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## ARTICLE 10. SITE DEVELOPMENT STANDARDS

- 10.1 GENERAL DEVELOPMENT REQUIREMENTS
- 10.2 EXTERIOR LIGHTING
- 10.3 ACCESSORY STRUCTURES AND USES
- 10.4 PERMITTED ENCROACHMENTS
- 10.5 ENVIRONMENTAL PERFORMANCE STANDARDS

### 10.1 GENERAL DEVELOPMENT REQUIREMENTS

#### A. Number of Structures on a Lot

There must be no more than one principal building per lot in the EN, RN-1, and RN-2 Districts. This does not include permitted accessory structures or permitted accessory dwelling units. In all other districts, more than one principal building is permitted on a lot, provided that all structures comply with the dimensional standards of the district.

#### B. All Activities within an Enclosed Structure

Within all districts, all activities must be conducted entirely within an enclosed structure, with the exception of the following uses and activities:

1. Parking lot, principal and ancillary.
2. Public park, conservation area, community garden, golf course/driving range, and similar open space uses.
3. Establishments that typically include an outdoor component, including, but not limited to: agriculture, outdoor amusement facility, outdoor storage yard, heavy retail, rental, and service, greenhouse/nursery – retail, outdoor dining, car wash, animal care facility, industrial, and similar uses where outdoor functions are typical, to be confirmed by the Zoning Administrator. Any use may be limited or the outdoor component prohibited as a condition of a special use, when special use approval is applicable.
4. Permitted accessory outdoor storage, and accessory outdoor sales and display areas.
5. Permitted outdoor temporary uses.

#### C. Applicability of Setbacks

No setback may be reduced so that it is less than required by this Code. The required setbacks for a lot cannot be considered a setback for any other lot. No principal building or accessory structure may be located in a required setback unless specifically permitted by this Code or a variance is approved.

#### D. Applicability of Dimensional Requirements

All structures must meet the dimensional requirements of the zoning district in which the structure is located. No existing structure may be enlarged, altered, reconstructed, or relocated in such a manner that conflicts with the requirements of the district in which the structure it is located unless a variance is approved.

#### E. Utility and Drainage Easements

Permanent structures, stormwater facilities, retaining walls, fences, decks, and accessory structures are prohibited within utility and drainage easements.

#### F. Line of Sight Requirements

Developments near intersections must provide for adequate sight distance, as approved by the City of Knoxville Department of Engineering.

### 10.2 EXTERIOR LIGHTING

#### A. Lighting Plan Required

1. A lighting plan is required for all nonresidential uses (including mixed-use), multi-family, and townhouse developments. Single-family and two-family dwellings are exempt from a required lighting plan but are subject to

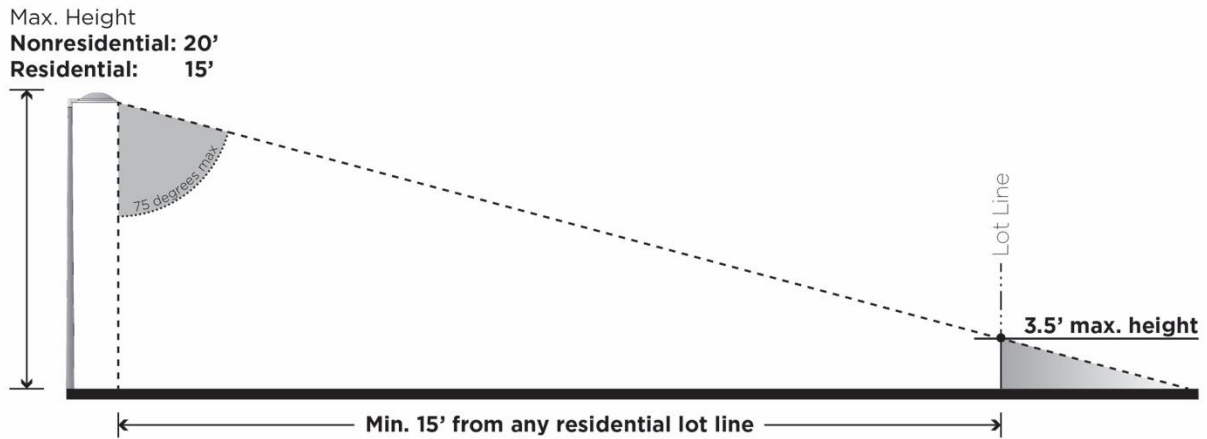
applicable lighting requirements. These lighting standards apply only to new lighting and to alterations to existing lighting, excluding routine maintenance.

2. A lighting plan must include the following:
  - a. A plan showing all light pole locations, building-mounted lights, bollard lights, and all other lighting.
  - b. Specifications for luminaires and lamp types, and poles, including photographs or drawings of proposed light fixtures.
  - c. Pole and luminaire details including pole height, height of building-mounted lights, mounting height, and height of the luminaire.
  - d. Elevations of the site including all structures and luminaires sufficient to determine the total cut off angle of all luminaires and their relationship to abutting parcels.
  - e. For developments subject to site plan review, photometric plans that show the footcandle measurement at all lot lines may be required if the lot is adjacent to a residential district.
  - f. Other information and data reasonably necessary to evaluate the required lighting plan.

## **B. Lighting Standards**

1. For townhouse and multi-family dwellings and non-residential developments, the maximum allowable footcandle at any lot line is one footcandle.
2. All luminaires must be of the cut off luminaire design.
3. To be considered a cut off luminaire, the cut off angle must be 75 degrees or less. A cut off luminaire must be designed to completely shield the light source from an observer 3.5 feet above the ground at any point along an abutting lot line.
4. Any freestanding cut off luminaire must be located at least 15 feet from any residential district lot line.
5. The maximum total height of a freestanding cut off luminaire is 20 feet in a nonresidential district, and 15 feet in a residential district.
6. All outdoor luminaires must be located, adequately shielded, and directed such that no direct light falls outside the lot or onto the public right-of-way.
7. Outdoor lighting fixtures closer to the lot line than the mounting height of the fixture, measured perpendicular to the lot line, adjacent to residential areas, must have internal house-side shields.
8. Flood or spot lamps must be aimed down no higher than 45 degrees to the horizontal (halfway between straight down and straight to the side) when the source is visible from any adjacent residential property.

