STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:	
IIV IXE.	•

A PETITION OF CELLCO PARTNERSHIP PETITION NO.

D/B/A VERIZON WIRELESS FOR A :

DECLARATORY RULING ON THE NEED TO : OBTAIN A SITING COUNCIL CERTIFICATE :

FOR THE INSTALLATION OF A SMALL : CELL TELECOMMUNICATIONS FACILITY : ON THE ROOF OF THE BUILDING AT 489 :

SULLIVAN AVENUE, SOUTH WINDSOR,

CONNECTICUT : DECEMBER 1, 2014

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 "small cell" telecommunications stub-tower on the roof of an existing industrial building at 489 Sullivan Avenue (Route 194) in South Windsor, Connecticut (the "Property"). The Property is owned by REX Lumber Company ("Owner"). Cellco has designated this site as its South Windsor SC1 facility.

II. Factual Background

The Property is a 8.41 acre parcel in South Windsor's Industrial (I-1) zone. The Property

is surrounded by industrial uses along Sullivan Avenue. See <u>Attachment 1</u> – Site Vicinity and Site Schematic Maps (Aerial Photograph).

Cellco currently maintains three (3) cell sites within approximately 2.5 miles of the Property. Cellco's South Windsor 2 cell site consists of antennas at the 110-foot level on a tower at 300 Governors Highway. Cellco's South Windsor 3 cell site consists of antennas at the 140-foot level on a tower at 151 Sand Hill Road. Cellco's East Windsor cell site consists of antennas at the 140-foot level on a tower at 232 South Main Street. As depicted on coverage maps included in Attachment 2, Cellco maintains gaps in its 2100 MHz wireless service along portions of Sullivan Avenue and throughout the surrounding industrial park area. In addition, the Gamma sector of Cellco's South Windsor 3 cell site is currently operating at its existing capacity limits (a/k/a exhausting). Sullivan Avenue industrial area has been identified as a data traffic concentration area that contributes to this existing capacity problem. In an effort to resolve the 2100 MHz coverage and capacity problems and provide customers with improved wireless service in the area, Cellco proposes to install a mast-mounted small cell facility on the roof of the building at the Property.

III. Proposed "Small Cell" Facility

Cellco is licensed to provide wireless telecommunications services in the 850 MHz, 1900 MHz, 700 MHz and 2100 MHz frequency ranges in South Windsor and throughout the State of Connecticut. Initially, the proposed South Windsor SC1 facility described above will provide wireless service in Cellco's 2100 MHz frequency range only. Coverage plots showing Cellco's service in South Windsor and the surrounding towns today and the coverage footprint for the proposed South Windsor SC1 facility are included in <u>Attachment 2</u>.

The proposed South Windsor SC1 facility would consist of a single canister-type antenna, and a Remote Radio Head ("RRH") attached to a small mast extending approximately 5'-6" above the peak of the roof and approximately 36 feet above grade. Equipment associated with the South Windsor SC1 facility will be located inside the existing building. The equipment cabinet will house all of Cellco's small cell radio equipment and a battery back-up power supply system. Power and telephone service to the South Windsor SC1 facility will extend from existing service inside the building. (See Cellco's Project Plans included in Attachment 3).

Specifications for the "small cell" antenna (Commscope Model NH365PS-DG-F0M) and RRHs (Model 2X60AWS) are included in Attachment 4.

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 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. <u>Physical Environmental Effects</u>

Cellco respectfully submits that the installation of a small mast supporting a single "small cell" canister-type antenna and RRHs and the mounting of an equipment cabinet inside the existing building, will not involve a significant alteration in the physical and environmental characteristics of the Property. No ground disturbance of any kind is necessary or proposed as a

part of the South Windsor SC1 facility installation.

2. Visual Effects

The installation of a small mast, a single canister-type antenna and RRHs on the roof of the existing industrial building at the Property, within the existing industrial park area, would have minimal visual effects on the Property and the surrounding area. (*See* Visual Memorandum and Photographic Simulations included in <u>Attachment 5</u>). As concluded in the attached Limited Visual Assessment and Photo-Simulations, visibility of the small cell installation would be limited to locations within approximately 600 feet or less of the Property. Overall, the installation at the Property would have no significant visual impacts of surrounding land uses.

3. FCC Compliance

Radio frequency ("RF") emissions from the proposed installation will be far below the standards adopted by the Federal Communications Commission ("FCC"). Included in <u>Attachment 6</u> is a General Power Density table, including a calculation that Cellco's "small cell" facility will operate well within the FCC safety standard.

4. FAA Summary Report

Included in <u>Attachment 7</u> is a Federal Airways & Airspace Summary Report verifying that the new stub-tower/mast and antenna installation on the roof of the office building 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 Manager, Property Owner and Abutting Landowners

On December 1, 2014, a copy of this Petition was sent to South Windsor's Town

Manager Matthew B. Galligan. A copy of the Petition was also sent to REX Lumber Company,
the owner of the Property. Notice of Cellco's intent to file this Petition along with a set of

-4-

project plans was sent to the owners of land that abuts the Property. Included in <u>Attachment 8</u> is a copy of the letters sent to Mr. Galligan and REX Lumber Company. 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 9.

V. <u>Conclusion</u>

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 5'-6" mast on the roof of the building at the Property to support a two-foot tall small cell antenna and a RRH 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

Kenneth C. Baldwin, Esq.

Robinson & Cole LLP 280 Trumbull Street

Hartford, CT 06103-3597

(860) 275-8200

Its Attorneys



Legend

- Proposed Verizon Wireless Facility
 - Surrounding Verizon Wireless Facilities

Subject Property

Municipal Boundary



2,000

Site Vicinity Map

4,000

Proposed Wireless Telecommunications Facility South Windsor SC 1 489 Sullivan Avenue South Windsor, Connecticut







