

Incorporated Village of Russell Gardens



VILLAGE OF RUSSELL GARDENS AESTHETIC GUIDELINES SUPPLEMENT TO CHAPTER 50A SITING OF WIRELESS TELECOMMUNICATIONS FACILITIES

INTRODUCTION

Purpose

The purpose of this document is to provide aesthetic guidelines for the Village of Russell Gardens that reflect its desire to protect and maintain the aesthetics of the Village while also allowing for the siting and availability of wireless broadband infrastructure to allow operators to provide fast, reliable coverage and capacity. These guidelines were created in order to:

- Balance preservation and protection of the character of the community through careful design, siting, and concealment techniques;
- Minimize adverse visual impacts of wireless telecommunication facilities;
- Camouflage wireless telecommunication facilities within existing structures, when possible, otherwise utilize of camouflage and screening techniques to hide or blend them into the surrounding area;
- Design facilities to be aesthetically pleasing and respectful of the neighborhood context;
- Conceal mechanical, support, ancillary equipment and devices associated with the wireless telecommunication facilities in unobtrusive structures; and
- Promote safe, well-organized, and aesthetically acceptable facilities utilizing the smallest and least intrusive means available to provide wireless services to the community.

This document applies to a variety of wireless telecommunication facilities, such as small cell sites, co-locations (i.e., rooftop, other structures), and concealment or stealth facilities (i.e., monopoles, flag poles, light poles). This document is intended to assist applicants and the Village during the review process by establishing aesthetic guidelines for placement of wireless facilities within the Village. These aesthetic guidelines are intended to be used in conjunction with Chapter 50A of the Village of Russell Gardens Village Code.

Additional State Guidance

The NYSDEC Program Policy “Assessing and Mitigation Visual Impacts” (DEP-00-2, December 13, 2019), adopted by the New York State Department of Environmental Conservation (NYSDEC) in 2000, was intended to provide NYSDEC staff with a standard method for evaluating the significance of visual impacts within the context of the SEQR. In 2019, updates were adopted. Under SEQR, agencies are required to evaluate potential aesthetic impacts to the environment in making a determination of significance for an action. The policy provides a procedure for the review of potential impacts that includes inventory of aesthetic resources, a visual assessment (including, but not limited to, desktop line-of-sight diagrams; computer-generated viewsheds;

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computerized visualization techniques), determination of potential significant impact and determination of mitigation measures.

TELECOMMUNICATIONS FACILITIES

The following sections highlight a variety of types of telecommunication facilities. These facilities work in conjunction with neighboring facilities to create a network of coverage and service.

Small Cell Options

OVERVIEW

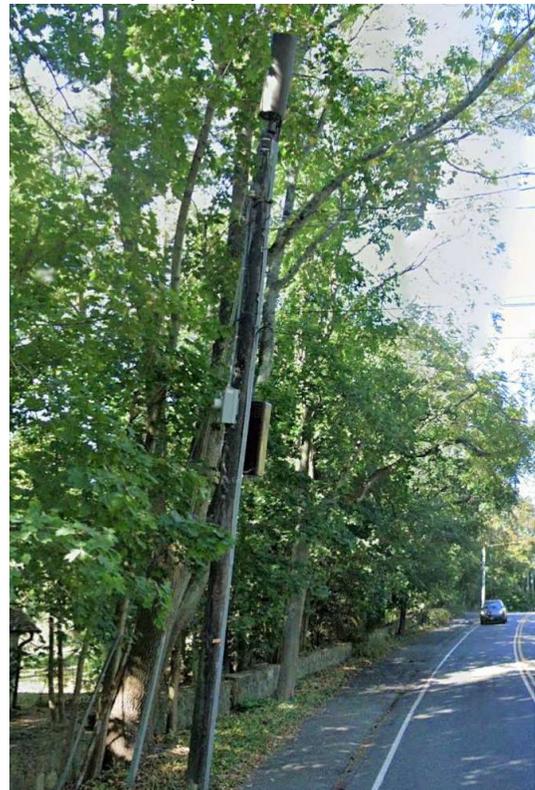
The increasing demand for advanced wireless services, greater wireless bandwidth, and cell site densification is driving a need for additional infrastructure deployment and new infrastructure technologies. To meet localized needs for coverage and increased capacity in outdoor and indoor environments, many wireless providers have turned in part to Distributed Antenna Systems (DAS) and small cell technologies.

Small cells are low-powered wireless facilities that function like cells in a mobile wireless network, typically covering targeted indoor or localized outdoor areas ranging in size from homes and offices to shopping malls, hospitals and metropolitan outdoor spaces. Since these cells are significantly smaller in coverage area than conventional macrocells (high-powered cellular sites that offer a larger coverage area), networks that incorporate small cell technology can increase efficiency and data capacity within the network footprint.