### CUT OFF LUMINAIRE



#### C. Exceptions to Lighting Standards

1. Luminaires used for public roadway illumination or installed by a utility to light public rights-of-way are not controlled by this Code.
2. All temporary emergency lighting required by public safety agencies, other emergency services, or construction are exempt from the requirements of this Code.
3. Because of their unique requirements for nighttime visibility and limited hours of operation, outdoor recreational fields (public or private) such as, but not limited to, football fields, soccer fields, baseball fields, softball fields, tennis courts, driving ranges, and other similar uses are exempt from the requirements of item B above and subject to the following:
  - a. Recreational fields are permitted a total luminaire height of 65 feet in any district. Luminaires greater than 65 feet in total height may only be approved by special use permit.
  - b. All lighting must be directed onto the field.
  - c. The recreational field lighting must be extinguished 45 minutes following the end of the event.
  - d. Lighting must comply with item B above to facilitate patrons leaving the facility, cleanup, nighttime maintenance, and other closing activities.
4. Holiday and seasonal lighting designs are exempt from the requirements of this Code.
5. Certain temporary uses may use lighting that does not meet the requirements of this section. When such temporary uses are allowed, approval of the lighting plan is required as part of the temporary use permit.
6. River navigation lighting used exclusively for river navigation and safety purposes are exempt from the requirements of this Code.

#### D. Prohibited Lighting

1. Flickering or flashing lights are prohibited.
2. Searchlights, laser source lights, or any similar high intensity lights are prohibited.
3. Neon or LED lighting to outline doors, windows, architectural features, and building facades is prohibited.
4. Any light fixture that can be confused with or construed as a traffic control device.

**10.3 ACCESSORY STRUCTURES AND USES**

All accessory structures and uses are subject to the requirements of this section and the permitted encroachment requirements of Section 10.4. Additional accessory structures not regulated in this section may be regulated in Section 10.4.

**A. General Regulations for Accessory Structures**

All accessory structures are subject to the following regulations, unless otherwise permitted or restricted by specific regulations of this section and Code.

1. No accessory structure may be constructed prior to construction of the principal building to which it is accessory. This does not apply when the use does not have an associated principal structure, such as a personal, community, or market garden.
2. A building permit may be required for the construction of an accessory structure, per the Building Code.
3. Only those accessory structures permitted by this section and Section 10.4 are permitted in required setbacks. Certain accessory structures may also be prohibited in certain yards.
  - a. The use of the term “yard” refers to the area between the applicable building facade line and lot line. The distinction is made because certain principal buildings may not be built at required setback lines, thereby creating a yard larger than the minimum setback dimension.
  - b. If a structure is permitted within a yard, it is permitted within the required setback but may be subject to additional limitations.
  - c. Where there is no structure on the lot, no accessory structure is permitted in the setback required by the district.
4. The maximum height of any detached accessory structure is 18 feet, unless otherwise permitted or restricted by this Code. An accessory structure cannot exceed the height of the principal structure. These height limitations do not apply to any structure accessory to an active agricultural use, which are not limited in height.
5. Detached accessory structures, including those listed in this section and Section 10.4, must be setback five feet from any lot line, unless otherwise permitted or restricted by this Code.
6. The maximum coverage of detached accessory structure is as shown in the chart below. In addition, all structures and must comply with the building coverage requirements of the district.

Lot Area	Maximum building coverage for a single accessory structure	Maximum building coverage for any combination of buildings or structures
15,000sf or less	750sf or the building coverage of the primary structure, whichever is less	Building coverage of the primary structure
More than 15,000sf, but less than acre	900sf or the building coverage of the primary structure, whichever is less	Building coverage of the primary structure
One acre or more	1,100sf or the building coverage of the primary structure, whichever is less	Building coverage of the primary structure

**7. No accessory structure may contain both a permanent cooking facility and plumbing, unless the structure also complies with Article 10.3.B.**

**B. Accessory Dwelling Unit (ADU)**

1. The design and size of the accessory dwelling unit (ADU) must conform to all applicable building codes.
2. An ADU may be located only on a lot with one single-family dwelling. One of the dwelling units must be occupied by the owner of the property.
3. The building official must certify that utilities are adequate for the ADU.
4. A lot must have a minimum area of 5,000 square feet to qualify for an ADU.

5. Only one ADU is permitted per lot.
6. The ADU may be within, attached to, or detached from the primary dwelling structure and may be a part of a detached accessory structure. An ADU may be developed within an existing structure or as new development.
7. A detached ADU must be set back five feet from an interior side lot line and ten feet from a rear lot line. A detached ADU is not permitted in a front yard or corner side yard.
8. An ADU is limited to the following maximum gross floor areas:

Lot Area	Maximum GFA
20,000sf or greater	1,200sf
10,000sf but less than 20,000sf	1,000sf
7,000sf but less than 10,000sf	800sf
5,000sf but less than 7,000sf	600sf

9. In no case may an ADU exceed 40% of the primary dwelling floor area nor more than 2 bedrooms.
10. The ADU must be designed so that the appearance of the primary structure remains that of a house. The entrance to the ADU must be located in such a manner as to be unobtrusive from the same view of the structure that encompasses the entrance to the principal dwelling.
11. One off-street parking space is required for the ADU.