Legend

Subject Property

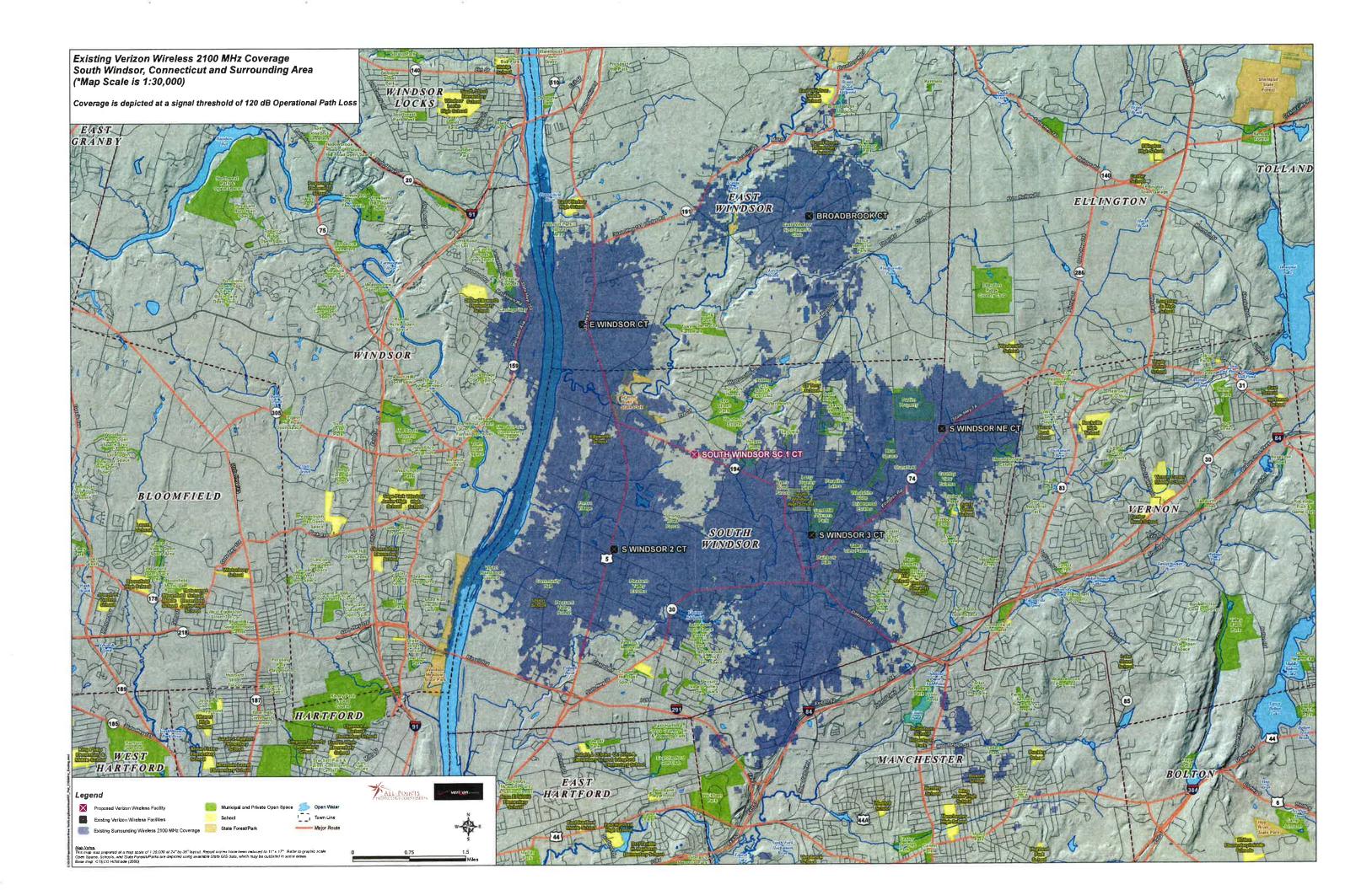
Approximate Parcel Boundary (CTDEEP GIS)

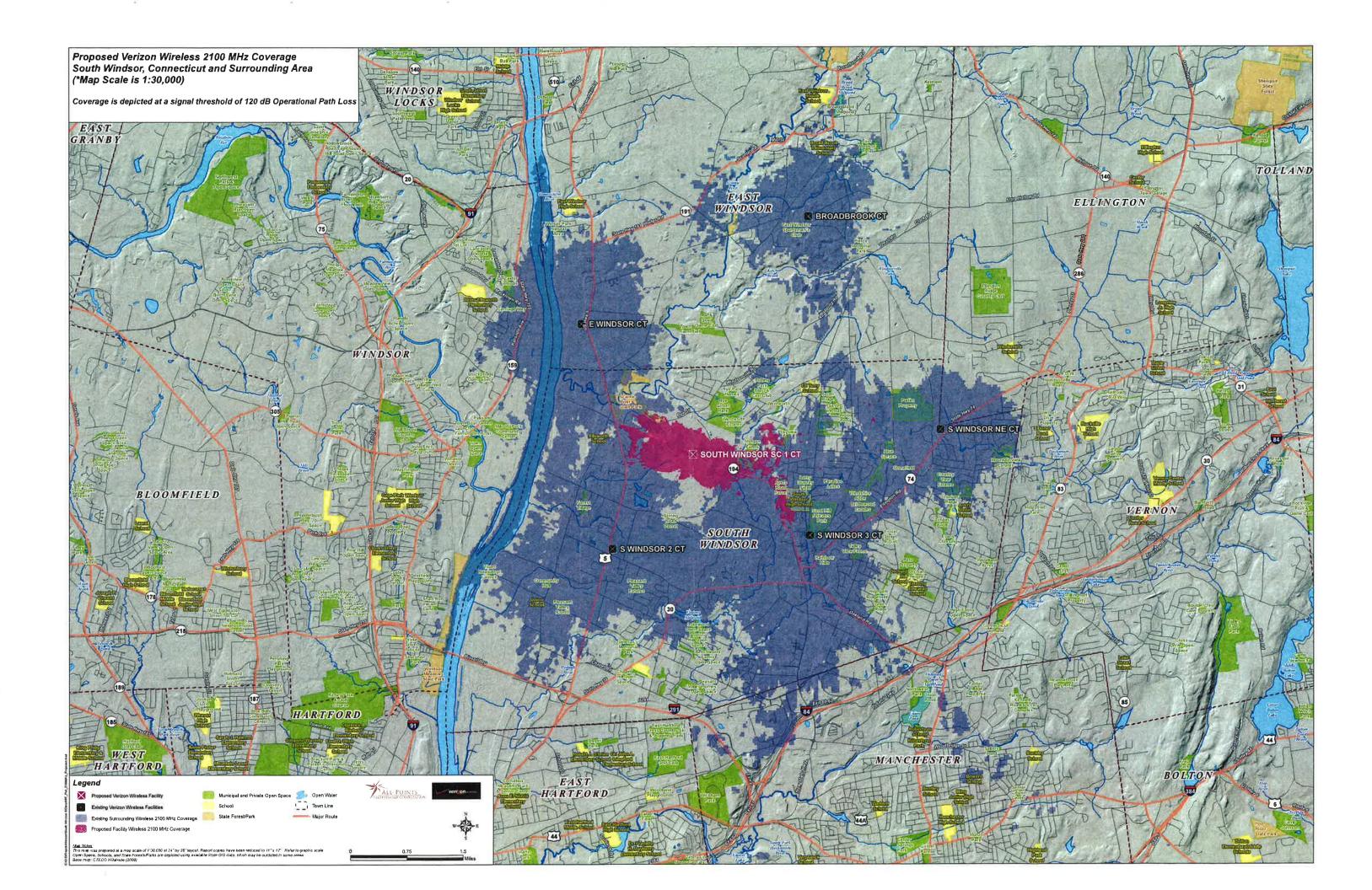
Site Schematic

Proposed Wireless Telecommunications Facility South Windsor SC 1 489 Sullivan Avenue South Windsor, Connecticut









