

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
A PETITION OF CELLCO PARTNERSHIP	:	SUB-PETITION NO. 1133
D/B/A VERIZON WIRELESS FOR A	:	37 NORTH MAIN STREET
DECLARATORY RULING ON THE NEED TO	:	WALLINGFORD, CT
OBTAIN A SITING COUNCIL CERTIFICATE	:	
FOR THE INSTALLATION OF A SMALL	:	
CELL TELECOMMUNICATIONS FACILITY	:	
ATTACHED TO THE ROOF OF THE	:	
BUILDING AT 37 NORTH MAIN STREET,	:	
WALLINGFORD, CONNECTICUT	:	NOVEMBER 12, 2015

SUB-PETITION FOR DECLARATORY RULING:
ELIGIBLE FACILITIES REQUEST FOR MODIFICATIONS
THAT WILL NOT SUBSTANTIALLY CHANGE THE
PHYSICAL DIMENSIONS OF AN EXISTING BASE STATION

I. Introduction

Pursuant to Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, codified at 47 U.S.C. § 1455(a) (“Section 6409(a)”) and the October 21, 2014 Report and Order (FCC-14-533) issued by the Federal Communications Commission (“FCC”) (the “FCC Order”), Cellco Partnership d/b/a Verizon Wireless (“Cellco”) hereby petitions the Connecticut Siting Council (the “Council”) for a declaratory ruling (“Sub-Petition”) that the installation of a new telecommunications facility on the roof of a four-story mixed use commercial/residential building at 37 North Main Street in Wallingford, Connecticut (the “Property”) constitutes an Eligible Facilities Request (“EFR”) under the FCC Order. Cellco has designated this site as its “Wallingford 4 Facility”.

II. Factual Background

The Property is a 0.76-acre parcel in Wallingford’s CA-6 Commercial district and is

surrounded by commercial, retail and residential uses along North Main Street and Center Street. The Property is owned by Wallace Realty Inc. See Attachment 1 – Site Vicinity Map and Site Schematic (Aerial Photograph). Other wireless carriers, including Sprint, Nextel, T-Mobile and Pocket Communication all received approval to install antennas on the roof of the building and equipment inside the building at the Property. Under the terms of the FCC Order, the building, therefore, constitutes an existing wireless “base station”.¹

Cellco is licensed to provide wireless telecommunications services in the 850 MHz, 1900 MHz, 700 MHz and 2100 MHz frequency ranges in Wallingford and throughout the State of Connecticut. The proposed Wallingford 4 Facility described above will provide wireless service in Cellco’s 2100 MHz frequency range and is designed to provide coverage and capacity relief to Cellco’s existing wireless network in Wallingford.

III. Proposed Wallingford 4 Facility

Cellco’s proposed Wallingford 4 Facility would consist of three (3) antennas mounted to two (2) separate towers on the roof of the building. The tower on the northerly portion of the roof would support a single panel antenna. The tower on the southerly portion of the roof would support two (2) panel antennas. Cellco will also install three (3) remote radio heads (“RRHs”), one behind each of its antennas. The towers, antennas and RRHs will be concealed inside faux chimney structures designed to match the existing building materials. The top of both concealment chimneys will extend approximately seven (7) feet above the peak of the roof of the building (approximately 69.4 feet above ground level (“AGL”)). Equipment associated with the Wallingford 4 Facility will be located inside a ground floor equipment room. Power and

¹ Pursuant to the FCC Order the definition of “base station” includes any “structure that currently supports or houses an antenna, transceiver, or other associated equipment . . .”. FCC Order para. 172.

telephone service will extend from existing service inside the building. Project Plans for the Wallingford 4 Facility are included in Attachment 2. A Structural Feasibility Letter confirming that the building can support Cellco's base station antennas and related modifications is included in Attachment 3. Specifications for Cellco's antennas and RRHs are included in Attachment 4.

IV. Discussion

A. The Proposed Modification Will Not Cause a Substantial Change to the Physical Dimensions of the Existing Base Station

Section 6409(a) provides, in relevant part, that "a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." Pursuant to the FCC Order, the proposed modification does not substantially change the physical dimensions of the base station if the following criteria are satisfied.

1. *The proposed modified facility will not increase the height of the base station by more than ten (10) percent or ten (10) feet, whichever is greater.* Cellco's proposed towers and concealment structures will extend only seven (7) feet above the peak of the roof of the existing building.

2. *The proposed facility modification will not protrude from the edge of the structure more than six (6) feet.* Cellco's proposed tower masts, antennas and concealment structures will be located on the roof of the building and will not protrude from the edge of the structure.

3. *The proposed facility does not involve installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four cabinets.* Cellco intends to install equipment inside the existing building.

4. *The proposed facility does not entail any excavation or deployment outside the current site of the base station.* Cellco's site development improvements will be located on the roof or inside the building. No improvements will extend off of the Property.

5. *The proposed facility does not defeat the existing concealment elements of the base station.* Cellco's proposed tower and antennas concealment plan is consistent with the approach taken by other wireless carriers.

6. *The proposed facility complies with conditions associated with the prior approval of construction or modification of the base station.* The existing roof-top wireless facilities at the Property were approved by the Town of Wallingford between 2004 and 2008. The concealment elements of Cellco's proposed facility installation is consistent with the existing wireless base station improvements.

B. FCC Compliance

Radio frequency ("RF") emissions from Cellco's proposed installation will be far below the standards adopted by the FCC. Included in Attachment 5 are for field tables for Cellco's 2100 MHz antennas confirming that the facility will operate well within the FCC safety standards.

C. Notice to the Town, Property Owner and Abutting Landowners

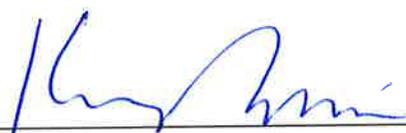
On November 12, 2015, a copy of this Sub-Petition was sent to Wallingford's Mayor William W. Dickinson, Jr., Wallingford's Town Planner Kacie Costello and Wallace Realty Inc., the owner of the Property. See Attachment 6. A copy of this Sub-Petition was also sent to the owners of land that abuts the Property. A sample abutter's cover letter and the list of those abutting landowners who were sent notice of the filing of the Sub-Petition is included in Attachment 7.

