STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
A PETITION OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS FOR A DECLARATORY RULING ON THE NEED TO OBTAIN A SITING COUNCIL CERTIFICATE FOR THE INSTALLATION OF A ROOF-TOP WIRELESS TELECOMMUNICATIONS FACILITY AT 1081 HUNTINGTON ROAD, STRATFORD, CONNECTICUT	:	PETITION NO. ____
	:	SEPTEMBER 3, 2015

PETITION FOR A DECLARATORY RULING:
INSTALLATION HAVING NO
SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

I. Introduction

Pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies ("R.C.S.A."), Cellco Partnership d/b/a Verizon Wireless ("Cellco") hereby petitions the Connecticut Siting Council (the "Council") for a declaratory ruling ("Petition") that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install a new telecommunications tower on the roof of an existing commercial building at 1081 Huntington Road in Stratford, Connecticut (the "Property"). The Property is owned by Hill Top Market LLC. Cellco has designated this site as its "Stratford 4 Facility".

II. Factual Background

The Property is a 0.28 acre commercial parcel in Stratford's RS-4 zone. The Property is surrounded by residential uses along Huntington Road, Douglas Street and Federal Street. *See* Attachment 1 – Site Vicinity and Site Schematic Maps (Aerial Photograph).

Cellco is licensed to provide wireless telecommunications services in the 850 MHz, 1900 MHz, 700 MHz and 2100 MHz frequency ranges in Stratford and throughout the State of Connecticut. Initially, the proposed Stratford 4 Facility described above will provide wireless service in Cellco's 2100 MHz frequency range only. The Stratford 4 Facility will provide coverage to existing gaps in 2100 MHz service and capacity relief to Cellco's network in the central Stratford area.

III. Proposed Stratford 4 Facility

The proposed Stratford 4 Facility would consist of a small tower attached to the roof of the Hill Top Market building. The tower will support three (3) panel antennas (Model HBXX-6513DS-VTM), and three (3) Remote Radio Heads ("RRHs") (Model 2X60-AWS). The tower, antennas and RRHs will be concealed inside a faux chimney screening structure. The faux chimney will extend to a height of approximately 10 feet above parapet wall, approximately 23.5 feet above ground level. Equipment associated with the Stratford 4 Facility will be located in a wall-mounted cabinet on the west side of the building.[1] Power and telephone service to the Stratford 4 Facility will extend from existing service inside the building. (*See* Cellco's Project Plans included in Attachment 2). Specifications for the Stratford 4 Facility antennas and RRHs are included in Attachment 3.

IV. Discussion

A. The Proposed Facility Modifications Will Not Have A Substantial Adverse Environmental Effect

The Public Utility Environmental Standards Act (the "Act"), C.G.S. § 16-50g et seq., provides for the orderly and environmentally compatible development of telecommunications

[1] Although attached to the wall of the building, the equipment cabinet will also rest on a steel support platform adjacent to the building.

towers in the state to avoid "a significant impact on the environment and ecology of the State of Connecticut." C.G.S. § 16-50g. To achieve these goals, the Act established the Council, and requires a Certificate of Environmental Compatibility and Public Need for the construction of cellular telecommunication towers "that may, as determined by the council, have a substantial adverse environmental effect". C.G.S. § 16-50k(a).

1. Physical Environmental Effects

Cellco respectfully submits that the installation of a concealed tower on the roof of the building supporting three (3) panel antennas and RRHs and the placement of an equipment cabinet to the rear of the building, will not involve a significant alteration in the physical and environmental characteristics of the Property.

2. Visual Effects

The installation of a small tower, antennas and RRHs on the roof of the existing commercial building at the Property concealed inside a faux chimney structure, would have minimal visual effects on the Property and the surrounding area. (*See* Limited Visual Assessment and Photo-Simulations ("Visual Assessment") included in Attachment 4). As concluded in the attached Visual Assessment, the proposed roof-top installation described above will not be highly visible nor will it have a significant impact on aesthetics in the area.

3. FCC Compliance

Radio frequency ("RF") emissions from the proposed installation will be well below the standards adopted by the Federal Communications Commission ("FCC"). Included in Attachment 5 is a General Power Density table, which demonstrates that Cellco's Stratford 4 Facility will operate well within the FCC safety standard (57.49 % of the Standard).

4. FAA Summary Report

Included in Attachment 6 is a Federal Airways & Airspace Summary Report (the "FAA Report") verifying that the faux chimney and antennas inside at the Property would not constitute an obstruction or hazard to air navigation and that notification to the FAA is not required.

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

On September 3, 2015, a copy of this Petition was sent to Stratford's Mayor John A. Harkins and to Hill Top Market LLC, the Property owner. Copies of the letters sent to Mr. Harkins and the owner are included in Attachment 7. A copy of Cellco's Petition was also sent to the owners of land that abuts the Property. A sample abutter's letter, and the list of those abutting landowners who were sent notice of the filing of the Petition is included in Attachment 8.

V. Conclusion

Based on the information provided above, Cellco respectfully requests that the Council issue a determination in the form of a declaratory ruling that the installation of a 10-foot faux chimney structure on the roof of the building, concealing a small tower, panel antennas and RRHs will not have a substantial adverse environmental effect and does not require the issuance of a Certificate of Environmental Compatibility and Public Need pursuant to § 16-50k of the General Statutes.