Cellco Partnership

d.b.a. **Verizon** wireless
WIRELESS COMMUNICATIONS FACILITY
SOUTH WINDSOR SC1
489 SULLIVAN AVE.
SOUTH WINDSOR, CT 06074

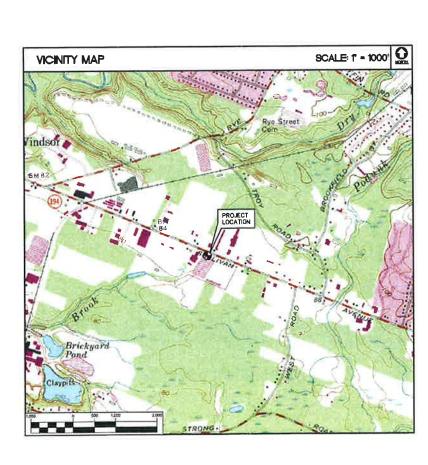
SITE DIF	RECTIONS		
FROM	99 EAST RIVER DRIVE EAST HARTFORD, CONNECTICUT	TO:	489 SULLIVAN AVE. SOUTH WINDSOR, CONNECTICUT
2. TURN LEF 3. TAKE THE 4. TURN LEF 5. CONTINUE 6. CONTINUE	ST ON E RIVER DR TOWARD DARLIN ST FT TO STAY ON E RIVER DR S ST RIGHT ONTO CONNECTICUT BLVD FT ONTO MAIN ST C ONTO MIGS ST C ONTO MIGS ST HT ONTO CT-194 E, AND THE DESTINATION W	VILL BE ON TH	0.3 ML 334 FT. 0.7 MI. 1.4 MI. 0.2 MJ. 5.2 MJ. 1.1 MI.

GENERAL NOTES

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

SITE INFORMATION

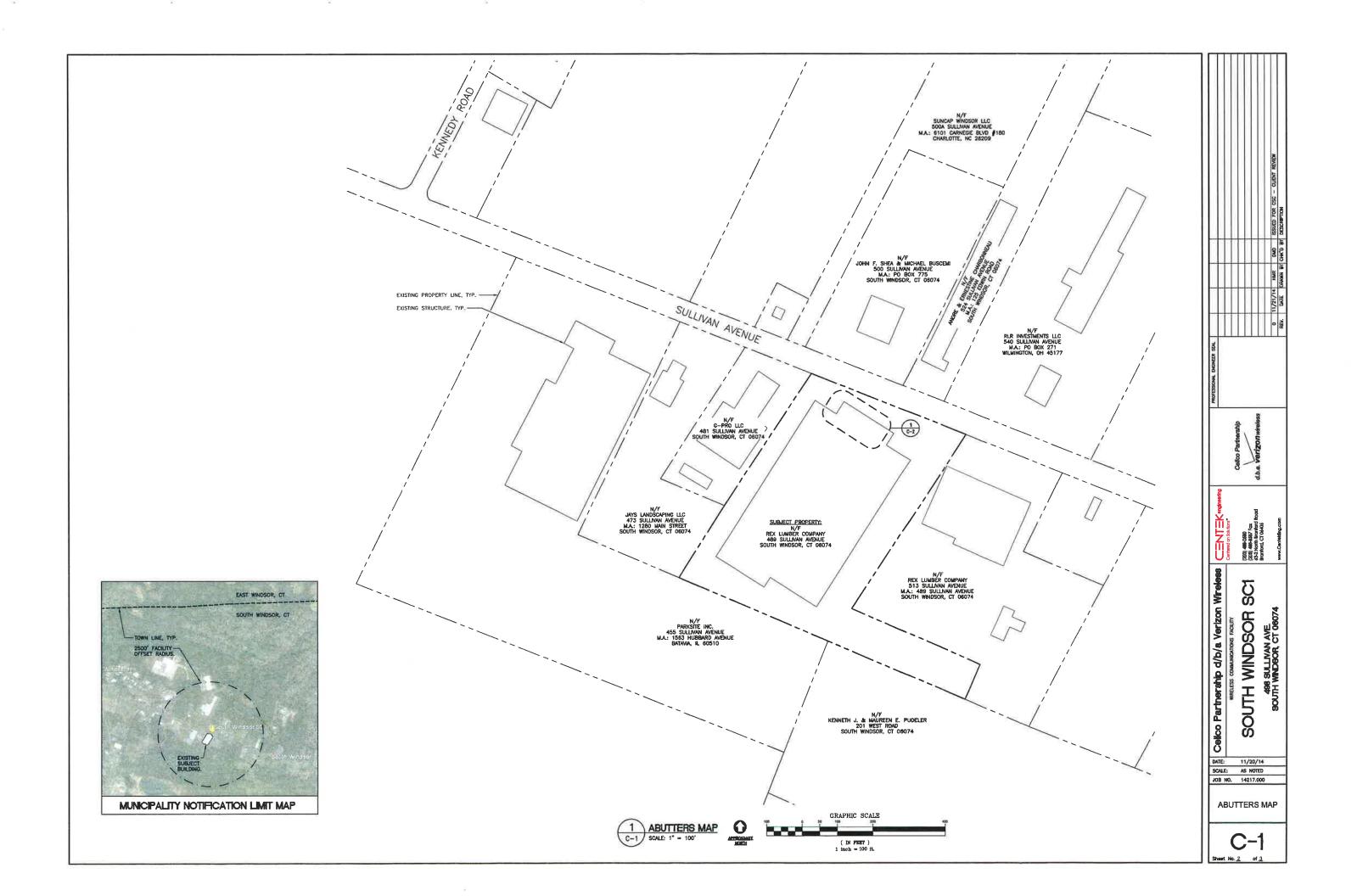
- THE SCOPE OF WORK SHALL INCLUE
- THE INSTALLATION OF A PROPOSED CELLCO PARTNERSHIP EQUIPMENT CABINET LOCATED INSIDE / PROPOSED CLOSET WITHIN HOST BUILDING VESTIBULE.
- A TOTAL OF UP TO ONE (1) PROPOSED CELLCO PARTNERSHIP OMNI ANTENNA IS PROPOSED TO BE PIPE MOUNTED TO THE EXTERIOR OF THE HOST BUILDING AT A CENTERLINE ELEVATION OF 3-35* ACI.
- POWER AND TELCO UTILITIES SHALL BE ROUTED FROM DEMARCS LOCATED WITHIN THE EXISTING BUILDING TO THE PROPOSED CELLCO PARTNERSHIP EQUIPMENT CABINET.
- 4. FINAL DESIGN OF ANTENNA MOUNTS SHALL BE INCLUDED IN THE D&M PLAN
- THE PROPOSED WIRELESS FACILITY INSTALLATION WILL BE DESIGNED IN ACCORDANCE WITH THE 2003 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2009 CONNECTICUT SUPPLEMENT.