**C. Amateur (ham) Radio Equipment**

This Section adopts the federal definitions codified at 47 U.S.C. § 97.3

1. Towers that solely support amateur (ham) radio equipment and conform to all applicable performance criteria set forth in Section 10.5 are permitted in the rear yard only and must be located ten feet from any lot line. Towers are limited to the maximum building height of the applicable district plus an additional five feet, unless a taller tower is technically necessary to engage successfully in amateur radio communications and a special use approval is obtained.
2. Antennas may also be building-mounted and are limited to a maximum height of five feet above the structure, unless a taller antenna is technically necessary to engage successfully in amateur radio communications and special use approval is obtained.
3. Every effort must be made to install towers or antennas in locations that are not readily visible from adjacent residential lots or from the public right-of-way, excluding alleys.
4. An antenna or tower that is proposed to exceed the height limitations is a special use. The operator must provide evidence that a taller tower and/or antenna is technically necessary to engage successfully in amateur radio communications. In addition, the applicant must provide evidence that the tower and/or antenna will not prove a hazard and that it conforms to all applicable performance criteria of Section 10.5. As part of the application, the applicant must submit a plan showing the proposed location of the tower or antenna, as well as its relation to the principal building and accessory structures.
5. Any such antennas and/or towers owned and operated by the City or other government agencies are exempt from these requirements.
6. The City acknowledges the difficulties of setting exact requirements, including but not limited to setback or height requirements, relating to site development for amateur radio communication services. In accordance with 47 U.S.C. § 97 and Tenn. Code Ann. § 6-54-130 and in order to ensure compliance therewith, the City creates an administrative accommodation process for amateur radio communication services that cannot meet the above standards.
  - a. Construction, application, and enforcement consistent with state and federal law: The provisions of this Section are every instance be construed, applied, and enforced in a manner consistent with applicable state and federal law including, but not limited to, 47 U.S.C. § 97 and Tenn. Code Ann. § 6-54-130. Notwithstanding any other provision of this section to the contrary, the Knoxville-Knox County Planning Commission will make administrative accommodations when reasonably necessary to allow for effective radio communication services.

- b. There is no fee imposed for requesting an administrative accommodation.
- c. An operator of an amateur radio communication service may apply for an administrative accommodation with the Knoxville-Knox County Planning Commission. The Knoxville-Knox County Planning Commission will issue a decision on any application seeking an administrative accommodation within 45 days as provided for in this section. The Knoxville-Knox County Planning Commission will grant the request if the following criteria are met:
  - i. The applicant has the legal authority to represent the amateur radio communication tower.
  - ii. The radio communication tower solely supports amateur radio equipment and is used to engage in amateur radio communication services.
  - iii. The radio communication tower is to be located either:
    - (A) On property with zoning, design, or overlay requirements that would unreasonably limit effective radio communication services, or
    - (B) On property with zoning, design, or overlay requirements that would impinge on the needs of the amateur operator to engage in effective radio communication services.
- d. If reasonably necessary to reach a determination on the request for an administrative accommodation, the Knoxville-Knox County Planning Commission may, prior to the end of said 45 calendar day period, request additional information from the applicant, specifying in sufficient detail what information is required. The applicant has 15 calendar days after the date of the request for additional information to provide the requested information. In the event a request for additional information is made, the Knoxville-Knox County Planning Commission 45 calendar day period to issue a written determination is no longer be applicable, and the Knoxville-Knox County Planning Commission will issue a written determination within 30 calendar days after receipt of the additional information. If the applicant fails to provide the requested additional information within said 15 calendar day period, the Knoxville-Knox County Planning Commission will issue and send by U.S. mail a written notice advising that the applicant failed to timely submit the additional information and therefore the applicant's request for the administrative accommodation is deemed withdrawn. No further action by the City with regard to the request is required.
- e. If the property which is the subject of the requested accommodation is not in compliance with the then-existing applicable laws and regulations, but the City grants the request for an administrative accommodation under this Section, the City thereby does not waive the requirement that the existing violations be corrected in accordance with the City Code of Ordinances.
- f. The written determination of the Knoxville-Knox County Planning Commission will be mailed by certified first-class mail to the applicant. All written determination will give notice that the applicant has the right to appeal the determination.
- g. Appeals of the decision of the Knoxville-Knox County Planning Commission may be made in accordance with Section 16.11.

**D. Apiary**

1. New apiaries must be registered with the Tennessee Department of Agriculture.
2. Hives are allowed only in interior side or rear yards.
3. Hives must be set back 15 feet from all lot lines and public sidewalks. This does not apply if the yard is screened by a solid wall or solid fence.
4. When the apiary is located within a yard not bounded by a solid wall or solid fence, a flyway of at least six feet in height comprising of a lattice fence, dense hedge, or similar barrier must be established in front of the opening of the hive such that the bees fly upward and away from neighboring properties. The flyway must be located within three feet of the hive opening and extend at least two feet in width on either side of the hive opening.
5. Hive openings must face away from the nearest abutting lot.

6. Hives must have a fresh water supply located on property.
7. For any rooftop apiary within 20 feet of doors and/or windows of the principal building on an abutting lot, one of the following conditions must exist:
  - a. The hive opening must face away from doors and/or windows of the principal building on the abutting lot.
  - b. A flyway of at least six feet in height comprising of a lattice fence, dense hedge, or similar barrier must be established in front of the opening of the hive such that the bees fly upward and away from neighboring properties. The flyway must be located within three feet of the hive opening and extend at least two feet in width on either side of the hive opening.

**E. Aquaponics and Hydroponics**

All systems must comply with applicable federal, state, and local regulations for water use and discharge, and for the possession, propagation, culture, sale, and disposition of living marine organisms.

