

County of Fairfax, Virginia
Planning Commission Meeting
October 22, 2025
Planning Commission Action

ZONING ORDINANCE AMENDMENT – ELECTRICAL SUBSTATIONS
(Countywide)

PLANNING COMMISSION RECOMMENDATIONS:

On October 22, 2025, the Planning Commission voted 11-0 (Commissioner Sargeant recused himself from the public hearing and the vote) to recommend to the Board of Supervisors adoption of the proposed Zoning Ordinance Amendment for Electrical Substations as set forth in the Staff Report dated July 15, 2025, with the staff recommended options, except for the following revisions to subsection 4102.4.X:

1. At the end of the first paragraph of (5), add: “Additionally, these provisions do not apply to a private street where the substation and the land located across the private street are zoned to an I district.”
2. In subsection (5)(a), change the minimum setback from residential in subsection (a)2 from 100 feet to 200 feet and the minimum setback from commercial in subsection (a)3 from 20 feet to 30 feet.
3. In subsection (5)(b), add “that is” in the second sentence to read: “A visually solid fence or wall that is a minimum of 12 feet in height ...”
4. At the end of the proposed subsection (5)(c)1, add: “Where landscaping is required under this subsection, street frontage landscaping in accordance with subsection 5108.3 is not required.”
5. For the proposed subsection (5)(c)4, revise the first sentence to read: “The landscape buffer must be continuous, except where driveways, electrical line connections to the substation (overhead or underground), duct banks, and related easements, or other openings are required.”
6. Add a new proposed subsection (5)(c)5.d to read: “The measurements under this subsection (c)5 may exclude areas of existing vegetation designated for preservation as determined by the Director.”
7. Add a new proposed subsection (5)(c)6 to read: “The Director, in conjunction with a site plan, may modify the landscaping requirements of this subsection in

accordance with the provisions for transitional screening in subsection 5108.6.B.”

8. Revise the first paragraph of the proposed subsection (7) to read: “If the proposed location is in an R district, or abuts or is across the street from the lot line of an R district or a property developed with a residential use, the use may be permitted only upon a finding by the Board that: (a) the proposed location is a co-location or expansion of an existing facility and would minimize adverse effects in the R district as compared to alternative sites; or (b) there is no alternative site at an existing facility or in a commercial or industrial district that does not abut and is not across the street from the lot line of an R district or a property developed with a residential use, and that can provide satisfactory service within the distances below:
9. Revise the table in subsection 4102.4.X(1) such that the second column of the row for I-5 and I-6 reads, “All light utility facilities, except electrical substations that abut an R district or a property developed with a residential use” and the third column of that row reads, “Electrical substations that abut an R district or a property developed with a residential use.”

The Planning Commission also voted 10-1 (Commissioner Wang voted in opposition and Commission Sargeant recused himself) that the amendment become effective at 12:01 a.m. on the day following adoption and that Appendix 1, Provisions Relating to Previous Approvals, be updated to include the following language for the Electrical Substations Zoning Ordinance Amendment:

- (a) Any application for a special exception or site plan for an electrical substation that is (i) accepted for review before the effective date of amendment, or (ii) accepted for review before 6 months after the effective date of amendment and that is in accordance with a Va. Code Sect. 15.2-2232 application, (iii) or has been accepted for review prior to the effective date of the amendment and is approved before approval of the special exception or site plan – will be reviewed based on the provisions of the Zoning Ordinance in effect on the day prior to effective date of amendment, if:
 1. The application is approved by 12 months after effective date of amendment, unless the Board of Supervisors approves an extension beyond the 12 months;
 2. The approval remains valid; and
 3. The uses, features, and substation are established or constructed in accordance with approved plans and permits.

An approved plan may be revised notwithstanding this amendment if it does not aggravate conflicts with the amendment. Building permits and other related subsequent plan and permit submissions may be accepted, and new approvals may be granted, consistent with the approved plan. The applicant/owner may elect to have the above applications reviewed in their entirety under the provisions of this amendment.

- (b) For all rezonings and related development plans, special exceptions, or site plans that include an electrical substation approved before the effective date of amendment, the applicant/owner may continue under their previous approval. Subsequent plan and permit submissions may be accepted, and new approvals may be granted, consistent with those prior approvals. Revisions to such prior approvals may be approved if they do not aggravate conflicts with this amendment.

The Planning Commission also voted 11-0 (Commissioner Sargeant recused himself) to recommend to the Board of Supervisors a follow-on motion recommending that the Board of Supervisors direct staff to process 2232 and special exception applications for electrical substations concurrently when they are submitted at the same time.

ATTACHED DOCUMENTS:

Staff report July 15, 2025

MJ



FAIRFAX COUNTY

PROPOSED ZONING ORDINANCE AMENDMENT

STAFF REPORT Electrical Substations

July 15, 2025

Hearing Dates

Planning Commission: October 16, 2025 @ 7:30 p.m.