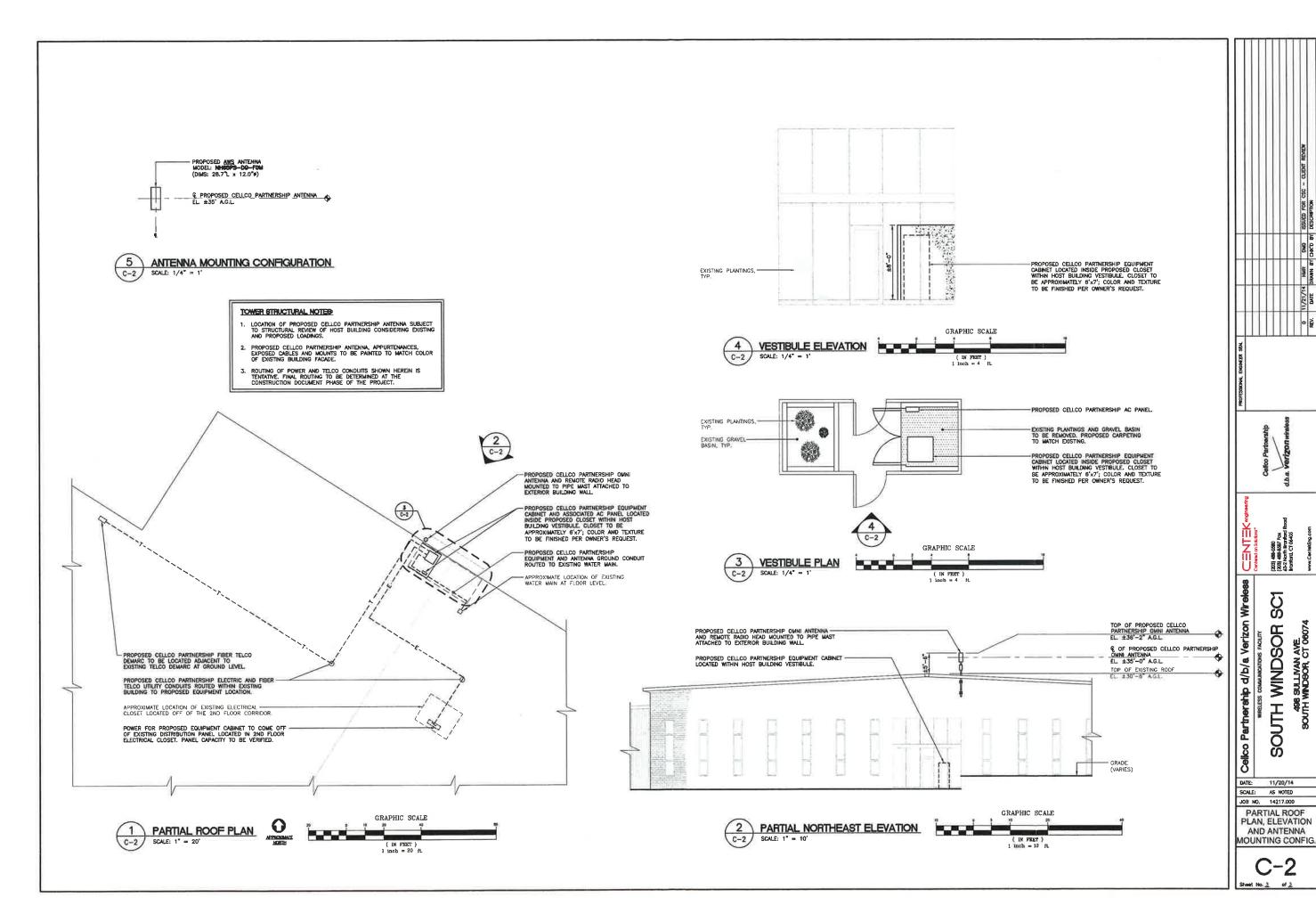


PROJECT SUM	MARY
SITE NAME:	SOUTH WINDSOR SC1
SITE ADDRESS:	489 SULLIVAN AVE SOUTH WINDSOR, CT 06074
PROPERTY OWNER:	FARM CAR CARE CENTER 11 WINDERMERE AVE. VERNON, CT 0 8 068
LESSEE/TENANT:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
CONTACT PERSON:	SANDY CARTER CELLCO PARTHERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HAMFTORD, CT 016108
TOWER COORDINATES:	LATITUDE 41"-51"-06.24" LONGITUDE 72"-34"-55.81" GROUND ELEVATION: 85"± A.M.S.L
	COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHT. NO.	DESCRIPTION	REV NO
T-1	TITLE SHEET	0
C-1	ABUTTERS MAP	0
C-2	PARTIAL ROOF PLAN, ELEVATION AND ANTENNA MOUNTING CONFIGURATION	0

n	_	U		PROFESSORM, ENCHER SEA.			
ATE	Celico Parmeranto d/D/a verizon wireres						
		Centered on Solutions					
	WIRELESS COMMUNICATIONS FACILITY		Colling Darknarchin				
1		UBSU-BBY (SUC)	dispusar Course	_			
1/2		(203) 488-8587 Fox)				
0/14		Brantord, CT 06405	d.b.a. VeriZonwireless				
	498 SULLIVAN AVE.				0 11/21/14	ONG SWH	ISSUED FOR CSC - CLENT REVIEW
	SOUTH WINDSON, CT USU/4	www.CentelEng.com			REV. DATE I	HAWN BY CHKL	DRAWN BY CHK'D BY DESCRIPTION





