Public Facilities Committee Agenda

City of Newton
In City Council

Wednesday, December 7, 2016

7:00 PM
Room 204

Items Scheduled for Discussion:

Public Hearing

#395-16 **Comcast petition for a Grant of Location on Huntington Road**
COMCAST petitioning for a grant of location to install 340'± of 1-3" conduit from pole 673/7 on Huntington Road to existing vault in front of 75 Huntington Road. (Ward 7) [11/07/2016 @ 4:33 PM]

Public Hearing

#396-16 **Comcast petition for a Grant of Location on Winthrop Street**
COMCAST petitioning for a grant of location to install 1-3" pipe from existing vault on Putnam Street heading 175'± northwesterly thence turning southwesterly to existing pole on Winthrop Street.(Ward 3) [11/07/2016 @ 12:00 PM]

Public Hearing

#249-16 **Cellco petition for Grant of Location for wireless communication equipment**
CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS petitioning for a grant of location to attach wireless communication equipment to existing utility poles at the following locations [(Ward 8) 07/01/2016 @11:17 AM]:

Locations

Dudley Road (near 530 Dudley Road) at Pole #10-7
Hay Road (near 16 Hay Road) at Pole #1368-1

Public Hearing

#281-16 **Cellco petition for Grant of Location for wireless communication equipment**
CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS petitioning for a grant of location to attach wireless communication equipment to existing Utility Pole #20-20 at Sargent Street (near the Sargent/Centre intersection). (Ward 7) [07/20/2016 @12:21 PM]

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

Public Hearing

#423-16 **Verizon Grant of Location petition for wireless communication equipment**
CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS petitioning for a grant of location to attach wireless communication equipment to existing utility pole #405/24 adjacent to 93 Sevland Road. (Ward 8). [11/21/2016 @ 9:44 AM]

Chairs Note: *The Department of Public Works will present details to the City's Roads Program.*

#200-15 **Update on the strategic plan for street and sidewalk improvements**
ALD. LAREDO requesting that the Department of Public Works provide an update on the creation of a strategic plan for the improvement of streets and sidewalks in the City. [08/13/15 @ 11:20 AM]

Items Not Scheduled for Discussion at this Meeting:

Referred to Programs & Services, Public Facilities and Finance Committees

#387-16 **Appropriate $250,000 for renovation of 1st Floor of the Ed Center**
HIS HONOR THE MAYOR requesting authorization to appropriate and expend two hundred fifty thousand dollars ($250,000) from the Override Capital Stabilization Fund for the purpose of renovating the space on the 1st floor of the Ed Center which has been vacated by the relocation of the Pre-K Program to the Aquinas site to house the Central High School Program, additional professional development meeting space, and general office space. [10/31/16 @ 2:05 PM]

#12-16 **Discussion with the DPW regarding the City's recycling and solid waste programs**
COUNCILOR LEARY, NORTON, KALIS, HESS-MAHAN, ALBRIGHT, AND CROSSLEY requesting an update from and discussion with the Department of Public Works and the Solid Waste Commission on the current status of Newton's solid waste management and recycling program operations and performance objectives, future goals and objectives, staffing, program challenges, and survey data due to be submitted to the Department of Environmental Protection. [12/28/15 @ 8:44 AM]

Referred to Public Safety & Transportation, Public Facilities and Finance Committees

#335-16 **Request for Ordinance amendments to require removal of snow from sidewalks**
COUNCILOR DANBERG requesting that §26-8 through §26-9 and §20-21 of the City of Newton Rev. Ords., 2012, be amended to establish criteria and provisions for requiring removal of snow in all districts by property owners, occupants, and property managers from sidewalks abutting their property and to review and amend enforcement

provisions including structure of fines for snow removal violations. [09/27/16 @ 11:36 AM]

Referred to Public Facilities and Finance Committees

#386-16 MWRA loan financing for homeowners to replace lead service lines

COUNCILORS CROSSLEY AND GENTILE proposing to establish policies and procedures for the use of approved Massachusetts Water Resource Authority (MWRA) no interest loan financing to encourage homeowners to participate in the lead service line replacement program. [10/26/16 @ 3:12 PM]

Referred to Public Facilities and Finance Committees

#385-16 Discussion about the Community Solar Share Program

PUBLIC FACILITIES COMMITTEE requesting discussion with the Administration and Public Buildings Department about the Community Solar Share Program, which intends to provide credits resulting from solar power generated at 70 Elliot Street to qualifying low income residents. [10/26/16 @ 4:20 PM]

Referred to Public Facilities and Finance Committees

#384-16 Appropriate $71,000 to build an observation deck on the greenway

HIS HONOR THE MAYOR requesting authorization to appropriate and expend seventy-one thousand dollars ($71,000) from Free Cash for the purpose of construction an observation on the greenway walking corridor. [10/31/16 @ 2:05 PM]

Referred to Public Facilities Committee

#317-16 Discussion with Double Poles Working Group

COUNCILOR LAREDO requesting a discussion with the Double Poles Working Group to receive an update on the work of the group and the status of double poles. [07/11/2016 @ 12:44 PM]

Referred to Finance and Appropriate Committees

#359-16 Submittal of the FY 2018 to FY 2021 Capital Improvement Plan

HIS HONOR THE MAYOR submitting the Fiscal Years 2018 to 2022 Capital Improvement Plan pursuant to section 5-3 of the Newton City Charter. [10/11/16 @ 11:28 AM]

Referred to Programs & Services and Public Facilities Committees

#344-16 Discussion regarding oversight of all city/school buildings to improve efficiencies

COUNCILOR LAPPIN requesting a discussion regarding the Public Buildings Department overseeing all public buildings, including School Department facilities, to improve efficiencies. [10/07/16 @ 10:47 AM]

Referred to Programs & Services, Public Facilities and Finance Committees

#175-16 Authorization to enter into a settlement agreement with National Grid.
HIS HONOR THE MAYOR requesting authorization for the City to enter into a settlement agreement with Boston Gas Company d/b/a National Grid. [04/25/16 @ 6:52 PM]

Referred to Programs & Services and Public Facilities Committees

#141-15 Discussion on tracking and improving the condition of the gas utility infrastructure
ALD. BROUSAL-GLASER, SANGIOLO, HESS-MAHAN, COTE, NORTON AND ALBRIGHT requesting a discussion with the Director of Urban Forestry, a representative of the Department of Public Works and a representative of the Law Department about tracking and improving the condition of the gas utility infrastructure in Newton, new state statutes governing infrastructure repairs, coordination of increased repair work with city operations, the status of negotiations with National Grid to compensate for tree deaths resulting from gas leaks, and the possibility of creating a utilities working group to monitor progress on these and related issues. [05/26/15 @ 2:52 PM]

#206-16 Resolution requesting the administration hire a composting expert
COUNCILOR LEARY requesting a Resolution to the Mayor requesting that he consider hiring a composting expert: either a consultant, a composting operator, or the Mass DEP to review the Rumford Avenue Composting site. [05/31/16 @ 4:52 PM]

#207-16 Review of the management of the Rumford Avenue site
COUNCILOR LEARY requesting the Executive Office and the Commissioner of Public Works review the management of the entire Rumford Avenue site with the input of the Solid Waste Commission and present their findings to the Public Facilities Committee within a 3 to 6 month timeframe. [05/31/16 @ 4:52 PM]

Referred to Public Safety & Transportation and Public Facilities Committees

#208-16 Update on fire prevention at the compost operation at Rumford Avenue Landfill
COUNCILOR LEARY requesting the Executive Office, the Fire Department, and the Department of Public Works provide an update on fire safety issues at the compost operation at the Rumford Avenue Landfill including details about who is currently managing the site for fires. [05/31/16 @ 4:52 PM]

#163-16 Request for discussion with DPW to consider amend Ordinance for street reconstruction

COUNCILORS CROSSLEY, LAREDO & LAPPIN requesting a discussion with the Commissioner of Public Works, to review city policy and/or ordinances governing repairs to city streets within a period of years after full reclamation and/or milling and repaving of said streets, and to consider strengthening the requirements for repairs so as to protect the public investment in said streets.

Referred to Programs & Services and Public Facilities Committees

#27-16 **Updates from the Administration on the renovations at the Aquinas site**
PROGRAMS & SERVICES AND PUBLIC FACILITIES COMMITTEES requesting that the School Department and/or Executive Department provide updates on removal of asbestos and other toxic materials that were identified at the Aquinas site, the scope and timing of window replacement in particular, and renovations that may be necessary to facilitate short and long-term plans for uses and operations at the site. [01/10/16 @ 1:14 PM]

#26-16 **Proposed amendments to Sec. 5-54 through 5-58 of the Ordinances**
COUNCILOR CROSSLEY, ALBRIGHT, HARNEY AND SANGIOLO requesting revisions to Sections 5-54 through 5-58 of the City of Newton Ordinances to clarify the City Council's role and decision-making process with respect to design review, funding, and budget oversight during the construction process of municipal capital building projects; in particular, to better align City Council decisions with typical steps in the design development process, and where applicable, with Massachusetts School Building Authority (MSBA) and other state requirements. [01/11/16 @ 4:53 PM]

#313-15 **Request for an update on the Second Water Meter Program**
ALD. LAPPIN requesting an update from the Department of Public Works on the second water meter program including: the progress of the inspection and programming of the approximately 900 new outdoor irrigation meters provided by the City to property owners that have yet to be inspected and/or programmed by the City; the process going forward for the issuance, inspection, programming and tracking of second meters; and the notification of residents who already had second meters regarding the process for registering their meters. 10/26/15 @ 7:15 PM]

#237-15 **Update on mitigation funds from Special Permits in Newton Centre**
ALD. CROSSLEY, LAREDO, and SCHWARTZ requesting an update on funds accrued from voluntary contributions from Special Permits in Newton Centre, which can be made available to complete a safe pedestrian crossing at 714-724 Beacon Street via Special Permit Board Order #1-15 and conditions noted therein. 09/14/15 @ 10:40 AM]

Referred to Public Facilities and Finance Committees

#223-15 **Discussion on the process of licensing the use of city buildings**

ALD. LAREDO requesting a discussion of the process of licensing the current and future use of city building, including: (a) how licensees may request the use of city buildings; (b) the process for determining which licensees will get the use of city buildings; (c) how the fees for the use of city buildings are set; and (d) how the current process compares to the process for permitting the use of school buildings. [08/13/15 @ 11:20 AM]

Referred to Programs & Services and Public Facilities Committees

#201-15 Discussion regarding the condition of the Kennard Estate building

ALD. SANGIOLO requesting a discussion with the Commissioner of Public Buildings, the Commissioner of Parks and Recreation, and the Executive Department regarding the condition of the property located at 246 Dudley Road (Kennard Estate) and how much, if any, repairs and upgrades will be needed as the City relocates the Parks and Recreation Department to that location. [09/01/15 @ 4:00 PM].

