

CITY OF NEWTON

IN BOARD OF ALDERMEN

May 19, 2008

ORDINANCE NO. Z-26

BE IT ORDAINED BY THE BOARD OF ALDERMEN
OF THE CITY OF NEWTON AS FOLLOWS:

That the Revised Zoning Ordinances of Newton, Massachusetts, 2007, as amended, be and are hereby further amended as follows:

I. By adding to the provisions of **Sec. 30-18A(d). Wireless communication equipment allowed as of right.** the following new section:

(8) With prior notice to the clerk of the board of aldermen, exterior-mounted antennas, with a power source, not to exceed ten (10) feet in height as measured from the lowest point of attachment, screened from view in some manner and solely for municipal use on existing municipal structures in public use districts.

II. By adding to the provisions of **Sec. 30-18A(b). Wireless Communication Equipment Definitions.** the following new definition:

Wireless Mesh Network: a comprehensive wireless communication network comprised of wireless communication equipment consisting of multiple peer radio access points or repeaters small enough to be mounted on the arm of existing municipal light or power poles, as allowed by the review process under Section 30-18A(g).

III. By adding a new **Sec. 30-18A(g), Review Procedure for Wireless Mesh Networks**, as follows and renumbering the existing 30-18A(g) as (h):

(g) *Wireless Mesh Networks allowed by permit with a majority vote of the Board of Aldermen.* In public use districts, wireless communication equipment consisting of radio access points or repeaters for wireless mesh networks may be installed on the bracket arms of existing municipal light or power poles by majority vote of the full board of aldermen, acting on the advice and after hearing by the committee having jurisdiction over grants of location for utility poles, so long as the board finds that:

(i) the purposes of Section 30-18A are met; (ii) the design and operating criteria set forth in 30-18A(c) are met; (iii) the total height from the ground to the top of any antenna involved in such equipment does not exceed sixty (60) feet and provided that all control and operating equipment associated with any access point can be mounted on the same bracket arm at a height no less than twenty (20) feet above the ground or colored or finished to blend in with the bracket arm.

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which it is mounted to be as visually unobtrusive as reasonably as possible; and,
(iv) the applicant has demonstrated not only substantial public but also a municipal benefit from the installation and operation of such a network.

Applications for construction, expansion, addition to, rebuilding or conversion of wireless mesh networks shall be reviewed by the board of alderman. Review by the board of aldermen shall not be required where network work involves maintenance, repair or replacement of existing access points. *De minimis* modifications to the network, including an increase in number of devices limited to 10% above the number of access points approved by the board of aldermen or the location of an access point nearer than 200' to the next nearest access point may be approved by the director of planning and development, after notice to the clerk of the board and the commissioner of public works.

(1) *Applications.* A written application for review of a wireless mesh network, on forms to be provided by the department of planning and development, shall be submitted by delivery or registered mail, return receipt requested, to the clerk of the board of aldermen, who shall transmit such application to the board of aldermen and the department of planning and development.

The applicant shall notify immediate abutters to the network pathways where access points are to be installed and make the same notice by publication for two consecutive weeks in a newspaper of general circulation, and shall provide certification of such notification to the clerk of the board. The board, acting by and through its committee with jurisdiction over the filing of applications for public utility easements and poles, shall hold a public hearing on such application within 65 days of the application being filed with the clerk of the board, and certified as complete by the director of planning and development as if the subject of a special permit under section 30-18A.

Any approval of an application for a wireless mesh network shall lapse not later than one (1) year from the grant of such approval unless construction required by such site plan approval has begun. The board of aldermen may extend the period of time granted under this subsection for good cause, whether or not such period of time shall have expired, without the necessity of a further public hearing thereon, unless the board or its committee with jurisdiction over the original application shall vote to require a public hearing. Notwithstanding the above, no extensions shall be granted which shall extend the time for substantial exercise of the approval for more than two (2) years from the date of the grant of the requested relief.