Board of Supervisors: December 9, 2025 @ 4:00 p.m.

Staff Contact

Carmen Bishop, AICP, Deputy Zoning Administrator



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call 703-324-1334 or TTY 711 (Virginia Relay Center).



PLANNING & DEVELOPMENT

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Introduction

A [Board Matter](#) dated March 19, 2024, relating to data centers, stated that it may be appropriate as part of a separate effort to establish new permissions and standards for electrical substations in the Zoning Ordinance. Therefore, this topic was included as a Tier 1 item on the [Zoning Ordinance Work Program](#) approved by the Board of Supervisors (Board) for fiscal years 2025-2026: “Review permissions and use standards for electrical substations in association with data centers and stand alone.”

Background

Electrical Substations

There are currently over 80 electrical substations in Fairfax County. Substations are a necessary part of the interconnected energy network. Substations serve various functions, including connecting transmission lines, moving bulk electricity over long distances, and stepping power down to the distribution level for customers. The equipment varies in height from, for example, circuit breakers that are approximately 15 feet tall to backbone structures and transmission poles that are 75 to 95 feet tall. As further described below, electrical substations typically require approval of a 2232 application by the Planning Commission, and in most zoning districts, approval of a special exception (SE) application by the Board of Supervisors. Recently, most of the applications have been for new substations associated with the development of data centers or for the upgrading of existing substations.

Figure 1 - Electrical Substation



Current Regulations

Zoning Ordinance: An electrical substation is a type of light utility facility under the Zoning Ordinance, which includes facilities for the distribution of utility products or services. Other examples of light utility facilities include water and sewage pump stations, telephone local exchanges, and water storage facilities. Electrical substations are allowed in the following zoning districts:

- By right: I-3, I-4, I-5, and I-6 (industrial districts)
- SE: residential districts, commercial districts, I-2
- Development plan or SE: planned districts
- Not allowed: R-A, I-I, PCC

The light utility facility use-specific standards are in [subsection 4102.4.X](#); the standards that currently apply to electrical substations are summarized below.

- Light utility facilities are not subject to lot size or bulk regulations. Bulk regulations include setbacks, floor area ratio, and building height.
- A fence or wall that is an integral part of an electrical substation is not subject to maximum fence or wall height limitations.
- Except in I-5 and I-6, light utility facilities are prohibited from storing materials or equipment, repairing or servicing vehicles or equipment, and parking vehicles (except for employees connected with the immediate facility).
- If a light utility facility is proposed to be located in an R district (residential districts and residential areas of planned districts) by special exception, the Board must find that there is no alternative site in a commercial or industrial district within one mile for an “electric transformer substation” or telecommunications central office; or within 500 feet for all other light utility facilities, which includes distribution substations. A transformer substation is typically referred to as a transmission substation.

In addition, a 35-foot-wide transitional screening yard (Type 2) and a six-foot-high solid wall or fence (Barrier D or E) are required for light utility facilities abutting or across the street from residential uses.

2232 Process: As public facilities, electrical substations are subject to the 2232 review process under Virginia Code Sect. 15.2-2232. For a facility that isn’t already a feature shown on the Fairfax County Comprehensive Plan, this process determines whether the general or approximate location, character, and extent of the proposed facility are in substantial accord with the Comprehensive Plan. Additional information about this process is available [online](#). The process includes submission of a 2232 Public Facility application, which is reviewed by County staff, and (unless it is a feature already shown) requires a public hearing before and determination by the Planning Commission. When both a 2232 and an SE are required, the applications are usually processed concurrently. Unlike an SE, a 2232 does not have conditions of approval and final approval is determined by the Planning Commission. The Comprehensive Plan includes objectives and policies relevant to electrical substations in the [Public Facilities Element of the Policy Plan](#).

Other County Reviews: Substations are also subject to site plan review through the Department of Land Development Services. This includes review for access to the site, transitional screening, tree preservation, and other site requirements. Building permits are issued for certain structures and a Nonresidential Use Permit (NonRUP) is required upon completion and inspection of the improvements.

State Corporation Commission (SCC): Although the County regulates the location of electrical substations, the SCC regulates transmission lines that are 138kV or above (a public utility constructing a transmission line of only 138 kilovolts and associated facilities may either obtain SCC approval or may obtain 2232 approval and comply with local zoning ordinances). Because substations connect transmission lines, a new substation may require a related approval by the SCC. That process typically takes 9 to 12 months, and the County has the opportunity to provide comments on an application.

