

NEW ALBANY, OHIO SMALL CELL DESIGN GUIDELINES & REQUIREMENTS

ADOPTED NOVEMBER 2018



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2 Small Cell Design Guidelines & Requirements

This plan contains design guidelines and requirements for the deployment of small cell wireless facilities and other wireless network enhancements in the city of New Albany. This section may be amended from time to time in accordance with the Codified Ordinance of the City of New Albany.	

Existing Village Center character.



Existing neighborhood character.



Existing Business Campus character

A- SMALL CELL WIRELESS FACILITIES

I. Purpose

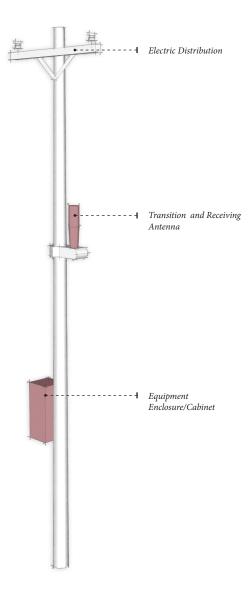
- A. To balance the deployment of small cell facilities and associated wireless support structures in the public right-of-way and on City-owned poles that allow small cell facility operators to provide fast, reliable coverage and capacity, while preserving the character, aesthetics, and pedestrian-friendly design of New Albany's streetscapes within the Village Center, as well as maintaining the City's rural road corridors;
- B. To promote the availability of a wide range of utility, communication, and other services to residents of the City at reasonable costs, including the rapid implementation of new technologies and innovative services;
- C. To ensure that structures and facilities within the public right-of-way protect the health, safety, and welfare of the public by minimizing and reducing impacts to surrounding land uses and to the City, its residents and visitors;
- D. To protect the integrity of neighborhoods, commercial areas, and the Village Center and ensure that access to and occupancy or use of public rights-of-way in such areas is technologically and aesthetically appropriate; and
- E. To foster partnerships to expedite the installation and operation of small cell facilities in order to enhance wireless service for commercial, residential, and institutional users in the city.

II. Definitions

For the purposes of this chapter, the following terms shall have the meanings provided. When not inconsistent with the context, words used in the present tense include the future; words in the plural number include the singular number, and words in the singular include the plural. The word "shall" is always mandatory and not merely permissive.

- A. Amenity Zone: means a portion of the public right-of-way, typically adjacent to the sidewalk, but outside the pedestrian walking area, including streetscape elements, landscaping, and street trees.
- B. Antenna: means communications equipment that transmits or receives radio frequency signals in the provision of wireless service.
- C. City: means the City of New Albany and the City's elected officials, employees, residents, agents, and invitees.

- D. Collocation or Collocate: means to install, mount, maintain, modify, operate, or replace Wireless Facilities on a Wireless Support Structure.
- E. Decorative Pole: means a pole, arch, or structure other than a street light pole placed in the public way specifically designed and placed for aesthetic purposes and on which no appurtenances or attachments have been placed except for any of the following:
- 1. Electric lighting
- Specially designed informational or directional
- Temporary holiday or special event attachments
- F. Local: means within the geographical boundaries of the City.
- G. Occupy or Use: means, with respect to a public right-of-way, to place a tangible thing in a public right-of-way for any purpose, including, but not limited to, constructing, repairing, positioning, maintaining, or operating lines, poles, pipes, conduits, ducts, equipment, or other structures, appurtenances, or facilities necessary for the delivery of public utility services or any services provided by a cable operator.
- H. Microwireless Permit: means a permit, which must be obtained before a person can construct, modify, collocate, or replace a Small Cell Facility or Wireless Support Structure, as set forth in Section 907.07 et seg., in or on the Rights-of-way.
- I. Private Easement: means an easement or other real property right that is only for the benefit of the grantor and grantee and their successors and assigns.
- J. Right-of-Way (ROW) or Public Way: means the surface of, and the space within, through, on, across, above, or below, the paved or unpaved portion of any public street, public road, public highway, public freeway, public lane, public path, public alley, public court, public sidewalk, public boulevard, public parkway, public drive, public easement, and any other land dedicated or otherwise designated for a compatible public use, which on or after July 2, 2002 is owned or controlled by the City of New Albany. Right-of-way excludes a private easement.
- K. Residential Area: means a single-family residential lot or other multifamily residence or undeveloped land that is designated for residential use by zoning.
- L. Service Pole: means a pole, owned or operated by the City and located in the right-of-way, including:
- A pole that supports traffic control functions;
- A structure for signage; and
- A pole that supports lighting, other than a decorative pole.