498 SULLIVAN AVE. SOUTH WINDSOR, CT 06074





Metro Cell Antennas with Internal Diplexer and GPS Antenna

Dualband Bi-Directional (2x65°), Metro Cell Antenna

NH65PS-DG-FOM NH65PT-DG-F0

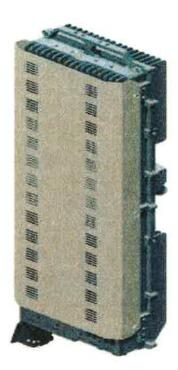
25 to 100 so 80 75 to	2	# 15 T								
ELECTRICAL SPECIFICATIONS			. 17		62X		Vi v	May A		
Operating Frequency Range		698 - 896	and 1710 -	2170 MHz			698 - 896	and 1710 -	2170 MHz	
Frequency Bands, MHz	698 - 806	806 - 896	1710 - 1880	1850 - 1990	1920 - 2170	698 - 806	806 - 896	1710 - 1880	1850 - 1990	1920 - 2170
Polarization	±45°	±45°	±45°	±45°	±45°	±45°	±45°	±45°	±45°	±45°
Gain, dBi	6.5	75	102	104	10.7	3.5	45	0.1	62	65
Beamwidth, Horizontal, degrees	<i>7</i> 0	70	65	65	65	70	70	65	65	65
, Beamwidth, Vertical, degrees	300	24.0	16.0	15.0	140	600	550	16.0	150	140
USLS, dB	12	12	15	15	15	=	-	17	10	10
Beam Tilk, degrees	0	0	0-16	0-16	0–16	0	0	0	0	0
Isolation, dB	25	25	25	25	25	25	25	25	25	25
VSWR (Return Loss, dB)	1 5 (14 0)	15(140)	15(140)	1 5 (14 0)	15(140)	15 (140)	1 5 (14 0)	15(14.0)	15(140)	15(140)
¹ PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-1.50	-150	-150	-1 <i>5</i> 0	-150	-150	-150	-150
Input Power per Port, maximum, watts	250	250	250	250	250	250	250	250	250	250
MECHANICAL SPECIFICATIONS								W. P. C.	No Colu	
· Commector Interface		7	'- 16 DIN Femo	ole			7	- 16 DIN Femo	ale	
Connector Quantity, Location			2, Bottom					2, Bollom		
GPS Connnector Interface		4	1/9.5 DIN Fen	nale			4.	1/9.5 DIN Fen	nale	
GPS Connector Quantity, Location			1, Bottom					1, Boltom		
length, mm (inch)			730 (28.7)					360 (14.2)		
Outer Diameter, mm (inch)			305 (12 0)					305 (12 0)		
Wind Speed, maximum, km/h (mph)			241.4 (150)		l l			241.4 (150)		
Net Weight, kg (lb)			16.0 (35.3)					10 0 (22.0)		
AVAILABILITY			Section.	1 N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1				
Expected Ready Date for Manufacturing			May 2014					June 2014		

Expected Ready Date for Manufacturing	May 2014	June 2014
AVAILABILITY		
Net Weight, kg (lb)	16 0 (35 3)	10 0 (22.0)
Wind Speed, maximum, km/h (mph)	241.4 [150]	241.4 (150)
Outer Diameter, mm (inch)	305 (120)	305 (12 0)
Length, mm (inch)	730 (28.7)	360 (14.2)

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 radiofrequency (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 RE 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 TOO

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.

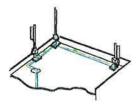
·Alcatel·Lucent 🅢



Масго



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 builtin 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 I 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

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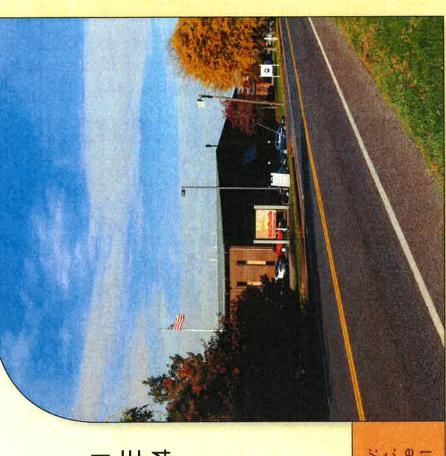
Alcatel-Lucent assumes no responsibility for inaccuracies contained herein.

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Limited Visual Assessment and Photo-Simulations

SOUTH WINDSOR SC1 489 SULLIVAN AVE SOUTH WINDSOR, CT 06074



All-Points Technology Corporation, P.C. 3 Saddlebrook Drive Killingworth, CT 06141

Prepared for Verizon Wireless



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 489 Sullivan Avenue in South Windsor, Connecticut (the "Property").

Project Setting

The Property is located south of Sullivan Avenue in a mixed commercial and agricultural corridor and is currently developed with a two-story, multi-tenant commercial office building and parking areas. The proposed Facility would include the installation of a single omni-directional antenna mounted on a pipe mast to be affixed to the building's northern exterior wall and extending approximately 5.5 feet above the roof. Associated equipment cabinet and electrical and telco cables connections would be located within the second story interior of the building.

Methodology

On October 20, 2014, APT personnel conducted a field reconnaissance to determine where the existing building is visible and to photo-document existing conditions. 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.

"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"

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 format². A photolog map and copies of the existing conditions and photo-simulations are attached.

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

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.

Conclusions

The visibility of the proposed installation would be limited to locations within approximately 600 feet or less of the building from locations north, northeast and northwest of the Property. The combination of the small cell's relatively low profile above the existing roof line (less than 6 feet) and its location on the northern side of the building results in minimal exposure. No views would be achieved from locations to the south. Based on the results of this assessment, it is our opinion that the proposed installation of Verizon Wireless equipment at the Property would have little effect on existing views.



