Other Jurisdictions

Staff reviewed the regulations for substations in other Virginia jurisdictions. Many other jurisdictions require a special exception or similar public process for an electrical substation. For example, Loudoun County requires an SE and a 100-foot setback from residential and has buffering standards. Prince William County allows substations by right in the data center overlay, but requires a special permit in other districts, as well as landscape buffering. Arlington County requires a use permit, which includes a public hearing, in most zoning districts. Henrico County requires a Board-approval process in many districts, as well as a 100-foot setback from residential and a 20-foot setback from other uses.

Proposed Changes

Except as noted below, these proposed changes will only apply to electrical substations; other light utility uses will continue to be subject to the current permissions and standards. Electrical substations have an industrial appearance with equipment that varies in height up to about 95 feet. As further described below, depending on the equipment, substations may also produce noise that could exceed the levels allowed by the Noise Ordinance. The proposed changes in permissions and standards are intended to address compatibility with and mitigate visual and noise impacts on surrounding uses.

With the proposed amendment, electrical substations would continue to be allowed in most zoning districts. Substations are an important part of public infrastructure; staff does not recommend that they be removed as an allowed use in any of the zoning districts where they are currently allowed. The proposed changes in permissions are limited and are intended to align more closely with the permissions for data centers. Where a substation is proposed as part of a data center development, as is common today, consistent zoning permissions would encourage an appropriate layout based on the site-specific location and characteristics because both facilities would be reviewed through the same process. As noted above, substations are often subject to the 2232 public hearing process, and an SE application can be processed

concurrently. In addition, a public hearing process for most substations is typical for other jurisdictions. Proposed changes in permissions are summarized in Table 1 below and include:

- I-3, I-4: change electrical substations from by right to SE
- I-5, I-6: continue to allow electrical substations by right, and add the ability to modify standards with SE approval
- P districts: add light utility facilities to the PCC District (Planned Continuing Care) to be consistent with other P districts.¹

Table 1: Proposed Electrical Substation Permissions

Zoning District	Current Permission	Proposed Permission
Residential-Agricultural (R-A)	Not allowed	No change/not allowed
All other conventional R districts (R-E – R-MHP)	SE	No change/SE
Commercial districts (C-1 – C-8)	SE	No change/SE
Industrial-Institutional (I-I)	Not allowed	No change/not allowed
I-2	SE	No change/SE
I-3 and I-4	By right	SE
I-5 and I-6	By right	By right and SE allowed to modify standards
Planned districts (PDH, PRC, PDC, PRM, PTC)	Development plan or SE	No change/development plan or SE
Planned Continuing Care (PCC)	Not allowed	Development plan or SE

The proposed changes in standards and definitions are summarized in Table 2 below.

Table 2: Proposed Changes to Standards and Definitions

Subsection	Proposed Change
4102.4.X(1) and (2)	These standards regarding new utility or transmission poles with attached facilities, including small cell facilities, are proposed to be deleted. See discussion below.
New 4102.4.X(1)	A new table is added at the beginning of the use standards for light utility facilities that summarizes the permissions according to zoning district and type of light utility facility. The table carries forward the current permissions, except as outlined above.
New 4102.4.X(2) (previously (3))	This standard lists the light utility facility uses and structures that are exempt from the Ordinance. It is revised for clarity; no substantive changes are proposed.
New 4102.4.X(3) (previously (4))	The fence or wall standard for electrical substations is relocated to new standard (4).

¹ The addition of the PCC District to the Zoning Ordinance inadvertently did not include light utility facilities as a permitted use if shown on an approved development plan or by SE.

Subsection	Proposed Change
New 4102.4.X(4) (previously (5))	This standard is revised to remove the prohibition on equipment repair as part of a light utility facility, and to include editorial changes. Light utility facilities contain equipment that needs routine repair and maintenance. The revision is not intended to allow a separate principal use of an equipment repair or storage yard, except where otherwise allowed.
4102.4.X(6), (8), (9)	These standards are proposed to be deleted. They specify the types of light utility facilities permitted in certain districts, which is captured by the new permission table in new (1).
New 4102.4.X(5)	This standard adds new use-specific setbacks and screening requirements for electrical substations. See discussion below.
New 4102.4.X(6) and 8101.3.D(14)(e)	These standards require submission of a noise study prior to site plan approval or with an SE application for an electrical substation that is located next to residential. See discussion below.
4102.4.X(7)	This standard requires the finding of no alternative site in a commercial or industrial district if the proposed location is in an R district. The review area is one mile for a “transformer” (transmission) substation and a telecommunications central office, and 500 feet for any other light utility facility, which includes a distribution substation and other facilities, such as water and sewage pump stations and water storage facilities. Proposed revisions include: adding consideration of co-location or expansion of an existing facility if that would minimize adverse effects in the R district; and requiring a review of sites within one mile (range for consideration from 500 feet to one mile) for all types of electrical substations. This increases the area for a distribution substation to be the same as for a transmission substation. The visual impact can be similar for both transmission and distribution stations, with equipment of 75 feet or more in height. The distance for a telecommunications central office is proposed to be reduced to 500 feet, consistent with other light utility facilities.
5108.5.A(6)	Electrical substations are proposed to be added to the list of certain uses that are not subject to Table 5108.2 for transitional screening and barrier requirements, with the new use-specific screening standards referenced instead.
9103.4.E	Minor editorial changes are proposed to the definition of a light utility facility. A new sub-definition of electrical substation is added, and a sub-definition of a telecommunication facility is added for clarity based on the descriptions in the current standards.

