere in the city without consent is prohibited. One notable exception is that drones may be used over *public* property (other than city property), so long as the drones are not launched or landed from public property, and are not flown over any city or private property, without consent, on the way to and from the public property. I do not see how that could be done, unless the drone in question is launched from private property, with consent, and that private property abuts public property (and that public property is not city property).

The proposed ordinance also forbids the use of drones for enumerated purposes, such as invasion of privacy (but only if the intention is to take pictures of a person), harassment or surveillance. A violation of local, state or federal law by the use of a drone is also a violation of the ordinance.

#### Registration Requirement May be Invalid

The rules of the FAA require the registration of drones weighing more than .55 pounds. The FAA Fact Sheet dated December 17, 2015 states that no state or local government may impose an additional registration requirement on the operation of drones in navigable airspace without first obtaining FAA approval. That is the FAA's position, although it may have overreached. Does Newton have the power to impose its own registration requirements? Should it seek approval before attempting to impose a registration requirement?

#### This Ordinance Will Apply Primarily to Toys

The federal restrictions applicable to the commercial use of drones render illegal any use of a drone for commercial purposes, unless the FAA grants the operator a "section 333 exemption." These exemptions generally come with a host of conditions, which effectively preclude the use of commercial drones within an urban or suburban area. For example, the conditions typically preclude the use of the drone within 500 feet of any person, structure or vehicle, unless with consent. Also, the operator must have a pilot's license. *See* [http://www.faa.gov/uas/legislative\\_programs/section\\_333/333\\_faqs/](http://www.faa.gov/uas/legislative_programs/section_333/333_faqs/). Thus, this ordinance will affect the use of drones as toys, while the use of drones for business purposes in a city such as ours is already pretty much precluded by federal law. I note that the proposed ordinance forbids the use of drones in violation of federal law, so that the operation of drone for commercial purposes without a section 333 exemption would also violate the proposed ordinance. That is a good thing; I have no faith that the federal government will be pursuing realtors who use drones to take pictures of the upper stories of houses listed for sale.

The proposed ordinance goes on to prohibit enumerated uses of drones, even when they are operated over property with the consent of the owner, or the city, as the case may be. This part of the proposed ordinance contains ambiguities and allows some behaviors to escape its scope that arguably should be included.

- It forbids the operation of a drone *over* private property, but not *near* private property.<sup>1</sup> The same is true of school yards and other public property. However, a drone does not have to be *over* a school yard to be dangerous or a nuisance. It can hover five feet from the property line and 25 feet above the ground, and be every bit as dangerous and obnoxious as if it were over the property in question. This provision does not accomplish its intended purpose.
- The use of the word “over” is problematic. Does it mean directly over? Presumably, it does not mean “at the same level” or “below” even though drones could be a major nuisance in those cases. For example, a fire fighter up on a ladder should not have to be distracted by a drone that is near him or her, but not *over*. The same problem would arise if a drone carrying a camera were used to observe a police officer in the discharge of his or her official duties. The drone might very well not be *over* the officer.<sup>2</sup>
- It provides a requirement for consent, but does not require *written* consent, thereby opening the door for disputes over who said what to whom.
- It forbids acts based on their purpose or intent, which allows anyone to argue that he or she did not have the forbidden intent or purpose. *Intent* has nothing to do with this. What matters is the *effect*.
- The law seems to make clear that drones may be used to take pictures of people in situations in which they do not have a reasonable expectation of privacy. Whether there is a reasonable expectation of privacy in any given situation has been the subject of a great deal of judicial attention, and it would be better to use some standard that is more readily understood and applied by the general public and law enforcement. Moreover, in my experience, people do not like having their pictures taken without their consent, even in public, but drones make this very easy to do with impunity. I suggest that the law be that drones may not be used to take pictures or video of anything or anyone without the written consent of the owner or the person, as the case may be.
- How would the proposed ordinance work with the noise ordinance? It appears that drone noise would be covered by Section 20-13(e)(1) as general-category noise pollution. The noise created by a drone is in the nature of a whine, so that the only a 5 dB increase over background noise would be allowed. This might have the theoretical effect of banning a lot of drones, but it will not be effective in practice, due to the need for measurement of the sound volume. The leaf blower law currently in effect has been a complete failure for this reason.

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<sup>1</sup> Contrast this provision with the FAA rules, which use the word *within* a specified distance, rather than *over*.

<sup>2</sup> I see that there is a provision forbidding the operation of a drone with the intent to harass someone, but the use of an intent-based rule is problematic (see below). In any event, the drone would be able to evade apprehension with ease, which is not the case where the harassment is done by a human on the ground.

- How would the proposed ordinance work with the peeping tom laws or other laws designed to protect privacy? *See* M.G.L. Ch. 272, § 105. That provision covers only the recording of images of a person under specified conditions, and is not a general rule protecting privacy.

None of these drafting pitfalls is present in an ordinance that simply bans the use of drones, except in designated places and at designated times.