Referred to Public Facilities and Finance Committees

#191-16 Funding to relocate the Zervas modulars to NSHS and Brown Middle School

HIS HONOR THE MAYOR requesting authorization to transfer the sum of five hundred thousand dollars ($500,000) to the Public Buildings Department for the purpose of funding the relocation modular classrooms from the Zervas Elementary School to Newton South High School and Brown Middle School from the following accounts:

Department	Account	Amount
Executive Office	Full-time Salaries	$40,000
Treasury	Debt Service (010772-582A48)	$403,784
Treasury	Debt Service (010772-582A49)	$21,216
Financial Info Systems	Full-time Salaries	$35,000

[05/09/16 @ 4:59 PM]

#100-15 Discussion on pursuing municipal aggregation of energy purchasing

ALD. NORTON, SANGIOLO, LEARY, AND ALBRIGHT requesting that the Administration pursue municipal aggregation of energy purchasing with the goals of reducing and/or stabilizing electricity costs for resident, businesses and the City; and requiring the purchase of Class 1 RECs at some percentage above the level required by the Massachusetts Renewable Portfolio Standard. [04/06/15 @ 9:12 AM]

#83-15 Discussion and update on energy items

ALD. CROSSLEY, GENTILE, & ALBRIGHT requesting a discussion and update from the Administration on the following energy related items: status of municipal power purchasing contracts for gas and electricity; status of the Power Purchase Agreement including solar PV rooftop installations, power offset (cost benefit) to date and review of potential future projects; and an update on municipal energy consumption

including the recent Green Communities report filed with the Department of Energy Resources. [03/26/15 @ 9:19 AM]

Referred to Public Facil, Programs & Serv, and Public Safety & Trans Committees

#46-15 Discussion of parking options for school and municipal parking lots
ALD. JOHNSON & CICCONE, requesting a discussion with the Commissioner of Department of Public Works and the School Department to determine and discuss parking options including use of school properties based on the current municipal parking lot programs including the issuance of permits. [02/11/15 @ 1:35 PM]

#328-14 Review of double utility poles
ALD. ALBRIGHT, DANBERG, & LAREDO requesting a review of double poles in Newton including a random sampling of ten double poles on the north side and ten double poles on the south side of Newton to determine which utility is holding up the removal of double poles. [08/19/14 @ 9:16 AM]

#189-14 Update on the Zervas School construction project
PUBLIC FACILITIES COMMITTEE requesting periodic updates on the Zervas Elementary School Project. [04/17/14 @ 10:48 PM]

#188-14 Update on the Cabot School construction project
PUBLIC FACILITIES COMMITTEE requesting periodic updates on the Cabot Elementary School Project. [04/17/14 @ 10:48 PM]

Referred to Programs & Services and Public Facilities Committees

#119-14 Discussion with ISD on plans to address City non-compliance with ADA standards
ALD. ALBRIGHT AND CROSSLEY requesting discussion with the Inspectional Services Department to explain the development of short and long term plans to identify and correct buildings, sidewalks, playgrounds, etc…that do not conform to American Disability Act (ADA) standards. The discussion should include information on how improvements will be incorporated into the Capital Improvement Plan or if less than $75,000 into a comprehensive budget plan to correct ADA deficiencies. [03/12/14 @ 4:18 PM]

#131-13 Updates and discussion on the sewer, water and storm water systems
ALD. CROSSLEY, FULLER, SALVUCCI, JOHNSON, CICCONE requesting periodic updates and discussion, at the discretion of the members of the Public Facilities Committee or the Commissioner of Public Works, on the condition functioning, operations and management of all elements of the City sewer, water and storm water systems including the following:

- Water meters

- Implementation of the ten project area strategic plan to remove infiltration in the City sewer system
- Implementation of the long range strategic plan to repair and replace City water mains, especially to correct for fire flow
- Status of the City's Private Inflow Removal Program to resolve and disconnect illegal storm water connections to the City sewer system
- Current billing practices
- Rates analyses needed to facilitate an informed comparison of billing options to include the following options either alone or in combination: seasonal rates, second meters, tiered rates, frequency of billing, low income credits.

Referred to Finance and Appropriate Committees

#257-12 **Review of Fees, Civil Fines/Non-criminal Disposition in Chapter 17 of the ordinances**
RECODIFICATION COMMITTEE recommending (1) review of the Fees, Civil Fines/Non-Criminal Disposition contained in Chapter 17 LICENSING AND PERMITS GENERALLY and Chapter 20 CIVIL FINES/NON-CRIMINAL DISPOSITION CIVIL FINES to ensure they are in accordance with what is being charged and (2) review of the acceptance of G.L. c. 40 §22F, accepted on July 9, 2001, which allows certain municipal boards and officers to fix reasonable fees for the issuance of certain licenses, permits, or certificates.
Finance Voted No Action Necessary 7-0 on 12/14/15

Referred To Programs & Services And Public Facilities Committees

#36-12 **Inspection of private sewer lines and storm water drainage connections**
ALD. CROSSLEY & FULLER requesting Home Rule legislation or an ordinance to require inspections of private sewer lines and storm water drainage connections prior to settling a change in property ownership, to assure that private sewer lines are functioning properly and that there are no illegal storm water connections to the city sewer mains.

A) Sewer lines found to be compromised or of inferior construction would have to be repaired or replaced as a condition of sale;
B) Illegal connections would have to be removed, corrected, and re-inspected in accordance with current city ordinances and codes, as a condition of sale. [01/24/12 @ 8:07 AM]

Programs & Services Voted No Action Necessary 6-0 on 11/17/14

Referred to Public Safety & Transportation And Public Facilities Committees

#413-11 **Updates on the renovations to the City's fire stations**
ALD. CICCONE, SALVUCCI, GENTILE & LENNON updating the Public Facilities and Public Safety & Transportation Committees on the progress of renovations to the city's fire stations. [11-17-11 @11:07 AM]

#367-09 **Discussion on repair of underground streetlight connections**

PUBLIC FACILITIES COMMITTEE requesting discussion with the Law Department on how to resolve the dispute with NStar regarding whose responsibility it is to repair the streetlight connection between the manhole and the base of the streetlight. [10/21/09 @ 9:00 PM]

Respectfully submitted,

Deborah J. Crossley, Chair

395-16

CITY OF NEWTON
MASSACHUSETTS

#16983

PETITION for GRANT OF LOCATION

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the Board of Aldermen before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. **The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review.** Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

Grant of Location Process:

1. Applicant submits completed Petition Form and required materials to the Board of Aldermen
2. Public Works Department conducts preliminary review and gives written comments to the applicant
3. Engineering Division files Petition Form with comments with the Clerk of the Board of Aldermen
4. Board of Aldermen schedules petition for a public hearing before the Public Facilities Committee of the Board of Aldermen
5. Public Facilities Committee recommendations are forwarded to the Board of Aldermen for a final decision

Questions my be directed to:

Lou Taverna, City Engineer, 617-796-1020
Shawna Sullivan, Clerk of the Board of Aldermen, 617-796-1213

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name Comcast of New England

Address 440 Myles Standish Blvd

Taunton MA 02780

Phone Number 774 644 9104 Fax Number _____

Contact Person Manuel Furtado Title Project Engineer

Signature _____ Date 11/7/16

Person filing application

RECEIVED
Newton, MA 02459
David A. Olson, CMC
2016 NOV -7 PM 1:19
City Clerk

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

II. DESCRIPTION OF PROJECT: to be completed by petitioner

A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion.

Starting @ Pole 673/7 on Huntington Street trench 340' in Street placing 1 - 3" Conduit to Existing Vault in front of 75 Huntington Ave

B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide:
Title of Plan _____ Date of plan _____

III. PUBLIC WORKS DEPARTMENT REVIEW

Date received by Public Works Department _____

Check One:
Minor Project ☐ Major Project ☐ Lateral ☐

(Refer to City Engineer Standard Requirements for Plans for definition of minor and major project)

Plans Submitted:
Certified Plot Plan ☐ Stamped Plans ☐

DATE AND COMMENTS:	RECOMMENDATIONS:
Huntington Street has a Public/Private layout, the utility pole is approximately at the limit of the Public/Private layout. Any trenching within the	Public portion shall be restored to City Standards per Street Opening Permits. Private way should be restored to match existing conditions. (See Photos →)

John Dayle Associate City Eng NOV 9, 2016

V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:

Commissioner, Public Works

11/9/16
Date

Final Label Report

#395-16

SBL	Owner	Number	Street	Unit
72035 0014	ENO KATHY A	22	CHAMBERLAIN RD	
72037 0013	GROSSMAN HENRY & FRANCES K	61	HUNTINGTON RD	
72037 0014	TAYARI MAHMOOD	69	HUNTINGTON RD	
72038 0020	ZHOU BIN	75	HUNTINGTON RD	
72038 0019	ZHAO MEI XIA	76	HUNTINGTON RD	
72038 0021	SHERMAN MICHAEL J & ANN	85	HUNTINGTON RD	
72038 0018	DEFRANC REBECCA GOLDMAN	86	HUNTINGTON RD	
72038 0022	BLAUER MICHAEL J & BARBARA K	91	HUNTINGTON RD	
72038 0017	GROSSMAN BENJAMIN ET AL	92	HUNTINGTON RD	
72038 0023	BELLAVANCE TRACY A	99	HUNTINGTON RD	
72038 0024	MOSCICKI MARIANNE L & RICHARD A	105	HUNTINGTON RD	105
72038 0016	CREEM HARVEY & CYNTHIA S	110	HUNTINGTON RD	110
72037 0016	TAVOLIERI MARIO A & JANE S	14	KENRICK TER	
72037 0015	MURAD EDMOND & JUDITH L TOWVIM	20	KENRICK TER	