Small wireless technologies like DAS and small cells have several unique considerations when compared to macrocells or conventional towers. Since the facilities deployed at each node are physically smaller than macrocell antennas and associated equipment and do not require the same elevation, they can be placed on lighting structures, utility poles, building walls and rooftops, and other structures either privately owned or in the public rights-of-way. Thus, providers can deploy the technologies in geographic areas, such as densely populated urban areas, where conventional towers are not feasible, or in areas, such as transportation corridors, shopping and commercial zones, where localized wireless traffic demands require increased capacity.

Small cell facilities are under 50 feet in height. The limiting factor to a small cell installation is reliance on available internet cables and fiber optic lines, typically available in an urban or suburban environment and near existing utilities.

The use of small cells meets the Village's priority of siting wireless telecommunication facilities on electric,



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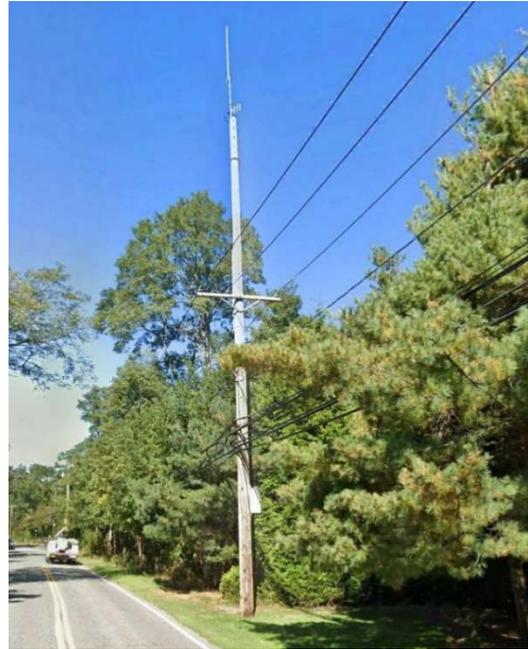
telephone and other utilities poles (priority #2, §50A-6) and, buildings and other structures (priority #3 and priority #4).

VILLAGE GUIDELINES

As with conventional and concealment facilities, small cells can be camouflaged to match existing materials and textures.

The guidelines for small cell facilities are as follows:

- 50-foot maximum height
- Color matching of antennas
- Color matching of ancillary equipment
- Unique or ornamental assemblies may include mast arms, ornamental pole bases, architectural luminaires, etc. Equipment should match the aesthetics of the pole and surrounding poles.
- Antenna placement and configuration of mount to be reviewed by the Village.
- The diameter of the antenna or antenna enclosure should not exceed the diameter of the top of the wireless support structure pole, and to the maximum extent practical, should appear as a seamless vertical extension of the pole. Unless approved by the Village, the maximum diameter of the shroud shall be no wider than one and one half times the diameter of the top of the pole.
- New poles to match poles in the area, in terms of material and height
- Ancillary equipment to be installed a minimum of 8 feet off the ground or below ground
- Sidewalks and common space to not be affected by installation
- Chapter 50A criteria for aggregate equipment volumes and communication zone preference
- No ground-based equipment
- Replacement pole material and height to be approved by the Village



Typical Small Cell Facilities

Small cell facilities can be installed on a variety of structures (existing or new). Some of these options are the same as the macrocell co-location options, but since small cell facilities are less than 50 feet in height, structures such as freestanding poles, streetlights, traffic signals, utility poles, and signage can be utilized for small cell antennas and equipment.



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Similar to macrocell co-locations, streetlights and other lighting structures can be utilized as a small cell facility. These types of facilities may only allow one wireless carrier to be located.

Co-Location on Existing Structures



Options for co-location of telecommunication facilities on existing structures range from co-location on an existing telecommunication facility, such as monopoles, to the utilization of other structures, such as buildings, street signs, light towers. As noted in Chapter §50A-6, co-location is on the priority list for the siting of new telecommunication facilities.

VILLAGE GUIDELINES – OTHER STRUCTURES AND CO-LOCATIONS

- Color matching of antennas
- Color matching of ancillary equipment and cabling
- Flush-mounted or internally mounted, as possible
- Site-specific maintenance plan
- Matte finishes to match existing conditions / architecture

Light Poles/Signs

Similar to flagpoles, other types of pole structures can be utilized for telecommunications facilities. This could be in conjunction with another primary use, such as sports lighting, streetlights, or signs, but could also be the primary use with a secondary feature, such as a clock tower. These types of applications would typically have less height than microcell sites and may only allow one wireless carrier to be located.