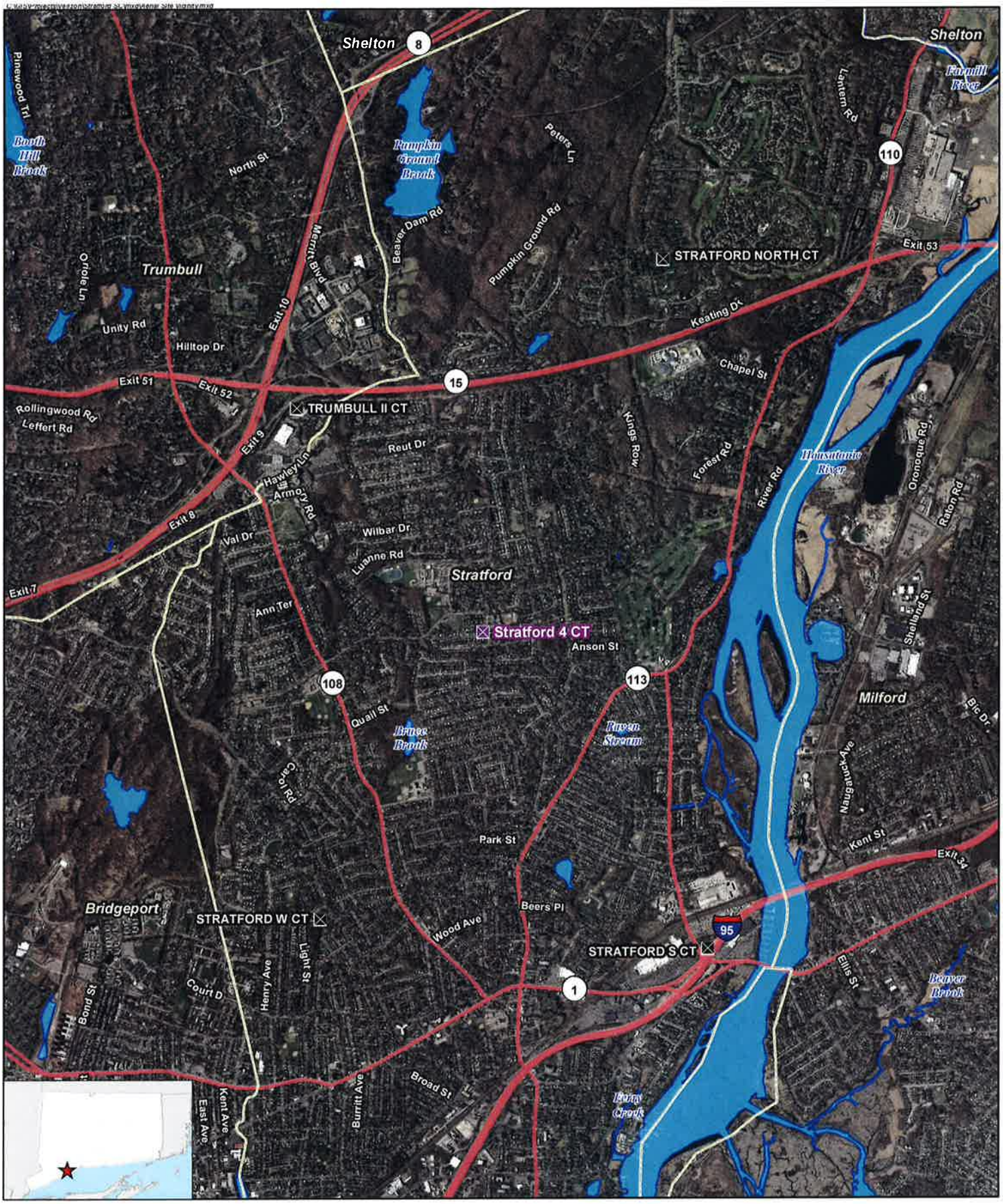
Respectfully submitted,

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
- Subject Property
- Municipal Boundary
- Waterbody

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

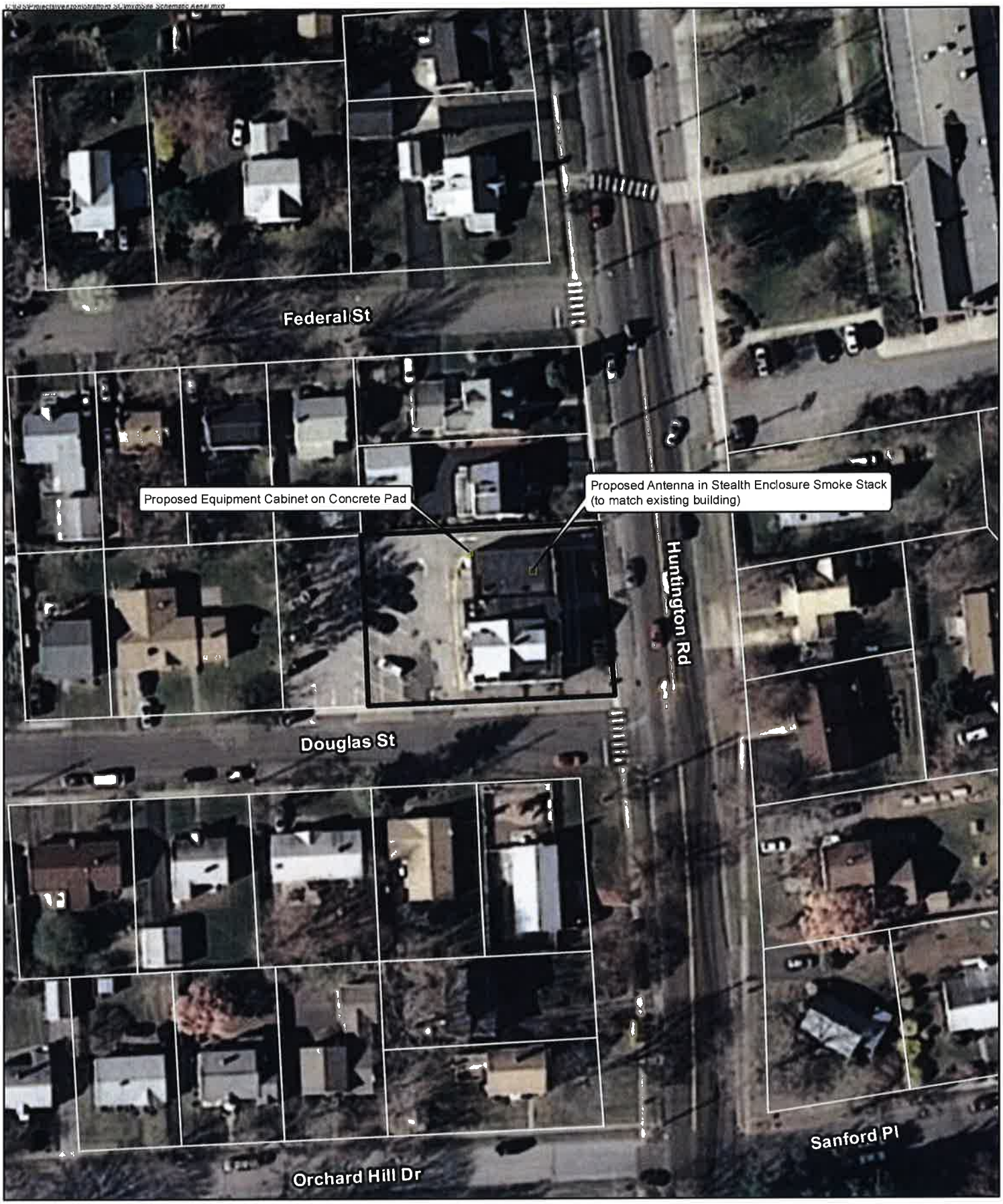
3,000 1,500 0 3,000 Feet

Site Vicinity

Proposed Small Cell Installation
Stratford 4 CT
1081 Huntington Road
Stratford, Connecticut

verizon wireless

ALL-POINTS



Legend

- Proposed Facility Layout
- Host Property

Site Schematic

Proposed Wireless
Telecommunications Facility
Stratford 4 CT
1081 Huntington Road
Stratford, Connecticut

verizon wireless

ALL-POINTS

N
W E
S

75 37.5 0 75 Feet

Map Notes:
Base Map Source: 2012 Aerial Photograph (CTECO)
Map Scale: 1 inch = 75 feet
Map Date: August 2015