V. Conclusion

Based on the information provided above, Cellco respectfully submits that the proposed modification of the existing base station at the Property constitutes an “eligible facilities request” under Section 6409(a) and the FCC Order.

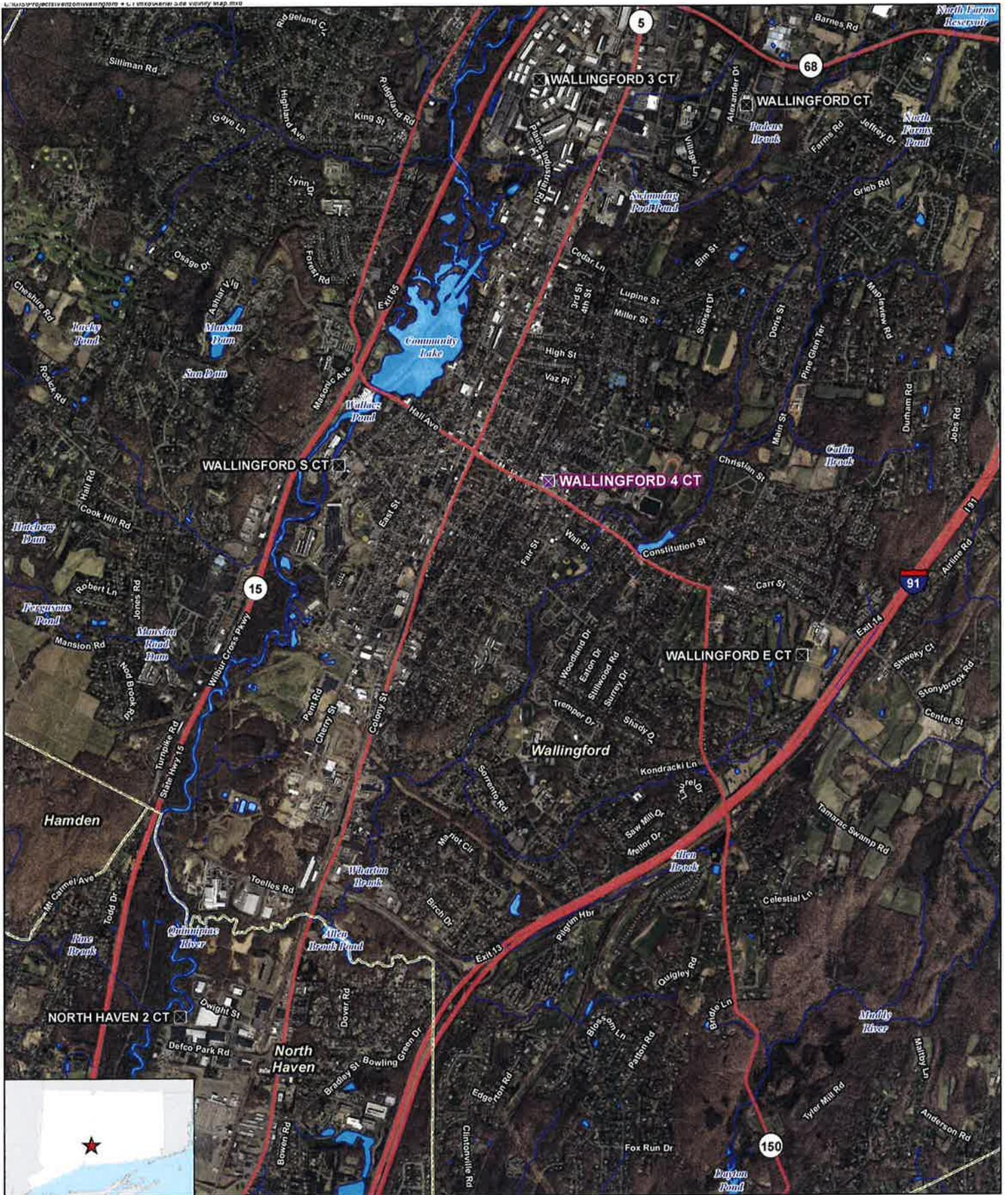
Respectfully submitted,

CELLCO PARTNERSHIP d/b/a VERIZON
WIRELESS

By  _____

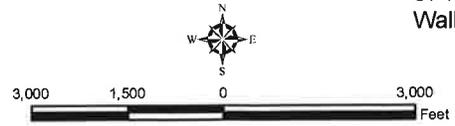
Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200
Its Attorneys