DISTANCE TO SITE

ORIENTATION

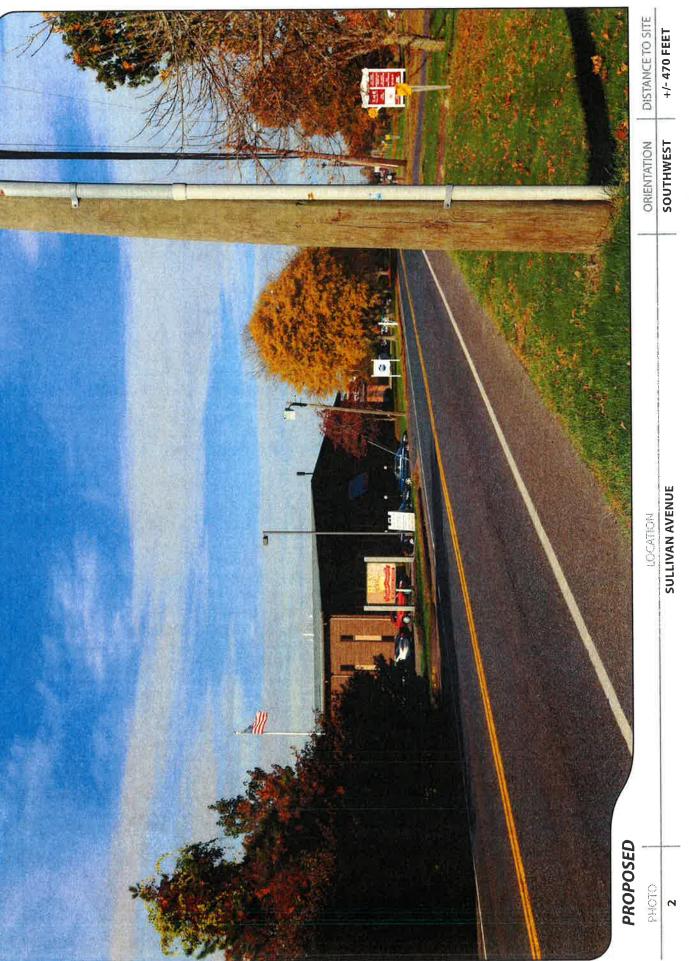
LOCATION SULLIVAN AVENUE

EXISTING PHOTO

7



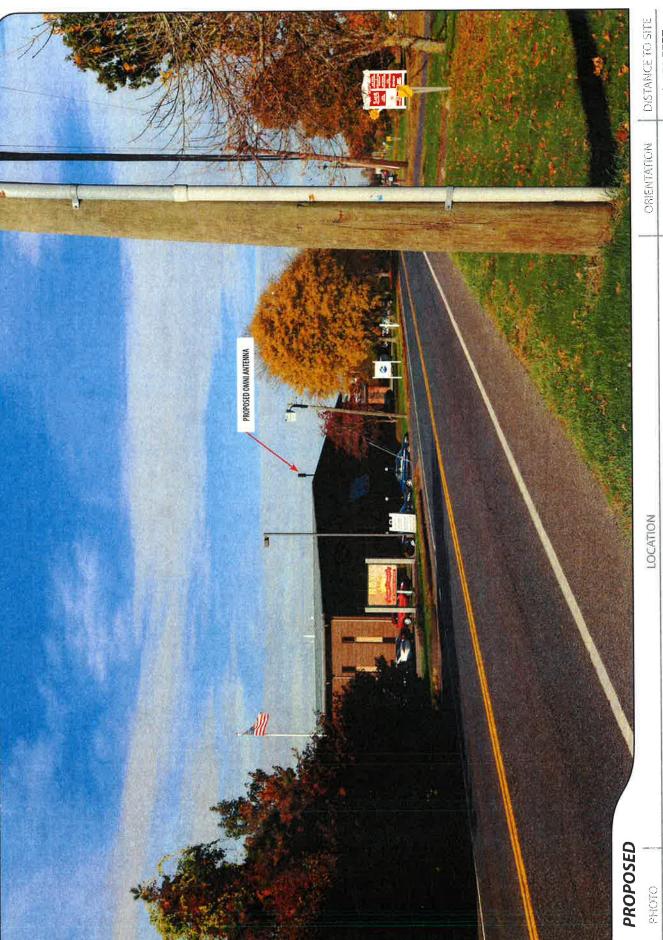
































South Windsor SC 1 CT Site Name: South Windso Cumulative Power Density

Operator	Operating Frequency	AND STATE OF THE S	Number ERP Per of Trans.	Total	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2) (mW/cm^2)	(%)
VZW PCS								
VZW Cellular								
VZW AWS	2145	1	1750	1750	35	0.5137	1.0	51.37%
VZW 700								
Total Percentage	ntage of Ma	of Maximum Permissible Exposure	ermissibl	e Expos	ure			51.37%