Utility pole with a small cell wireless facility.



Example of an existing utility pole in the City of New Albany.



Example of existing esplanade commercial street light in the City of New Albany.



Example of a new small cell facility on an existing light pole.



Example of a new small cell facility on a new wireless support structure.

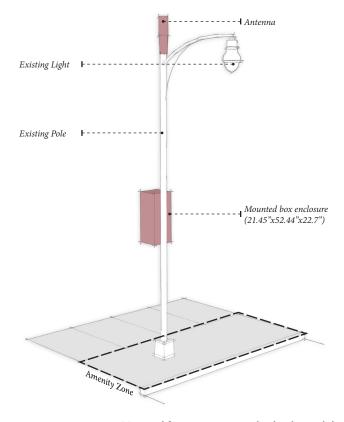
- M. Small Cell Facility: means a wireless facility that meets both of the following requirements:
- Each antenna is located inside an enclosure of not more than six cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an enclosure of not more than six cubic feet in volume.
- 2. All other wireless equipment associated with the facility is cumulatively not more than twenty-eight cubic feet in volume. The calculation of equipment volume shall not include electric meters, concealment elements, telecommunications demarcation boxes, grounding equipment, power transfer switches, cut-off switches, and vertical cable runs for the connection of power and other services.
- N. Small Cell Facility Operator or Operator: means a Wireless Service Provider, Cable Operator, or Video Service Provider that operates a Small Cell Facility and provides Wireless Service. "Operator" includes a Wireless Service Provider or Cable Operator or a Video Service Provider that provides information services and services that are fixed in nature or use unlicensed spectrum.
- O. Utility Pole: means a structure that is designed for, or used for the purpose of, carrying lines, cables, or wires for electric distribution or telecommunications service. "Utility pole" excludes street signs and decorative poles.
- P. Village Center: means the area within the boundary delineated in the New Albany Form Based Code, as established by the City's *Village Center Strategic Plan*.
- Q. Wireless Facility: means equipment at a fixed location that enables wireless communication between user equipment and a communications network, including all of the following:
 - Equipment associated with wireless communications;
- 2. Radio transceivers, antennas, coaxial or fiberoptic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration.
- 3. The term includes small cell facilities.
- 4. The term does not include any of the following:
 - a. The structure or improvements on, under, or within which the equipment is collocated;
 - Coaxial or fiber-optic cable that is between wireless support structures or utility poles or that is otherwise not immediately adjacent to or directly associated with a particular antenna.

- R. Wireless Service: means any services using licensed or unlicensed wireless spectrum, whether at a fixed location or mobile, provided to the public using wireless facilities.
- S. Wireless Service Provider: means a person who provides wireless service as defined in division (A) (20) of section 4927.01 of the Ohio Revised Code.
- T. Wireless Support Structure: means a pole, such as a monopole, either guyed or self-supporting, street light pole, traffic signal pole, a fifteen-foot or taller sign pole, or utility pole capable of supporting small cell facilities. "Wireless support structure" excludes all of the following:
- 1. A utility pole or other facility owned or operated by a municipal electric utility; and
- A utility pole or other facility used to supply traction power to public transit systems, including railways, trams, streetcars, and trollevbuses.

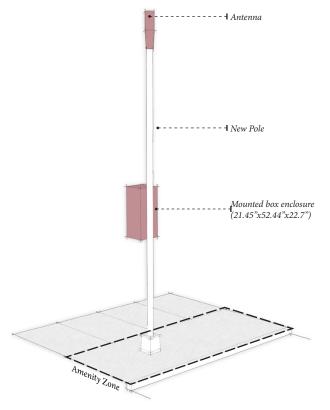
III. Applicability

Application submittals proposing to collocate small cell facilities in association with existing or new wireless support structures within the right-of-way require a microwireless permit to be issued through the City of New Albany. Every application to collocate small cell facilities and wireless support structures shall be classified in one of the following ways:

- A. Outside Village Center. The areas outside of the Village Center shall follow typical review timeframes for the microwireless permit as established by Chapter 907 city policy.
- B. Inside Village Center. The Village Center boundary shall be established by the City's Village Center Strategic Plan. In order to protect the vision and deliberate planning the community has undertaken to create a vibrant and attractive environment for new residents and businesses the following are the most preferred areas for the installation of small cell facilities and wireless support structures.