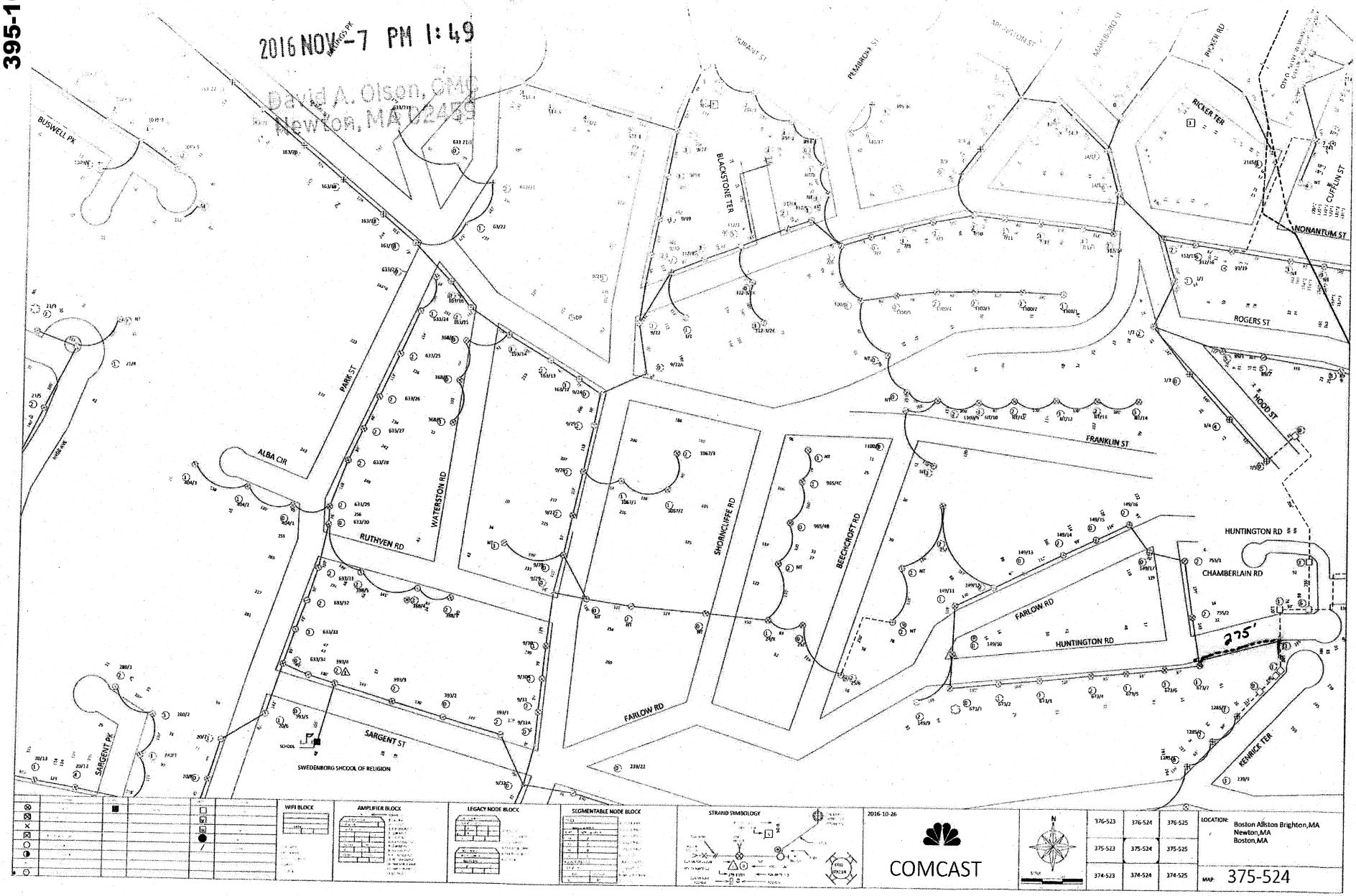
395-16

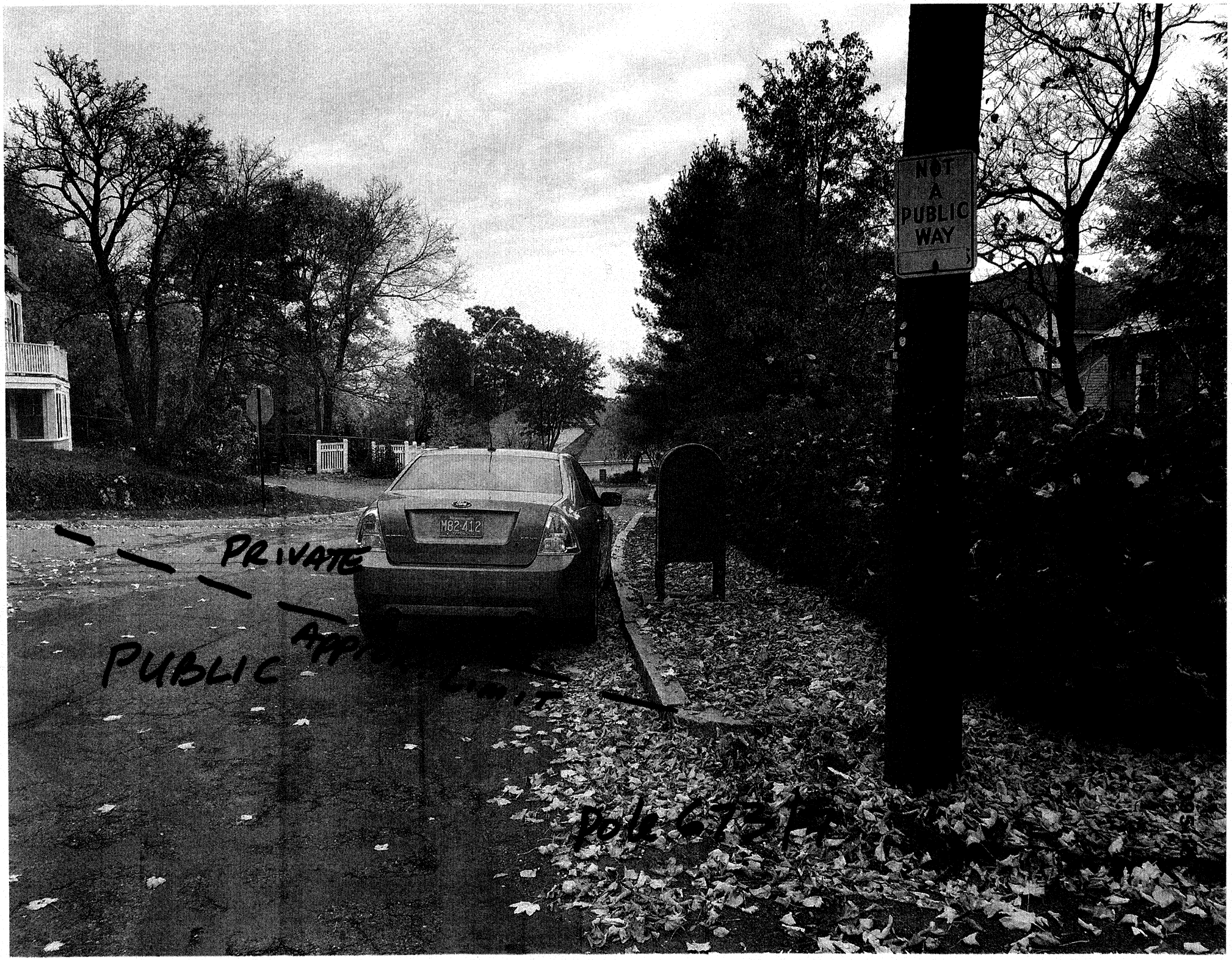
RECEIVED
Newton City Clerk

2016 NOV -7 PM 1:49

David A. Olson, CMC
Newton, MA 02459

86 Huntington Rd

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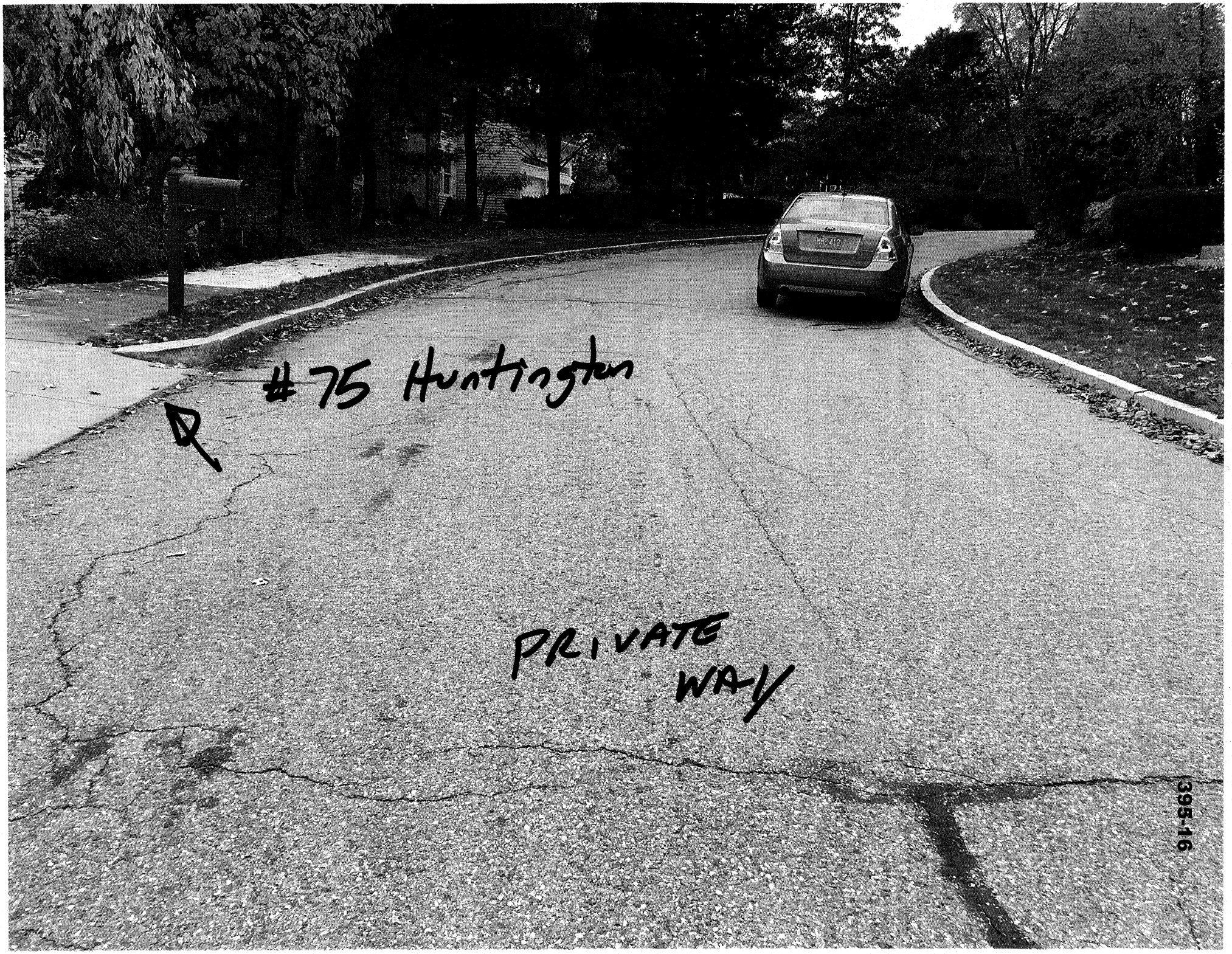
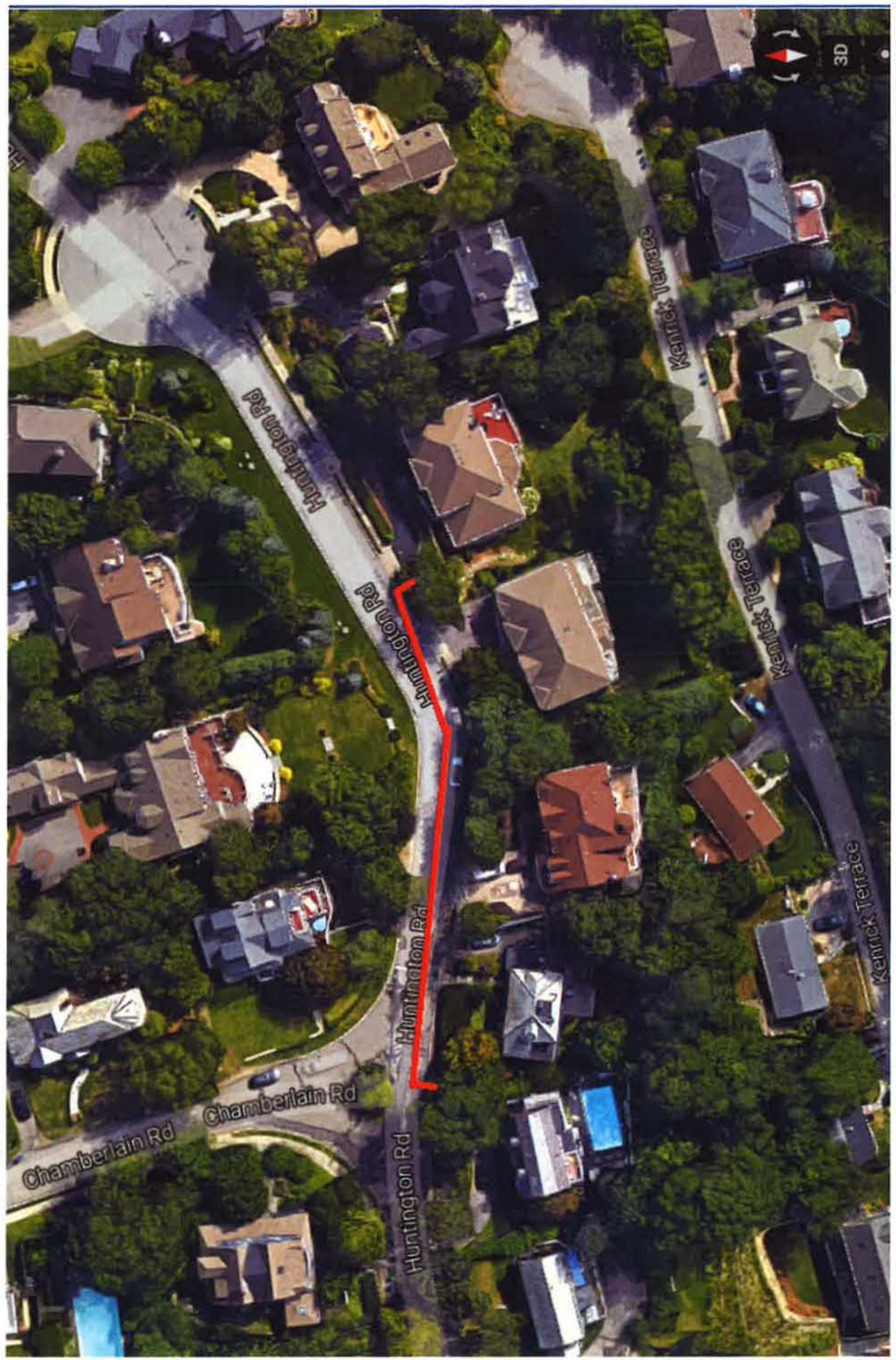
M82 412
PRIVATE
PUBLIC