Utility distribution or transmission poles with attached facilities: With the adoption of the new Zoning Ordinance that went into effect on July 1, 2021, the wireless facility use was

separated from the light utility facility use. Current standards X(1) and X(2) for light utility facilities reference the wireless facility standards in Y(5) and Y(6). This subjected new utility distribution or transmission poles to aesthetic and other requirements for wireless facilities in response to a Federal Communications Commission ruling that required aesthetic regulations imposed on small cell facilities to be no more burdensome than those applied to other types of infrastructure deployments. FCC Dec. Rul. & 3d. Rep. and Order, Sep. 26, 2018, ¶ 86. After a consolidated legal case struck down that standard, the County is no longer required to impose the same aesthetic standards on all infrastructure deployments. Based on this information, standard X(1) is unnecessary and may be deleted. Standard X(2) continues to be addressed by Y(6) and there are no other poles intended to be subject to the SE requirement. Utility poles with attached wireless facilities continue to be addressed in subsection 4102.4.Y and the proposed deletions result in no changes to the wireless facility standards.

New standards for setbacks and screening: To mitigate the substantial visual impacts, the proposed changes include removing the current transitional screening and barrier requirements noted above (a 35-foot-wide transitional screening yard and a six-foot-high solid wall or fence abutting or across the street from residential uses) and replacing them with use-specific requirements for setbacks and screening for electrical substations. These requirements would apply in all zoning districts; they would not be subject to administrative modification² but could be modified with SE approval. While an SE represents an additional application, as noted above, it can be processed concurrently with the 2232 application. For new substations associated with data centers, the data center applicant often determines the land area to be provided for the substation. The setbacks and landscaping requirements would ensure that sufficient land area is provided for the substation to minimize impacts on surrounding development.

- **Applicability:** The requirements would apply to new substations. In addition, when an existing substation expands in area, the requirements would apply in any direction that the expansion reduces the existing or approved distance by more than ten percent (range for Board consideration 0 – 20 percent) from a street, an R district or a residential use, or a C district. These applicability provisions are intended to recognize current conditions and provide additional flexibility for existing substations to expand and meet the new standards. In addition, for the purpose of these provisions only, an R district would not include any abutting property developed with an international airport and its related uses.
- **Setbacks:**
 - From a public or private street: 50 feet (range 25 – 100 feet)
 - From an R district, or a property developed with a residential use: 100 feet (range 50 – 300 feet)
 - From a C district: 20 feet (range 20 – 50 feet)

For electrical substations, the setback would be measured from the lot line to the nearest structure or piece of equipment of the substation. The setback would not be

² Subsection 5108.5.B(4) allows a transitional screening yard to be reduced by up to two-thirds where a six-foot brick or architectural wall is provided (e.g., a 50-foot buffer may be reduced to 16 feet-8 inches). Subsection 5108.6.B allows certain waivers and modifications to be approved as part of the site plan approval process.

measured to the fence or wall or to the edge of the pad site. As indicated above, these use-specific setbacks are intended to mitigate adverse visual impacts and are similar to those required in certain other local jurisdictions.

- Fence or wall: A fence or wall for an electrical substation will continue to be exempt from the maximum fence or wall height limitations in subsection 4102.7.A(7)(b)5. The height for a substation fence or wall typically varies from 12 to 25 feet or more. A new provision is added to require a visually solid fence or wall that is a minimum of 12 feet in height where a substation abuts a street and where it abuts or is across the street from a residential area. As noted above, the Zoning Ordinance currently requires a six-foot high solid fence or wall when abutting or across the street from residential uses. Dominion Energy and NOVEC indicated that the height and materials for barriers are generally determined for each site based on local zoning requirements and security considerations. While a variety of barriers are employed by the utility companies, one of the standard fence types is a 5/8" non-climbable chain link fence, which would not be considered visually solid under the proposed standard. However, a more opaque barrier as proposed would minimize the visual impacts of substations on residential areas and the view from a street, which is particularly important where landscaping may not be possible due to the location of overhead electrical lines. The proposed requirement for a visually solid fence or wall could be satisfied with various options, some of which, such as a chain link fence with slats, would not increase costs. Other local jurisdictions also have zoning requirements for barriers that are opaque or nearly opaque.
- Landscaping: The standards establish requirements for a landscaped buffer planted with a mixture of large and medium trees and evergreen shrubs, similar to the requirements for transitional screening in subsection 5108.5. NOVEC has indicated that they prefer to plant evergreen trees, because deciduous trees pose a greater risk of falling into the substation. Accordingly, the proposed standard allows, but does not require, deciduous trees. The buffer would need to be continuous, except where driveways or other openings are required. Where electrical lines preclude the planting of trees, shrubs or other similar vegetation would need to be provided. As noted above, the standards could be modified with SE approval but would not be subject to administrative modification.
 - Abutting a public or private street: 35 feet in width (range 25 – 50 feet)
 - Abutting an R district or a property developed with a residential use: 50 feet in width (range 25 – 50 feet)
 - Abutting a C district: 20 feet in width (range 10 – 50 feet)