Major modification on a commercial esplanade street light.



New small cell facility on a new wireless support structure.

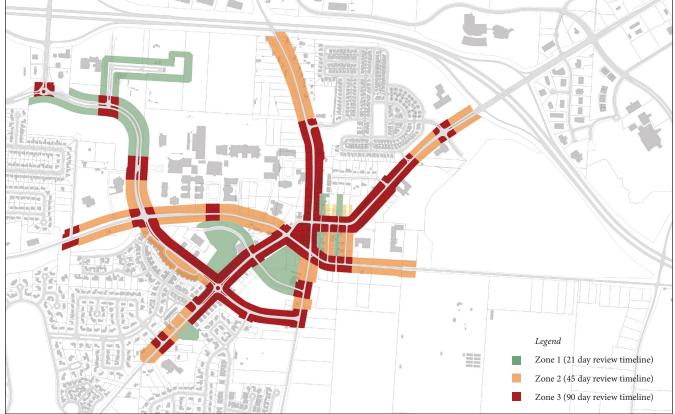


Example of existing pedestrian acorn street light in the Village Center.



Example of existing dual arm acorn street light in the Village Center.

- Zone 1 Preferred (shown in green) This area encompasses right-of-way on secondary/ service roads and alleys. Within secondary and service roads such as Village Hall Road the small cell facility and wireless support structure must be located in the tree lawn between the street curb and the sidewalk. It also includes public right-of-way fronting publicly owned properties. In addition to public right-of way and for the limited purpose of encouraging the effective and efficient deployment of small cell facilities and wireless support structures in Zone 1, several municipally owned parcels located outside the right-of-way (such as public parking lots and select parks), shall be made available to applicants for use to install and operate small cell facilities and wireless support structures. The City shall review applications within Zone 1 within 21 days from the submittal date for collocation placement or construction of a working support structure within the right-ofway and city owned fee simple lots.
- 2. Zone 2 Discouraged (shown in orange) The collocation of small cell facilities in association with existing or new wireless support structures must be located between the sidewalk (but not on the sidewalk) and the building, within the tree lawn (amenity zone). The city shall review applications within Zone 2 within 45 days from the submittal date for collocation or placement of a wireless support structure within the right-of-way.



Zone Map depicting the preferred and discouraged locations for small cell wirelss facilities and wireless support structures

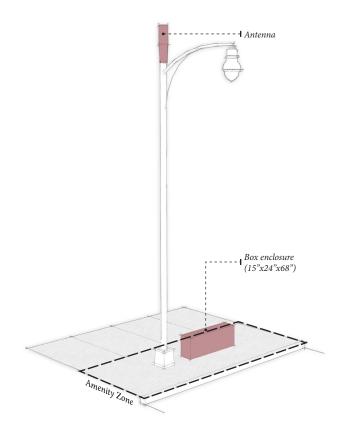
- Zone 3 Strongly Discouraged (shown in red) -This area encompasses right-of-way within 100 feet of intersections, highly traveled pedestrian zones, residential areas, and where the tree lawn (amenity zone) is located between the sidewalk and the street. Small cell facilities must be located 100 feet away from intersections and between the sidewalk and the street. The city shall review applications within Zone 3 within 90 days from the submittal date for collocation or placement of a wireless support structure within the right-of-way.
- Any new or other non-specified street, including residential subdivisions or other streets residential in character, which is not depicted or identified in the Zone Map below shall fall under the Zone 3 review category.

Design Guidelines and Requirements.

