

## **Beacon Station Micro Supplemental Communications Facility Zoning Analysis Prepared on November 28, 2018**

This Supplemental Zoning Analysis has been prepared to illustrate that, despite the fact that Verizon Wireless planned and designed the proposed site prior to the enactment of the City's new small cell local law, Verizon Wireless' proposed site complies with the City of Beacon small cell site hierarchy set forth in section 223-26.4(E)(1)(a)-(f). The city will recall that the original application for the proposed site was submitted prior to the enactment of the new small cell facility local law.

Verizon Wireless regularly monitors, maintains and upgrades its wireless network to ensure that it is operating properly and as designed. When a network need is identified (e.g., a gap in coverage and/or capacity constraints), the matter is forwarded to the Verizon RF Engineer, who determines, conducts a comprehensive analysis of the system performance in the surrounding network to determine whether the existing network can be modified to solve the problem. If this is not possible and a new wireless facility is required, the RF Engineer devises a "Search Area". A Search Area is the target area in which the engineer has determined that a new site is needed to solve the identified network performance problem. Once the Search Area is determined, it is given to a Site Acquisition Firm for an in-depth investigation of the targeted area. The Site Acquisition Specialist identifies appropriate locations within the Search Area appropriate for the development of a new wireless telecommunications site. As part of this investigation, the Site Acquisition Specialist works closely with Verizon Wireless' land use and zoning attorneys, who review local zoning requirements with respect to the installation and operation of a new wireless telecommunications facility.



The Search Area Map for the proposed small cell is shown above. Candidates within the Search Area have been pinned. Within the Search Area Map, there are five (5) existing structures and one (16) existing utility pole in the right of way. There are no municipal buildings or structures (light poles, flag poles, etc.) within the Search Area.

The city recently enacted a new small cell facility local law, in which it created a siting hierarchy in section 223-26.4(E)(1)(a)-(f). Even though this hierarchy was established long after the original site was identified and designed, Verizon Wireless has examined the Search Area in light of the new hierarchy to ensure that the proposed site is consistent with the City's desire to create the least amount of adverse aesthetic impact and to preserve the scenic values of the City. As set forth below, the proposed site is consistent with the City's siting hierarchy.

(a) On the roof of any City owned or federal, state or local government owned buildings or structures.

1. **There are no city owned or federal, state or local government owned buildings or structures in the search ring (SR) that meet coverage objectives/ have interested building owners.**

(b) Location on privately-owned buildings

1. **Per the original site selection analysis (which is reproduced below), there are no viable privately-owned buildings in the SR due to either lack of landlord interest or lack of building height to meet RF objectives.**

(c) Location on an existing City owned utility poles

1. **There are no city owned poles in the SR that meet coverage objectives.**

(d) Location on City-owned infrastructure on private poles

1. **There is no existing city-owned infrastructure that meets RF coverage objectives.**

(e) Location City-owned property, where there is no existing pole Location on privately-owned utility poles.

1. **There is no city-owned property in the SR that meets RF objectives.**

The only viable location that meets RF coverage needs within the SR, is the proposed location at Red Flynn Drive, which involves collocation on an existing utility pole in the public right of way.

**Set forth below is a summary of the candidates considered for the new Verizon Wireless small cell facility.**

<b>Candidate A:</b>	<b>Beacon Train Station</b>
Address:	8 Long Dock Road Beacon, NY 12508
Owner Interest:	This property is owned by the MTA. Verizon Wireless contacted the Real Estate Division to determine whether the MTA had any interest in lease space to Verizon Wireless for a small cell facility. The MTA stated that they do not have interest in pursuing a small cell for this location.
RF Review:	This location would adequately serve the targeted coverage and capacity objective



**Candidate B:**

**Art Dedominicis (property owner)**

Address:

5 W Main St Beacon, NY 12508

Owner Interest:

This property is owned by A. Dedominicis. Mr. Dedominicis expressed interest in leasing space to Verizon Wireless for the installation of a new small cell facility, including a new wooden utility pole to be located on the property.

RF Review:

This location would not adequately serve the targeted coverage and capacity objective due to the location of tall trees (which can be seen in the picture below) that would obstruct the antenna signals.