Noise: Substations are subject to the [Noise Ordinance, Chapter 108.1 of the County Code](#). This is a separate chapter of the County Code from the Zoning Ordinance. Based on a [report](#) provided by an acoustical consultant, electrical substations can generate a sound level of approximately 55 to 80 dBA at the source, with the sound often being a low-frequency hum from the transformers. These facilities could potentially exceed the maximum sound levels allowed under the Noise Ordinance, which includes a maximum of 55 dBA at night and 60 dBA during the day in residential areas as measured at the property boundary or at any point within an affected property. Although the proposed setbacks will assist with reducing noise impacts on

surrounding properties, as indicated by acoustical experts, even with a 100-foot setback from residential uses, the noise could still exceed 55 dBA at the property line. Therefore, given the possibility that the noise generated by a substation could exceed the Noise Ordinance limits and the many variables that affect sound propagation, the amendment includes a requirement for submission of a single noise study either with an SE application (if an SE is required) or with a site plan application for a by-right electrical substation. Given the lower decibel levels in the Noise Ordinance for residential uses, the noise study would only be required for substations that are located abutting properties that are zoned or developed for a residential use.³ While this would represent a new submission requirement⁴, it would ensure that any required noise mitigation is determined as part of the noise study and incorporated during the approval process of the substation, ensuring that all mitigation measures are shown on the approvals, and limiting the potential for a difficult and costly retrofit following a complaint after development.

Electromagnetic fields: Questions have been raised during public hearings on certain substation applications about electromagnetic fields (EMF). This federal Environmental Protection Agency [website](#) contains information about EMF. It indicates that scientists continue to research the possible health effects of exposure to EMFs and notes that there are currently no federal standards limiting EMF from power lines and other similar sources. [Dominion Energy](#) also provides information about EMF, including comparisons to other sources in the home and the rates at which EMF levels reduce over distance. Based on the available information, EMF is not considered to be a topic for this Zoning Ordinance amendment.

Provisions relating to previous approvals:

While not part of the codified Zoning Ordinance, Appendix 1 – Provisions Relating to Previous Approvals, addresses the applicability of specific Zoning Ordinance amendments to previous approvals or applications under review. The Board may consider allowing applications that are under review to continue under the previous Zoning Ordinance requirements. Draft language is provided below:

B. Amendments Adopted After May 10, 2023

(#) Substations (ZO 112.2-2025-#)

- (a) Any application for a special exception or site plan for an electrical substation that is (i) accepted for review before *(insert effective date of amendment)*, or (ii) accepted for review before *(insert date one year after effective date of amendment)* and that is in accordance with a Va. Code 15.2-2232 application that has been approved or has been accepted for review prior to *(insert effective date of amendment)* and is approved before approval of the special exception or site plan – will be reviewed based on the provisions of the Zoning Ordinance in effect on *(insert date prior to effective date of amendment)*, if:**

³ A noise study would not be required for a substation abutting Dulles airport property, which is zoned R-1.

⁴ The potential cost of a noise study would be subject to site specifics, but estimates range from \$10,000 to \$30,000.

1. The application is approved by *(insert date two years after effective date of amendment)*;
2. The approval remains valid; and
3. The uses, features, and substation are established or constructed in accordance with approved plans and permits.

An approved plan may be revised notwithstanding this amendment if it does not aggravate conflicts with the amendment. Building permits and other related subsequent plan and permit submissions may be accepted, and new approvals may be granted, consistent with the approved plan. The applicant/owner may elect to have the above applications reviewed in their entirety under the provisions of this amendment.

- (b) For all rezonings and related development plans, special exceptions, or site plans that include an electrical substation approved before *(insert effective date of amendment)*, the applicant/owner may continue under their previous approval. Subsequent plan and permit submissions may be accepted, and new approvals may be granted, consistent with those prior approvals. Revisions to such prior approvals may be approved if they do not aggravate conflicts with this amendment.