**F. Awnings and Marquees**

1. Awnings and marquees are subject to the standards of the section with the following exceptions:
  - a. Where a zoning district has standards for such accessory structures, those district standards control.
  - b. Where the sign regulations have standards for such accessory structures used as signs, those standards control.
2. Awnings and marquees may extend across any required yard and over public property or right-of-way subject to the following:
  - a. When extending over a sidewalk the following apply:
    - i. Fixed with a nine foot minimum vertical clearance above sidewalk not to exceed more than two-thirds of width of sidewalk.
    - ii. Fixed with 14 foot minimum vertical clearance above sidewalk may extend to back of curb.
    - iii. Moveable (metal or canvas) with eight foot minimum clearance above sidewalk not to extend more than two-thirds of width of sidewalk or more than five feet of width of sidewalk, whichever is less.
  - b. When extending across any required yard and/or over public property or right-of-way, but not over a sidewalk, the following apply:
    - i. Fixed: nine foot minimum vertical clearance.
    - ii. Moveable: eight foot minimum ground clearance.
    - iii. Not to exceed three feet in all districts, unless reviewed by a design review board.
    - iv. Where awnings extend over public property, they cannot extend closer than 24 inches to the curbline.
  - c. Awnings and marquees cannot have support posts on a public sidewalk, public property, or right-of-way, unless approved by city engineering.
  - d. In no case are awnings, canopies, and marquees allowed to extend over a public road.

**G. Carport**

The following apply to both attached and detached carports.

1. Carports must be located over a driveway.
2. A carport is permitted in the interior side yard, corner side yard, or rear yard only.

3. The total length of a carport is limited to 22 feet.
4. A carport must be entirely open on at least two sides, with the exception of necessary support structures.
5. A carport must be constructed as a permanent structure with permanent building materials. Temporary tent structures and other cloth or vinyl coverings are not considered a permanent structure.
6. Carports cannot be used as recreational vehicles storage.

#### **H. Chicken Coops**

The keeping of chickens must comply with Chapter 5, Sec. 5-107 of the City Code.

#### **I. Composting**

1. Bins or piles are allowed only in rear yards and must be set back five feet from lot lines.
2. Bins or piles must not exceed 5% of the total lot area and six feet in height.
3. Bins or piles must be located outside of any required riparian buffer zone.
4. Compost must be enclosed or contained.
5. Compost must only be used for the composting of materials generated on-site, and cannot contain any meat or dairy.
6. Compost is subject to enforcement of odor performance standards.

#### **J. Donation Boxes**

Donation boxes are permitted in nonresidential districts only.

1. Only one donation box is permitted per lot. The donation box must be accessory to the principal use on the site.
2. No donation box may be located within a required parking space.
3. The area surrounding the donation box must be kept free of any junk, debris, or other material.
4. Donation boxes must be maintained in good condition and appearance with no structural damage, holes, or visible rust, and must be free of graffiti.
5. Donation boxes must be locked or otherwise secured at all times.
6. Donation boxes must contain the following information on the front of each donation box: the name, address, email, and phone number of the operator.
7. Donation boxes cannot exceed five feet in height and 60 cubic feet.

#### **K. Electric Vehicle Charging Station**

The following standards apply to electric vehicle charging stations located on private property.

1. Electric vehicle charging stations are permitted as an accessory use in all districts.
2. Electric vehicle charging stations may be for public or private use. However, in the residential districts, electric vehicle charging stations cannot be used for commercial purposes.

#### **L. Fences and Walls**

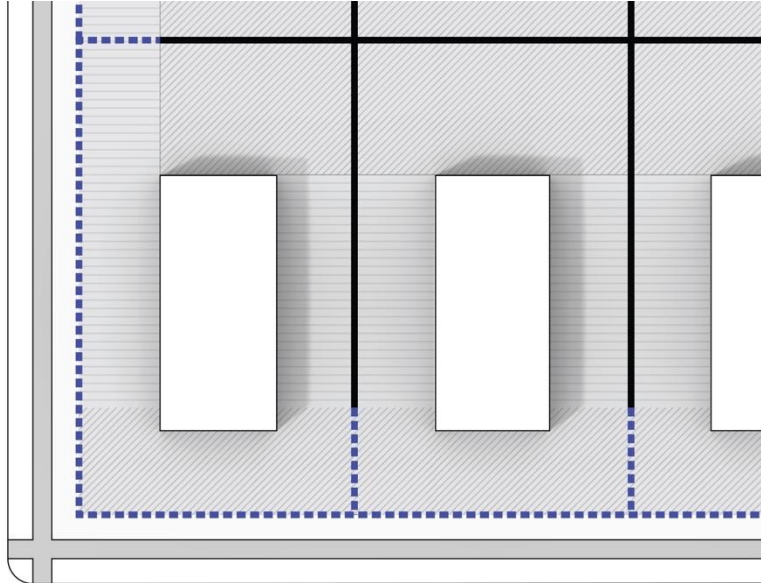
##### **1. General**

- a. From five feet behind the front building line forward to the front lot line and in the corner side yard, privacy fences and walls are limited to 42 inches. Open fences do not have a limit.



- b. There is no limit on the height of privacy fences, walls, or open fences in other yards.
- c. Fences may be constructed at the boundaries of a lot without setback with the exception of the required visibility triangle.

#### FENCES



#### Residential Districts

----- 42" maximum fence/wall height restriction

#### M. Flagpoles

1. Flagpoles are limited to the maximum of three poles.
2. Flagpoles are limited to a maximum height of the district or 35 feet, whichever is less.
3. Flagpoles must be setback a minimum of five feet from any lot line.
4. External illumination of flags is permitted but must be focused on the flagpole and flag.

#### N. Flat Roof Features

Accessory rooftop features of a flat roof, such as green roofs, rooftop decks, rooftop gardens, and stormwater management systems are permitted below the parapet of any flat roof building, and are excluded from the calculation of maximum building height. Flat roof features must meet the following standards:

1. For green roofs, rooftop gardens, and similar features, documentation must be submitted demonstrating that the roof can support the additional load of plants, soil, and retained water.
2. For multi-family, mixed-use, and nonresidential buildings, rooftop decks or patios must be set back 18 inches from all building edges.
3. Guardrails are required per the standards of the Building Code.