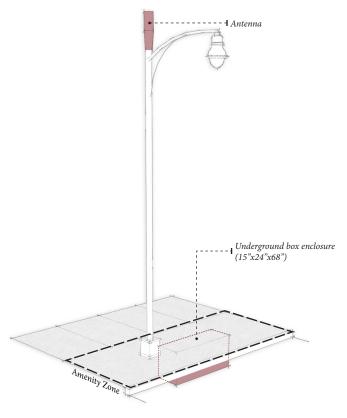
The following standards shall apply to all small cell facilities, including new and existing wireless support structures throughout the City of the New Albany. Unless otherwise noted all of the design guidelines and requirements shall be met unless the applicant can demonstrate with clear and convincing evidence that it is not technically feasible.

A. General Design Standards for all small cell facilities and wireless support structures

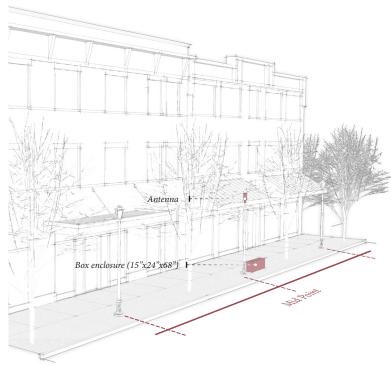
- 1. Collocations between two separate wireless service providers on the same support structure is encouraged whenever feasible and safe.
- All small cell facilities and wireless support structures shall be designed, constructed, operated, and maintained in compliance with all generally applicable health and safety regulations, including without limitation all applicable regulations for human exposure to RF emissions.
- Unless otherwise required for compliance with FAA or FCC regulations, the small cell facility and wireless support structure shall not include any permanent installed lights. Any lights associated with the electronic equipment shall be appropriately shielded from public view. The provisions in this subsection shall not be interpreted to prohibit installations on streetlights or the installation of luminaires on new poles when required.
- All facilities shall utilize the lowest visible radiofrequency (RF) warning sticker required by government or utility regulations. Placement of the RF sticker must be as close as possible to the antenna and face directly away from the street. ID stickers must utilize the lowest visibility sticker as possible and use colors that are consistent or complimentary to the color of the equipment cabinet and/or pole on which it is to be placed.



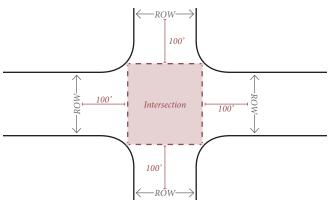
Small cell wireless facility on an esplanade street light with a ground-mounted equipment box



Small cell wireless facility on an esplanade street light with an underground equipment box



Example of new small cell facility on a new wireless support structure placed within the Village Center between two existing acorn light poles.



Example of 100 foot setback from intersections



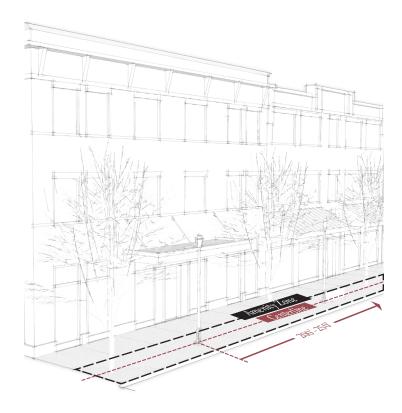
Example of existing typical amenity zone in the Village Center

- 5. The applicant must design the proposed installation in a manner that mimics the design and any concealment elements of the existing small cell facility and wireless support structure.
- 6. To protect the safety of the public, any additional equipment must not negatively impact the structural integrity of the support structure and must comply with all applicable local, state, and federal codes and regulations.