Community Outreach

In addition to meetings with Dominion Energy, NOVEC, and other interested parties, the substations Zoning Ordinance amendment was discussed at the Board's Land Use Policy Committee and the Planning Commission's Infrastructure Committee meetings in January 2025 and at two virtual community meetings in April 2025. Draft text was posted in advance of the community meetings, which were broadly advertised, and the recordings are posted on the project [website](#). Feedback received was broad and included concerns from some groups about adding new regulations, and also recommendations from others for additional limitations to protect residential areas, such as increased setbacks, upgraded barriers, and the requirement for an SE whenever the site is adjacent to residential.

Summary

Overall, the proposed revisions would continue to allow these essential facilities throughout the County, with added provisions for compatibility with surrounding uses. Staff recommends that the amendment become effective at 12:01 a.m. on the day following adoption.

Proposed Text

In the revisions shown below, text to be deleted is identified with ~~strike-through~~ and text to be added is underlined. The footnotes are descriptive and will not be included in the Zoning Ordinance. Options for consideration are provided ***[in brackets, italics and bold]***. The proposed changes are based on the adopted Zoning Ordinance in effect as of April 23, 2025.

INSTRUCTION: In Table 4101.1, revise permissions for Utility Facility, Light to add SE to I-3, I-4, I-5, and I-6 as specified in the use standards. Also, delete the by-right permissions in the R districts and I-I. In Table 4101.2, revise the planned district permissions to SE in all districts where permitted, and add the PCC District, as shown below.

TABLE 4101.1: Use Table for Residential, Commercial, and Industrial Districts

P = permitted; SE = special exception; SP = special permit; blank cell = not allowed

A = allowed as accessory use only; A+ = permitted as an associated service use; AP = allowed with approval of administrative permit

Use	Residential Districts														Commercial Districts								Industrial Districts						Use-Specific Standards NOTE: General Standards also apply	
	R-A	R-C	R-E	R-1	R-2	R-3	R-4	R-5	R-8	R-12	R-16	R-20	R-30	R-MHP	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	I-1	I-2	I-3	I-4	I-5	I-6		
Public, Institutional, and Community Uses																														
Utilities: uses including heavy utilities (infrastructure services that provide regional or community-wide service), light utilities (infrastructure services that need to be located in or near where the service is provided), solar power facilities, and wireless facilities																														
Solar Power Facility	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	P	P	P	P	4102.4.V
Utility Facility, Heavy		SE	SE	SE	SE																		SE	SE	SE	SE	P SE	P	4102.4.W	
Utility Facility, Light ⁵	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	P SE	4102.4.X
Wireless Facility	See standards in 4102.4.Y for different permissions.																													4102.4.Y

⁵ The permissions are revised to remove by-right permissions from the R districts and the I-I District because these are in reference to wireless permissions addressed in subsection 4102.4.Y.

TABLE 4101.2: Use Table for Planned Development Districts

✓ = permitted if shown on final development plan/PRC development plan and PRC plan;
 ✓/SE = permitted if shown on final development plan/PRC development plan and PRC plan, or as special exception if not on plan(s)
 SE = special exception; SP = special permit; blank cell = not allowed
 A = allowed as accessory use only; A+ = permitted as an associated service use;
 AP = allowed with approval of administrative permit

Use	PDH		PRC					PDC		PRM		PTC	PCC		Use-Specific Standards NOTE: General Standards also apply
	Principal	Secondary	Residential	Neighborhood Convenience Center	Village Center	Town Center	Convention/Conference Center	Principal	Secondary	Principal	Secondary		Principal	Secondary	
Public, Institutional, and Community Uses															
Utilities: uses including heavy utilities (infrastructure services that provide regional or community-wide service), light utilities (infrastructure services that need to be located in or near where the service is provided), solar power facilities, and wireless facilities															
Solar Power Facility		✓/SE	✓/SE	✓/SE	✓/SE	✓/SE	✓/SE		✓/SE		✓/SE	✓/SE			4102.4.V
Utility Facility, Heavy			SE												4102.4.W
Utility Facility, Light		✓/SE	✓/SE	✓/SE	✓/SE	✓/SE	✓/SE		✓/SE		✓/SE	✓/SE		✓/SE	4102.4.X
Wireless Facility	See standards in 4102.4.Y for different permissions.														4102.4.Y

INSTRUCTION: Revise the standards in subsection 4102.4.X for Utility Facility, Light, as shown below. *[Options for consideration included.]* Also, revise subsection 4102.7.A(7)(b)5 to replace “electric substation” with “electrical substation.”