ATTACHMENT 1



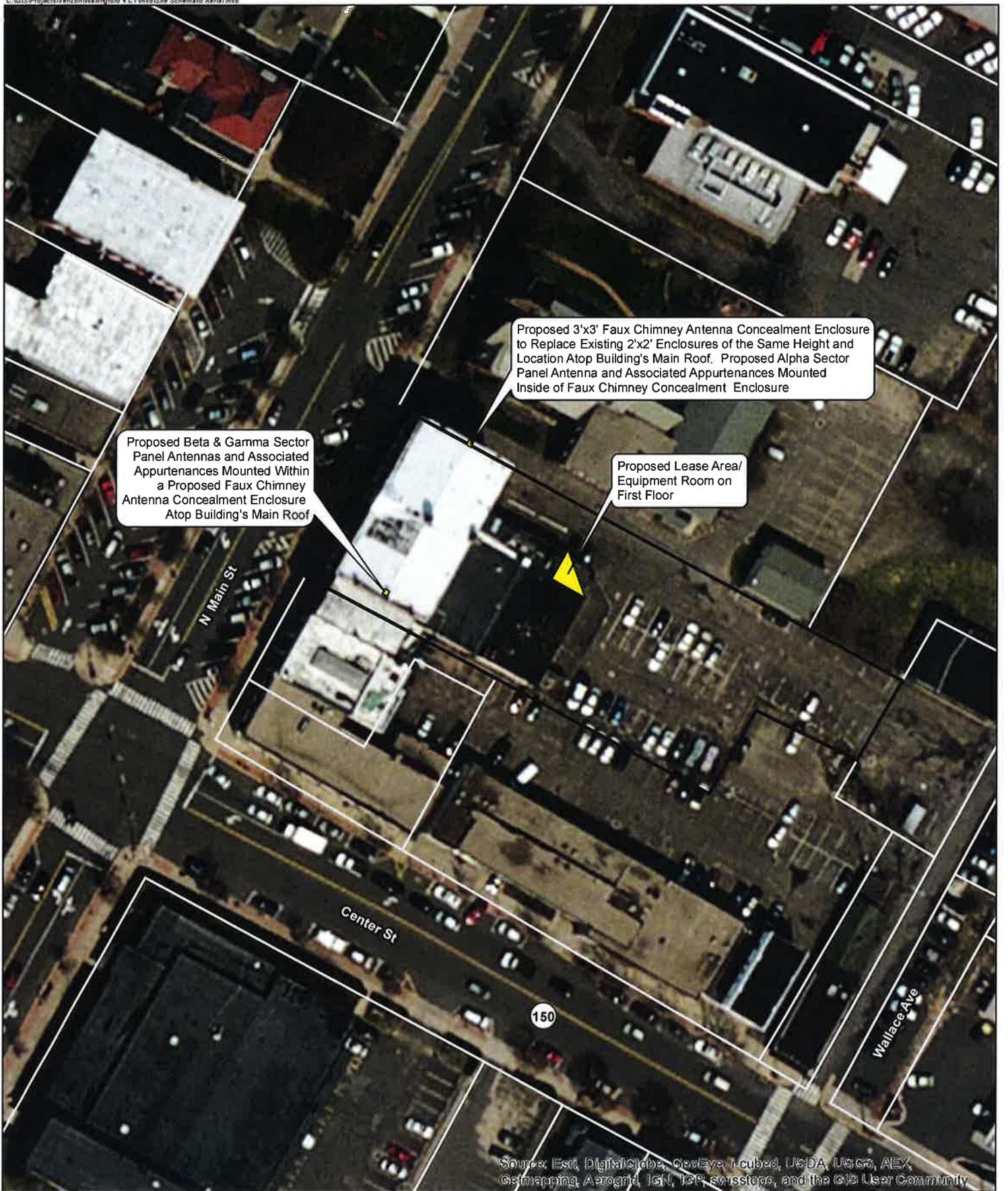
- Legend**
- ★ Proposed Verizon Wireless Facility
 - Surrounding Verizon Wireless Facilities
 - - - Municipal Boundary
 - ~ Watercourse (CTDEEP)
 - Waterbody (CTDEEP)

Base Map Source: 2012 Aerial Photograph (CTECO)
 Map Scale: 1 inch = 3,000 feet
 Map Date: September 2015



Site Vicinity Map

Proposed Wireless Telecommunications Facility
 Wallingford 4 CT
 37 North Main Street
 Wallingford, Connecticut



Proposed Beta & Gamma Sector Panel Antennas and Associated Appurtenances Mounted Within a Proposed Faux Chimney Antenna Concealment Enclosure Atop Building's Main Roof

Proposed 3'x3' Faux Chimney Antenna Concealment Enclosure to Replace Existing 2'x2' Enclosures of the Same Height and Location Atop Building's Main Roof. Proposed Alpha Sector Panel Antenna and Associated Appurtenances Mounted Inside of Faux Chimney Concealment Enclosure

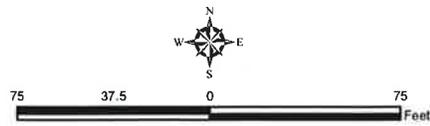
Proposed Lease Area/ Equipment Room on First Floor

- Legend**
- Proposed Facility Layout
 - Approximate Subject Property
 - Approximate Parcel Boundary (CTDEEP GIS)

Site Schematic

Proposed Wireless Telecommunications Facility
 Wallingford 4 CT
 37 North Main Street
 Wallingford, Connecticut

Map Notes:
 Base Map Source: ESRI World Imagery, NAIP 7/17/2014
 Map Scale: 1 inch = 75 feet
 Map Date: September 2015