#75 Huntington
PRIVATE WAY
395-16


3D
Huntington Rd
Kenrick Terrace
Huntington Rd
Kenrick Terrace
Chamberlain Rd
Chamberlain Rd
Huntington Rd
Kenrick Terrace

86 Huntington Rd

395-16

BUSWELL PK
BILLINGS PK
PARK ST
ALBA CIR
HYDE AVE
RUTHVEN RD
WATERSTON RD
SARGENT PK
SARGENT ST
SCHOOL
SWEDENBORG SHCOOL OF RELIGION
DURANT ST
PEMBROKE ST
ARRINGTON ST
MARLBORO ST
RICKEN RD
RICKER TER
CUFFELIN ST
NONANTUM ST
ROGERS ST
HOOD ST
FRANKLIN ST
BLACKSTONE TER
SHORNCLIFFE RD
BEECHCROFT RD
FARLOW RD
HUNTINGTON RD
CHAMBERLAIN RD
KENRICK TER
DP
275'

WIFI BLOCK	AMPLIFIER BLOCK	LEGACY NODE BLOCK	SEGMENTABLE NODE BLOCK	STRAND SYMBOLOGY	2016-10-26

COMCAST

376-523	376-524	376-525	LOCATION: Boston Allston Brighton,MA Newton,MA Boston,MA
375-523	375-524	375-525	
374-523	374-524	374-525	MAP: 375-524

396-16

#10804

CITY OF NEWTON
MASSACHUSETTS

PETITION for GRANT OF LOCATION

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the Board of Aldermen before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. **The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review.** Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

RECEIVED
2016 MAY 11 PM 12:00
CITY CLERK
NEWTON, MASS.

Grant of Location Process:

1. Applicant submits completed Petition Form and required materials to the Board of Aldermen
2. Public Works Department conducts preliminary review and gives written comments to the applicant
3. Engineering Division files Petition Form with comments with the Clerk of the Board of Aldermen
4. Board of Aldermen schedules petition for a public hearing before the Public Facilities Committee of the Board of Aldermen
5. Public Facilities Committee recommendations are forwarded to the Board of Aldermen for a final decision

Questions my be directed to:

Lou Taverna, City Engineer, 617-796-1020
Shawna Sullivan, Clerk of the Board of Aldermen, 617-796-1213

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name Comcast of New England

Address 440 Myles Standish BLVD
Taunton MA 02780

Phone Number 774 644 9104 Fax Number _____

Contact Person Manuel furtado Title Project Engineer

Signature _____ Date _____
Person filing application

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

II. DESCRIPTION OF PROJECT: to be completed by petitioner

A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion.

Starting @ Existing Vault on Putnam Street Trench in street 175' to Existing Pole (NT) on Winthrop Street placing 1- 3" Pipe in Trench

B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide:
Title of Plan Putnam @ Winthrop Date of plan 11/7/16

III. PUBLIC WORKS DEPARTMENT REVIEW

Date received by Public Works Department _____

Check One:
Minor Project ☐ Major Project ☐ Lateral ☐

(Refer to City Engineer Standard Requirements for Plans for definition of minor and major project)

Plans Submitted:
Certified Plot Plan ☐ Stamped Plans ☐

DATE AND COMMENTS:	RECOMMENDATIONS:
Putnam Street and Winthrop Street were paved in 2012 still w/in the 5 year moratorium all trenches shall be restored to Street opening	(Mill 1½" + overlay curb line to curbline) per DPW policy, CDF on trenches w/in R.O.W. Permit.

John Dufresne Associate City Eng. 11-9-16

V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:

Commissioner, Public Works

11/9/16
Date

Final Label Report

#396-16

SBL	Owner	Number	Street	Unit
32007 0017	TAM STANLEY KIM CHUEN	38	PUTNAM ST	
32013 0011	FITZGERALD GREGG	39	PUTNAM ST	
32007 0016	EVANS ROBERT L JR & PAULA M T/C	44	PUTNAM ST	
32007 0015	FITZPATRICK RYAN R & MAURA N	50	PUTNAM ST	
32007 0014	GALICIA CARLOS D & GERTRUD TR	56	PUTNAM ST	
32007 0013	GURVIS ERIC S & LAURA K	64	PUTNAM ST	
32012 0050	DALTON JOSEPH G	67	PUTNAM ST	
32014 0006	LASSER ETHAN W & JESSICA R	49	SHAW ST	
32013 0008	CORLEY CHRISTOPHER G & CAROL A	50	SHAW ST	
32013 0010	GAFFNEY CHRISTOPHER S	3	WINTHROP ST	
32012 0049	SCOTT WELLINGTON F III TR	4	WINTHROP ST	
32012 0048	RAINA VIKRANT	14	WINTHROP ST	
32013 0009	SAMUELSON MARTHA S & PAUL R	17	WINTHROP ST	
32012 0047	RENNA M SUZANNE & FRANCIS S TRS	22	WINTHROP ST	
32012 0046	CARBONNEAU DANIEL P TR	34	WINTHROP ST	

423-16

ELIZABETH F. MASON
Direct Dial: 781.904.2668
Email: elizabeth.mason@mclane.com
Admitted in MA
300 TradeCenter, Suite 7000
Newton, MA 01801-7419
T 781.904.2700
F 781.904.2701

MCLANE MIDDLETON

November 17, 2016

VIA OVERNIGHT MAIL AND EMAIL (*dolson@newtonma.gov*)

Office of the City Council
Newton City Hall, Room 105
1000 Commonwealth Avenue
Newton, MA 02459

Re: **Petition for Grant of Location to Attach Small Cell Antenna and Supporting Equipment to Existing Non-Municipal Utility Pole**

Applicant: **Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless")**

Address: **Utility Pole Boston Edison #405/24 located in public right of way on Sevland Road, Newton (adjacent to 93 Sevland Road)**

Dear Office of the City Council:

In accordance with M.G.L. c. 166, § 22 and City of Newton requirements, Verizon Wireless is submitting herewith the enclosed Petition for Grant of Location so that it may install, operate and maintain a single "Small Cell" wireless communication antenna and supporting equipment to be mounted to the above-described Verizon Telephone/Eversource-owned utility pole. As described below, the proposed installation will provide capacity relief and improve network service throughout Newton, particularly in the identified area of dense demand for Verizon Wireless's Long Term Evolution ("LTE" or "4G") voice and data services. Small Cell technology is a large component of Verizon Wireless's greater initiative to deploy *non-intrusive* and *inconspicuous* wireless technology solutions throughout New England.

Verizon Wireless requests that this petition be considered by the City Council Public Facilities Committee at its December 7, 2016 meeting along with the three Verizon Wireless grant of location petitions already pending before the Committee.

PETITIONER INFORMATION

Verizon Wireless is one of the nation's leading FCC-licensed providers of wireless telecommunications services, extending coverage to almost all of the top 100 markets in the United States. It has developed one of the largest and most reliable national networks to provide wireless voice and data services to an ever-growing customer base, last counted at over 135 million. Verizon Wireless continuously works to enhance and improve its wireless network

through the deployment of its voice, data, LTE and Advanced Wireless Services ("AWS") communications services. One of the key design objectives of Verizon Wireless's system is to provide seamless and reliable coverage without significant gaps or dead spots or the inability to handle and off-load voice and data traffic, particularly in areas of high data demand.

"SMALL CELL" TECHNOLOGY

The strategic integration of Small Cell antenna technology is a surgical approach to the continued deployment of Verizon Wireless's LTE and AWS networks in Newton and throughout Massachusetts, particularly in those areas of high data traffic. When Small Cell antennas are strategically placed throughout a targeted geographic area, the end result is an overall increase in performance and efficiency, both within the target area and the network as a whole. Practically speaking, cellular signals from Small Cells are transmitted from antennas throughout high traffic areas at elevations lower than those from traditional wireless communications facilities ("WCFs") such as towers and monopoles. Here, the Small Cell antennas will be placed on existing utility poles. Verizon Wireless will be relying on Small Cell technology as it continues to deploy its network in Newton in the months to come.

ORDER FOR GRANT OF LOCATION

Federal and state law provide a legal framework allowing—and in fact mandating—the installation of this stealth antenna technology on utility poles. At the federal level, the Pole Attachment Act (47 U.S.C. § 224) mandates that utility pole owners grant nondiscriminatory access to their poles for attachments by cable television systems and telecommunication carriers. At the state level, the Massachusetts Pole Attachment Act (M.G.L. c. 166, § 25A) specifically addresses wireless communications-related pole attachments, providing that "utilities shall provide wireless providers with nondiscriminatory access to any pole or right of way … for the purpose of installing a wireless attachment."

VERIZON WIRELESS'S PROPOSAL

With the aim of rapidly deploying Small Cell technology throughout Massachusetts, Verizon Wireless has entered into pole attachment licensing agreements with utility providers, including Eversource Energy and Verizon Telephone, among others, which allow for the installation of compact Small Cell canister antennas on existing utility poles throughout the Commonwealth.

The installation on Sevland Road will primarily consist of a 38.7" tall by 12" wide canister antenna that will be mounted atop the utility pole using an antenna bracket. (Without the proposed antenna, the pole is 29' 9" tall; with the antenna installed, it will be 33' 10" tall.) The antenna will resemble a traditional electric transformer and be virtually indistinguishable from such transformers already located on utility poles throughout the area. Additional supporting equipment—a remote radio head, electrical junction box and meter, and fiberoptic and power connections—will be mounted to the exterior of the pole, resulting in a self-contained antenna facility without the need for further infrastructure. With respect to visual impacts, this

equipment is substantially similar to the equipment of electric, telephone and cable utility providers.

Following installation, Verizon Wireless technicians will monitor and occasionally visit the pole site for maintenance purposes. Except for standard electrical service, the installation will not impact utilities, schools, traffic or other municipal resources. A key component of this technology, from Verizon Wireless's perspective, is the ability to deploy this equipment quickly, without the arduous processes involved in typical WCF permitting.

MATERIALS ENCLOSED

We have enclosed ten (10) copies of the following materials for your review and consideration:

1. Petition for Grant of Location for the proposed installation;
2. Proposed Order for Grant of Location for the proposed installation;
3. 11"x17" plans detailing the specifics of the proposed installation;
4. Affidavit of Radio Frequency Engineer prepared by C Squared Systems, LLC; and
5. Radio Frequency Emissions Report prepared by Certified Health Physicist Donald L. Haes, Jr., Ph.D., CHP.

We will provide copies of the pole attachment licenses issued to Verizon Wireless by Verizon Telephone and Eversource for the installation under separate cover. In addition, we will deliver a check payable to the City of Newton in the amount the City indicates is appropriate to cover the petition fee.

CONCLUSION

The proposed Small Cell antenna is by far the least intrusive means available to address gaps in coverage in those areas of dense demand for Verizon Wireless's LTE voice and data services that exist in Newton. The equipment as proposed will provide enhanced service to areas of concentrated demand, while avoiding the aesthetic impacts of traditional wireless facilities.