#### O. Freestanding Roofed Structure, Pergola, or Gazebo

1. A freestanding roofed structure, pergola, or gazebo is permitted in the interior side yard, corner side yard, or rear yard only. No freestanding roofed structure, pergola, or gazebo may be located in the front yard.
2. A freestanding roofed structure, pergola, or gazebo must be located five feet from any **side or rear** lot line.

**3. All structures under this subsection O must conform with that district's corner side setback as a primary structure.**

**P. Garage, Detached**

1. Detached garages are permitted in the rear, interior side, and corner side yards.
2. When a detached garage is served by an alley, the minimum required setback from the rear lot line is:
  - a. 12 feet when garage doors are oriented to the alley
  - b. Five feet when garage doors are oriented to the side yard
3. **Corner side setbacks shall be the same as those for the primary structures.**

**Q. High Tunnels and Greenhouses**

1. High tunnels and Greenhouses must be at least 72 inches in height, and are subject to the maximum height for an accessory structure in the zoning district.
2. High tunnels must be placed over an area designated for crop cultivation where crops are grown in the natural soil profile or in raised beds.
3. High tunnels and greenhouses must use greenhouse-grade, UV-resistant covers.
4. The maximum high tunnel bow spacing is six feet.
5. All high tunnels and greenhouses must comply with all federal, state, and local regulations for runoff, erosion, and sediment control.

**R. Home Occupation**

1. **No more than three people, other than members of the household residing on the premises, may be engaged in such home occupation than can comply with each provision of this section.**
2. **The use of the dwelling unit for the home office shall be clearly incidental and subordinate to its use for residential purposes by its occupants.**
3. There must be no change in the outside residential appearance of the building. Outdoor storage is prohibited and no other visible evidence of the conduct of such home occupation is allowed. Signs are permitted in accordance with the standards of Article 13.
4. No traffic may be generated by such home occupation in greater volumes than would normally be expected in a residential neighborhood.
5. No equipment or process may be used in such home occupation that increases noise, vibration, glare, fumes, odors, or electrical interference detectable to the normal senses off the lot or outside the dwelling unit. In the case of electrical interference, no equipment or process may be used which creates visual or audible interference in any radio or television receivers off the premises or causes fluctuations in the line voltage off the premises.
6. Motor vehicle repair and vehicle dispatch for any business where vehicles to be dispatched congregate on site are prohibited as home occupations.
7. Day care homes are not considered a home occupation and are regulated as a principal use per Article 9.
8. Only products produced on premises may be physically sold from the premises. Internet and mail order sales are permitted.
9. The gross floor area devoted to the home occupation cannot exceed 25% of the gross floor area of the dwelling.

**S. Low Tunnels and Cold Frames**

1. Cold frames and low tunnels must have a height that is less than 72 inches above grade.
2. All covers must be securely fastened.
3. Once the growing season is complete, all hoops, covers, and materials must be removed.

**T. Mechanical Equipment**

Mechanical equipment includes heating, ventilation, and air conditioning (HVAC) equipment, electrical generators, and similar equipment.

**1. Ground-Mounted Equipment**

- a. Mechanical equipment is permitted in the interior side or rear yard only.
- b. For multi-family and nonresidential uses, ground-mounted mechanical equipment must be screened from public view by a decorative wall, solid fence, or year-round landscaping that is compatible with the architecture and landscaping of a development site. The wall, fence, or plantings must be of a height equal to or greater than the height of the mechanical equipment being screened.

**2. Roof-Mounted Equipment**

- a. For structures four or more stories in height, all roof equipment must be set back from the edge of the roof a minimum distance of one foot for every two feet in height.
- b. For structures less than four stories in height and for any building where roof equipment cannot meet the setback requirement of item a above, there must be either a parapet wall to screen the equipment or the equipment must be housed in solid building material that is architecturally integrated with the structure.

**3. Wall-Mounted Equipment**

The following does not apply to wall-mounted equipment that encroaches into the public right-of-way. Any modifications of these standards are subject to Administrative Review Committee approval.

- a. Wall-mounted mechanical equipment is not permitted on the street facing façade of the building (does not include alleys).
- b. For multi-family and non-residential uses, wall-mounted mechanical equipment that protrudes more than 12 inches from the outer building wall must be screened from view by structural features that are compatible with the architecture of the subject building.
- c. Wall-mounted mechanical equipment that protrudes less than 12 inches must be designed to blend with the primary color and architectural design of the subject building.
- d. These requirements do not apply to window air conditioning units or satellite dishes in any district.

**U. Outdoor Sales and Display (Accessory)**

These regulations apply only to outdoor sales and display located on the lot.

1. Retail goods establishments are permitted to have accessory outdoor sales and display of merchandise only in the nonresidential districts. The merchandise offered for sale and/or displayed must be customarily sold on the premises and customarily suitable for display outside the confines of an enclosed building.
2. All outdoor display of merchandise must be located adjacent to the storefront. Outdoor display cannot be located within a parking lot, drive aisle, loading zone, or fire lane.
3. No display may be placed within five feet of either side of an active door, or within 15 feet directly in front of an active door.
4. A minimum clear width for pedestrian traffic of five feet is maintained.

## **V. Outdoor Storage (Accessory)**

Nonresidential uses are permitted outdoor storage as follows:

1. The following uses are permitted outdoor storage: amusement facility – outdoor, personal, community, and market garden, greenhouse/nursery – retail, including the growing of plants in the open, heavy retail, rental, and service, general and heavy industrial, public safety and public works facilities, vehicle dealership, vehicle rental, vehicle operations facility, vehicle repair/service, warehouse and distribution, and wholesale establishment. The Zoning Administrator can also render an interpretation that a use not listed in this section would typically have outdoor storage and permit such use to include outdoor storage on the site.
2. Outdoor storage must comply with the following provisions:
  - a. No outdoor storage is permitted in any public right-of-way or located so that it obstructs pedestrian or vehicular traffic. Outdoor storage is prohibited in a required setback and in the front yard.
  - b. All manufacturing, assembly, repair, or work activity must take place inside an enclosed building.
  - c. No required parking area may be used as outdoor storage.