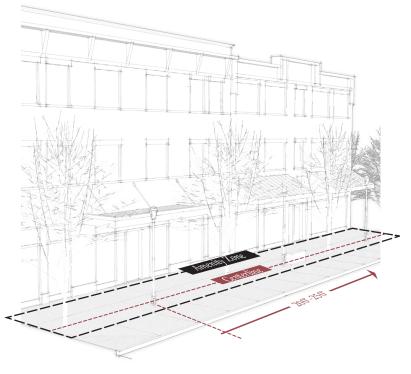
B. Placement & Location Standards

- 1. Applicants shall work with city staff to ensure that all small cell facilities and wireless support structures installed and operated in the City properly protect the public health, safety and welfare of the City and its residents by meeting the requirements of the Codified Ordinances of the City (specifically inclusive of C.O. 907) and these Design Guidelines.
- All small cell facilities and wireless support structures shall be located to avoid any physical or visual obstruction to pedestrian or vehicular traffic or any other location that would create safety hazards to pedestrians, cyclists, or motorists.
- 3. All small cell facilities and wireless support structures shall conform/meet the location standards as found in the Applicability section of these regulations.
- 4. These guidelines encourage applicants to consider existing poles and other potential support structures prior to installing any new poles to reduce congestion in the public right-of-way. All applicable design, construction, and location standards will be considered when reviewing applications for new small cell facilities installed on existing poles or other potential wireless support structures in the public right-of-way.
- 5. It is the city's strong preference to collocate new small cell facilities on existing support structures in order to minimize the number of poles within the right-of-way. New poles can only be constructed when the applicant can demonstrate with clear and convincing evidence that using an existing structure is not technically feasible or not potentially available.
- 6. Placement of small cell facilities in the Village Center shall be a minimum of 250 feet apart to minimize the hazard of multiple poles adjacent to the roadway unless the applicant can demonstrate with clear and convincing evidence that it is not technologically feasible. Placement of small cell facilities in the Village Center's Zone 1 may be closer subject to staff approval.
- 7. Placement of small cell facilities outside of the Village Center shall be a minimum of 200 feet apart to minimize the hazard of multiple poles adjacent to the roadway unless the applicant can demonstrate with clear and convincing evidence that it is not technologically feasible.

- 8. The centerline of any new pole must be aligned with the centerlines of existing poles on the same sidewalk or street segment. Alternate locations will be considered where there is conflict with overhead utility lines and facilities.
- All new facilities and/or equipment and other related improvements must be placed within the amenity zone.
- 10. All new facilities and/or equipment and other related improvements must be setback at least 100 feet from public street intersections. The location cannot obstruct motorists' sightlines or pedestrian access.
- 11. In residential zoning districts, small cell facilities shall be located where the shared property line between two residential parcels intersects the public right-of-way, unless such location would prohibit or have the effect of prohibiting the operator's wireless service in the area.
- 12. For a privately owned structure in the public right-of-way onto which an applicant proposes to attach a small cell facility, if the owner of the structure requires more restrictive standards than those in this plan, the more restrictive standards shall apply. If any portion of the privately owned structure is on private property, the applicant must first obtain all applicable zoning and building permits prior to submittal.
- 13. The City, in its proprietary capacity, retains sole and absolute discretion over whether and on what terms it may allow small cell facilities on its poles and other facilities in the public right-of-way unless otherwise in conflict with law. Applicants may not submit any applications in connection with City owned poles or other facilities without a valid and fully executed agreement to use the specific pole or other facility.
- 14. A small cell facility on a city-owned wireless support structure may not use the same power source that provides power for the original purpose of the wireless support structure.
- C. Antenna Design Standards
- The city prefers that antennas are not collocated on the small pedestrian acorn lights within the Village Center or residential areas.
- Antennas associated with installation on existing or replaced wireless support structures must be located within the amenity zone and have concealed cable connections, antenna mount, and other hardware.
- The maximum dimensions for panel style antennas shall be 30" high and 12" wide. The maximum dimensions for canister style antennas shall be 30" high and 16" in diameter.

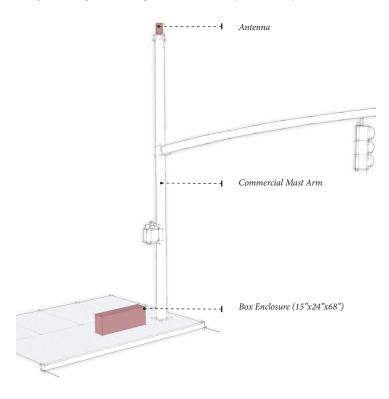


Typical Amenity Zone





Example of existing commercial signal mast arm in the City of New Albany.



Major modification on a commercial signal mast arm with ground-mounted equipment box .