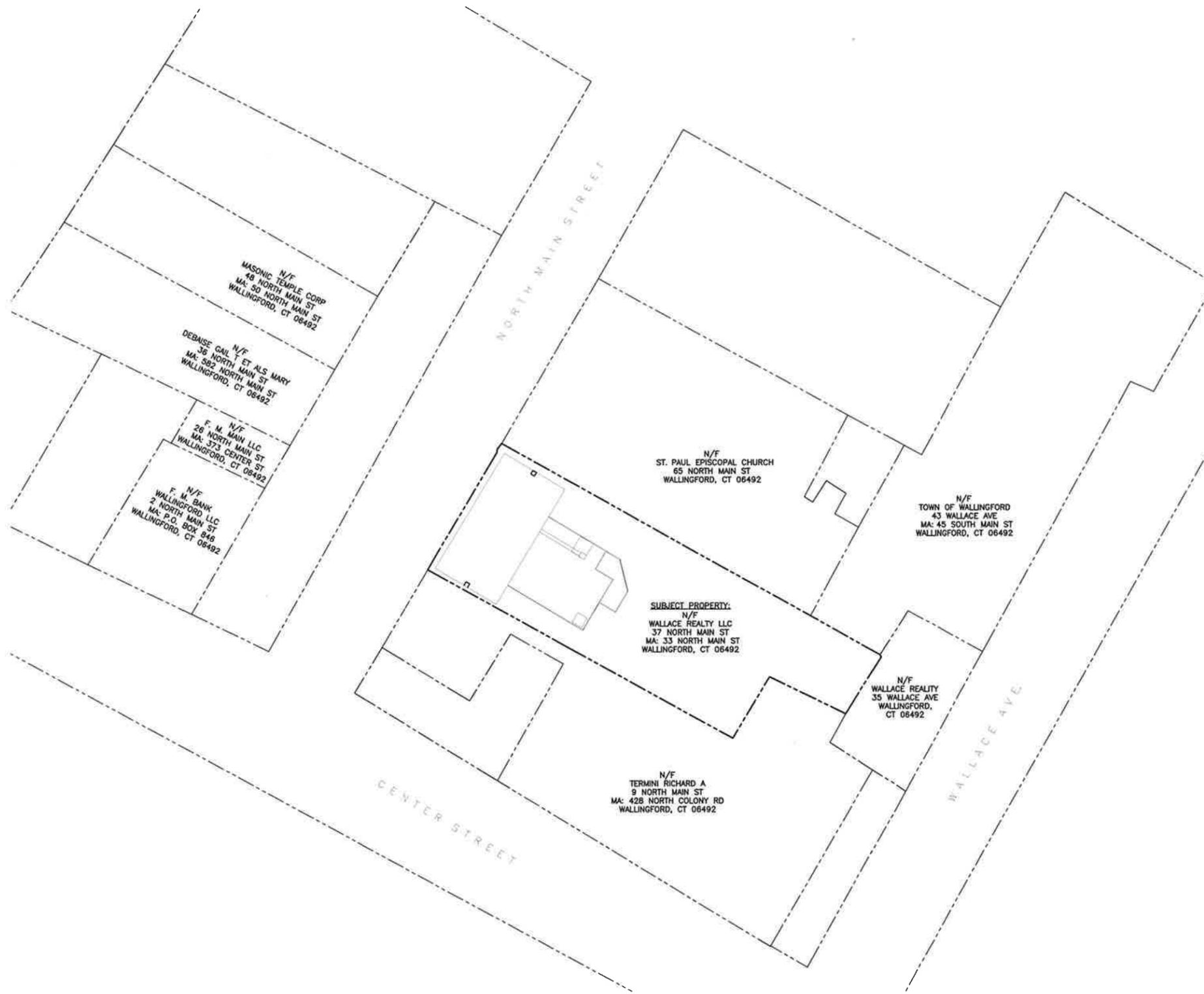


Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

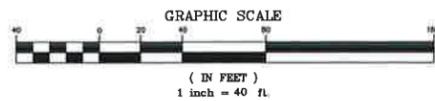
ATTACHMENT 2



MUNICIPALITY NOTIFICATION LIMIT MAP



1 ABUTTERS MAP
SCALE: 1" = 40'



MAP REFERENCE NOTE:
PROPERTY LINES AND PROPERTY OWNERSHIP INFORMATION SHOWN HEREIN ARE REFERENCED FROM THE TOWN OF WALLINGFORD ASSESSORS' MAPPING AND ASSESSORS DATABASE.

REV.	DATE	BY	CHK'D BY	DESCRIPTION
2	11/19/15	JTD	DMD	ISSUED FOR CSC
1	11/19/15	JTD	DMD	ISSUED FOR CSC
0	09/14/15	JTD	DMD	ISSUED FOR CSC-CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

Cellco Partnership
d.b.a. Verizon Wireless

CEN TEK engineering
Centek on solutions
(203) 489-0580
(203) 489-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY
WALLINGFORD 4 CT
37 NORTH MAIN STREET
WALLINGFORD, CONNECTICUT

DATE: 09/03/15
SCALE: AS NOTED
JOB NO. 14314.000

ABUTTERS MAP

C-1
Sheet No. 2 of 4

PROPOSED CELCO PARTNERSHIP 3'x3' FAUX CHIMNEY ANTENNA CONCEALMENT ENCLOSURE TO REPLACE EXISTING 2'x2' ENCLOSURE OF THE SAME HEIGHT AND LOCATION ATOP BUILDING MAIN ROOF (TYP. OF 2).

EXISTING T-MOBILE ANTENNA LOCATED WITHIN EXISTING RF TRANSPARENT SCREENING ENCLOSURE

PROPOSED CELCO PARTNERSHIP ALPHA SECTOR PANEL ANTENNA (TYP. OF 1) AND ASSOCIATED APPURTENANCES MOUNTED WITHIN A PROPOSED FAUX CHIMNEY ANTENNA CONCEALMENT ENCLOSURE ATOP BUILDING MAIN ROOF.

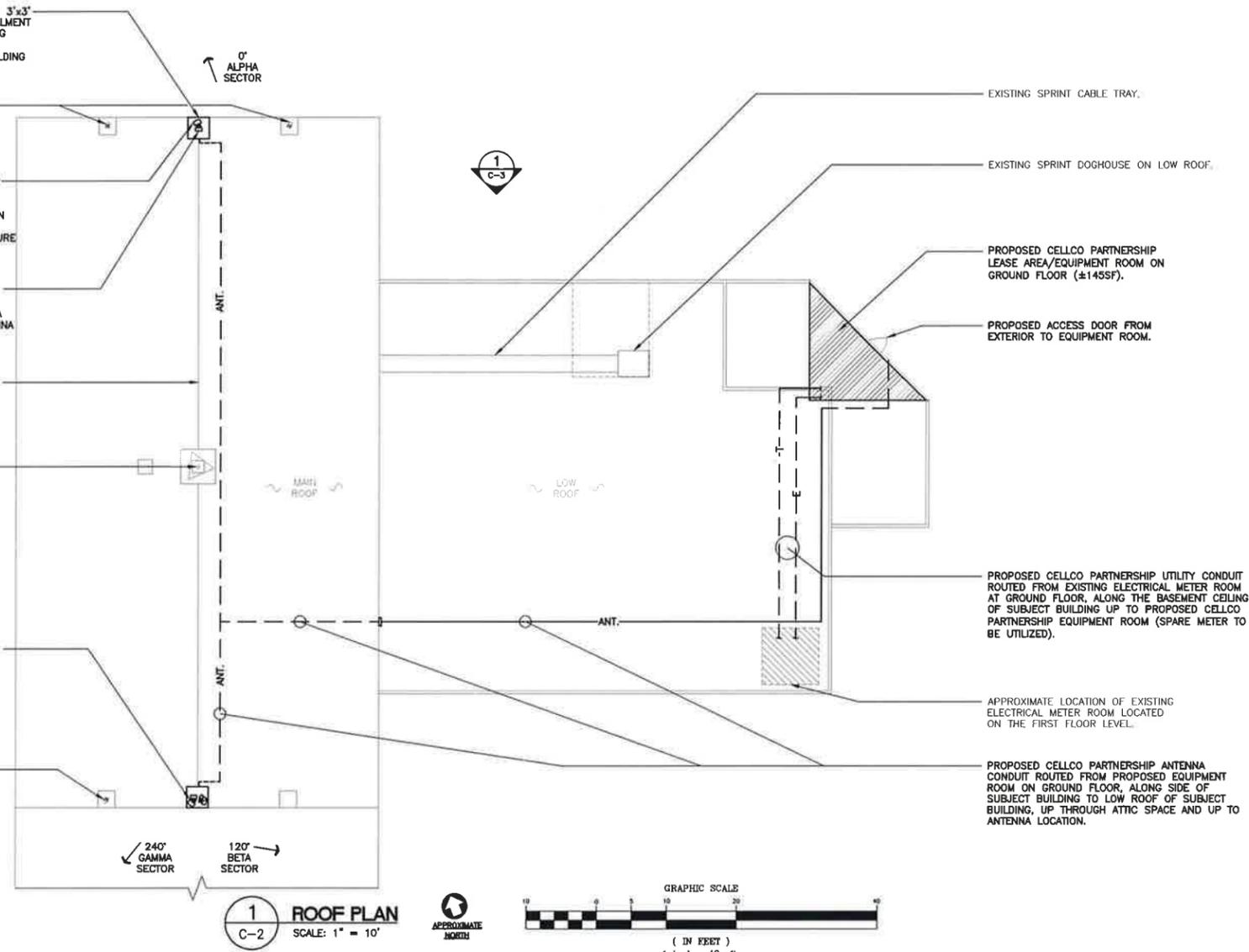
PROPOSED CELCO PARTNERSHIP REMOTE RADIO HEAD (TYP. OF 1 PER SECTOR) MOUNTED WITHIN A PROPOSED FAUX CHIMNEY ANTENNA CONCEALMENT ENCLOSURE ATOP BUILDING MAIN ROOF.