Thank you for your timely attention to this matter. If you should have any questions regarding

the enclosed application, please do not hesitate to contact me directly.

Very truly yours,

Elizabeth F. Mason

ec. C. Webberly, SCG (w/o enc.)
M. Frankel, SCG (w/o enc.)
T. Hildreth, MM (w/o enc.)
106123\11465492

Final Label Report

SBL	Owner	Number	Street	Unit
82008 0027	DUBINSKY BORIS & LISA	155	CYNTHIA RD	
82007 0079	GORDON FREDRIC D TR	168	CYNTHIA RD	
82007 0080	SEGAL LAURENCE M	174	CYNTHIA RD	
82009 0001	JUNG KI RHA	131	DEBORAH RD	
82008 0001	VORONOV ZHANNA	132	DEBORAH RD	
82007 0084	GOODMAN LAWRENCE J	71	SEVLAND RD	
82009 0002	KAHALAS JUDITH L TR	74	SEVLAND RD	
82007 0083	RABSON JEREMY K	79	SEVLAND RD	
82007 0082	PENN ELLYN TR	85	SEVLAND RD	
82007 0081	BLACK SUSAN G	93	SEVLAND RD	

423-16

PETITION FOR GRANT OF LOCATION
UNDER MGL c. 166, §§ 22 and 25A

To the City Council
Of Newton, Massachusetts

Cellco Partnership d/b/a Verizon Wireless requests permission to locate on an existing utility pole a small cell wireless antenna, including the necessary sustaining and protecting fixtures, along and across the following public way:

Sevland Road, one pole, number Boston Edison #405/24.

Location approximately as shown on plans attached.

Wherefore, Cellco Partnership d/b/a Verizon Wireless prays that after due notice and hearing, because the pole in question is previously approved and already existing – as provided by law – it be granted a location for and permission to erect and maintain an antenna, radio unit, meter, AC/DC converter, 60A disc., RGS conduit, ground rod, power and fiber together with such sustaining and protecting fixtures as it may find necessary, said equipment to be installed substantially in accordance with the plans filed herewith, plan name:

Newton MA SC29, dated August 30, 2016.

November 17, 2016

Cellco Partnership d/b/a Verizon Wireless

By: _____

Elizabeth F. Mason, Agent for Cellco Partnership d/b/a Verizon Wireless, duly authorized

106123\11483529

ORDER FOR GRANT OF LOCATION
UNDER MGL c. 166, §§ 22 and 25A

In the City of Newton, Massachusetts
Notice having been given and public hearing held, as provided by law

IT IS HEREBY ORDERED:

that Cellco Partnership d/b/a Verizon Wireless be and it is hereby granted a location for and permission to install on an existing pole and maintain pole and wires to be placed thereon, together with such sustaining and protecting fixtures as said Company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the 17th day of November, 2016.

All construction under this order shall be in accordance with the following conditions:

Plan name: **Newton MA SC29, dated August 30, 2016**, filed with this order.

There may be attached to said pole antenna, radio unit, meter, AC/DC converter, 60A disc., RGS conduit, ground rod, power and fiber and fixtures as needed in their business and all of said wires and cables.

The following are the public ways or part of ways along which the poles above referred to may be erected, and the number of poles which may be erected thereon under this order:

Sevland Road, one pole, number Boston Edison #405/24.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Newton, Massachusetts held on the _____ day of _____, 2016 .

City Clerk
Newton, Massachusetts

Received and entered in the records of location orders of the City of Newton at Book _____, Page _____.

Attest: _____
Newton City Clerk

verizon

AFFIDAVIT OF RADIO FREQUENCY ENGINEER

The undersigned, in support of the application to install a wireless communications facility consisting of one antenna and associated radio equipment on the proposed replacement of the utility pole (#405/24) located near the intersection of Sevland Road, Deborah Road, and Cynthia Road in the City of Newton, Massachusetts, states the following:

1. My name is Keith Vellante. I have a Bachelor of Science degree in Electrical Engineering from the University of New Hampshire and I am employed as a Radio Frequency (RF) Engineer for C Squared Systems, LLC. C Squared Systems has entered into a contract with Verizon Wireless to provide RF consulting services on behalf of Verizon Wireless. I have reviewed the proposed site with the Radio Frequency Engineer responsible for the Verizon Wireless network design in the area of Massachusetts that includes the City of Newton, MA.
2. Verizon Wireless is a federally licensed provider of wireless communications services with a national footprint.
3. The proposed facility is located within an area where Verizon Wireless has identified a need to install a wireless telecommunications facility in order to provide reliable wireless service. The search area for the proposed facility was determined by the fact that wireless service needs significant improvement within the neighborhoods around Hartman Road in the vicinity of the subject location. Furthermore, it was determined that the areas served by this facility would interact well with those of existing and planned facilities in the surrounding area.

   The following table provides details of the proposed facility:

Site Name:	Site Address:	Utility Pole Number:	Latitude:	Longitude:	Elevation (AMSL):	Antenna Centerline Height (AGL):
Newton SC29	Sevland Road	405/24	42.3059	-71.1838	145'	32.2'

4. A conventional Verizon Wireless LTE macro-site consists (in part) of RRH's (Remote Radio Heads) located near the antennas on a tower, rooftop, or other support structure, which are connected via fiber optic cables to a BBU (Baseband Unit) located on site in an equipment shelter or other weatherproof enclosure. The BBU performs network signal processing between the RRH's at the site, and Verizon's LTE core network.
5. C-RAN (Cloud Radio Access Network) nodes and Small Cells also utilize RRH's at each site, however a centralized BBU capable of supporting RRH's at multiple sites is implemented to gain certain efficiencies, both from a network and environmental standpoint. The proposed location is one of multiple C-RAN nodes and Small Cells planned to address capacity and coverage deficiencies in Newton and the surrounding area.
6. C-RAN and Small Cell deployments are intended to complement, not replace, the conventional LTE macro-network sites, and are typically used as a capacity solution targeting isolated areas of heavy network usage, a.k.a "hot spots." In doing so, the C-RAN and Small Cells serve to offload the demand

on the existing sites serving these "hot spots." This not only improves service to the specifically targeted area, but also improves overall system performance elsewhere in the network.

7. The purpose of the proposed facility is to provide adequate service capacity and coverage improvement to the residential areas west of Bald Pate Hill and north of Oak Hill immediately surrounding the small cell location. Verizon Wireless does not currently provide acceptable LTE service on its network in this area.

8. To find a site that provides acceptable capacity and coverage improvement, the Verizon Wireless RF Design Group utilizes computer modeling to define a search area. The search area is designed such that a site located within the area and at a given height would have a high probability of completing the capacity and coverage objectives in the target areas. The RF Design Group develops the network by working off existing sites from which to build out the network design.

9. Verizon Wireless' search of the area and subsequent analysis determined that installing the proposed facility on the subject utility pole replacement would be the most appropriate solution to meet its network capacity and coverage objectives.

10. I have reviewed the proposed installation to be placed on the subject utility pole as well as the other existing and planned antenna site locations used in Verizon Wireless' system in and around the surrounding areas. I have analyzed the potential benefits this site would represent to Verizon Wireless' network and its users. I employ computer simulations, which incorporate the results of field tests of existing facilities, to determine existing radio frequency (RF) coverage for Verizon Wireless' system. These simulations model characteristics such as antenna types, antenna height, output power, terrain, ground elevations and RF propagation effects of the frequency utilized.

11. The following table details site specific information of the surrounding Verizon Wireless telecommunications facilities used to generate the RF plots attached hereto.

Cell Name:	Latitude:	Longitude:	Street Address:	City, State:	Structure Type:	Antenna Centerline Height (AGL):	Status:
Boston College	42.3377	-71.1748	219 Commonwealth Avenue	Chestnut Hill, MA	Rooftop	50	On-Air
Brookline	42.3195	-71.1826	345 Boylston Street	Newton, MA	Rooftop	48	On-Air
Brookline 2	42.3262	-71.1493	850 Boylston Street	Chestnut Hill, MA	Rooftop	78	On-Air
Brookline 3	42.3048	-71.1395	282 Newton Street	Brookline, MA	Rooftop	55.3	On-Air
Chestnut Hill	42.3226	-71.1665	1244 Boylston Street	Brookline, MA	Rooftop	43	On-Air
Dedham 2	42.2550	-71.2093	200 West Street	Dedham, MA	Monopole	42	On-Air
Dedham 3	42.2559	-71.1667	5 Incinerator Road	Dedham, MA	Smokestack	105	On-Air
Jamaica Plain 2	42.3031	-71.1272	1125 Centre Street	Jamaica Plain, MA	Rooftop	41	On-Air
Jamaica Plain South	42.2968	-71.1319	1200 Centre Street	Roslindale, MA	Rooftop	83.2	On-Air
Needham	42.3036	-71.2180	141 Cabot Street	Needham, MA	Lattice	152	On-Air
Needham 2	42.2800	-71.2332	858 Great Plain Avenue	Needham, MA	Steeple	68	On-Air
Needham Cutler	42.2949	-71.2032	1 Well Avenue	Newton, MA	Rooftop	73.3	On-Air
Needham Heights	42.2911	-71.2363	460 Hillside Avenue	Needham, MA	Rooftop	49	On-Air
Newton 4	42.3183	-71.2109	56 Ramsdell Street	Newton, MA	Rooftop	28	On-Air
Newton Center Rep	42.3285	-71.1954	1320 Centre Street	Newton, MA	Rooftop	48	On-Air
Roslindale MT Hope	42.2851	-71.1288	4254 Washington Street	Roslindale, MA	Rooftop	35	On-Air
W Roxbury 2	42.2791	-71.1821	225 Rivermoor Street	West Roxbury, MA	Monopole	75	On-Air
W Roxbury Georgetown	42.2655	-71.1520	5050 Washington Street	West Roxbury, MA	Rooftop	46	On-Air
W Roxbury MSC	42.2751	-71.1392	4600 Washington Street	Roslindale, MA	Lattice	150	On-Air
W Roxbury North	42.3026	-71.1635	50/56 Broadlawn Park	Chestnut Hill, MA	Rooftop	55.3	On-Air
Wellesley 2	42.3175	-71.2307	20 William Street	Wellesley Hills, MA	Rooftop	58	On-Air

12. The signal propagation plot provided as an attachment was produced using deciBel Planner™, a Windows-based RF propagation computer modeling program and network planning tool. The software takes into account the geographical features of an area, land cover, antenna models, antenna heights, RF transmitting power and receiver thresholds to predict coverage and other related RF parameters used in site design and network expansion.

13. The RF map titled "NewtonSC29 – Existing 700 MHz LTE Sector Footprints" attached hereto depicts the areas primarily served by the sectors (a.k.a. signal "footprints") of the existing "On-Air" Verizon Wireless macro sites in the area, which are shown by a unique color for each particular sector of interest. For clarity, all other sectors of less interest with respect to the proposed site are shown in grey. As demand for wireless voice and data services continues to grow, Verizon Wireless manages the footprint of each sector so that it can support the demand within the area it is primarily serving. In addition to improving coverage to the immediate area, the proposed site is also needed to serve existing and anticipated demand in the vicinity and thereby offload some of the burden experienced by the surrounding sites. In that way, those sites will be able to more adequately serve the demand for service in the areas nearer to those surrounding sites. Please note that the outer parts of each sector footprint include areas that presently have signal strength below the targeted value required for reliable service to Verizon Wireless' customers. The fact that low-level signal is capable of reaching these areas does not mean that these areas experience adequate coverage. These unreliable areas of low signal level impose a significant capacity burden on the sites primarily serving the area.