## **W. Refuse Dumpsters, Recycling Containers, and Recycling Collection Facility**

### **1. Refuse Dumpsters and Recycling Containers**

Refuse and recycling container regulations apply to multi-family dwellings and nonresidential uses.

- a. Refuse and recycling containers are prohibited in the front yard.
- b. All refuse dumpsters and recycling containers must be fully enclosed on three sides by a solid fence, wall, or wall extension of the principal building a minimum of six feet and a maximum of eight feet in height. The wall or wall extension must be constructed as an integral part of the building's architectural design
- c. The enclosure must be gated. Such gate must be solid and a minimum of six feet and a maximum of eight feet in height. Such construction requires a building permit. This requirement does not apply to refuse containers located adjacent to an alley.
- d. The gate must be maintained in good working order and must remain locked except when refuse/recycling pick-ups occur. The gate must be architecturally compatible with other buildings and structures on the site.
- e. Service areas that are fully integrated into a building must be screened with a roll down door or other opaque screen.

### **2. Recycling Collection Facility**

- a. Containers must be set back a minimum of ten feet from any lot line or building. When a recycling collection facility abuts a residential district, or any open space or institutional use, it must be located 25 feet from a lot line and a Class B buffer yard per Section 12.9 and a solid wall or fence, a minimum of six feet and a maximum of eight feet in height, is required.
- b. Containers cannot be located to obstruct pedestrian or vehicular traffic.
- c. Containers must post one identification sign per container or vehicle which identifies the type of material to be placed in the container or vehicle, the name and telephone number of the operator, the hours of operation, and a warning that no material may be left outside the container or vehicle.
- d. Five percent of the required parking spaces for the primary use may be used for the recycling collection facility.

## **X. Satellite Dish Antennas**

### **1. General Requirements**

- a. Satellite dish antennas must be permanently installed on a building, in the ground, or on a foundation, and cannot be mounted on a portable or movable structure.
- b. Subject to operational requirements, the dish color must be of a neutral color, such as white or grey. No additional signs or advertising is permitted on the satellite dish itself, aside from the logos of the satellite dish service provider and/or dish manufacturer.
- c. Antennas no longer in use must be immediately removed.
- d. Every effort must be made to install satellite dish antennas in locations that are not readily visible from neighboring properties or from the public right-of-way.

**2. Additional Standards for Large Satellite Dish Antennas**

Large satellite dish antennas, which are greater than one meter (3.28 feet) in diameter, are subject to the general requirements above as well as the following requirements:

- a. Large satellite dish antenna are permitted only in the rear yard, and must be set back a distance from all lot lines that is at least equal to the height of the dish, but in no case less than five feet from any lot line.
- b. Roof-mounting is permitted only if the satellite dish antenna is entirely screened from public view along the right-of-way by an architectural feature.
- c. A large satellite dish antenna must be located and screened so that it cannot be readily seen from public rights-of-way or adjacent properties. Screening includes solid fences or walls or plant materials located to conceal the antenna and its support structure. Plants must be a minimum of five feet tall at the time of installation.

**Y. Solar Panels**

**1. General Requirements**

- a. A solar panel may be building-mounted or freestanding.
- b. Solar panels must be placed so that concentrated solar radiation or glare is not directed onto nearby properties or roadways.

**2. Building-Mounted Systems**

- a. A building-mounted system may be mounted on the roof or wall of a principal building or accessory structure.
- b. On pitched roof buildings, the maximum height a roof-mounted solar panel may rise is 18 inches.
- c. On flat roofed buildings up to 40 feet in height, the roof-mounted solar panel system is limited to a maximum height of six feet above the surface of the roof. On flat roofed buildings over 40 feet in height, the roof-mounted solar panel system is limited to 15 feet above the height of such structure. Roof-mounted solar energy systems are excluded from the calculation of building height.
- d. Wall-mounted solar panels may project up to four feet from a building façade and should be integrated into the structure as an architectural feature.