4. Public, Institutional, and Community Uses

Community, Cultural, and Educational Facilities

X. Utility Facility, Light

~~Standards applicable to new utility distribution or transmission poles:~~

- ~~(1) — New utility distribution or transmission poles with attached facilities, including small cell facilities, that are not more than 50 feet in height, are permitted by right when they comply with subsection 4102.4.Y(5) for Zoning Administrator approval of an Administrative Review Eligible Permit.~~
- ~~(2) — New utility distribution or transmission poles with attached facilities, including small cell facilities, that are more than 50 feet in height, require special exception approval by the Board subject to subsection 4102.4.Y(6).~~

Standards applicable to all light utility facilities: ~~other Light Utility Facilities:~~

~~General~~

(1) The permissions for light utility facilities are as shown in the table below.⁶

Light Utility Facility Permissions		
Zoning District	Uses Permitted By Right	Uses Permitted By SE
<u>R-A</u>	<u>None</u>	<u>Telecommunication facilities</u> <u>Utility transmission facilities</u> <u>Water storage, control, and pumping facilities</u>
<u>All other R districts</u>	<u>None</u>	<u>All light utility facilities</u>
<u>Commercial districts</u>	<u>Telecommunication facilities</u>	<u>All other light utility facilities</u>
<u>I-1</u>	<u>None</u>	<u>Sewerage pumping facilities</u>
<u>I-2</u>	<u>Telecommunication facilities</u>	<u>All other light utility facilities</u>
<u>I-3 and I-4</u>	<u>All light utility facilities, except electrical substations</u>	<u>Electrical substations</u>
<u>I-5 and I-6</u>	<u>All light utility facilities</u>	<u>Not applicable, except to modify standards for electrical substations</u>
<u>P districts</u>	<u>All light utility facilities if shown on development plan</u>	<u>All light utility facilities</u>

(2)(3) ~~Except for electrical substations located on or above the surface of the ground, if located in a street right-of-way or in an easement less than 25 feet in width, the following light facility utility facility uses and structures are exempt from the Ordinance regulations if located in a street right-of-way or in an easement less than 25 feet in width:~~⁷

(a) ~~w~~Wires, cables, conduits, vaults, laterals, pipes, mains, valves, or other similar equipment for the distribution to consumers of electricity, gas, or water, or the collection of sewage or surface water operated or maintained by a government entity or a public utility including customary meter pedestals, distribution transformers and temporary utility facilities required during building construction, whether any such facility is located underground or aboveground.

(b) ~~This exemption does not include any substation located on or above the surface of the ground or any distribution facility.~~

(3)(4) Light utility facility uses are not required to comply with the lot size requirements or the bulk regulations for the zoning district where they are located. ~~In addition, a fence or wall that is an integral part of an electrical substation may exceed the maximum fence or wall height in accordance with subsection 4102.7.A(7)(b)5.~~⁸

(4)(5) Except in the I-5 or I-6 District, the following are prohibited as part of a light utility facility:

- (a)** Storage of materials or equipment;
- (b)** Repair or servicing of vehicles ~~or equipment~~; and

⁶ This is a new standard that summarizes the specific permissions for light utility facilities. Permissions are carried forward, except in I-3 and I-4, electrical substations are changed from by right to SE; in I-5 and I-6, an SE is added to allow for modification of standards for substations. The PCC District is included with the other planned districts.

⁷ This standard is revised for clarity.

⁸ The last sentence is relocated to new subsection (5).

- (c) Parking of vehicles except those needed by employees connected with the operation of the immediate facility.

(5) Electrical substation setbacks and screening

These requirements may be modified with special exception approval in accordance with subsection 8100.3. The requirements apply to any new electrical substation. In addition, when an existing substation expands in area, these requirements apply in any direction that the expansion reduces the existing or approved distance by more than ten percent
[option to delete “by more than ten percent” or increase up to 20 percent] from the substation to: (i) a public or private street; (ii) an R district or a property developed with a residential use; (iii) a C district. For the purpose of these provisions, an R district does not include a property that is developed with an international airport and its related uses.

(a) Setbacks: The setback is measured to the nearest substation structure or equipment, not a fence or wall.

- 1. A minimum setback of 50 feet [25 to 100 feet] is required from a public or private street.**
- 2. A minimum setback of 100 feet [50 to 300 feet] is required from an abutting lot line of an R district or a property developed with a residential use.**
- 3. A minimum setback of 20 feet [20 to 50 feet] is required from an abutting lot line of a C district.**

(b) Fence or wall: A fence or wall that is an integral part of an electrical substation may exceed the maximum fence or wall height in accordance with subsection 4102.7.A(7)(b)5. A visually solid fence or wall a minimum of 12 feet in height is required where a substation: (i) abuts a public or private street; or (ii) abuts or is across the street from the lot line of an R district or a property developed with a residential use.