14. As shown in the aforementioned plot, the proposed facility is centrally located within the targeted area of deficient service, making it suitable to provide the intended capacity relief to the area. In addition to providing a dominant server and improved capacity and coverage to these "hot spots" of network usage throughout the residential areas, the proposed facility will offload some of the burden experienced by the surrounding sites, particularly to the highlighted sectors, improving the overall system performance within their respective service areas.

15. I have concluded that the proposed facility will satisfy the present capacity and coverage needs that motivated Verizon Wireless to establish search rings in this vicinity. Any reduction in the proposed antenna configuration and/or equipment would also limit optimal performance of the site, which would substantially limit the site's effectiveness.

16. Verizon Wireless certifies that the proposed facility will not cause interference to any lawfully operating emergency communication system, television, telephone or radio, in the surrounding area. The FCC has licensed Verizon Wireless to transmit and receive in the Upper C Block of the 700 MHz band, B Block of the Cellular (850 MHz) band, the F, C3, and C4 Blocks of the PCS (1900 MHz) band, and the A and B Blocks of the AWS (2100 MHz) band of the RF spectrum. As a condition of the FCC licenses, Verizon Wireless is prohibited from interfering with other licensed devices that are being operated in a lawful manner. Furthermore, no emergency communication system, television, telephone, or radio is licensed to operate on these frequencies, and therefore interference is highly unlikely.

17. Pursuant to its Federal Communications Commission (FCC) licenses, Verizon Wireless is required to ensure that all radio equipment operating at the proposed communications facility and the resulting radio frequency exposure levels are compliant with FCC requirements as well as federal and state health and safety standards.

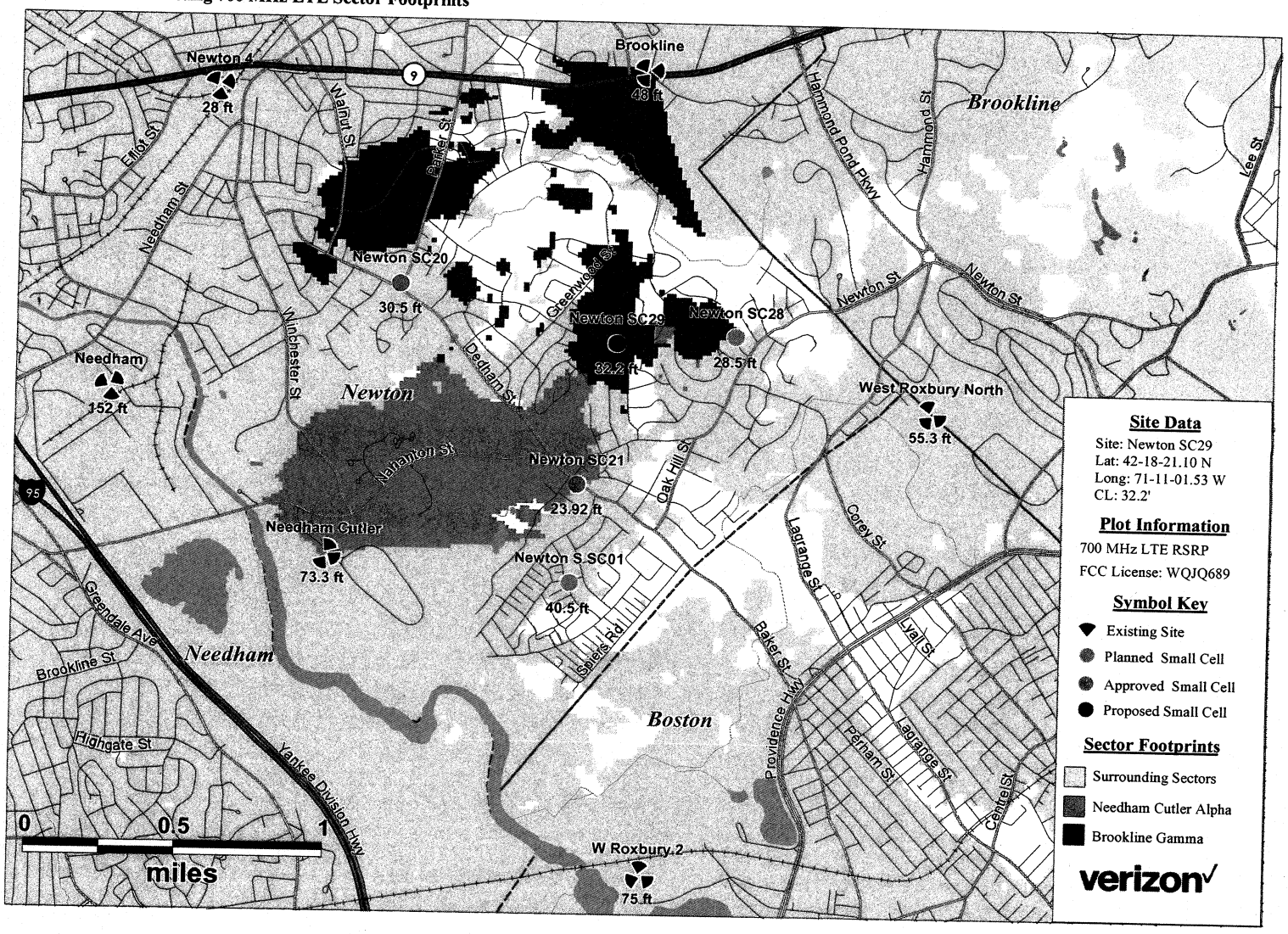
18. Providing wireless communication services is a benefit to the residents of Newton, as well as to mobile customers traveling throughout the area. The proposed facility is well suited to meet Verizon Wireless' network requirements for the intended areas. The absence of a wireless telecommunications facility at or near this immediate location will result in the continued existence of inadequate network capacity and coverage gaps in this area. Without the proposed facility, Verizon Wireless will be unable to provide reliable wireless communication services in this area of Newton; therefore, Verizon Wireless respectfully requests that the City of Newton act favorably upon the proposed facility.

Signed and sworn under the pains and penalties of perjury November 17th, 2016.

Keith Vellante

Keith Vellante
Radio Frequency (RF) Engineer
C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032

Newton SC29 - Existing 700 MHz LTE Sector Footprints



DONALD L. HAES, JR., PH.D., CHP
Radiation Safety Specialist
MA Radiation Control Program Health Physics Services Provider Registration #65-0017
PO Box 198, Hampstead, NH 03841 603-303-9959 Email: donald_haes_chp@comcast.net

November 14, 2016

RE: Proposed installation of radio base station antenna and associated equipment for the Verizon Wireless Small Cell Personal Wireless Services facility to be located on the top of a utility pole located on Sevland Rd., Newton, MA.

PURPOSE

I have reviewed the information pertinent to the Verizon Wireless proposed installation of a small cell (SC) personal wireless services (PWS) facility within Newton, MA. To determine regulatory compliance, theoretical calculations of maximal radio-frequency (RF) fields have been prepared. The physical conditions are that Verizon Wireless proposes to install a PWS omni-directional canister type antenna on the top of an existing utility pole on **Sevland Rd., Newton, MA**. The antenna arrangement will include a single canister antenna on the top of existing utility pole and remote radio heads (RRH). The mounting centerline height of the antenna is proposed to be 32'2" above ground level (AGL). This report provides written proof that the proposed facility would comply with the FCC RF exposure guidelines, including residential areas and in the surrounding neighborhood.

This report considers the contributions of the Verizon Wireless PWS transmitters operating at their proposed capacity. The calculated values of RF fields are presented as a percent of current Maximum Permissible Exposures (%MPE) as adopted by the Federal Communications Commission (FCC),[i,ii] and those established by the Massachusetts Department of Public Health (MDPH).[iii]

SUMMARY

Theoretical RF field calculations data indicate the summation of the proposed Verizon Wireless RF contributions would be well within the established RF exposure guidelines at the proposed site; see Figure 3. These results indicate there could be many more similar installations at this location, and still be within Federal and State guidelines for RF exposure. This report provides written proof that the proposed facility would comply with the FCC RF exposure guidelines, including residential areas and in the surrounding neighborhoods.

Based on the theoretical RF fields I have calculated, it is my expert opinion that this facility would comply with all regulatory guidelines for RF exposure to members of the public. The antenna installations proposed by Verizon Wireless would not produce significant changes to the ambient RF environment.

EXPOSURE LIMITS AND GUIDELINES

The RF exposure guidelines adopted by the FCC are a combination of the standards published by the American National Standards Institute (ANSI) [iv] and the National Council on Radiation Protection and Measurement (NCRP). [v] Also applicable are those published by the MDPH. The RF exposure guidelines are divided into two categories: "Controlled/Occupational areas" (those areas restricted to access by RF workers only) and "Uncontrolled/Public Areas" (those areas unrestricted for public access). Listed in Table 1 below and shown in Figure 1 above are the applicable RF exposure guidelines for uncontrolled areas as they pertain to the operating frequency band of the PWS facility.

Table 1: Maximum Permissible Exposure Values for Uncontrolled/Public Areas

Frequency Band:	Maximum Permissible Exposure:
300 - 1500 MHz	f/ 1.5 in $\mu W/cm^2$
1500 - 100,000 MHz	1000 $\mu W/cm^2$ *

Note: 1 μW = 0.000001 Watt

* For equivalent plane-wave power density, where f is the frequency in MHz (10^6 Hz).

NOTE: FCC 5% Rule – At multiple transmitter sites, actions necessary to bring the area into compliance with the RF exposure guidelines are the shared responsibility of all licensees whose transmitters produce RF field levels in excess of 5% of the applicable FCC MPEs.

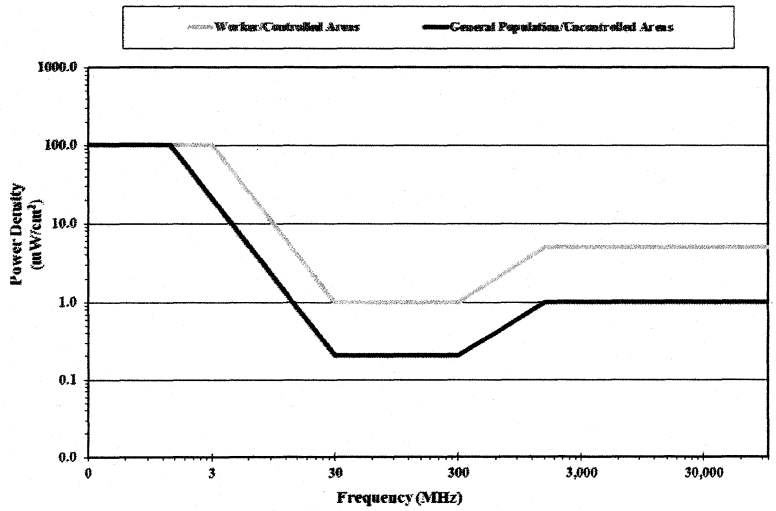


Figure 1: FCC Limits for Maximum Permissible Exposure (MPE)

THEORETICAL RF FIELD CALCULATIONS - GROUND LEVELS

METHODOLOGY

These calculations are based on what are called "worst-case" estimates. That is, the estimates assume 100% use of all transmitters simultaneously. Additionally, the calculations make the assumption that the surrounding area is a flat plane. The resultant values are thus conservative in that they over predict actual resultant power densities. The calculations are based on the following information for VERIZON WIRELESS:

1. Effective Radiated Power (ERP): See Table 2 inventory.
2. Antenna height (centerline, above ground level (AGL) See Table 2 inventory.
3. Antenna vertical radiation patterns; the source of the negative gain (G) values. "Omni directional" antennas are designed to focus the RF signal, resulting in "patterns" of signal loss and gain. These patterns (see **APPENDIX A**) display the loss of signal strength relative to the direction of propagation due to elevation angle changes.
   Note: G is a unitless factor usually expressed in decibels (dB); where $G = 10^{(dB/10)}$.
   For example: for an antenna *gain* of 3 dB, the net factor $(G) = 10^{(3/10)} = 2$.
   For an antenna *loss* of -3 dB, the net factor $(G) = 10^{(-3/10)} = 0.5$.