PROPOSED CELCO PARTNERSHIP ANTENNA CONDUIT ROUTED WITHIN ATTIC SPACE UP TO ANTENNA LOCATION.

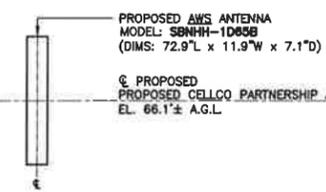
EXISTING SPRINT ANTENNA LOCATED WITHIN EXISTING RF TRANSPARENT SCREENING ENCLOSURE

PROPOSED CELCO PARTNERSHIP BETA & GAMMA SECTOR PANEL ANTENNAS (TYP. OF 2) AND ASSOCIATED APPURTENANCES MOUNTED WITHIN A PROPOSED FAUX CHIMNEY ANTENNA CONCEALMENT ENCLOSURE ATOP BUILDING MAIN ROOF.

EXISTING T-MOBILE ANTENNA LOCATED WITHIN EXISTING RF TRANSPARENT SCREENING ENCLOSURE



1 ROOF PLAN
SCALE: 1" = 10'



2 TYP. ANTENNA MOUNTING CONFIGURATION
NOT TO SCALE

RRH/DISTRIBUTION BOX MOUNTING NOTE

- AWS RRH (MODEL: ALU RRH2x60-AWS (DIMS: 36.7"L x 10.6"W x 5.8"D) (TYP. OF 1 PER SECTOR)

ANTENNA AND RRH MOUNTED WITHIN A PROPOSED FAUX CHIMNEY ANTENNA CONCEALMENT ENCLOSURE ATOP BUILDING MAIN ROOF.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
2	11/10/15	JTD	DMD	ISSUED FOR CSC
1	11/10/15	JTD	DMD	ISSUED FOR CSC
0	09/14/15	JTD	DMD	ISSUED FOR CSC-CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

Cellco Partnership
d.b.a. Verizon Wireless

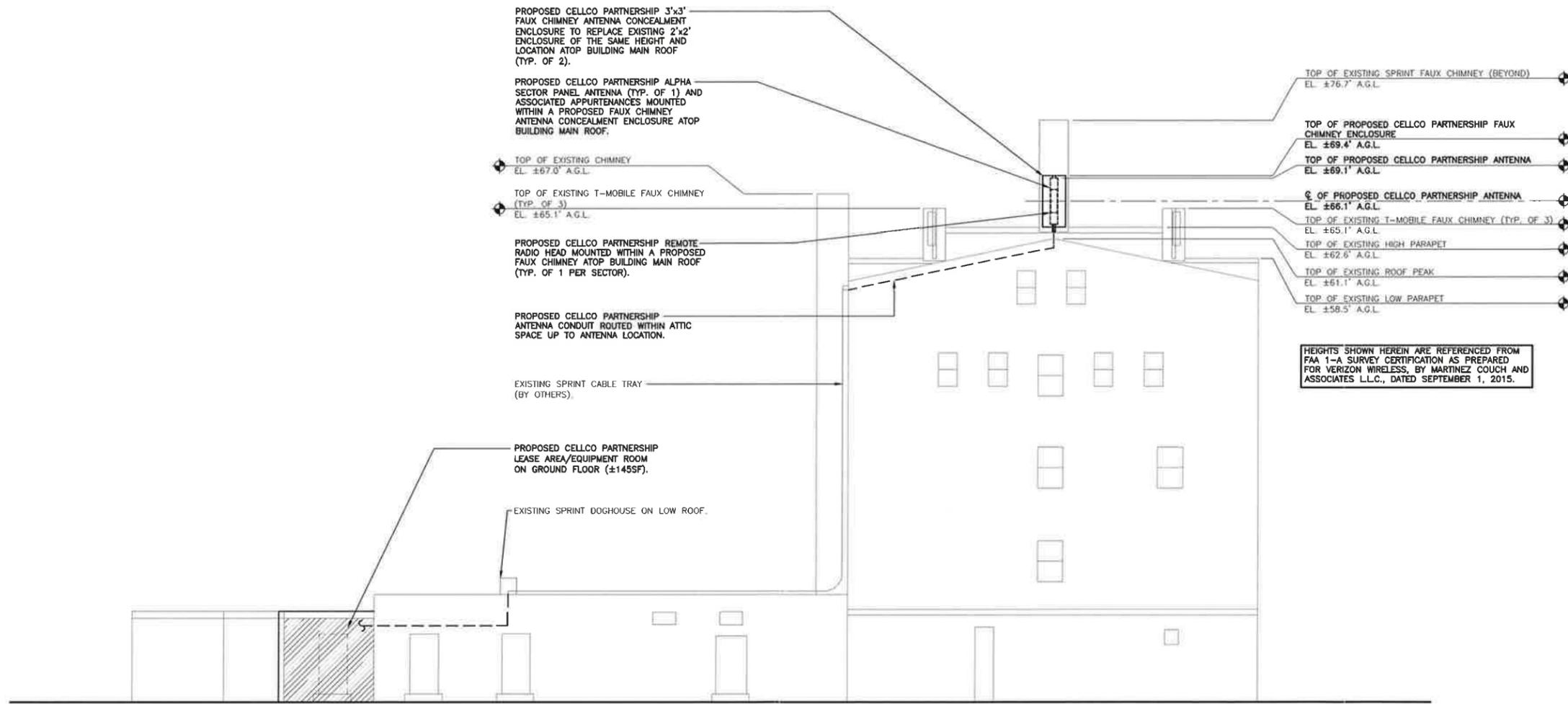
CEN TEK engineering
Certified on Solutions
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(203) 488-8587 Fax
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Branford, CT 06405
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY
WALLINGFORD 4 CT
37 NORTH MAIN STREET
WALLINGFORD, CONNECTICUT