The applicant shall submit to and maintain with the department of planning and development current as-built drawings for the locations of all devices to be installed as part of the mesh network.

(2) *Contents of the Application.* A completed application shall include:
(a) A forecast of network access point locations. Such forecast shall include a system map or maps depicting the geographic extent of the network pathway.

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- (b) The expected distance between access points, including a total number of access points to be installed, and any impact on tree cover;
 - (c) Photographs showing a representative access point as it would be mounted on each type of existing light or power pole;
 - (d) Drawings, dimensioned and to scale, of the proposed access point as installed on each type of existing light or power pole, as well as a sample device to be made available for inspection;
 - (e) Structural analysis certifying that the access point may be safely installed on each type of existing light or power pole;
 - (f) Equipment specifications and radio frequency emissions calculations for a typical access point; and
 - (g) A demonstration of substantial municipal and public benefit.
- (3) *Criteria for any Wireless Mesh Network.* In order to be eligible for any approval under this section, a wireless mesh network must meet the following criteria in addition to those findings specified above:
- (a) Only one access point may be installed on the bracket arm of any existing municipal light or power pole.
 - (b) The installation shall be made to be as visually unobtrusive as possible.
 - (c) All equipment must be low-powered and in compliance with FCC regulations.
 - (d) The access point equipment shall be as small as possible and shall not exceed fourteen (14) inches in any dimension, exclusive of any antennas, so long as the antennas are no longer than thirty (30) inches.
 - (e) No installation shall extend more than five (5) feet above or two (2) feet below the height of any existing municipal light or power pole to which it is attached.
 - (f) No commercial signage or advertising may be affixed to any network component.
 - (g) Existing trees and vegetation shall be protected as much as possible.
- (4) *Repair and Upkeep of any Wireless Mesh Network.* All wireless mesh network devices shall be maintained in good order and repair. Paint finishes shall be maintained and repaired when blemishes are visible from the public way. The applicant shall provide an inspection schedule, and shall file copies of inspections with the director of planning and development.
- (5) *Insurance.* The applicant shall continuously insure its wireless mesh network components against damages to persons or property in an amount established by the commissioner of public works based upon the nature and extent of the proposed network. On an annual basis, the applicant shall provide a Certificate of Insurance, in which the city shall be specifically listed as an additional insured, to the commissioner of public works.
- (6) *Bond or Other Financial Surety.* All unused access points or parts thereof shall be removed within one year of the cessation of use at the owner's expense. The applicant shall post and submit a bond or other financial surety acceptable to the commissioner of public works in an amount sufficient to cover the cost of dismantling and removing the access points in the event the commissioner of inspectional services deems it to have

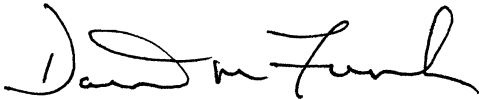
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been abandoned for more than one year. Said amount shall be certified by an engineer or other qualified professional registered to practice in the Commonwealth of Massachusetts.

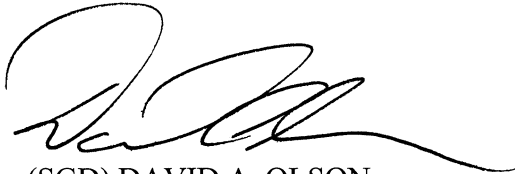
Approved as to legal form and character:



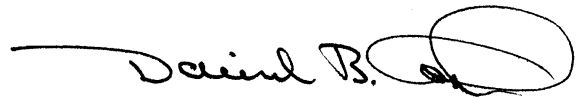
DANIEL M. FUNK
City Solicitor

Under Suspension of Rules
Readings Waived and Adopted

- (A) 19 yeas 0 nays 5 absent (Ald. Albright, Freedman, Harney, Mansfield, and Sangiolo)
- (B) 20 yeas 0 nays 4 absent (Ald. Albright, Harney, Mansfield, Sangiolo)



(SGD) DAVID A. OLSON
City Clerk



(SGD) DAVID B. COHEN
Mayor

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