To determine the magnitude of the RF field, the power density (S) from an isotropic RF source is calculated, making use of the power density formula as outlined in FCC's OET Bulletin 65, Edition 97-01: [vi]

$$S = \frac{P \cdot G}{4 \cdot \pi \cdot R^2}$$

Where:
- P → Power to antenna (watts)
- G → Gain of antenna
- R → Distance (range) from antenna source to point of intersection with the ground (feet)
- $R^2 = (\text{Height})^2 + (\text{Horizontal distance})^2$

Since: $P \cdot G = EIRP$ (Effective Isotropic Radiated Power) for broadcast antennas, the equation can be presented in the following form:

$$S = \frac{EIRP}{4 \cdot \pi \cdot R^2}$$

In the situation of off-axis power density calculations, apply the negative elevation gain (G^E) value from the vertical radiation patterns with the following formula:

$$S = \frac{EIRP \cdot G^E}{4 \cdot \pi \cdot R^2}$$

Ground reflections may add in-phase with the direct wave, and essentially double the electric field intensity. Because power density is proportional to the *square* of the electric field, the power density may quadruple, that is, increase by a factor of four (4). Since ERP is routinely used, it is necessary to convert ERP into EIRP; this is readily done by multiplying the ERP by the factor of 1.64, which is the gain of a half-wave dipole relative to an isotropic radiator. Therefore, downrange power density estimates can be calculated by using the formula:

$$S = \frac{4 \cdot (ERP \cdot 1.64) \cdot G^E}{4 \cdot \pi \cdot R^2} = \frac{ERP \cdot 1.64 \cdot G^E}{\pi \cdot R^2} = \frac{0.522 \cdot ERP \cdot G^E}{R^2}$$

To calculate the % MPE, use the formula:

$$\% \text{ MPE} = \frac{S}{MPE} \cdot 100$$

ANTENNA INSTALLATION LOCATION

The location of the proposed utility pole which would host a Verizon Wireless SC antenna is shown below in Figure 2. The latitude and longitude are listed in Table 2.

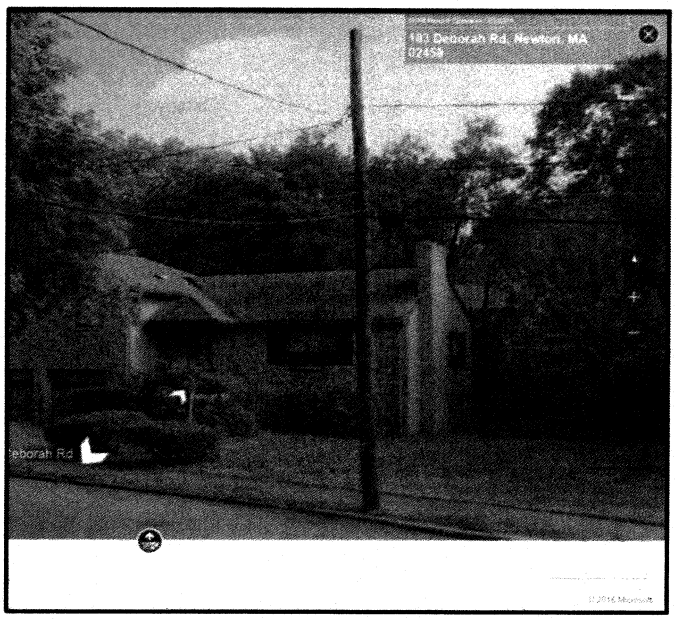


Figure 2: Location of the Proposed Utility Pole on Sevland Rd., Newton, MA Which Would Host A Verizon Wireless SC Antenna

The results of the percent Maximum Permissible Exposure (%MPE) calculations for the summation of the proposed Verizon Wireless contributions are depicted in Figure 3 as plotted against linear distance from the base of the utility pole. The values have been calculated for a height of six feet above ground level in accordance with regulatory rationale. In addition to the six-foot height, and depicted on the graph for reference only, values have been plotted for a height of 16 feet above ground level for comparison with a typical two-story structure. A logarithmic scale was used to plot the calculated theoretical %MPE values in order to compare with the MPE of 100%, which is so much larger that it would be off the page in a linear plot. The curves in the figure resemble a straight-line on the log-linear plots at distances beyond about one thousand feet. Within that distance, the curves are variable due to the application of the vertical radiation patterns.

OBSERVATIONS IN CONSIDERATION WITH FCC RULES §1.1307(B) & §1.1310

Is it physically possible to stand next to or touch any omni-directional antenna? No, access to the utility pole is restricted, and the utility companies will adhere to RF safety guidelines regarding potential access to the proposed PWS antennas mounted on the pole.

ANTENNA INVENTORY

Table 2: Proposed Verizon Wireless Antenna Inventory
Utility Pole on Sevland Rd., Newton, MA

Parameters: 715 watts ERP* of AWS @ 2150 MHz
542 watts ERP* of PCS @ 1950 MHz

Site Name	Latitude Longitude	Antenna Centerline (AGL)	Antenna Model
Newton MA SC29	42. 305861° N, -71. 183758° W	32'2"	NH360QM-DG
Information relevant to the antenna proposed by Verizon Wireless Appendix A.			

Table Notes:

AWS: Advanced Wireless Services

PCS: Personal Communication Services

* ERP = Power out per channel (CH) X # channels per remote radio head (RRH) X #RRHs X gain the antenna provides within that frequency band.

The results of the RF field calculations for the summation of the proposed Verizon Wireless AWS and PCS technologies are depicted in Figure 3.

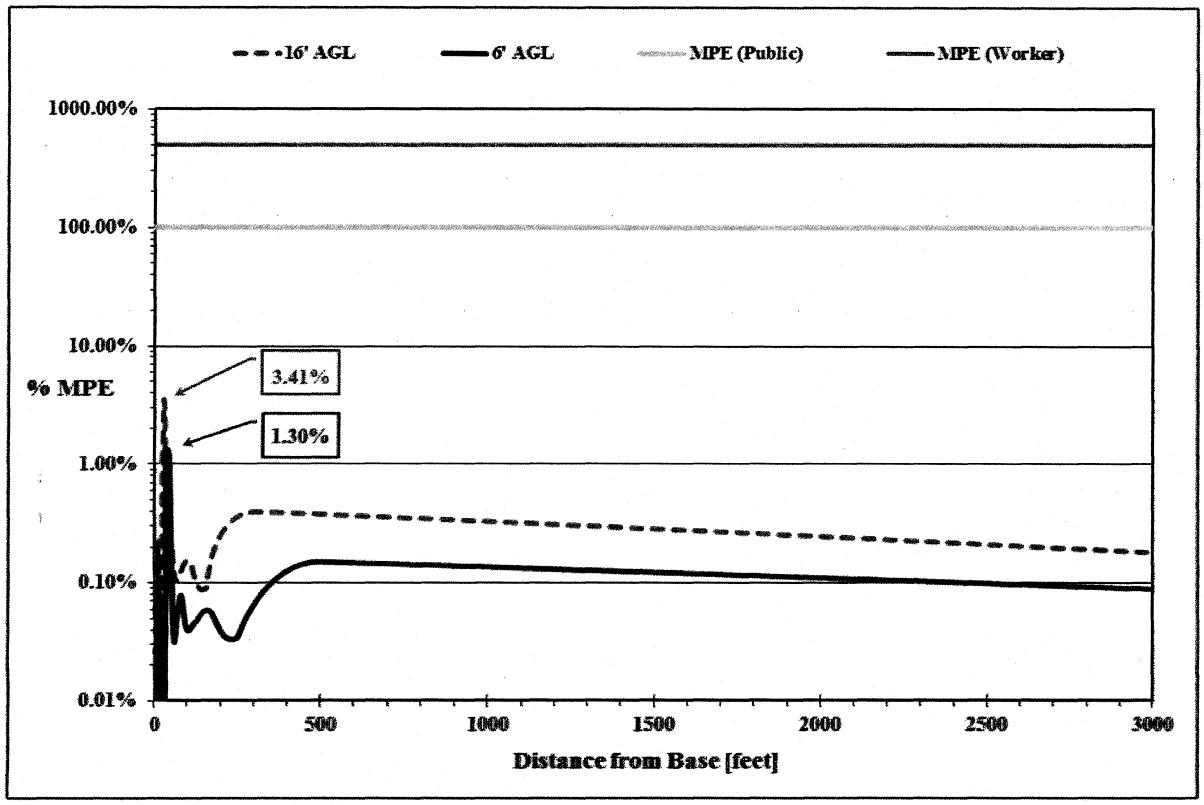


Figure 3: Theoretical RF field calculations for the summation of the proposed Verizon Wireless Small Cell Antenna Site "Newton MA SC29"; on Sevland Rd., Newton, MA

CONCLUSION

Theoretical RF field calculations data indicate the summation of the proposed Verizon Wireless RF contributions would be well within the established RF exposure guidelines at the proposed site; see Figure 3. These results indicate there could be many more similar installations at this location, and still be within Federal and State guidelines for RF exposure. This report provides written proof that the proposed facility would comply with the FCC RF exposure guidelines, including residential areas and in the surrounding neighborhoods.

The number and duration of calls passing through PWS facilities cannot be accurately predicted. Thus, in order to estimate the highest RF fields possible from operation of these installations, the maximal amount of usage was considered. Even in this so-called "worst-case", the resultant increase in RF field levels are far below established levels considered safe.

Based on the theoretical RF fields I have calculated, it is my expert opinion that this facility would comply with all regulatory guidelines for RF exposure to members of the public. The antenna installations proposed by Verizon Wireless would not produce significant changes to the ambient RF environment.