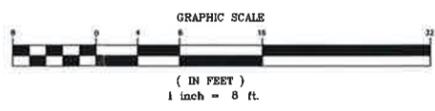
DATE: 09/03/15
SCALE: AS NOTED
JOB NO. 14314.000

ROOF PLAN AND ANTENNA CONFIGURATION

C-2
Sheet No. 3 of 4



1 NORTH ELEVATION
C-3 SCALE: 1/8" = 1'



REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
2	11/10/15	JTD	DMD	ISSUED FOR CSC
1	11/10/15	JTD	DMD	ISSUED FOR CSC
0	09/14/15	JTD	DMD	ISSUED FOR CSC-CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

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CENTEK engineering
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Cellco Partnership d/b/a Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY
WALLINGFORD 4 CT
37 NORTH MAIN STREET
WALLINGFORD, CONNECTICUT

DATE: 09/03/15
SCALE: AS NOTED
JOB NO. 14314.000

NORTH ELEVATION

C-3
Sheet No. 4 of 4

ATTACHMENT 3

October 23, 2015

Mr. Mike Humphreys
Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

Re: Structural Feasibility Letter
Verizon Wireless Site Wallingford 4
37 North Main Street
Wallingford, Connecticut

CEN TEK Project No. 14314.000

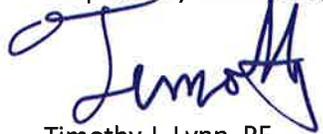
Dear Mr. Humphreys,

This letter is to confirm the structural feasibility of constructing the proposed wireless communications facility at the referenced property. No structural documentation of the existing building was available. A site visit by Centek personnel was conducted on 11/07/2014 for the purpose of documenting existing structural member sizes and configurations. A preliminary structural analysis was prepared for use in making a final recommendation.

The host building is a 4-story wood and masonry framed structure currently utilized for both commercial and residential purposes. Two (2) existing abandoned antenna concealment chimneys located on the roof of the host building will be utilized to accommodate Verizon's antennas and associated appurtenances. The antenna concealment chimneys are supported by structural steel framing attached to the host building roof framing system and exterior masonry wall. Verizon's radio equipment will be located within an equipment room constructed on the first floor of the host building.

Centek Engineering, Inc. will prepare sealed design documents for the proposed unmanned wireless communications facility located on the roof of the four story (\pm 62 ft.) host building. The final design will comply with the requirements of the 2005 Connecticut State Building Code with most current supplements. Should modifications to the existing structure be warranted to accommodate the proposed installation, it is our opinion that they could be implemented without adverse effect to the existing facility operations. In conclusion, our preliminary analysis finds that the proposed Verizon Wireless facility will not adversely affect the structural integrity of the host building.

Respectfully Submitted,



Timothy J. Lynn, PE
Structural Engineer



ATTACHMENT 4

Product Specifications

COMMSCOPE®

POWERED BY



SBNHH-1D65B

Andrew® Tri-band Antenna, 698–896 and 2x 1695–2360 MHz, 65° horizontal beamwidth, internal RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	14.9	14.7	17.7	18.2	18.6	18.6
Beamwidth, Horizontal, degrees	68	66	69	66	63	58
Beamwidth, Vertical, degrees	12.1	10.7	5.6	5.2	5.0	4.5
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	0–7
USLS, dB	14	13	15	15	15	13
Front-to-Back Ratio at 180°, dB	27	29	28	28	28	27
CPR at Boresight, dB	20	23	20	20	17	21
CPR at Sector, dB	14	10	12	10	9	1
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350	350	350	300
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm					

Electrical Specifications, BASTA*

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	14.5	14.3	17.4	17.9	18.2	18.3
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.8	±0.4	±0.3	±0.5	±0.3
Gain by Beam Tilt, average, dBi	0° 14.6	0° 14.5	0° 17.4	0° 17.8	0° 18.1	0° 18.2
	7° 14.6	7° 14.4	3° 17.5	3° 17.9	3° 18.3	3° 18.4
	14° 14.2	14° 13.6	7° 17.4	7° 17.9	7° 18.2	7° 18.4
Beamwidth, Horizontal Tolerance, degrees	±2.2	±3.4	±2	±4.6	±5.7	±4.3
Beamwidth, Vertical Tolerance, degrees	±0.8	±1	±0.3	±0.2	±0.3	±0.2
USLS, dB	16	14	16	16	16	15
Front-to-Back Total Power at 180° ± 30°, dB	25	26	27	26	26	26
CPR at Boresight, dB	22	23	21	20	20	22
CPR at Sector, dB	13	11	16	12	11	4

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

General Specifications

Antenna Brand	Andrew®
Antenna Type	DualPol® multiband with internal RET
Band	Multiband
Brand	DualPol® Teletilt®
Operating Frequency Band	1695 – 2360 MHz 698 – 896 MHz
Performance Note	Outdoor usage

Product Specifications

COMMSCOPE®

SBNHH-1D65B

POWERED BY



Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Aluminum Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	6
Wind Loading, maximum	617.7 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Speed, maximum	241.4 km/h 150.0 mph

Dimensions

Depth	181.0 mm 7.1 in
Length	1851.0 mm 72.9 in
Width	301.0 mm 11.9 in
Net Weight	18.4 kg 40.6 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Power Consumption, idle state, maximum	2.0 W
Power Consumption, normal conditions, maximum	13.0 W
Protocol	3GPP/AISG 2.0 (Multi-RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male
RET System	Teletilt®

Packed Dimensions

Depth	299.0 mm 11.8 in
Length	1970.0 mm 77.6 in
Width	409.0 mm 16.1 in
Shipping Weight	31.0 kg 68.3 lb

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant by Exemption
Above Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system



Included Products

Product Specifications

COMMSCOPE®

SBNHH-1D65B



BSAMNT-1 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* **Footnotes**

Performance Note Severe environmental conditions may degrade optimum performance

ALCATEL-LUCENT WIRELESS PRODUCT DATASHEET RRH2X60-AWS FOR BAND 4 APPLICATIONS

The Alcatel-Lucent RRH2x60-AWS is a high power, small form factor Remote Radio Head operating in the AWS frequency band (3GPP Band 4) for LTE technology. It is designed with an eco-efficient approach, providing operators with the means to achieve high quality and high capacity coverage with minimum site requirements and efficient operation.