#### Other Suggestions

- You may be sure that sooner or later a drone will crash into somebody or something. These things can travel at 50 mph or more! Have you considered the effect of a collision with a 20 pound object traveling at 50 mph? Don't you want to have a weight limit?
- Given the high potential for damage to persons or property, should the operator of a drone be required to have liability insurance for the operation of the drone?
- The ordinance says that the drones can't be launched or landed from *public* property without permission (which I assume would be burdensome to obtain, if not impossible, and that is just fine with me), and also says the drones can't be operated over any *city* property without permission. I understand that some roads in the city are the property of the city, others are the property of the Commonwealth, and still others are private. The sidewalks, I believe, belong to the city. Thus, the launching and landing of drones is regulated differently from the flying of the drones. It appears that it would be legal to launch a drone from one's own property and fly it over a state road, but not over a city road. This is confusing, and I don't understand the reason for the distinction.
- I suspect that most roads in the city are owned by the city. Under the proposed ordinance, therefore, a kid could not take a drone out into the street and fly it. That is good. However, even if a drone is operated only over one's own property, the dangers and inconveniences of drones to the neighborhood will still be present, although clearly to a lesser extent than if the drones could be operated freely throughout the city. To me, this argues in favor of restricting the use of drones to designated areas.



**Danielle Delaney**

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**Subject:** FW: Elliot Street Bridge Newton, Ma Detour Plan

**From:** Danielle Delaney  
**Sent:** Wednesday, March 02, 2016 4:28 PM  
**To:** Brian E. Yates  
**Subject:** FW: Elliot Street Bridge Newton, Ma Detour Plan

**From:** Shane Mark  
**Sent:** Wednesday, March 02, 2016 3:42 PM  
**To:** Danielle Delaney  
**Cc:** David Koses  
**Subject:** FW: Elliot Street Bridge Newton, Ma Detour Plan

FYI

**Respectfully,**  
**Shane L. Mark M.S.**  
Director of Operations  
Department of Public Works  
City of Newton  
1000 Commonwealth Ave.  
Newton Centre, MA 02459  
Office: 617-796-1494  
Cell: 617-992-1553  
[smark@newtonma.gov](mailto:smark@newtonma.gov)

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**From:** Dugan, Dorsey [<mailto:dxdugan@MBTA.com>]  
**Sent:** Wednesday, February 3, 2016 3:10 PM  
**To:** Shane Mark  
**Cc:** David Koses; James Mcgonagle; Francis, Brian  
**Subject:** RE: Elliot Street Bridge Newton, Ma Detour Plan

Hi Shane,

Yes on all 3 of your points mentioned. It appears that there will be minimal impact on the Newton side of the route so I have reached out to Needham officials to confirm the routing on their side of the river. I have not heard back from them yet but once we finalize the diversion I will let you know.

Regards,

Dorsey P Dugan  
Senior Transportation Planner  
Massachusetts Bay Transportation Authority  
45 High Street, 5th Floor  
Boston, MA 02110  
(P) 617-222-2175  
(F) 617-222-3776  
[dxdugan@mbta.com](mailto:dxdugan@mbta.com)

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**From:** Shane Mark [<mailto:smark@newtonma.gov>]  
**Sent:** Wednesday, February 03, 2016 3:01 PM  
**To:** Dugan, Dorsey  
**Cc:** David Koses; Shane Mark; James Mcgonagle  
**Subject:** Elliot Street Bridge Newton, Ma Detour Plan

Dorsey,

Good afternoon, the City of Newton is holding public meetings as we move closer to July and the closure of the Elliot Street bridge. That said, the ward councilors and several residents who use the MBTA bus are concerned about MBTA's plan for re-routing the affected stops. David Kosas has been working on this coordination between the City and the MBTA. I have included him above. I am sending this email today in order to hopefully have you confirm the following:

- MBTA is in acknowledgement of the bridge closure from July – December
- MBTA is working on a detour route
- MBTA is/will notify the affected riders along this route as to the new routes, busses, and locations of stops.

We appreciate your continued support and help with this. Please feel free to contact me should you have questions.

**Respectfully,**

**Shane L. Mark M.S.**

Director of Operations  
Department of Public Works  
City of Newton  
1000 Commonwealth Ave.  
Newton Centre, MA 02459  
Office: 617-796-1494  
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feet from such proposed location. After such hearing, the public safety committee shall make its recommendation to the full board of aldermen.

(c) No stand so designated under this section shall be removed until after a public hearing has been held thereon by the public safety committee of the board of aldermen and a determination has been made by the full board of aldermen that such taxi stand is not in the best interests of the public safety and welfare.

(d) All taxi stands designated by the board of aldermen shall be duly posted and marked by the commissioner of public works.

(e) The taxi stands that, as of December 1, 1989, have been duly designated as taxi stands in the City of Newton by the board of aldermen are those on the list maintained by the planning department which list has been certified by the city clerk.

(f) Taxi stands shall be assigned to individuals or entities holding at least one license to operate a taxi in the City of Newton.