**3. Freestanding Systems**

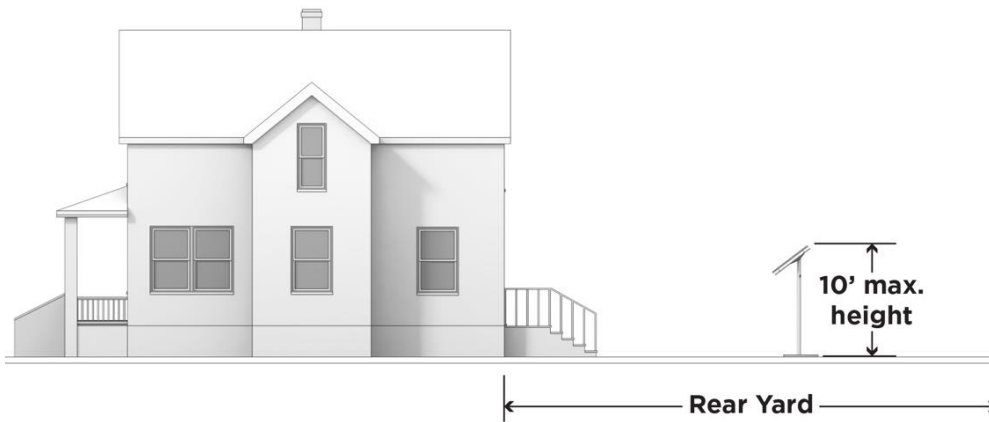
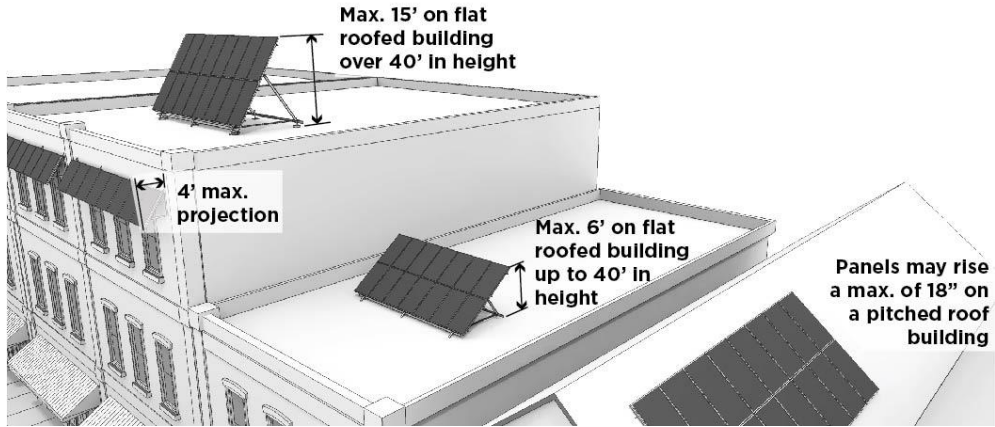
- a. A freestanding system is prohibited in the front yard.
- b. The maximum height of a freestanding system is ten feet in residential districts.

**4. Co-Location**

- a. Solar panels may be co-located on existing structures such as wireless communication towers and light poles.

- b. Solar panels may be co-located on the roof of accessory structures such as pergolas and parking lot shade structures, and may serve as the roof as such structures.

### SOLAR PANELS



### Z. Swimming Pool (Private)

1. A private swimming pool is any pool or open tank having a depth of more than 30 inches that is designed and built for swimming and bathing. This does not include spas and hot tubs that are securely covered when not in use by a sturdy insulated top capable of restricting access by children.
2. No swimming pool or part thereof, including all aprons, bathing areas, and accessory structures associated with the pool, may encroach into any required setback.
3. No swimming pool or part thereof, including all aprons, bathing areas, and accessory structures associated with the pool, can be located in a front yard or corner side yard.
4. A community club swimming pool, including all aprons, bathing areas, and accessory structures associated with the pool, cannot be located closer than 25 feet to any perimeter lot line of the development.

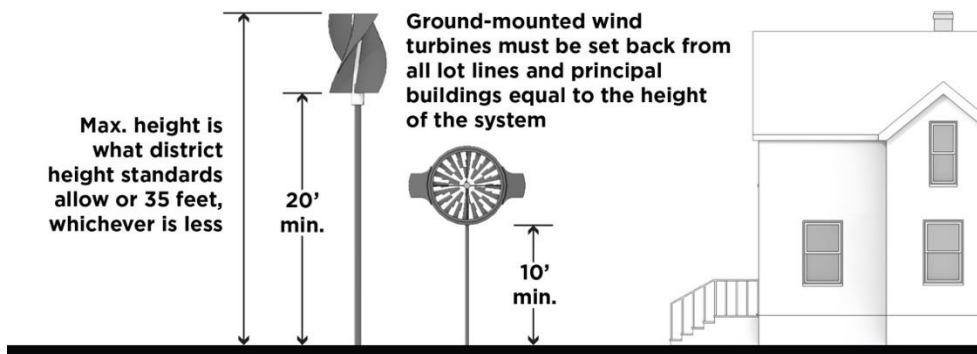
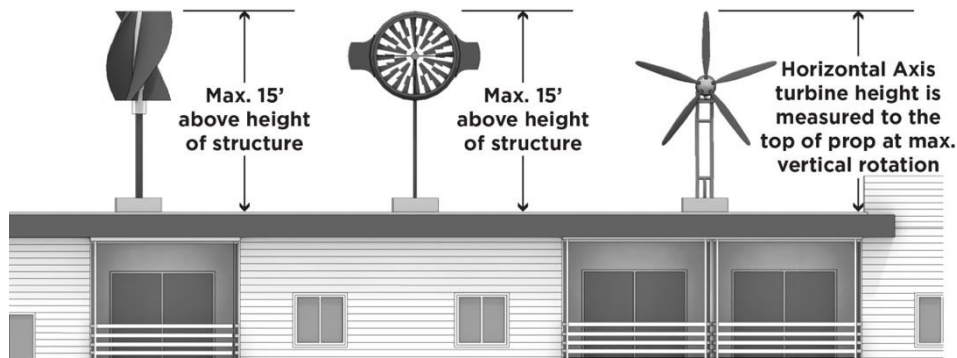
### AA. Tennis Court (Private)

1. No part of the court or its appurtenances may encroach into any required front, corner side, or interior side yard.
2. A community tennis club cannot be located closer than 25 feet to any perimeter lot line of the development.

**BB. Wind Turbines**

1. Wind turbines may be designed as either vertical or horizontal axis turbines, or designs that combine elements of the different types of turbines.
2. Wind turbines are subject to the following height restrictions:
  - a. The maximum height of any ground-mounted wind turbine is the maximum height allowed in the district or 35 feet, whichever is less. A taller height may be allowed by special use.
  - b. The maximum height of any wind turbine mounted upon a structure is 15 feet above the height of such structure.
  - c. Maximum height is the total height of the turbine system as measured from the base of the tower to the top. For vertical axis turbines, the maximum vertical height of the turbine blades is measured as the length of a prop at maximum vertical rotation.
  - d. No portion of exposed turbine blades (vertical access wind turbine) may be within 20 feet of the ground. Unexposed turbine blades (horizontal access wind turbine) may be within ten feet of the ground.
3. Ground-mounted wind turbines are permitted only in the rear yard. The tower must be set back from all lot lines equal to the height of the system. No principal buildings may be located within this area.
4. All wind turbines must be equipped with manual (electronic or mechanical) and automatic over speed controls to limit the blade rotation speed to within the design limits of the wind energy system.