**Candidate C:**

**Scenic Hudson**

Address:

23 Long Dock Road Beacon, NY 12508

Owner Interest:

Verizon Wireless attempted to contact the owner of the property. Unfortunately, a response was not forthcoming.

RF Review:

This location would not adequately serve the targeted coverage and capacity objective due to the fact that it is located outside of the SR and the fact that the location of tall trees on the property would obstruct the antenna signals intended for the target area.





**Candidate D:****MTA Police Department**

Address:

24 Beekman St Beacon, NY 12508

Owner Interest:

This property is owned by the MTA. The MTA confirmed that it was not interested in pursuing a small cell for this location.

RF Review:

This location would adequately serve the targeted coverage and capacity objective

**Candidate E:****Beacon Sloop Club**

Address:

2 Red Flynn Drive Beacon, NY 12508

Owner Interest:

Several attempts to contact the property were made. A response was not forthcoming.

RF Review:

This location would not adequately serve the targeted coverage and capacity objective. Desired antenna height cannot be achieved on this roof structure.

**Candidate Pole 1:****Central Hudson Utility Pole in the Right of Way**

Address:

Red Flynn Drive Beacon, NY 12508

RF Review:

This pole location meets RF requirements as it is 1) located in the SR, and 2) the RF antenna height / location meets the RF coverage objective. This existing pole also meets construction requirements as the equipment can be mounted on the pole, making it accessible.

☐ Conduit ☐ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☒ Pole meets requirements



**Candidate Pole 2:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Long Dock Road Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☒ Conduit 
 ☒ Double primary wire 
 ☐ Transformer 
 ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency 
 ☐ Utility company rejected pole use 
 ☐ Pole meets requirements



**Candidate Pole 3:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Red Flynn Drive Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit 
 ☒ Double primary wire 
 ☐ Transformer 
 ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency 
 ☐ Utility company rejected pole use 
 ☐ Pole meets requirements



**Candidate Pole 4:**

**Central Hudson Utility Pole in the Right of Way**

Address:  
RF Review:

Red Flynn Drive Beacon, NY 12508

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☒ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 5:**

**Central Hudson Utility Pole in the Right of Way**

Address:  
RF Review:

Red Flynn Drive Beacon, NY 12508

- ☐ Conduit ☐ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☒ Pole meets requirements



**Candidate Pole 6:**

**Central Hudson Utility Pole in the Right of Way**

Address:  
RF Review:

Red Flynn Drive Beacon, NY 12508

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☒ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 7:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Red Flynn Drive Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☒ Conduit ☐ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☒ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 8:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Red Flynn Drive Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☒ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements





**Candidate Pole 9:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☒ Conduit ☐ Double primary wire ☒ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 10: Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☒ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 11:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☒ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements





**Candidate Pole 12:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☐ Transformer ☒ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 13:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☒ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 14:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☒ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☒ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 15:**

**Central Hudson Utility Pole in the Right of Way**

Address:

Beekman Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☐ Conduit ☐ Double primary wire ☒ Transformer ☐ Issues getting power/telco  
☒ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



**Candidate Pole 16:**

**Central Hudson Utility Pole in the Right of Way**

Address:

W Main Street Beacon, NY 12508

RF Review:

This pole does not meet construction requirements due to:

- ☒ Conduit ☒ Double primary wire ☐ Transformer ☐ Issues getting power/telco  
☐ Trees/obstruction to radio frequency ☐ Utility company rejected pole use ☐ Pole meets requirements



## Conclusion:

After canvassing this Search Area, it has been determined that the only viable candidates for a new small cell/micro facility are Pole 1 and Pole 5. The other fourteen utility poles are not available due to restrictions such as conduits, double primary wires, transformers, issues getting power/telco, or tree/obstruction to radio frequency. The five structures shown below, are not viable for either lack of owner interest, roof height and/or construction restrictions determined by the RF Engineer.



Verizon Wireless is proposing to install one antenna with related equipment on an existing utility pole (i.e. Pole 1). This micro cell is intended to provide "hotspot" type wireless telecommunications coverage in an area where Verizon Wireless' existing macro cell network is overburdened by exploding demand on its 4th Generation LTE network.

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