A distributed Node B expands the deployment options by using two components, a Base Band Unit (BBU) containing the digital assets and a separate RRH containing the radio-frequency (RF) elements. This modular design optimizes available space and allows the main components of a Node B to be installed separately, within the same site or several kilometers apart. The Alcatel-Lucent RRH2x60-AWS is linked to the BBU by an optical-fiber connection carrying downlink and uplink digital radio signals

along with operations, administration and maintenance (OA&M) information.

SUPERIOR RF PERFORMANCE

The Alcatel-Lucent RRH2x60-AWS integrates all the latest technologies. This allows to offer best-in-class characteristics.

It delivers an outstanding 120 watts of total RF power thanks to its two transmit RF paths of 60 W each.

It is ideally suited to support multiple-input multiple-output (MIMO) 2x2 operation.

It includes four RF receivers to natively support 4-way uplink reception diversity. This improves the radio uplink coverage and this can be used to extend the cell radius commensurate with 2x2MIMO 2x60 W for the downlink.

It supports multiple discontinuous LTE carriers within an instantaneous bandwidth of 45 MHz corresponding to the entire AWS B4 spectrum.

The latest generation power amplifiers (PA) used in this product achieve high efficiency (>40%), resulting in improved power consumption figures.

OPTIMIZED TCO

The Alcatel-Lucent RRH2x60-AWS is designed to make available all the benefits of a distributed Node B, with excellent RF characteristics, with low capital expenditures (CAPEX) and low operating expenditures (OPEX).

The Alcatel-Lucent RRH2x60-AWS is a very cost-effective solution to deploy LTE MIMO.

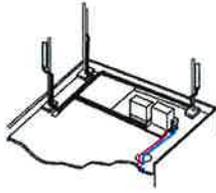
EASY INSTALLATION

The RRH2x60-AWS includes a reversible mounting bracket which allows for ease of installation behind an antenna, or on a rooftop knee wall while providing easy access to the mid body RF connectors.

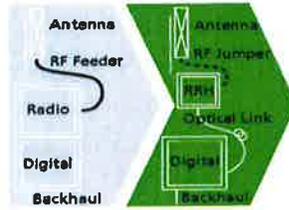
The limited space available in some sites may prevent the installation of traditional single-cabinet BTS equipment. However, many of these sites can host an Alcatel-Lucent RRH2x60-AWS installation, providing more flexible site selection and improved network quality along with greatly reduced installation time and costs.

The Alcatel-Lucent RRH2x60-AWS is a zero-footprint solution and is convection cooled without fans for silent operation, simplifying negotiations with site property owners and minimizing environmental impacts.

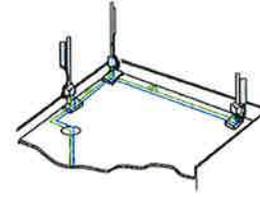
Installation can easily be done by a single person as the Alcatel-Lucent RRH2x60-AWS is compact and weighs about 20 kg, eliminating the need for a crane to hoist the BTS cabinet to the rooftop. A site can be in operation in less than one day.



Macro



RRH for space-constrained cell sites



Distributed

FEATURES

- RRH2x60-AWS integrates two power amplifiers of 60W rating (at each antenna connector)
- Support multiple carriers over the entire 3GPP band 4
- RRH2x60-AWS is optimized for LTE operation
- RRH2x60-AWS is a very compact and lightweight product
- Advanced power management techniques are embedded to provide power savings, such as PA bias control

BENEFITS

- MIMO LTE operation with only one single unit per sector
- Improved uplink coverage with built-in 4-way receive diversity capability
- RRH can be mounted close to the antenna, eliminating nearly all losses in RF cables and thus reducing power consumption by 50% compared to conventional solutions
- Distributed configurations provide easily deployable and cost-effective solutions, near zero footprint and

silent solutions, with minimum impact on the neighborhood, which ease the deployment

- RETA and TMA support without additional hardware thanks to the AISG v2.0 port and the integrated Bias-Tees. Bias-Tees support AISG DC supply and signaling.

TECHNICAL SPECIFICATIONS

Specifications listed are hardware capabilities. Some capabilities depend on support in a specific software release or future release.

Dimensions and weights

- HxWxD : 510x285x186mm (27 l with solar shield)
- Weight : 20 kg (44 lbs)

Electrical Data

- Power Supply : -48V DC (-40.5 to -57V)
- Power Consumption (ETSI average traffic load reference) : 250W @2x60W

RF Characteristics

- Frequency band: 1710-1755, UL / 2110-2155 MHz, DL (3GPP band 4)
- Output power: 2x60W at antenna connectors
- Technology supported: LTE
- Instantaneous bandwidth: 45 MHz
- Rx diversity: 2-way and 4-way uplink reception
- Typical sensitivity without Rx diversity: -105 dBm for LTE

Connectivity

- Two CPRI optical ports for daisy chaining and up to six RRHs per fiber
- Type of optical fiber: Single-Mode (SM) and Multi-Mode (MM) SFPs
- Optical fiber length: up to 500m using MM fiber, up to 20km using SM fiber
- TMA/RETA : AISG 2.0 (RS485 connector and internal Bias-Tee)
- Six external alarms
- Surge protection for all external ports (DC and RF)

Environmental specifications

- Operating temperature: -40°C to 55°C including solar load
- Operating relative humidity: 8% to 100%
- Environmental Conditions : ETS 300 019-1-4 class 4.1E
- Ingress Protection : IEC 60529 IP65
- Acoustic Noise : Noiseless (natural convection cooling)