(g) The board of aldermen shall review the status of taxi stands every year. The board of aldermen reserves the right to assign more than one taxi cab company or holder of a taxi license to a taxi stand location.

(h) *Transfer of taxi stands*: No taxi stand designated or assigned to a particular person pursuant to this section shall be transferred unless such transfer is approved by the board of aldermen.

(i) The open public taxi stand located at Newton Corner shall not be used by any vehicle which has been assigned a special license pursuant to paragraph 19-333 (c) of this ordinance. (Rev. Ords. 1973, § 21-6; Ord. No. T-66, 12-18-89; Ord. No. T-291, 8-9-93; Ord. No. Z-111, 06-18-12)

#### **Sec. 19-306. Refusal to carry passenger.**

No person in charge of a taxi shall refuse unreasonably to carry a passenger. (Rev. Ords. 1973, § 21-18)

#### **Sec. 19-307. Operators to be respectful to passengers.**

The operator of any vehicle licensed pursuant to this chapter shall be respectful to passengers at all times. (Rev. Ords. 1973, § 21-19)

#### **Sec. 19-308. Picking up passenger after taxi is occupied or engaged.**

No person having charge of a taxi shall take up or carry any passenger after the taxi has been occupied or engaged by a prior passenger without the consent of such prior passenger. (Rev. Ords. 1973, § 21-20)

**Cross reference**—Health generally, Ch. 12

#### **Sec. 19-309. Requirements as to vehicles generally.**

(a) Vehicles licensed or permitted pursuant to this ordinance shall be kept in good condition, the interior shall be kept clean and suitable for occupancy and mechanically fit for the safety of passengers, as determined by the chief of police. No commercial advertising shall be permitted on the outside of such vehicles except the name or trade name and number of the person owning such vehicle.

(b) Annual inspection of vehicles: All vehicles licensed pursuant to the provisions of this ordinance which are used for transporting persons shall be inspected annually by the chief of police in March or October of each year,

and at such other times as deemed necessary by the chief of police. Each inspection shall include, but not be limited to the following:

- (1) inspection of the interior and exterior of the vehicle for appearance, cleanliness, and mechanical fitness;
- (2) recording the odometer reading of each vehicle, and verifying that the vehicle identification number (VIN), the taximeter serial number and the number of the taxi medallion or public automobile corresponds with such information as listed on the license assigned to the vehicle;
- (3) verification that the vehicle has a properly operating odometer, as determined by the chief of police. A vehicle with an inoperable or faulty odometer shall fail inspection; and
- (4) verification that each vehicle has a valid inspection sticker issued by the Commonwealth of Massachusetts indicating that the vehicle has passed said inspection. A vehicle which does not have such a sticker shall fail inspection.
- (5) verification that the vehicle is equipped with working seatbelts in open view and available for use in all seating areas used by passengers.

(c) Effective January 1, 1995 and thereafter, no vehicle shall be approved for use as a taxicab or public automobile or van in the city when the vehicle is ten (10) years old or older, the age of each vehicle to be determined from the year of manufacture to the year for which the vehicle license is to issue. (Rev. Ords. 1973, § 21-22; Ord. No. 88, 10-6-75; Ord. No. T-66, 12-18-89; Ord. No. T-291, 8-9-93; Ord. No. X-54, 5-19-03; Ord. No. A-31, 10-07-13)

**Sec. 19-310. Vehicle identification card, identity light and markings on taxis.**

(a) All taxis in the city shall display an identity light on top of the taxi which shall be visible from the front and rear and shall be illuminated at night. Such identity light shall be of such color and the word "taxi" or company name shall be lettered thereon in such color and size as the chief of police shall approve. The cylinder for the identity light shall be at least ten (10) inches long. All taxis licensed in the city shall have the name or trade name of the owner and the word "Newton" painted on both sides of the body of the taxi in standard letters not less than four (4) inches high and one-half inch wide.

(b) All taxis in the city shall display a vehicle identification card, issued by the chief of police, which bears the owner's name, telephone number, and the medallion number of the taxi. Such vehicle identification card shall be displayed in the passenger compartment of each taxi in such a manner as to be visible to passengers at all times. (Rev. Ords. 1973, § 21-23; Ord. No. T-66, 12-18-89; Ord. No. T-291, 8-9-93; Ord. No. Z-99, 11-21-11)

**Sec. 19-311. Taxicab seat belts.**

All taxicabs and public automobiles licensed by the board of aldermen to do business in the city shall be equipped with working seatbelts in open view and available for use in all seating areas used by passengers. (Rev. Ords. 1973, § 21-24; Ord. No. T-66, 12-18-89; Ord. No. T-291, 8-9-93)

**Sec. 19-312. Requirement of taximeters.**

(a) All taxicabs in the city shall be equipped with a taximeter. All taximeters in the city shall be inspected by the sealer of weights and measures not less often than annually and in any case shall be approved by said sealer of weights and measures as of the date the medallion is issued for each taxicab licensed pursuant to this ordinance. A taximeter with a broken seal shall be replaced and inspected at the time such taximeter is installed.