**WIND TURBINES**



**10.4 PERMITTED ENCROACHMENTS**

An encroachment is the extension or placement of an accessory structure or architectural feature into a required setback. Permitted encroachments are indicated in Table 10-1: Permitted Encroachments into Required Setbacks.

- A.** Section 10.3 contains regulations on additional accessory structures and architectural features not listed in Table 10-1, which may include additional permissions or restrictions for their permitted encroachment into required setbacks.
- B.** Unless otherwise indicated, all accessory structures and architectural features must meet the requirements for general accessory structures.
- C.** When an attached or detached accessory structure or architectural feature regulated by Table 10-1 is permitted to locate in a required setback, it also indicates permission to locate in the corresponding yard.
- D.** When an accessory structure or architectural feature regulated by Table 10-1 is prohibited from encroaching in a required setback, the structure or architectural feature may be located in the corresponding yard beyond the required setback line unless specifically prohibited by the table.
- E.** Certain accessory structures may require a building permit per the Building Code.

Table 10-1: Permitted Encroachments Into Required Setbacks				
Y= Permitted // N= Prohibited				
Max. = Maximum // Min. = Minimum				
	Front Setback	Corner Side Setback	Interior Side Setback	Rear Setback
Accessibility Ramp and Other Accessibility-Related Structures	Y	Y	Y	Y
Arbor	Y	Y	Y	Y
Balcony <i>Max. of 6' into front, interior side, or corner side setback</i> <i>Max. of 8' into rear setback</i> <i>Min. of 4' from any lot line</i> <i>Min. vertical clearance of 8'</i>	Y	Y	Y	Y
Bay Window <i>Max. of 5' into any setback</i> <i>Min. of 24" above ground</i>	Y	Y	Y	Y
Chimney <i>Max. of 18" into setback</i>	Y	Y	Y	Y
Deck <i>Max. of 5' into front, corner side, or interior side setback</i> <i>Max. of 10' into rear setback</i> <i>Prohibited in front yard</i>	Y	Y	Y	Y
Eaves <i>Max. of 2' into setback</i>	Y	Y	Y	Y
Exterior Stairwell <i>Max. of 6' into setback</i> <i>Prohibited in front yard</i>	N	Y	Y	Y
Fire Escape <i>Max. of 3' into setback</i> <i>Prohibited in front yard</i>	N	Y	Y	Y
Patio <i>Max. of 5' into corner side, or interior side setback</i> <i>Max. of 10' into rear setback</i> <i>Prohibited in front yard</i>	N	Y	Y	Y
Porch - Unenclosed <i>Max. of 5' into front, interior side, or corner side setback</i> <i>Max. of 8' into rear setback</i> <i>Enclosed porches are considered part of the principal structure</i>	Y	Y	Y	Y
Shed	N	N	Y	Y



Table 10-1: Permitted Encroachments Into Required Setbacks Y= Permitted // N= Prohibited Max. = Maximum // Min. = Minimum				
	Front Setback	Corner Side Setback	Interior Side Setback	Rear Setback
<i>Prohibited in front yard Min. of 5' from any lot line</i>				
Sills, belt course, cornices, and ornamental features <i>Max. of 3' into setback</i>	Y	Y	Y	Y
Stoop <i>Max. of 4' into setback</i>	Y	Y	Y	Y
Sunshade <i>Max. of 2' from building wall</i>	Y	Y	Y	Y

### 10.5 ENVIRONMENTAL PERFORMANCE STANDARDS

All uses must comply with the performance standards established in this section unless any federal, state, or local law, ordinance, or regulation establishes a more restrictive standard, in which case, the more restrictive standard applies.

#### A. Noise

No activity or use must be conducted in a manner that generates a level of sound as measured on another property greater than that allowed by federal, state, and local regulations, as amended from time to time. These limits do not apply to construction noises, noises emanating from safety signals or warning devices, noises not directly under the control of the owner or occupant of the property, and transient noises from moving sources, such as motor vehicles, railroads, and aircraft.

#### B. Glare and Heat

Any activity or the operation of any use that produces glare or heat must be conducted so that no glare or heat from the activity or operation is detectable at any point off the lot on which the use is located. Flickering or intense sources of light must be controlled or shielded so as not to cause a nuisance across lot lines.

#### C. Vibration

No earthborne vibration from the operation of any use may be detectable at any point off the lot on which the use is located.

#### D. Dust and Air Pollution

Dust and other types of air pollution, borne by the wind from sources, such as storage areas, yards, roads, conveying equipment and the like, within lot boundaries, must be kept to a minimum by appropriate landscape, screening, sheltering, paving, fencing, wetting, collecting, or other acceptable means.

#### F. Discharge and Disposal of Radioactive and Hazardous Waste

The discharge of fluid and the disposal of solid radioactive and hazardous waste materials must comply with applicable federal, state, and local laws, and regulations governing such materials or waste. Radioactive and hazardous material waste must be transported, stored, and used in conformance with all applicable federal, state, and local laws.

#### G. Electromagnetic Interference

Electromagnetic interference from any operation of any use must not adversely affect the operation of any equipment located off the lot on which such interference originates.

#### H. Odors

Any condition or operation which results in the creation of odors of such intensity and character as to be detrimental to the public health and welfare, or which interferes unreasonably with the comfort of the public, must be removed, stopped, or modified so as to remove the odor.

#### I. Fire and Explosion Hazards

Materials that present potential fire and explosion hazards must be transported, stored, and used only in conformance with all applicable federal, state, and local regulations.