VILLAGE GUIDELINES – LIGHT POLES/SIGNS

- Color matching of antennas
- Color matching of ancillary equipment and cabling
- Flush-mounted or internal mounted, as possible
- Site-specific maintenance plan
- Matte finish

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Rooftop and Building

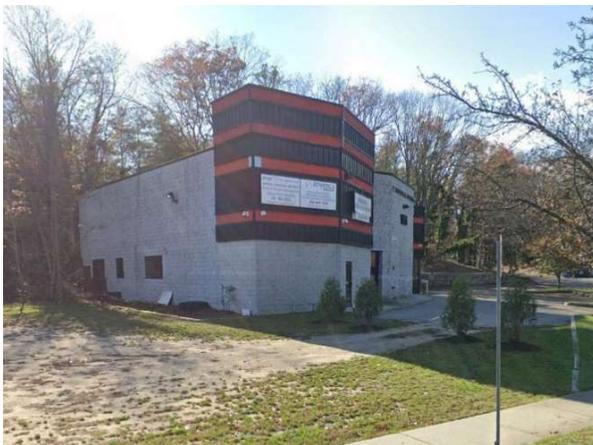
A rooftop facility consists of antenna and equipment installed on a building's roof. The telecommunication facility is located on top of a building or inside a rooftop structure (such as a cupola, church steeple, billboard, etc.). Its antennas and equipment are placed on the roof (or very top), typically with the antennas mounted near or on the parapet of the roof. Most rooftop sites include three sets of antennas (i.e., "sectors"), which are pointed at 120-degree intervals from each other. A rooftop facility typically contains between 2-4 antennas per sector.

Antennas can match the color and texture of the structure, to aid in the concealment of the facility. Equipment, when placed on a roof, can be placed back from the edge and screened where the equipment would not be visible from the ground.

VILLAGE GUIDELINES – EXISTING BUILDINGS

Color matching of antennas to match architecture

- Color matching of ancillary equipment
- Screening walls or concealment within rooftop structure (e.g., cupola or steeple)
- Flush-mounted or internal mounted, as possible
- Antenna(s) and mounts to be set back a distance equal to the height of the antenna and mount, as possible
- Site-specific maintenance plan



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Conventional/Macrocell Telecommunications Facility Options

OVERVIEW

A conventional or macrocell site provides coverage over a larger area by being mounted at higher elevations and transmitting higher power.

Telecommunication facilities are structures that are designed to support one or more sets of cell antennas. Each set of cell antennas typically represents an individual carrier or wireless provider. A conventional tower is typically manufactured from steel.

The ground-based equipment is installed in a leased area or compound area at the base of the tower and is connected to the antennas installed on the tower via coaxial or hybrid cables.



Macrocell sites that are acceptable for the Village are monopole, as other types of facilities (e.g., lattice towers) are not consistent with the aesthetics and residential character of the Village. Although these monopoles are typically a grey color, they can be camouflaged to blend with the sky and the visual horizon. While tall monopoles, over 100 feet in height, are not anticipated in the Village, monopoles between 50 feet and 100 feet in height may be proposed.

The Monopole Tower is a single tube tower. Antennas are mounted on the exterior of a standard Monopole Tower. They are capable of carrying moderate to heavy accessory loads.



VILLAGE GUIDELINES

- Facility design and antenna placement to be reviewed and approved by Village
- Matte finish for the tower
- Neutral coloration
- Landscaping of ground-based equipment
- Color matching of antennas and visible equipment
- Minimum antenna array dimensions
- Fencing
- Site-specific maintenance plan

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Concealment Facilities Options

OVERVIEW

Concealment towers are a form of a macrocell facility (see above), but also can be a form of a small cell facility (see below), depending on the height of the facility and the number of wireless carriers included.

Concealment is the process of screening, hiding, or camouflaging wireless facilities and/or antennas. Concealment can be achieved with camouflage to match existing colors, materials, and textures.

As a macrocell facility, Stealth® Concealment towers are a particular brand of concealed towers. Other manufactures of concealed towers are Larson Camouflage, Sabre Industries, and Valmont. Concealed towers are often constructed to satisfy zoning regulations and can range in size to accommodate their surroundings. They are typically more expensive than other types of towers as they require additional material to create a "concealed appearance," yet at the same time, they tend to provide less capacity to other carriers (co-location) than other larger towers.

Concealment towers are typically stand-alone, single function facilities, that are built to look like a simple pole or something else such as a flagpole or other types of structures. In addition to stand-alone facilities, concealment facilities can include installation, or co-location, on existing structures, such as rooftops, signs, lights, and other structures.

Flagpole, Concealment Poles and Similar Structures

Flagpoles, concealment poles or similar structures such as light poles also have the potential to house antenna arrays. Any concealment pole can limit the co-location potential of a facility. Flags, such as the American flag or the State flag can be displayed.

For these types of applications, the antennas are located within the pole or structure, allowing the use to be concealed, but also limiting the co-location potential.



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VILLAGE GUIDELINES – FLAGPOLES AND SIMILAR STRUCTURES

- Preferred over conventional Monopole Towers
- Matte finish
- Antennas entirely contained within structure
- Neutral coloration
- Slender profile
- Landscaping and fencing for ground-based equipment (e.g., privacy slats, stockade fence, fencing with vegetation)
- Site-specific maintenance plan
- Flag maintenance / replacement
- Lighting requirements