ATTACHMENT 2

Cellco Partnership

d.b.a. verizon wireless

WIRELESS COMMUNICATIONS FACILITY

STRATFORD 4 CT

1081 HUNTINGTON ROAD

STRATFORD, CT 06614

SITE DIRECTIONS

FROM: 99 EAST RIVER DRIVE
EAST HARTFORD, CONNECTICUT

TO: 1081 HUNTINGTON ROAD
STRATFORD, CT 06614

1. Head Southwest on E River Dr toward Pitkin St	0.9 mi
2. Continue onto E River drive extension	0.3 mi
3. Turn right onto the U.S. 5 S/Connecticut 15 S ramp to New haven/Interstate 91 S	0.2 mi
4. Merge onto us-5 S	0.8 mi
5. Take exit 86 to merge onto I-91 S toward New haven/New york city	17.1 mi
6. Take exit 17 for Ct-15 s/w Cross Pkwy	0.4 mi
7. Merge onto Ct-15 S	27.2 mi
8. Take exit 53 for State route 110 toward Stratford Shelton	0.3 mi
9. Turn left onto Main St	0.4 mi
10. Keep left to continue on River Rd	1.2 mi
11. Continue onto Main St	0.6 mi
12. Slight right to stay on Main St	0.4 mi
13. Turn right onto Highland Ave	0.6 mi
14. Turn right onto Huntington Rd destination will be on the left	

GENERAL NOTES

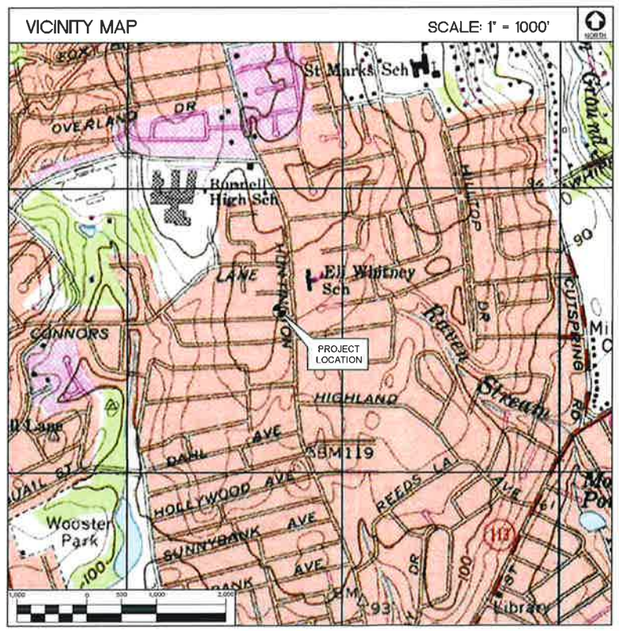
1. PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELLCO PARTNERSHIP.

PROJECT SCOPE

1. THE PROPOSED SCOPE OF WORK GENERALLY INCLUDES THE INSTALLATION OF A PROPOSED CELLCO PARTNERSHIP EQUIPMENT CABINET MOUNTED ATOP NON-PENETRATING STEEL PLATFORM AT GRADE.
2. A TOTAL OF THREE (3) PANEL ANTENNAS, AND ASSOCIATED APPURTENANCES ARE PROPOSED TO BE MOUNTED WITHIN A PROPOSED CELLCO PARTNERSHIP ANTENNA CONCEALMENT EXHAUST STACK WITH AN ANTENNA CENTERLINE ELEVATION AT ±21.5' A.G.L.
3. ELECTRIC AND TELCO UTILITIES SHALL BE ROUTED FROM DEMARCS LOCATED WITHIN ADJACENT TO THE EXISTING BUILDING TO THE PROPOSED CELLCO PARTNERSHIP EQUIPMENT CABINET AT GRADE.
4. FINAL DESIGN FOR ANTENNA MOUNT SHALL BE INCLUDED IN THE D&M PLANS.
5. THE PROPOSED WIRELESS FACILITY INSTALLATION WILL BE DESIGNED IN ACCORDANCE WITH THE 2003 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2009 CONNECTICUT SUPPLEMENT.

VICINITY MAP

SCALE: 1" = 1000'



PROJECT SUMMARY

SITE NAME:	STRATFORD 4 CT
SITE ADDRESS:	1081 HUNTINGTON ROAD STRATFORD, CT 06614
LESSEE/TENANT:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
VERIZON SITE ACQUISITION CONTACT:	DOUG TALMADGE CELLCO PARTNERSHIP (860) 549-6116
LEGAL/REGULATORY COUNSEL:	KENNETH C. BALDWIN, ESQ. ROBINSON & COLE (860) 275-8345
SITE COORDINATES:	LATITUDE: 41°-13'-17.797" N LONGITUDE: 73°-08'-06.035" W GROUND ELEVATION: ±145.9' AMSL COORDINATES AND GROUND ELEVATION REFERENCED FROM FAA 2-C SURVEY CERTIFICATION AS PREPARED FOR VERIZON WIRELESS, BY MARTINEZ COUCH AND ASSOCIATES L.L.C., DATED JANUARY 28, 2015.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	4
C-1	ABUTTERS MAP	4
C-2	ROOF PLAN, ELEVATIONS AND ANTENNA CONFIGURATION	4

PROFESSIONAL ENGINEER SEAL

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
4	05/18/15	HMR	DMD	ISSUED FOR CSC - UPDATED ABUTTERS
3	05/05/15	HMR	DMD	ISSUED FOR CSC - REVISED FOR SITE NAME & EQUIP. CABINET LOCATION
2	02/19/15	DRA	DMD	ISSUED FOR CSC
1	02/12/15	DRA	DMD	ISSUED FOR CSC - CLIENT REVIEW
0	02/11/15	DRA	DMD	ISSUED FOR CSC - CLIENT REVIEW