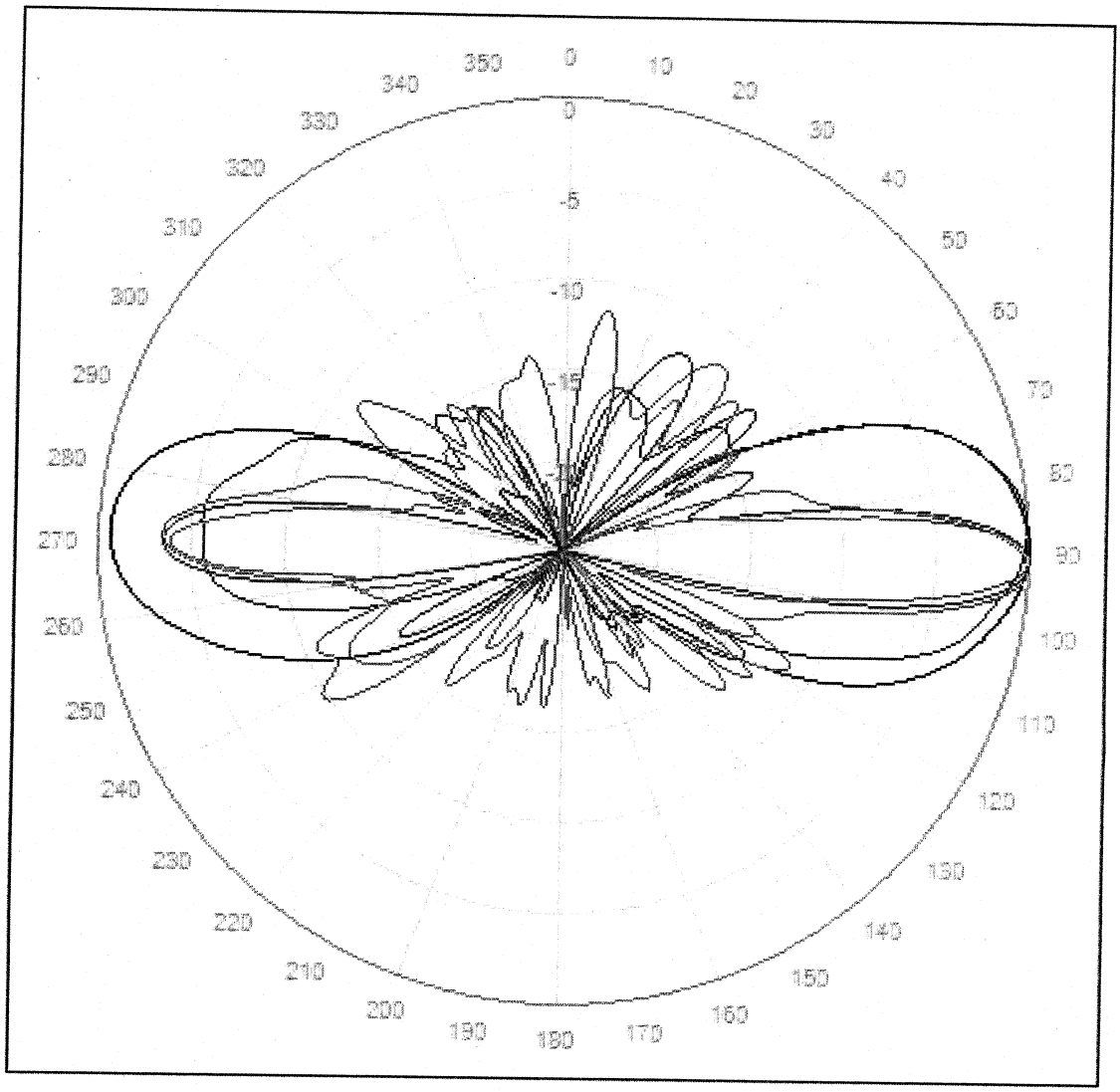
Feel free to contact me if you have any questions.

Sincerely,

Donald L. Haes, Jr., Ph.D
Certified Health Physicist

Note: The analyses, conclusions and professional opinions are based upon the precise parameters and conditions of these particular sites; **Utility pole on Sevland Rd., Newton, MA**. Utilization of these analyses, conclusions and professional opinions for any personal wireless services installation, existing or proposed, other than the aforementioned has not been sanctioned by the author, and therefore should not be accepted as evidence of regulatory compliance.

APPENDIX A



Composite Vertical Radiation Patterns for Proposed Small Cell Omni Antenna For Specific Verizon Wireless Proposed AWS & PCS Frequencies

DONALD L. HAES, JR., PH.D., CHP
Radiation Safety Specialist
MA Radiation Control Program Health Physics Services Provider Registration #65-0017
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STATEMENT OF CERTIFICATION

1. I certify to the best of my knowledge and belief, the statements of fact contained in this report are true and correct.

2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are personal, unbiased professional analyses, opinions and conclusions.

3. I have no present or prospective interest in the property that is the subject of this report and I have no personal interest or bias with respect to the parties involved.

4. My compensation is not contingent upon the reporting of a predetermined energy level or direction in energy level that favors the cause of the client, the amount of energy level estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.

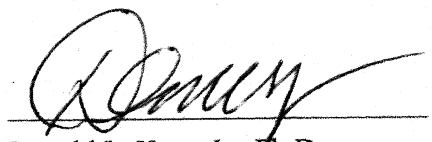
5. This assignment was not based on a requested minimum environmental energy level or specific power density.

6. My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

7. The consultant has accepted this assessment assignment having the knowledge and experience necessary to complete the assignment competently.

8. My analyses, opinions, and conclusions were developed and this report has been prepared, in conformity with the *American Board of Health Physics* (ABHP) statements of standards of professional responsibility for Certified Health Physicists.

Date: November 14, 2016



Donald L. Haes, Jr., Ph.D
Certified Health Physicist

ENDNOTES

[i]. Federal Register, Federal Communications Commission Rules; *Radiofrequency radiation; environmental effects evaluation guidelines* Volume 1, No. 153, 41006-41199, August 7, 1996. (47 CFR Part 1; Federal Communications Commission).

[ii]. Telecommunications Act of 1996, 47 USC; Second Session of the 104th Congress of the United States of America, January 3, 1996.

[iii]. 105 CMR 122.000: Massachusetts Department of Public Health, *Non-Ionizing Radiation Limits for: The General Public from Non-Occupational Exposure to Electromagnetic Fields, Employees from Occupational Exposure to Electromagnetic Fields, and Exposure from Microwave Ovens.*

[iv]. ANSI/IEEE C95.1-1999: American National Standard, *Safety levels with respect to human exposure to radio frequency electromagnetic fields, from 3 KHz to 300 GHz* **(Updated in 2010).**

[v]. National Council on Radiation Protection and Measurements (NCRP); *Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields*, NCRP Report 86, 1986.

[vi]. OET Bulletin 65: Federal Communications Commission Office of Engineering and Technology, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*; Edition 97-01, August 1999.

City of Newton

DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Setti D. Warren
Mayor

December 2, 2016

To: Public Facilities Committee

From: Jim McGonagle, Commissioner Public Works

Subject: PF Meeting Wednesday December 7, 2016

Discussion for the Public Facilities meeting on Wednesday December 7th will be focused on the upcoming DPW road paving and sidewalk construction plan.

Topics to include:

- Current and projected Pavement Condition Index (PCI)
- Coordination of utility work
- Communication of betterments
- Construction Management
- Pavement Maintenance

Jim McGonagle
Commissioner
Telephone: (617) 796-1009 • Fax: (617) 796-1050 • jmcgonagle@newtonma.gov

City Council

City of Newton

Massachusetts

Inter-Office Correspondence

To:	Public Facilities Committee	Date:	December 2, 2016
From:	D. Crossley, Chair of Public Facilities	Subject:	Plans

Please review the attached information from the Wireless Subcommittee pertaining to the Cellco Petitions scheduled for discussion on Wednesday, December 7, 2016.

Wireless Facilities in the Public Right of Ways in the City of Salem

Legal Issues Arising from Requests for
Small Cell and Distributed Antenna System (DAS) Attachments
on Utility and Street Light Poles

Small Cell and DAS Technology

- Small cells are single nodes, attached to a pole, usually for only 1 carrier who needs to increase their data network coverage capacity.
- Distributed Antenna System (DAS) is a network of multiple, spatially separate antenna nodes connected to a common source via fiber optic cable.
- Often located in public rights of way attached to utility poles or street lights.
- Are intended to supplement rather than supplant existing macro sites in the City.

Federal Law Dictates Process to a Degree*

- DAS and small cell installations are included as wireless "facilities" under federal law and applications for siting are subject to the deadlines ("shot clocks") contained in Section 332(c)(7): 90 days for collocation and 150 days for new poles.
- Modifications of an existing eligible facility must be acted on within 60 days.

*With certain exceptions for City's right to manage the ROW and to control municipally owned property such as attachments to City owned street lights.

Two Issues for City to Consider

- **Right to occupy the public right of way** granted by the City as a Grant of Location under Chapter 166.
- Can also be subject to a "Use Agreement" detailing the City's conditions for use of the public way.
- **Right to attach wireless facilities** to municipally owned property, such as traffic lights, street lights, other poles.
- Can be granted as part of pole attachment or lease agreement.

Differences Between the 2 Distinct Sets of Rights

- **Right to occupy the public Right of Way**
- Relates to the City's authority to manage the use and placement of facilities within the ROW. Does not matter who owns the poles or infrastructure upon which the facilities are placed.

- **Right to Attach wireless facilities to municipally owned property** (light poles, other municipal poles)
- Relates to City's rights as property owner and acting in a proprietary capacity.

Right of Way (ROW) Rights

- City may not prohibit entry by telecommunications carriers in the public ROW. (47 U.S.C. 253 (a))
- City may manage the public ROW and obtain reasonable compensation on a non-discriminatory neutral basis, while balancing the needs of community/new providers /existing providers.
- M.G.L. Chapter 166 requires a public hearing process for a grant of location in the public way.

City as Property Owner

- Federal laws and regulations do not affect City's rights to dictate the nature and scope of what it chooses to allow on City-owned street lights and poles provided its requirements do not act to prohibit wireless services in violation of Section 47 U.S.C. 253 (a).
- Federal and state telecommunications laws/regulations do not limit the City from charging a fee and requiring an agreement for attachments to City-owned property such as street lights in the public way.

City Has Flexibility in Negotiating Use of Municipal Property or Facilities

- Use of municipal property or facilities such as light poles, street lights are not subject to Sections 253, 332 (c)(7) or 6409 (a).
- FCC confirmed in its Wireless Siting Order (WT Docket #13-328) that shot clocks and other requirements **do not apply** to leases of municipal property where the municipality is operating in a proprietary capacity.

WIRELESS COMMUNICATIONS FACILITIES GRANT OF LOCATION CONDITIONS FOR DISCUSSION

- **As a condition of the grant of location, the applicant shall submit a letter or license from the owner(s) of the utility pole authorizing the attachment of the wireless communications facilities to said pole.**
- **The wireless communications facilities shall not include any lighting or blinking light unless required under applicable federal or state law.**
- **The wireless communications facilities shall comply with any applicable City noise ordinance. In the event that these facilities produce a humming noise, the applicant shall provide noise suppression equipment to reduce such noise.**
- **The color of the wireless communications facilities shall be similar to (a) the existing equipment on the utility pole and/or on other nearby utility poles, (b) the color of the utility pole, or (c) another color reasonably satisfactory to the Council, as directed by the Council.**
- **The wireless communications facilities shall not project over the public roadway or sidewalk (beyond the berm or curb) or otherwise interfere with the public use of the public way or sidewalk.**
- **The wireless communications facilities shall not interfere with the operation and maintenance of existing facilities attached to the utility pole, including streetlights and cable, electrical and telecommunications facilities. Streetlights shall not be moved unless required by the pole owner and, to the extent permitted under any applicable agreement between the pole owner and the City or absent such agreement, formally consented to by the Commissioner of Public Works. Signage attached to the utility pole shall not be moved without the prior written consent of the City department that controls the placement of the signage.**
- **The wireless communications facilities allowed under this grant of location order are limited to those specifically identified in the grant of location order and the dimensions of these facilities are limited to the**

dimensions identified in the grant of location order. Any increase in the number of attachments, any alteration of the location or any change in the height or dimensions of attachments shall be subject to prior review and approval by the Council in accordance with applicable law. The locations of such facilities on the utility pole shall not be altered unless such alterations are reviewed and approved in advance by the Commissioner of the Department of Public Works.

- **Within 30 days after completion of construction, the applicant shall provide the City Council with as-built drawings of its wireless communications facilities.**
- **The wireless communications facilities shall comply with FCC regulations regarding radio frequency emissions and the applicant shall provide the Council with an annual certification of continued compliance with such FCC regulations.**
- **All other requirements under the City Code, including but not limited to a performance bond, shall apply.**
- **The wireless communications facilities shall comply with the National Electrical Safety Code, construction standards of the utility pole owners and other applicable laws and industry safety standards.**
- **The wireless communications facilities shall be tagged or marked in accordance with any applicable law and/or utility pole owner requirements**
- **The wireless communications facilities approved shall be removed and the grant of location terminated if the Council requires the removal of the utility pole where the wireless communications facilities are located.**
- **The wireless communications facilities are subject to removal pursuant to the procedures established under M.G.L. Chapter 166, §§22A-22N.**