(c) Landscaping:

- 1. A minimum of 35 feet [25 to 50 feet] in width is required abutting a public or private street.**
- 2. A minimum of 50 feet [25 to 50 feet] in width is required abutting the lot line of an R district or a property developed with a residential use.**
- 3. A minimum of 20 feet [10 to 50 feet] in width is required abutting the lot line of a C district.**
- 4. The landscape buffer must be continuous, except where driveways, electrical line connections to the substation, or other openings are required. Where electrical line connections to the substation prevent the planting of trees, shrubs, in accordance with subsection (5)(c)5.c below, or similar plantings must be provided.**
- 5. Landscaping must be provided in accordance with Chapter 12 of the Public Facilities Manual and as follows:**
 - a. A mixture of large and medium trees that achieve a minimum ten-year tree canopy of 75 percent or greater;**
 - b. A mixture of trees consisting of at least 70 percent evergreen trees, or at least 50 percent evergreen trees if at least 25 percent of the area contains existing vegetation and/or new native trees; and consisting of no more than 35 percent of any single species of tree; and**
 - c. A mixture of predominately medium evergreen shrubs at a rate of three shrubs for every ten linear feet. The shrubs must generally be located away**

from any barrier and staggered along the outer boundary of the landscaping.

- (6)** Unless provided as part of a special exception application, prior to site plan approval for an electrical substation that is abutting a lot line of an R district or a property developed with a residential use, a noise study must be submitted demonstrating to the Zoning Administrator's satisfaction that the operation of the substation will comply with the Noise Ordinance, Chapter 108.1 of the County Code. This requirement does not apply to a substation that is abutting property developed with an international airport and its related uses.

Standards when all other light utility facilities are permitted by right:

- ~~**(6)** In all commercial districts and in the I-2 District, only telecommunication facilities, which are uses that transmit information by wire or radio, including telephone or telegraph central offices and repeat stations, are allowed by right.⁹~~

Standards when all other light utility facilities are permitted by special exception:

- (7)** If the proposed location is in an R district ~~or the residential area of a P district,~~¹⁰ the use may be permitted only upon a finding by the Board that: (a) the proposed location is a co-location or expansion of an existing facility and would minimize adverse effects in the R district as compared to alternative sites; or (b) there is no alternative site in a commercial or industrial district that can provide satisfactory service within the following distances below:
- (a)** One mile ***[500 feet to one mile]*** of the proposed location for an proposed electrical transformer substation or telecommunications central office; and
 - (b)** 500 feet of the proposed location for any other light utility facility.
- ~~**(8)** In the R-A District, only telecommunication facilities, including central offices and repeat stations, utility transmission facilities, and water storage, control, and pumping facilities, may be approved.~~
- ~~**(9)** In the I-I District, only sewerage pumping facilities may be approved.~~

INSTRUCTION: Revise subsection 5108.5.A(6) to include electrical substations, since transitional screening and barriers is addressed by new use standards.

5. Transitional Screening and Barriers

A. Applicability

- (6)** The following uses are not included in Table 5108.2 and are subject to the standards below:

(e) An electrical substation is subject to the requirements of subsection 4102.4.X(5).

⁹ This standard and current subsections (8) and (9) are no longer needed with the proposed permission table in subsection (1). Deleted the reference to telegraph facilities.

¹⁰ 'R district' is interpreted in subsection 9100.11 to include the residential areas in a P district.

INSTRUCTION: Add subsection 8101.3.D(14)(e) to require a noise study with a special exception application for an electrical substation.

D. Additional or Modified Submission Requirements for Specific Special Exception Applications

(14) Light Utility Facility, Heavy Utility Facility, and Wireless Facility

- (e) For an electrical substation that is abutting a lot line of an R district or a property developed with a residential use, a noise study demonstrating that the proposed substation will comply with the Noise Ordinance, Chapter 108.1 of the County Code. This requirement does not apply where the abutting property is developed with an international airport and its related uses.

INSTRUCTION: Revise the definition for Utility Facility, Light, as shown below.

9103. Uses

4. Public, Institutional, and Community Uses

E. Utilities

Utility Facility, Light

A structure or facility generally related to the distribution or collection of utility products or services, rather than the production of those products or services, that needs to be in or near the neighborhood or near utility consumers. Examples of light utility facilities include water and sewage pump stations, telecommunication facilities ~~telephone local exchanges~~, water storage facilities, and electrical substations ~~including distribution centers and transformer substations~~. This use does not include (1) ordinary distribution facilities for delivery of utilities to customers that are in the public right-of-way or in easements or strips of property owned in fee simple not more than 25 feet in width; or (2) transmission lines approved by the State Corporation Commission.

Electrical Substation¹¹

A facility that is part of a regional interconnecting grid system or dedicated to an individual user for the transformation, transmission, switching of transmission or distribution voltages, or distribution of electric power.

Telecommunication Facilities¹²

Uses that transmit information by wire or radio, including telephone central offices and repeat stations.

¹¹ This is a new definition of electrical substation to include both transmission and distribution substations.

¹² This definition carries forward the descriptions currently contained in the use standards.