Cellco Partnership d.b.a. verizonwireless

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Cellco Partnership d/b/a Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY
STRATFORD 4 CT
1081 HUNTINGTON ROAD
STRATFORD, CT 06614

DATE: 02/10/15
SCALE: AS NOTED
JOB NO. 14189.000

TITLE SHEET

T-1

Sheet No. 1 of 3

MUNICIPALITY NOTIFICATION LIMIT MAP

1 / C-1 ABUTTERS MAP
SCALE: 1" = 30'

APPROXIMATE NORTH

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
4	06/18/15	HMR	DMD	ISSUED FOR CSC - UPDATED ABUTTERS
3	06/05/15	HMR	DMD	ISSUED FOR CSC - REVISED FOR SITE NAME & EQUIP. CABINET LOCATION
2	03/16/15	DRA	DMD	ISSUED FOR CSC
1	02/12/15	DRA	DMD	ISSUED FOR CSC - CLIENT REVIEW
0	02/11/15	DRA	DMD	ISSUED FOR CSC - CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

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WIRELESS COMMUNICATIONS FACILITY

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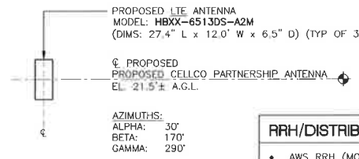
1081 HUNTINGTON ROAD
STRATFORD, CT 06614

DATE: 02/10/15
SCALE: AS NOTED
JOB NO. 14189.000

ABUTTERS MAP

C-1

Sheet No. 2 of 3

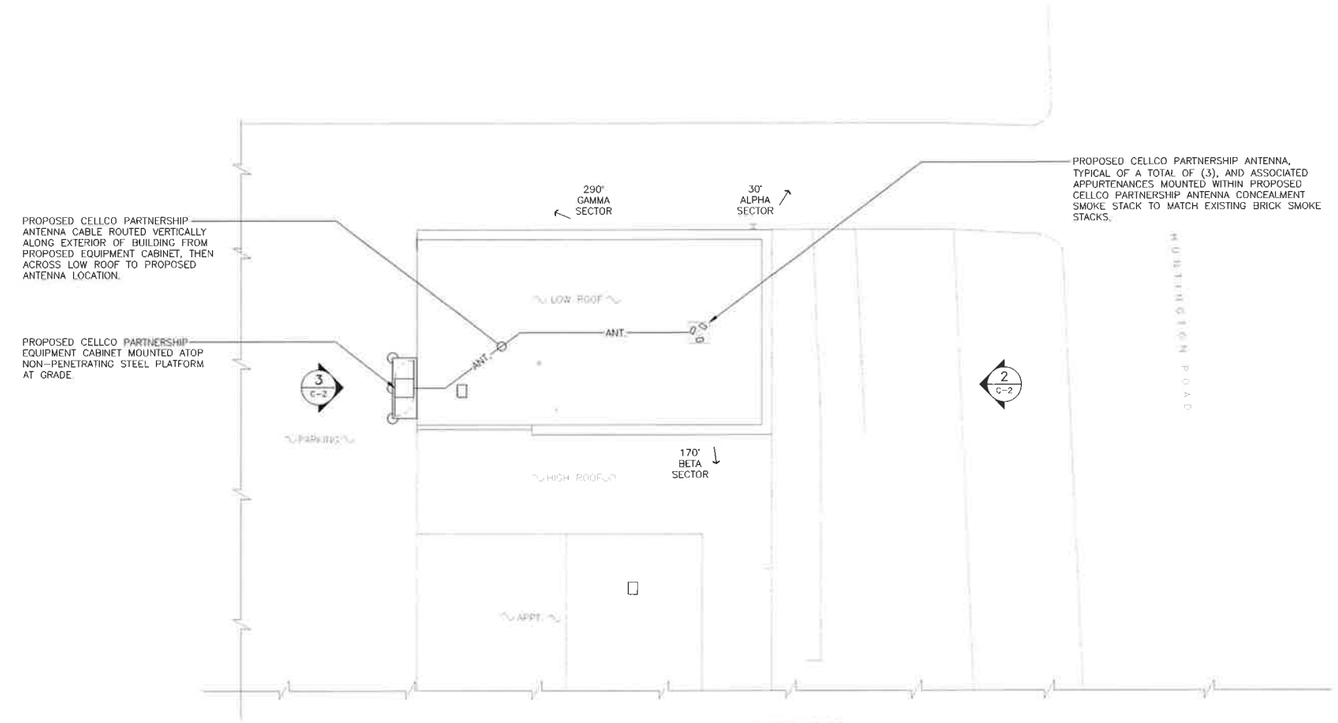


RRH/DISTRIBUTION BOX MOUNTING NOTE

- AWS RRH (MODEL: **ALU RRH_2x60-AWS**
  (DIMS: 36.7" L x 10.6" W x 5.8" D) (TYP. OF 3)

MOUNTED TO PIPE MAST WITHIN ANTENNA CONCEALMENT SMOKE HOUSE.

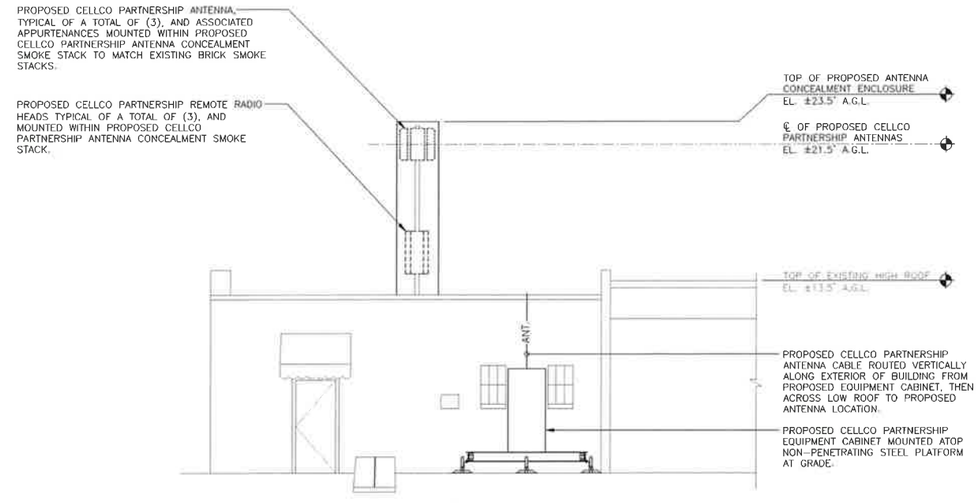
4 / C-2 **TYP. ANTENNA MOUNTING CONFIGURATION**
NOT TO SCALE