Safety and Regulatory Data

- EMC : 3GPP 25113, EN 301 489-1, EN 301 489-23, GR 1089, GR 3108, OET-65
- Safety : IEC60950-1, EN 60825-1, UL, ANSI/NFPA 70, CAN/CSA-C22.2
- Regulatory : FCC Part 15 Class B, CE Mark – European Directive : 2002/95/EC (ROHS); 2002/96/EC (WEEE); 1999/5/EC (R&TTE)
- Health : EN 50385

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AT THE SPEED OF IDEAS™

ATTACHMENT 5

Site Name: **WALLINGFORD 4 CT**
 Cumulative Power Density

Operator	Operating Frequency (MHz)	Number of Trans.	ERP Per Trans. (watts)	Total ERP (watts)	Distance to Target (feet)	Calculated Power Density (mW/cm ²)	Maximum Permissible Exposure* (mW/cm ²)	Fraction of MPE (%)
VZW 700	746	1	0	0	67	0.0000	0.4973	0.00%
VZW Cellular	869	1	0	0	67	0.0000	0.5793	0.00%
VZW PCS	1970	1	0	0	67	0.0000	1.0000	0.00%
VZW AWS	2145	1	2306	2306	67	0.1848	1.0000	18.48%

Total Percentage of Maximum Permissible Exposure

18.48%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

ATTACHMENT 6

November 12, 2015

Via Certificate of Mailing

William W. Dickinson, Jr., Mayor
Wallingford Town Hall
45 South Main Street
Wallingford, CT 06492

Re: **Proposed Installation of a “Small Cell” Telecommunications Facility on Property at 37 North Main Street, Wallingford, Connecticut**

Dear Mayor Dickinson:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install antennas on the roof at 37 North Main Street in Wallingford (the “Property”). Cellco intends to install three (3) antennas and three (3) remote radio heads attached to two separate small towers on the roof of the building, 66.1 feet above ground level. Equipment associated with the facility will be located inside the building. The building currently supports T-Mobile and Sprint antennas.

As presented in the Sub-Petition, the proposed facility improvements at the Property constitute an eligible facility request pursuant to Section 6409(a) of the Federal Middle Class Tax Relief and Job Creation act of 2012 (47 U.S.C. § 1455(a)) and the October 21, 2014 Order of the Federal Communications Commission (FCC-14-533). A copy of the full Sub-Petition is attached for your review. Landowners whose property abuts the Property were also sent notice of this filing along with a copy of the Sub-Petition.

Pursuant to its decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.

14265059-v1

Robinson + Cole

William W. Dickinson, Jr.
November 12, 2015
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,



Kenneth C. Baldwin

Attachment

November 12, 2015

Via Certificate of Mailing

Kacie Costello, Town Planner
Wallingford Town Hall
45 South Main Street
Wallingford, CT 06492

Re: **Proposed Installation of a “Small Cell” Telecommunications Facility on Property at
37 North Main Street, Wallingford, Connecticut**

Dear Ms. Costello:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install antennas on the roof at 37 North Main Street in Wallingford (the “Property”). Cellco intends to install three (3) antennas and three (3) remote radio heads attached to two separate small towers on the roof of the building, 66.1 feet above ground level. Equipment associated with the facility will be located inside the building. The building currently supports T-Mobile and Sprint antennas.

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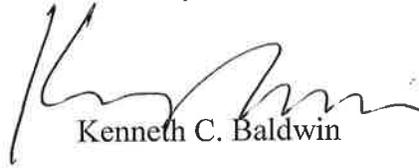
Pursuant to its decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.

Robinson + Cole

Kacie Costello
November 12, 2015
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,



Kenneth C. Baldwin

Attachment

November 12, 2015

Via Certificate of Mailing

Wallace Realty Inc.
33 North Main Street
Wallingford, CT 06492

Re: **Proposed Installation of a “Small Cell” Telecommunications Facility on Property at 37 North Main Street, Wallingford, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install antennas on the roof at 37 North Main Street in Wallingford (the “Property”). Cellco intends to install three (3) antennas and three (3) remote radio heads attached to two separate small towers on the roof of the building, 66.1 feet above ground level. Equipment associated with the facility will be located inside the building. The building currently supports T-Mobile and Sprint antennas.

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Pursuant to its decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.

14265081-v1

Robinson + Cole

Wallace Realty Inc.
November 12, 2015
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,



Kenneth C. Baldwin

Attachment

ATTACHMENT 7

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts

November 12, 2015

Via Certificate of Mailing

«Name_and_Address»

Re: Proposed Installation of a “Small Cell) Telecommunications Facility at 37 North Main Street, Wallingford, Connecticut

Dear «Salutation»:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install antennas on the roof at 37 North Main Street in Wallingford (the “Property”). Cellco intends to install three (3) antennas and three (3) remote radio heads attached to two separate small towers on the roof of the building, 66.1 feet above ground level. Equipment associated with the facility will be located inside the building. The building currently supports T-Mobile and Sprint antennas.

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November 12, 2015

Page 2

Pursuant to its decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.

This notice is being sent to you because you are listed as an owner of land that abuts the Property. If you have any questions regarding the Sub-Petition, the Council's process for reviewing the Sub-Petition or the details of the filing itself, please feel free to contact me at the number listed above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Attachment

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

ABUTTING PROPERTY OWNERS

37 NORTH MAIN STREET, WALLINGFORD, CONNECTICUT

	Property Address	Owner's and Mailing Address
1.	65 North Main Street	St. Paul's Episcopal Church 65 North Main Street Wallingford, CT 06492
2.	43 Wallace Avenue	Town of Wallingford 45 South Main Street Wallingford, CT 06492
3.	25 Wallace Avenue	Wallace Realty Inc. 33 North Main Street Wallingford, CT 06492
4.	9 North Main Street	Richard A. Termini 428 North Colony Road Wallingford, CT 06492
5.	2 North Main Street	F M Bank Wallingford LLC P.O. Box 846 Wallingford, CT 06492
6.	26 North Main Street	F M Main LLC 373 Center Street Wallingford, CT 06492
7.	36 North Main Street	Gail Debaise, Et Al and Mary 582 North Main Street Wallingford, CT 06492
8.	48 North Main Street	Masonic Temple Corp. 50 North Main Street Wallingford, CT 06492