*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 7

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SOUTH_WINDSOR_SC_1_CT_SRP.txt
                                No of the color of
                                *
                                                            Federal Airways & Airspace
                                ×
                                                                                                                                             te
                                                      Summary Report: New Construction
                                                                      Antenna Structure
                                Airspace User: Mark Brauer
                                File: SOUTH_WINDSOR_SC_1_CT
                                Location: Hartford, CT
                                Distance: 7.9 Statute Miles Direction: 221° (true bearing)
                                Latitude: 41°-51'-5.51"
                                                                                                       Longitude: 72°-34'-57.47"
                                SITE ELEVATION AMSL..... 90 ft.
                                STRUCTURE HEIGHT..... 37 ft.
                                OVERALL HEIGHT AMSL.....127 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)
                                NNR FAR 77.9 IFR Straight-In Notice Criteria for 7B6
    FAR 77.9:
     FAR 77.9:
                                NNR FAR 77.9 IFR Straight-In Notice Criteria for BDL
     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: 7B6: SKYLARK AIRPARK
                                                     RE: 112
                      RD: 27941.53
Type: A
     FAR 77.17(a)(1):
                                                        DNE
                                                        DNE - Height No Greater Than 200 feet AGL.
     FAR 77.17(a)(2):
     VFR Horizontal Surface: DNE
     VFR Conical Surface:
                                                        DNF
     VFR Approach Slope:
                                                        DNE
     VFR Transitional Slope: DNE
VFR TRAFFIC PATTERN AIRSPACE FOR: BDL: BRADLEY INTL
Type: A RD: 37927.13 RE: 168.3
     FAR 77.17(a)(1):
                                                        DNE
                                                        DNE - Greater Than 5.99 NM.
     FAR 77.17(a)(2):
     VFR Horizontal Surface: DNE
     VFR Conical Surface:
                                                        DNE
```

SOUTH_WINDSOR_SC_1_CT SRP.txt

VFR Approach Slope: DNE VFR Transitional Slope: DNE

APCH BEAR

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 1600 ft AMSL

PRIVATE LANDING FACILITIES	DEADTHE	DANGE	DEL TA ADD	E44
FACIL IDENT TYP NAME	BEARING To FACIL	IN NM	ELEVATION	IFR
CT00 HEL ELECTRO-METHODS INC	214.79			===
No Impact to Private Landing Facility Structure is beyond notice limit by 30	689 feet.			+1
CT14 AIR BANCROFT No Impact to Private Landing Facility. DNE 200 ft AGL within 3 NM of Airport.	301.17	1.75	+75	
CT85 AIR ROBERTS FARM No Impact to Private Landing Facility. DNE 200 ft AGL within 3 NM of Airport.	327.66	2.71	+90	
CT62 HEL TWIN MANUFACTURING COMPANY	205.85	2.79	+67	*3
No Impact to Private Landing Facility Structure is beyond notice limit by 1	1952 feet.			
CTO6 HEL DELTA ONE	222.91	5.13	+106	
No Impact to Private Landing Facility Structure is beyond notice limit by 2	6170 feet.			
CT05 HEL KAMAN AEROSPACE CORP No Impact to Private Landing Facility Structure 58 ft below heliport.	276.82	5.29	-37	
CT23 HEL DELLA	348.92	5.41	+12	To the second
No Impact to Private Landing Facility Structure is beyond notice limit by 2	7872 feet.			
AIR NAVIGATION ELECTRONIC FACILITIES	T DELTA			GRND
	T DELTA	LOCATIO	NI .	ANGLE
IDNT TYPE AT FREQ VECTOR (ft				
BDL RADAR ON 319.43 417				
No Impact. This structure does not req The studied location is within 20 NM o The calculated Radar Line-Of-Sight (LO This location and height is within the	f a Radar fa S) distance	acility. is: 33	NM.	
BDL VORTAC D 109.0 318.54 435	27 -33 CT	BRADLEY		04
HFD VOR/DME R 114.9 172.87 772	84 -722 CT	HARTFOR	D	54
BAF VORTAC R 113.0 342.25 1187	99 -140 MA	BARNES		07

CEF	VORTAC	R.	SOUTH_\ 114_0	WINDSOR 6.9	_SC_1_C 127010	T SRP.	txt MA	WESTOVER	05
CLI	VORTAC								
CTR	VOR/DME	I	115.1	328.27	188678	-1473	MA	CHESTER	45
ORW	VOR/DME	I	110.0	124.22	192194	-183	СТ	NORWICH	05
MAD	VOR/DME	R	110.4	188.66	198205	-93	CT	MADISON	03
PUT	VOR/DME	R	117.4	79.09	204594	-525	СТ	PUTNAM	15

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: WKND @ 7926 meters.

Airspace® Summary Version 14.9.372

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11-04-2014 11:44:42

ATTACHMENT 8

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

December 1, 2014

Via Certified Mail, Return Receipt Requested

Matthew B. Galligan, Town Manager Town of South Windsor Town Hall 1540 Sullivan Avenue South Windsor, CT 06074-2786

Re: Installation of a Small Cell Telecommunications Facility at 489 Sullivan Avenue, South Windsor, Connecticut

Dear Mr. Galligan:

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 "small cell" telecommunications facility at 489 Sullivan Avenue in South Windsor (the "Property").

The proposed "small cell" would consist of a single Canister-type antenna and a Remote Radio Head attached to a small mast/tower on the roof. The new antenna will extend approximately 5'-6" above the peak of the roof and approximately 36 feet above grade. Equipment associated with the antenna will be located inside the existing building. The equipment cabinet will house all of Cellco's small cell radio equipment and a battery back-up power supply system.