1 / C-2 **PARTIAL SITE/ROOF PLAN**
SCALE: 1" = 10'

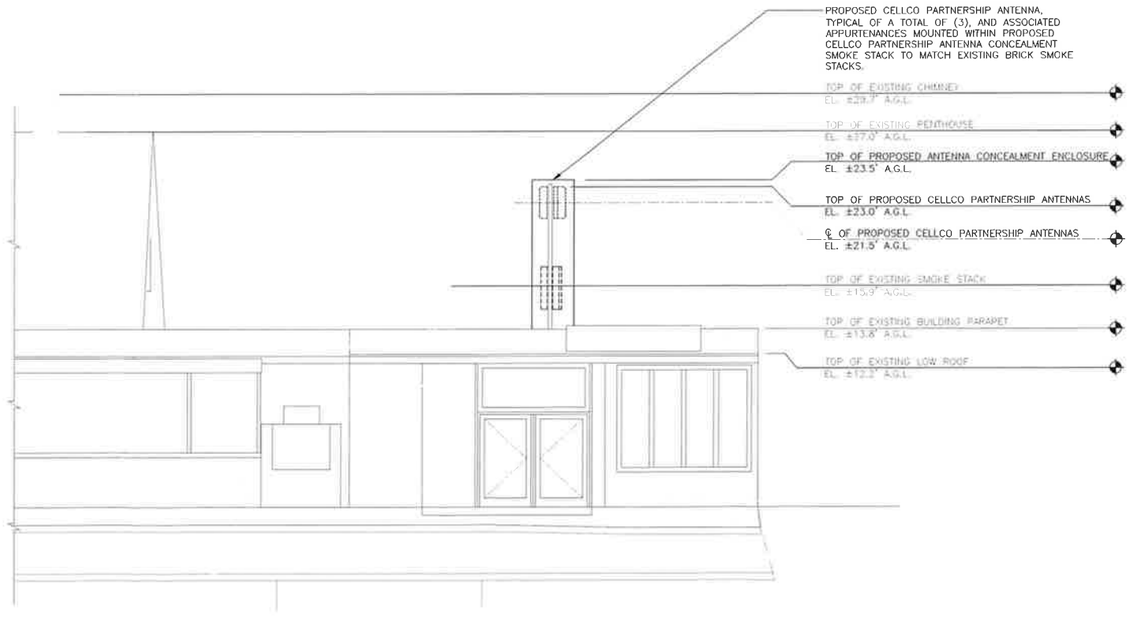
APPROXIMATE NORTH

GRAPHIC SCALE
10 5 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.



3 / C-2 **PARTIAL WEST ELEVATION**
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.



2 / C-2 **PARTIAL EAST ELEVATION**
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

COORDINATES AND GROUND ELEVATION REFERENCED FROM FAA 2-C SURVEY CERTIFICATION AS PREPARED FOR VERIZON WIRELESS, BY MARTINEZ COUCH AND ASSOCIATES L.L.C., DATED JANUARY 28, 2015.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
4	08/18/15	HMR	DMD	ISSUED FOR CSC - UPDATED ABUTTERS
3	08/05/15	HMR	DMD	ISSUED FOR CSC - REVISED FOR SITE NAME & EQUIP. CABINET LOCATION
2	03/16/15	DRA	DMD	ISSUED FOR CSC
1	02/12/15	DRA	DMD	ISSUED FOR CSC - CLIENT REVIEW
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DATE: 02/10/15
SCALE: AS NOTED
JOB NO. 14189.000

ROOF PLAN, ELEVATIONS & ANTENNA CONFIG.

C-2

Sheet No. 3 of 3

ATTACHMENT 3

Product Specifications

COMMSCOPE®

HBXX-6513DS-VTM

Andrew® Quad Port Teletilt® Antenna, 1710–2170 MHz, 65° horizontal beamwidth, RET compatible

POWERED BY ANDREW.

Electrical Specifications

Frequency Band, MHz	1710–1880	1850–1990	1920–2170
Gain, dBi	14.5	14.6	14.9
Beamwidth, Horizontal, degrees	67	66	64
Beamwidth, Vertical, degrees	14.8	14.0	13.4
Beam Tilt, degrees	0–12	0–12	0–12
USLS, dB	15	15	15
Front-to-Back Ratio at 180°, dB	30	30	30
Front-to-Back Total Power at 180° ± 30°, dB	26	27	27
CPR at Boresight, dB	22	22	22
CPR at Sector, dB	7	8	8
Isolation, dB	30	30	30
VSWR | Return Loss, dB	1.4 | 15.6	1.4 | 15.6	1.4 | 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°

Electrical Specifications, BASTA*

Frequency Band, MHz	1710–1880	1850–1990	1920–2170
Gain by all Beam Tilts, average, dBi	14.2	14.3	14.6
Gain by all Beam Tilts Tolerance, dB	±0.8	±0.7	±0.7
Gain by Beam Tilt, average, dBi	0 ° | 14.6	0 ° | 14.7	0 ° | 15.0
	6 ° | 14.4	6 ° | 14.5	6 ° | 14.7
	12 ° | 13.5	12 ° | 13.7	12 ° | 13.8
Beamwidth, Horizontal Tolerance, degrees	±3.7	±3.3	±3.5
Beamwidth, Vertical Tolerance, degrees	±1.4	±0.9	±1.1
USLS, dB	15	15	16
CPR at Boresight, dB	22	22	22
CPR at Sector, dB	7	8	8

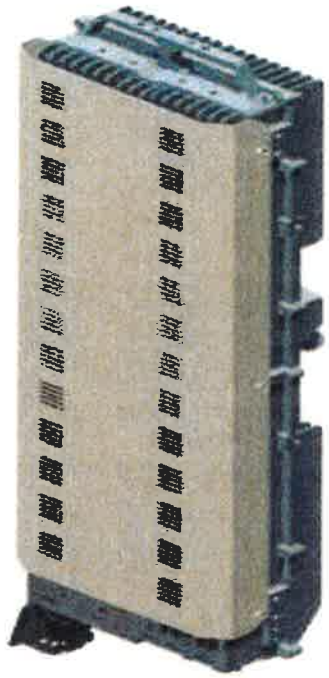
* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, download the whitepaper Time to Raise the Bar on BSAs.