Example of poorly designed antenna (left) and well designed antenna (right)

- 4. Antennas that overhang the roadway or sidewalks are discouraged due to concerns for public safety. If an antenna overhangs a roadway or side it must comply with all applicable setback and vertical clearance requirements.
- D. Cabinet, Shroud, Meter, and similar equipment design Standards
- 1. All pole mounted equipment must be installed as flush to the pole as possible, using stainless steel banding straps. Through-bolting or use of lag bolts is prohibited. All pole mounted equipment shall be located as close together as possible and on the same side of the pole.
- 2. Pole mounted equipment is strongly discouraged. When pole-mounted equipment is either permitted or required, the equipment must be concealed within a single shroud or cabinet and must contain all the equipment associated with the facility other than the antenna including but limited to, the electric meter and disconnect switch. All cables and conduits associated with the equipment must be concealed from view, routed directly through the tapered metal pole and be underground between the pole and the ground mounted cabinet. Wood poles must use conduit to conceal cables and wires from view.
- 3. Equipment cabinets may not extend more than 24" from the face of the pole. No overhead cables, for electric or otherwise, shall be permitted.
- 4. Standoff mounts for any equipment may not exceed 4".
- Equipment in an environmentally controlled underground vault may be required in some areas where technologically feasible and appropriate for the location. Equipment shall be placed underground within the Village Center Zone 3.
- 6. Unless required to be within an environmentally controlled underground vault, ground mounted equipment is required unless the applicant shows clear and convincing evidence that the equipment must be pole-mounted. Increased costs alone shall be presumed to be an insufficient reason.
- 7. Ground mounted equipment shall incorporate concealment elements into the proposed design. Ground-mounted equipment must be concealed within a single shroud or cabinet and must contain all the equipment associated with the facility other than the antenna including but limited to, the electric meter and disconnect switch. All cables and conduits associated with the equipment must be concealed from view and be underground between the pole and the ground mounted cabinet. Concealment may

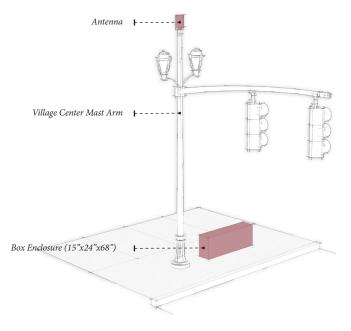
- include, but shall not be limited to, strategic placement in less obtrusive and stealth design for the cabinet. Cabinets should be placed as far as from the public street as possible and ideally behind existing horse fence.
- The applicant is required to incorporate ambient noise suppression measures and/or to place the equipment in locations less likely to impact adjacent residences or businesses to ensure compliance with all applicable noise regulations.
- Color for all equipment and similar devices shall be New Albany green, black, or another color that matches the existing pole. The colors must be consistent with other cabinet and pole colors in the general area.

E. Pole Design Standards

- It is the City's preference new poles are placed approximately in the middle of existing poles. New Poles must match existing poles in appearance, height, design, material, and color as those used on same section of street.
- The City reserves the right to require a metal pole rather than a wood pole based on the built, natural environmental character, or City plans of the proposed site location. Wood poles shall not be permitted in the following areas:
 - a. Areas where plans call for underground utilities or non-wood poles;
 - b. Within the Village Center;
 - c. Sections or sides of streets where there are not currently wood poles.
- It is the City's preference that new support structures' height are consistent with other poles in the vicinity, the built environment, the neighborhood character, the overall site appearance, and the purposes in these guidelines. If a compatible height cannot be clearly determined, then a maximum pole height of 40 feet above ground shall be used (including appurtenances). The zoning district height limit shall not be determinative.
- Pole diameter shall be consistent with the surrounding poles. The applicant shall consider other poles in the vicinity, the built environment, the neighborhood character, the over site appearances, and the purposes of these guidelines when determining pole appearance. The paint color of the new pole shall match existing poles in the vicinity.
- Within the Village Center, new poles shall meet Village Center design and specification standards.



Example of existing Village Center signal mast arm.



Major modification on a Village Center signal mast arm with ground-mounted equipment box.



Example of top-mounted antenna on a decorative mast arm.



GUIDELINES TEXT BY:

MKSK

GRAPHIC DESIGN BY:
MKSK