A copy of Cellco's Petition is attached for your review. Landowners whose property abuts 489 Sullivan Avenue were also sent notice of this filing along with a copy of the Petition's project plans.

13270488-v1

Robinson+Cole

Matthew B. Galligan December 1, 2014 Page 2

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

Sincerely,

Kenneth C. Baldwin

KCB/kmd Attachment Copy to:

Sandy M. Carter

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

December 1, 2014

Via Certified Mail, Return Receipt Requested

REX Lumber Company 489 Sullivan Avenue South Windsor, CT 06074

Re: Installation of a Small Cell Telecommunications Facility at 489 Sullivan Avenue, South Windsor, 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 "small cell" telecommunications facility at 489 Sullivan Avenue in South Windsor (the "Property").

The proposed "small cell" would consist of a single Canister-type antenna and a Remote Radio Head attached to a small mast/tower on the roof. The new antenna will extend approximately 5'-6" above the peak of the roof and approximately 36 feet above grade. Equipment associated with the antenna will be located inside the existing building. The equipment cabinet will house all of Cellco's small cell radio equipment and a battery back-up power supply system.

A copy of Cellco's Petition is attached for your review. Landowners whose property abuts 489 Sullivan Avenue were also sent notice of this filing along with a copy of the Petition's project plans.

Robinson+Cole

REX Lumber Company December 1, 2014 Page 2

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

Sincerely,

Kennéth C. Baldwin

KCB/kmd Attachment Copy to:

Sandy M. Carter

ATTACHMENT 9

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

December 1, 2014

Via Certified Mail, Return Receipt Requested

«Name and Address»

Re: Notice of Intent to File a Petition for Declaratory Ruling with the Connecticut Siting Council for the Installation of a "Small Cell" Telecommunications Facility at 489 Sullivan Avenue, South Windsor, 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 "small cell" telecommunications facility at 489 Sullivan Avenue in South Windsor (the "Property"). The proposed "small cell" would consist of a single canister-type antenna and a Remote Radio Head attached to a small mast/tower on the roof. The new antenna will extend approximately 5'-6" above the peak of the roof and approximately 36 feet above grade. Equipment associated with the antenna will be located inside the existing building. The equipment cabinet will house all of Cellco's small cell radio equipment and a battery back-up power supply system. A set of Project Plans showing the location of Cellco's proposed small cell and an aerial photograph of the site are attached for your review.

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 Petition, the Council's process for reviewing the proposed 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.

December 1, 2014 Page 2

Sincerely,

Kenneth C. Baldwin

Attachment Copy to:

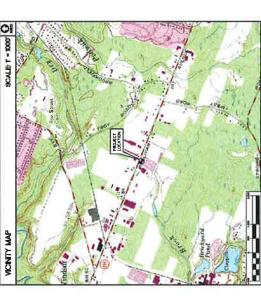
Sandy M. Carter

408 SULLIVAN AVE. TITLE SHEET 1-1 SOUTH WINDSOR SCI

Cellco Partnership

WIRELESS COMMUNICATIONS FACILITY d.b.a. Verizon wireless

SOUTH WINDSOR, CT 06074 SOUTH WINDSOR SC1 489 SULLIVAN AVE.



 A TOTAL OF UP TO ONE (1) PROPOSED CELLCO PARTHEDISHIP DANK ANTIDAN. IS PROPOSED TO BE PRE WOUNTED TO THE EXTERIOR OF THE HOST BINLDNG. AT A CENTERLINE ELEVATION OF \$25" ACL. THE SCORE OF WORK DIMEL INCLUDE.

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THE INSTITUTION OF A PROSESS CILICO PARTICISHINE.

1. PROFOSCO ARTDAM, LOCKTONG AND HUGHTS PROVIDED BY CELLCO PARTHERSO.

GENERAL NOTES

SITE INFORMATION

PROJECT SUMMARY	WARY
SITE NAME:	SOUTH WINDSOM SC1
SITE ADDRESS:	489 SULLIVAN AVE SOUTH WINDSOM, CT 06074
adello audeone	FARM CAR CAPE CENTER 11 WENDERLETTE AVE. VERNON, CT OGGES
CEST/TOWN.	CELLO PARTIETESHP d.b.a. VORIGON WREEESS DP EAST PREEF ORME EAST MARTERIO, CT 08108
CONTACT POSSOR	SAMEN CARTER CALLOD PARTICISATE d.b.o., VERZON WRELESS d.b.o., VERZON WRELESS EAST WARTFORD, CT DOSIGE
TONEN COOKDONATES	LATING TA-ST-GARA" DOMENTO TO TA-ST-A-ST ALL GROUND ENATION: 85 ± ALLS.L COMBINITATES AND GROUND ENATION REPREDEND FROM GOOSEL EVEN.

486 SULLIVAN AVE. SOUTH WINDSON, CO.

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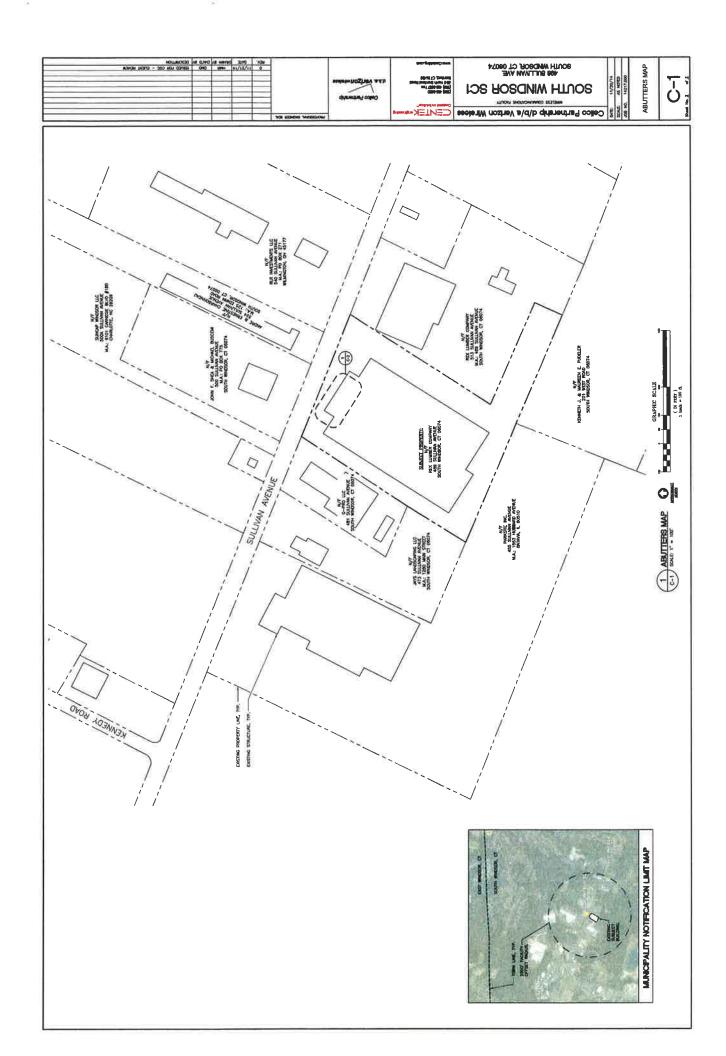
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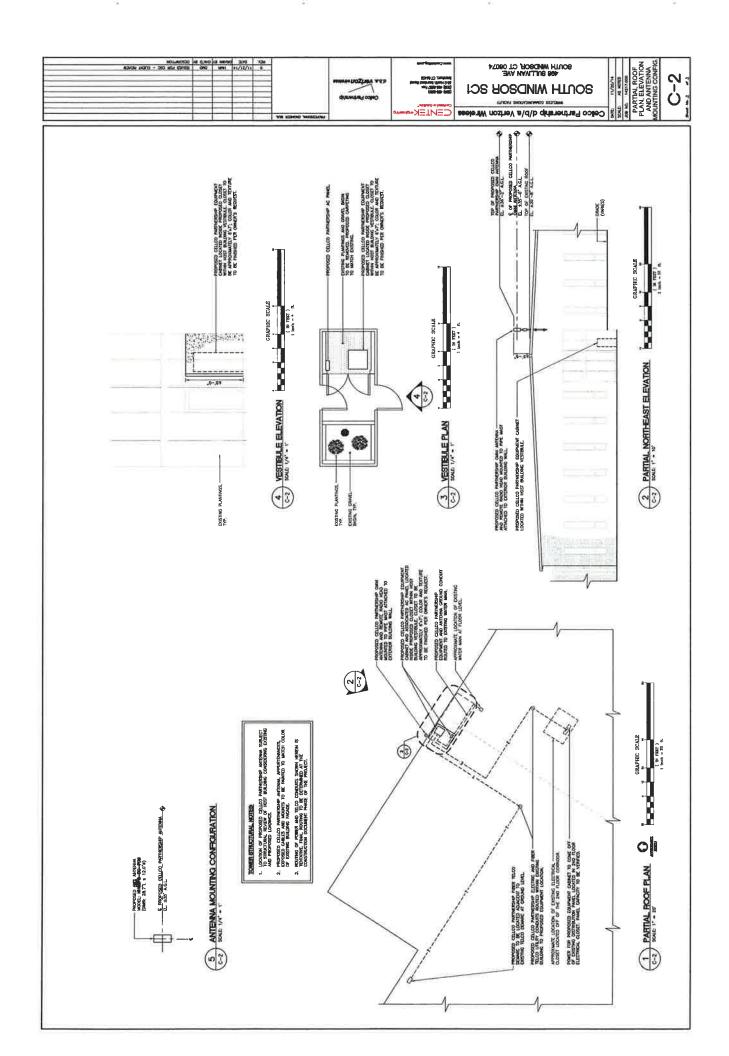
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20	A Company	Va Va			31	





CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

ABUTTING PROPERTY OWNERS

489 SULLIVAN AVENUE SOUTH WINDSOR, CONNECTICUT

	Parcel ID	Property Address	Owner and Mailing Address
1,,,,	110-15	455 Sullivan Avenue	Parksite, Inc. 1563 Hubbard Avenue Batavia, IL 60510
2.	110-14	473 Sullivan Avenue	Jays Landscaping LLC 1280 Main Street South Windsor, CT 06074
3	110-13	481 Sullivan Avenue	G Pro LLC 481 Sullivan Avenue South Windsor, CT 06074
4.	110-8-3	500A Sullivan Avenue	Suncap Windsor LLC 6101 Carnegie Boulevard, Suite 180 Charlotte, NC 28209
5	110-9-3A	500 Sullivan Avenue	John F. Shea and Michael Buscemi P.O. Box 775 South Windsor, CT 06074
6.	110-10	524 Sullivan Avenue	Andre and Ernestine Charbonneau 125 Edwin Road South Windsor, CT 06074
7.	111-53	540 Sullivan Avenue	RLR Investments LLC P.O. Box 271 Wilmington, OH 45177-0271
8.	111-49-1 and 2	570 Sullivan Avenue	570 Sullivan Avenue LLC 312 Deming Street South Windsor, CT 06074
9.	111-47	569 Sullivan Avenue	Leemilts Petroleum Inc. c/o Getty Petroleum Marketing 125 Jericho Turnpike #103 Jericho, NY 11753

	Parcel ID	Property Address	Owner and Mailing Address
10.	111-46	589 Sullivan Avenue	D'Angelo Brothers LLC 589 Sullivan Avenue South Windsor, Ct 06074
11.	99-1	201 West Road	Kenneth J. and Maureen E. Pudeler 201 West Road South Windsor, CT 06074