Mechanical Specifications

Color | Radome Material	Light gray | PVC, UV resistant
Connector Interface | Location | Quantity	7-16 DIN Female | Bottom | 4
Wind Loading, maximum	223.0 N @ 150 km/h 50.1 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h | 149.8 mph
Antenna Dimensions, L x W x D	695.0 mm x 305.0 mm x 166.0 mm | 27.4 in x 12.0 in x 6.5 in
Net Weight	7.9 kg | 17.4 lb
Model with factory installed AISG 2.0 RET	HBXX-6513DS-A2M

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.

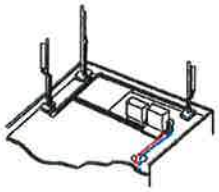
EASY INSTALLATION

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.

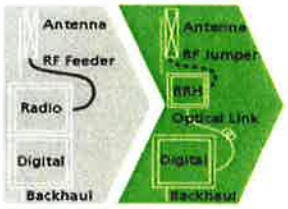
The limited space available in some sites may prevent the installation of traditional single-cabinet BTS equipment. However, many of these sites can host an Alcatel-Lucent RRH2x60-AWS installation, providing more flexible site selection and improved network quality along with greatly reduced installation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

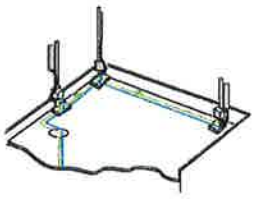
Installation can easily be done by a single person as the Alcatel-Lucent RRH2x60-AWS is compact and weighs about 20 kg, eliminating the need for a crane to hoist the BTS cabinet to the rooftop. A site can be in operation in less than one day.



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 daisychaining 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

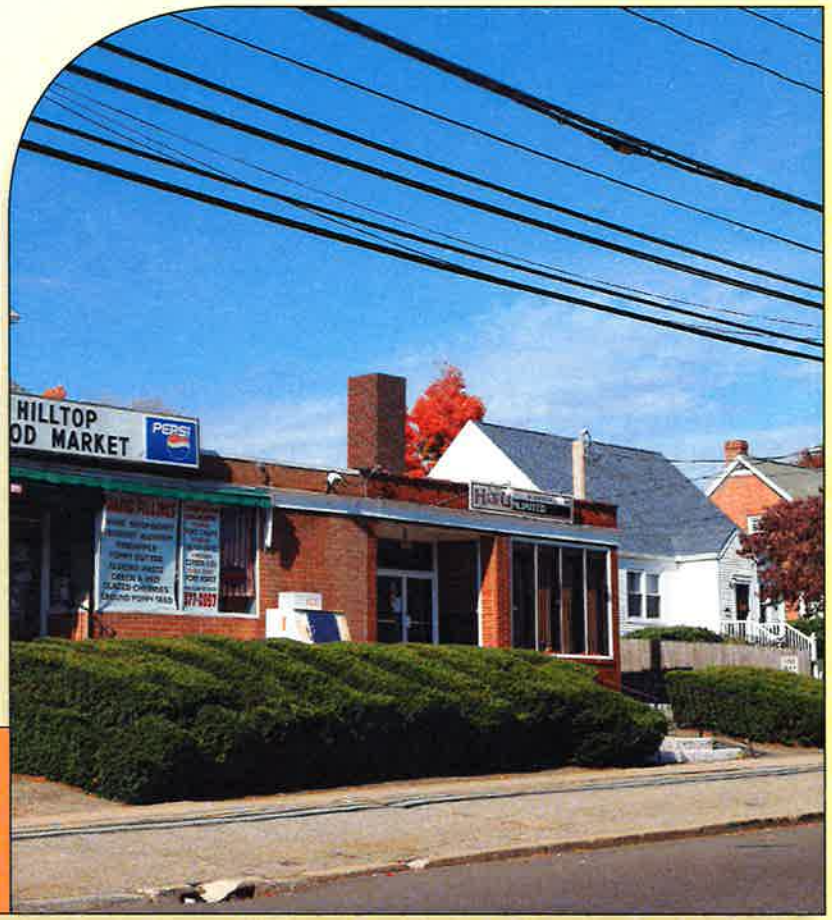
Alcatel·Lucent

AT THE SPEED OF IDEAS™

ATTACHMENT 4

Limited Visual Assessment and Photo-Simulations

STRATFORD SC
1081 HUNTINGTON ROAD
STRATFORD, CT



Prepared in February 2015 by:
All-Points Technology Corporation, P.C.
3 Saddlebrook Drive
Killingworth, CT 06141

Prepared for Verizon Wireless

ALL-POINTS
TECHNOLOGY CORPORATION

LIMITED VISUAL ASSESSMENT & PHOTO-SIMULATIONS

At the request of Cellco partnership LLC d/b/a Verizon Wireless, All-Points Technology Corporation, P.C. ("APT") completed a limited visual assessment and prepared computer-generated photo-simulations depicting the proposed installation of a small cell wireless telecommunications Facility at 1081 Huntington Road in Stratford, Connecticut (the "Property").

Project Setting

The Property is located east of Huntington Road, north of Douglas Street and south of Federal Street in a primarily residential section of Stratford. The Property is currently improved with a brick and wood-framed, mixed commercial and residential tenant motel. The proposed Facility would include the installation of two antennas enclosed within a radio-frequency ("RF") transparent faux chimney extending approximately 12 feet above the rooftop. The faux chimney would be painted to match the color of the existing brick façade of the building. The Facility would also include an exterior equipment cabinet located at grade behind the building.

Methodology

On October 21, 2014, APT personnel conducted a field reconnaissance to photo-document existing conditions. Four (4) nearby locations were selected to represent where the existing building is visible and depict proposed conditions with the proposed Facility installation. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body and Canon EF 24 to 105 millimeter ("mm") zoom lens, with lens set to 50 mm for three of the views; photo location 2 was captured with a 35mm focal length in order to provide a greater depth of field for presentation in this report. Focal lengths ranging from 24 mm to 50 mm approximate views similar to that achieved by the human eye. However, two key aspects of an image can be directly affected by the specific focal length that is selected: field of view and relation of sizes between objects in the frame. A 35 mm focal length provides a wider field of view, representative of the extent the human eyes may see (including some peripheral vision), but the relation of sizes between objects at the edges of the photos can become minimally skewed. A 50 mm focal length has a narrower field of view than the human eye but the relation of sizes between objects is represented similar to what the human eye might perceive.

> *"The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm.[1]"*

[1] Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

When taking photographs for these analyses, APT prefers a focal length of 50 mm; however there are times when wider views (requiring the use of alternate lens settings, as in this case) can better reflect "real world" viewing conditions by providing greater context to the scene. Regardless of the lens setting, the scale of the subject in the photograph and corresponding simulation remains proportional to its surroundings.

Three-dimensional computer models were developed for the building and proposed small cell components from AutoCAD information. Photographic simulations were then generated to portray scaled renderings of the proposed installation. Using field data, site plan information and image editing software, the proposed Facility was scaled to the correct location and height, relative to the existing structure and surrounding area. For presentation purposes in this report, all of the photographs were produced in an approximate 7-inch by 10.5-inch format[2]. A photolog map and copies of the existing conditions and photo-simulations are attached.

Conclusions

The visibility of the proposed small cell installation would be limited to locations within approximately 300 feet of the building. The antennas would be enclosed within an RF-transparent, faux chimney painted to match the color of the exiting brick building façade, essentially appearing as an integral part of the building. Ground equipment, in the form of a base cabinet, would be placed at grade to the rear of the building where there is limited access and minimal views from adjoining areas. Based on the results of this assessment, it is APT's opinion that the proposed installation of Verizon Wireless equipment at the Property would not be highly visible or have a significant impact on aesthetics in the area.

Limitations

This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen. The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the reconnaissance included mostly sunny skies and the photo-simulations presented in this report provide an accurate portrayal of the Facility during comparable conditions.

[2] When viewing in this format size, we believe it is important to provide the largest representational image while maintaining an accurate relation of sizes between objects within the frame of the photograph and depicting the subject in a way similar to what an observer might see, to the greatest extent possible.

ATTACHMENTS

PHOTO LOG

Legend

Site Photo Location

100 50 0 100 Feet

1 inch = 100 feet

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	**HOST PROPERTY**	**EAST**	**+/- 80 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon wireless

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	**HOST PROPERTY**	**EAST**	**+/- 80 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon wireless

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	**HOST PROPERTY**	**EAST**	**+/- 80 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon wireless

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
2	**HUNTINGTON ROAD (35mm Focal Length)**	**WEST**	**+/- 90 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
2	**HUNTINGTON ROAD (35mm Focal Length)**	**WEST**	**+/- 90 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
2	**HUNTINGTON ROAD (35mm Focal Length)**	**WEST**	**+/- 90 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	**ELI WHITNEY SCHOOL**	**SOUTHWEST**	**+/- 245 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon wireless

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	**ELI WHITNEY SCHOOL**	**SOUTHWEST**	**+/- 245 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	**ELI WHITNEY SCHOOL**	**SOUTHWEST**	**+/- 245 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	HUNTINGTON ROAD AT DOUGLAS STREET	NORTHWEST	+/- 138 FEET

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	HUNTINGTON ROAD AT DOUGLAS STREET	NORTHWEST	+/- 138 FEET

ALL-POINTS TECHNOLOGY CORPORATION

verizon wireless

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	HUNTINGTON ROAD AT DOUGLAS STREET	NORTHWEST	+/- 138 FEET

ALL-POINTS TECHNOLOGY CORPORATION

verizon wireless

ATTACHMENT 5

Site Name: STRATFORD SC, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW AWS	2145	1	705	705	21	0.5749	1.0	57.49%
Total Percentage of Maximum Permissible Exposure								57.49%

*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/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used.

ATTACHMENT 6

```
**************************************************
*            Federal Airways & Airspace          *
*         Summary Report: New Construction       *
*               Non-Antenna Structure            *
**************************************************

Airspace User: Your Name

File: STRATFORD_SC_CT

Location:  Stratford, CT

Latitude:  41°-13'-17.63"
Longitude: 73°-08'-06.32"

SITE ELEVATION AMSL.....139 ft.
STRUCTURE HEIGHT.........23 ft.
OVERALL HEIGHT AMSL.....162 ft.

NOTICE CRITERIA
  FAR 77.9(a): NNR (DNE 200 ft AGL)
  FAR 77.9(b): NNR (DNE Notice Slope)
  FAR 77.9(c): NNR (Not a Traverse Way)
  FAR 77.9:    NNR FAR 77.9 IFR Straight-In Notice Criteria for BDR
  FAR 77.9:    NNR FAR 77.9 IFR Straight-In Notice Criteria for HVN
  FAR 77.9(d): NNR (Off Airport Construction)

  NR  = Notice Required
  NNR = Notice Not Required
  PNR = Possible Notice Required (depends upon actual IFR procedure)
        For new construction review Air Navigation Facilities at bottom
        of this report.

  Notice to the FAA is not required at the analyzed location and height for
  slope, height or Straight-In procedures. Please review the 'Air Navigation'
  section for notice requirements for offset IFR procedures and EMI.


OBSTRUCTION STANDARDS
  FAR 77.17(a)(1): DNE 499 ft AGL
  FAR 77.17(a)(2): DNE - Airport Surface
  FAR 77.19(a): DNE - Horizontal Surface
  FAR 77.19(b): DNE - Conical Surface
  FAR 77.19(c): DNE - Primary Surface
  FAR 77.19(d): DNE - Approach Surface
  FAR 77.19(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: BDR: IGOR I SIKORSKY MEMORIAL
Type: A   RD: 20158.22   RE: 8.5
  FAR 77.17(a)(1):         DNE
  FAR 77.17(a)(2):         DNE - Height No Greater Than 200 feet AGL.
  VFR Horizontal Surface: DNE
  VFR Conical Surface:    DNE
  VFR Approach Slope:     DNE
  VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: HVN: TWEED-NEW HAVEN
Type: A   RD: 69044.99   RE: 6.3
  FAR 77.17(a)(1):         DNE
  FAR 77.17(a)(2):         DNE - Greater Than 5.99 NM.
  VFR Horizontal Surface: DNE
  VFR Conical Surface:    DNE
  VFR Approach Slope:     DNE
```

VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 500 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
CT76	HEL	CHASE MANHATTAN BANK OF CT	330.97	1.42	-38	
No Impact to Private Landing Facility Structure 0 ft below heliport.						
0CT7	HEL	BRIDGEPORT HOSPITAL	215.18	2.44	+82	
No Impact to Private Landing Facility Structure is beyond notice limit by 9826 feet.						
CT89	HEL	ITT	1.87	3.21	-165	
No Impact to Private Landing Facility Structure 0 ft below heliport.						
CT12	HEL	MEDICAL CENTER	248.11	3.25	+14	
No Impact to Private Landing Facility Structure is beyond notice limit by 14747 feet.						
CT37	HEL	SIKORSKY BRIDGEPORT	220.2	4.75	+155	
No Impact to Private Landing Facility Structure is beyond notice limit by 23861 feet.						
CT46	HEL	MILFORD-ALEXANDER	80.6	4.75	+142	
No Impact to Private Landing Facility Structure is beyond notice limit by 23861 feet.						

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND APCH ANGLE	BEAR
BDR	LOCALIZER	I	110.7	168.09	20897	+157	CT	RWY 06 IGOR I SIK	.43	60
BDR	ATCT	ON		175.61	21563	+84	CT	IGOR I SIKORSKY M	.22	
BDR	VOR/DME	R	108.8	172.5	22379	+153	CT	BRIDGEPORT	.39	
JWE	NDB	I	36	6.05	58917	-409	CT	CLERA	-.4	
HVN	VOR/DME	R	109.8	77.73	70320	+156	CT	NEW HAVEN	.13	
OP	NDB	I	31	177.05	89215	+162	NY	OLD FIELD POINT L	.10	
CMK	VOR/DME	I	116.6	280.00	124544	-532	NY	CARMEL	-.24	
MAD	VOR/DME	R	110.4	74.42	126324	-58	CT	MADISON	-.03	
CCC	VOR/DME	R	117.2	139.04	141106	+77	NY	CALVERTON	.03	

OKX	RADAR WXL	Y		150.12	149747	-59	NY	BRENTWOOD	-.02
ISP	RADAR	ON	2735.	175.88	151630	-20	NY	LONG ISLAND MacAR	-.01
DPK	VOR/DME	I	117.7	196.49	163373	+39	NY	DEER PARK	.01
HPN	RADAR	ON	2735.	251.07	168768	-348	NY	WESTCHESTER COUNT	-.12
QVH	RADAR ARSR	Y	1326.9	135.47	175683	-189	NY	RIVERHEAD	-.06
FOK	TACAN	R	NA	135.37	197069	+112	NY	SUFFOLK CO	.03

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: WFIF @ 4321 meters.

Airspace® Summary Version 14.11.376

02-09-2015
11:40:29

ATTACHMENT 7

Robinson+Cole

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

September 3, 2015

Via Certificate of Mailing

John A. Harkins, Mayor
Town of Stratford
2725 Main Street
Stratford, CT 06615

Re: **Proposed Installation of a Roof-Top Wireless Telecommunications Facility at 1081 Huntington Road, Stratford, Connecticut**

Dear Mr. Harkins:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Today, Cellco filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a new telecommunications facility on the roof of the building at 1081 Huntington Road in Stratford (the "Property"). The facility will include the installation of a small roof-top tower supporting three (3) panel antennas and three (3) remote radio heads (RRHs). The tower, antennas and RRHs will be concealed by a faux chimney structure and will extend approximately 10 feet above the parapet of the building. Equipment associated with the facility will be located inside a cabinet attached to the rear wall of the building.

A copy of the 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 Petition.

13494250-v1

Robinson+Cole

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

Sincerely,

Kenneth C. Baldwin

Attachment

Robinson+Cole

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

September 3, 2015

Via Certificate of Mailing

Hill Top Market LLC
1081 Huntington Road
Stratford, CT 06614

Re: **Proposed Installation of a Roof-Top Wireless Telecommunications Facility on Property at 1081 Huntington Road, Stratford, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Today, Cellco filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a new telecommunications facility on the roof of the building at 1081 Huntington Road in Stratford (the "Property"). The facility will include the installation of a small roof-top tower supporting three (3) panel antennas and three (3) remote radio heads (RRHs). The tower, antennas and RRHs will be concealed by a faux chimney structure and will extend approximately 10 feet above the parapet of the building. Equipment associated with the facility will be located inside a cabinet attached to the rear wall of the building.

A copy of the 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 Petition.

13494281-v1

Robinson+Cole

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

Sincerely,

Kenneth C. Baldwin

Attachment

ATTACHMENT 8

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

September 3, 2015

Via Certificate of Mailing

«Name_and_Address»

Re: **Notice of Intent to File a Petition for Declaratory Ruling with the Connecticut Siting Council for the Installation of a Roof-Top Wireless Telecommunications Facility at 1081 Huntington Road, Stratford, Connecticut**

Dear «Salutation»:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Today, Cellco filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a new telecommunications facility on the roof of the building at 1081 Huntington Road in Stratford (the "Property"). The facility will include the installation of a small roof-top tower supporting three (3) panel antennas and three (3) remote radio heads (RRHs). The tower, antennas and RRHs will be concealed by a faux chimney structure and will extend approximately 10 feet above the parapet of the building. Equipment associated with the facility will be located inside a cabinet attached to the rear wall of the building. A copy of the Petition is attached for your review.

This notice is being sent to you because you are listed on the Town Assessor's records as an owner of land that abuts the Property. If you have any questions regarding the Petition, the Council's process for reviewing the 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,

Kenneth C. Baldwin

Attachment

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

ABUTTERS LIST
MAP 40.14/BLOCK 1/LOT 14

1081 HUNTINGTON ROAD
STRATFORD, CONNECTICUT

	Map/Block/Lot	Property Address	Owner and Mailing Address
1.	40.14/2/29	Huntington Road	Town of Stratford Eli Whitney School 2725 Main Street Stratford, CT 06614
2.	40.14/2/30	1098 Huntington Road	Luis Urquidi 1098 Hunitngton Road Stratford, CT 06614
3.	40.14/2/31	1086 Huntington Road	Brendalis Flores and Anthony Santini 1086 Huntington Road Stratford, CT 06614
4.	40.14/2/32	1082 Huntington Road	Penelope E. Pettit 1082 Huntington Road Stratford, CT 06614
5.	40.14/4/18	1061 Huntington Road	Francisco Ortega and Carolyn Colon-Ortega 1061 Huntington Road Stratford, CT 06614
6.	40.14/4/19	15 Douglas Street	Jozefa Serkis 15 Douglas Street Stratford, CT 06614
7.	40.14/1/13	Douglas Street	Ronald J. Mudre, Et Al 1081 Huntington Road Stratford, CT 06614
8.	40.14/1/17	25 Federal Street	James P. and Karyn L. Lenahan 33 Briarwood Terrace Trumbull, CT 06611
9.	40.14/1/15	1105 Huntington Road	Anthony and Seomara Gallo 1105 Huntington Road Stratford, CT 06614

	Map/Block/Lot	Property Address	Owner and Mailing Address
10.	40.14/4/20	35 Douglas Street	Kevin J. Martin 35 Douglas Street Stratford, CT 06614