

ATTACHMENT A

WINGATE ELECTRICAL SUBSTATION

SPECIAL USE PERMIT APPLICATION

FINDINGS OF FACT - SUPPLEMENTAL

Note: The following descriptions were compiled to supplement a Union County Special Use Permit Application. Descriptions and exhibits in this attachment will also be included in the Site Plan Review Application to provide additional project information to the Zoning Division.

Special Use Permit Application

Findings of Fact

- 1. The proposed use and development comply with all regulations and standards generally applicable within the zoning district and specifically applicable to the particular type of special use.**

Electrical substations are considered major utility facilities in Union County and thus require a Special Use Permit within the RA-200CZ zoning district. The proposed substation will conform to all regulations and standards generally applicable within the RA-200 zoning district. In addition, the substation will comply with the conditions set forth in the rezoning of the parent parcel in Union County Re-zoning Case # CZ-2018-008. This rezoning allowed for the Planned Unit Development (PUD) of the parent parcel. All dimensional requirements will be met, such as minimum setbacks, lot size, and maximum building height of 35'. Some of the tallest portions of the substation may exceed 35' in height, such as lightning rods, but electric substations are exempt from height requirements.

The property to be utilized is a 3.08 AC lease area created as part of the Planned Unit Development (PUD) training facility. A lease agreement has been executed between Union County and Union Electric Membership Cooperative (Union Power) for the property. The lease agreement includes allowances for an electrical distribution easement (2,883 SF) and an access easement of 7,705 SF.

The substation will adhere to the "S2" landscape screening requirements. The S2, high-profile screen is intended to be used in those instances where physical and visual separation is needed to buffer high-intensity land uses and site features from lower intensity land uses. The S2 screen requires trees, shrubs and ground cover plants that form a continuous visual barrier at least 6 feet in height. In addition, one tree is required per 40 linear feet of screen. Adherence to the S2 screening requirements will be accomplished by default as the lease area is located in excess of 40 ft from the existing parent parcel property line. This lease area is effectively screened from adjacent property through existing trees and vegetation. All existing trees between the lease area and the property line will be preserved and utilized towards the screening requirements.

Substation materials will consist primarily of galvanized metal while the permanent, unmanned control enclosure will be constructed of precast concrete. No buildings or structures capable of human occupation or storage will be constructed on site. A VFP Control Enclosure will be installed within the fenced substation. The control enclosure will house "remote switching" and monitoring controls for the substation equipment.

- 2. The proposed development will not materially endanger the public health or safety.**

As a member-owned company, Union Electric Membership Corporation (Union Power) is committed to provide safe and reliable power that serves to protect and enhance the health, safety or general welfare of the public in the following ways.

Health: The health of the general public is directly linked to the quality of the environment to which they live. Union Power plans to take every precaution necessary to ensure that the health of the public and the environment is maintained. During site construction, Union Power will apply and diligently abide by the guidelines detailed in the North Carolina Department of Environmental Quality's (NCDEQ) "Sediment and Erosion Control Manual" and "Post Construction Stormwater Regulations" to minimize site disturbance, control storm water runoff, and stabilize graded slopes, preventing sediment from exiting the property and entering local streams and reservoirs. The substation location also falls under jurisdiction of the Union County Stormwater Division and will comply with applicable County stormwater regulations. Union Power will also implement a suitable oil spill prevention plan as required by the US Environmental Protection Agency (USEPA) that involves the installation of an intensive oil containment system within the substation that will collect all spills in the rare event of infrastructure failure.

Because the substation will be unmanned, no public utilities will be required to operate and maintain the facility. Electrical and mechanical systems installed within the control house will be powered internally from the substation. Water, sewer, and garbage collection will not be required.

Prior to the acquisition of the property, Union Power completed a number of due diligence studies to determine the suitability of the site for the substation, including:

- A Natural Resource Assessment (NRA) of the area to determine the location of existing environmentally sensitive areas
- An Impact Study prepared by a licensed Appraiser to determine potential adverse impacts resulting from the construction of the substation.

Due diligence studies by qualified personnel found no protected species on the property. Two “blue line” streams as defined by the US Department of Agriculture (USDA) were identified on the Training Facility property. The larger stream, Jack’s Branch, is located approximately 300 ft to the west of the lease area. The other “intermittent” stream is located near the southeastern corner of the lease area.

Safety: Union Power will install a farm gate in at the eastern edge of the access easement located on the northeast corner of the easement to prevent local traffic from entering the property. In addition, it is also standard operating procedure to install security fencing around the substation infrastructure. Standard fencing consists of woven steel fabric (minimum height of 7’) with additional barbed-wire extension arms (1-foot in length) on the top to prevent unauthorized entry to the facility. The substation fence will also include warning signage to the effect of “Danger! High Voltage.” Gates to the property and to the substation itself will be locked at all times.

Electromagnetic field (EMF) and noise levels are not anticipated to exceed ambient levels found outside of the substation property.

The substation will not negatively impact traffic along Harris Mills Road, Ansonville Road, or surrounding areas. The substation will utilize an existing driveway connected to the public road, so a new driveway entrance will not be required. After the substation is placed in service, the substation will operate without Union Power personnel except during times of maintenance or electrical outage.

Welfare: While providing safe and reliable power to the general public is Union Power’s primary mission, satisfying this mission should not/and will not be at the disposal of the rural character or quality of living in the general area. Union Power intends to utilize existing vegetation and tree cover between the substation and the existing parent parcel property lines to screen the substation from adjacent properties. In addition, a Type “S2” landscape buffer will be included along the parent parcel property lines to further decrease visibility. Buffering and landscaping will be discussed in greater detail in subsequent sections.

3. The proposed development will not substantially injure the value of abutting property nor will it be required to out of public necessity.

Union Power does not anticipate the substation to have any effect on the character of the surrounding area and has taken extensive measures to ensure that the character of the area is maintained. The typical concern of the public regarding the construction of a public facility is the visual impact to the area. The vegetated area between the lease area and the adjacent proper lines is 90 feet wide at its narrowest point. Furthermore, the adjacent properties are primarily farmland and any of the existing residences on adjacent properties will have a visual impact from the developed lease area. The lease area has significant tree cover on the east and north that will remain in its current condition to serve as screening between any residence.

An Impact Analysis study was performed by a licensed appraiser to ensure that the new substation will not substantially economically injure adjacent property owner. The Impact Analysis concluded, *“Based on our research, use of the site for a proposed substation will maintain or enhance the value of contiguous property, and will not violate the neighborhood character or adversely affect surrounding land uses; and will comply with the general plan for the physical development of the County as embodied in the Union County Development Ordinance and/or in the Future Land Use Plan.”*

4. The proposed development will be in harmony with the area in which it is located.

The electrical substation is located on a parcel currently zoned RA-200CZ. Lands within this district are primarily intended to accommodate single-family residential development and minimum lot size is limited to 200,000 SF ((4.6+/- AC).

The substation was located in this area because of its relative obscurity to land uses within visual proximity and the benefit of already having existing electrical infrastructure immediately adjacent to the site. As previously mentioned, having an existing transmission line on the property allows Union Power to efficiently connect to the existing electrical grid without impacting additional property owners or environmentally sensitive areas. This is in contrast to placing the substation in a remote location requiring new transmission and distribution infrastructure for connection to the grid.

5. The proposed development will be in general conformity with the comprehensive plan.

Union County’s long-range plan identifies this area for Single-family Residential and agricultural uses. Electrical Substations are listed as a Special Use within the RA-200, and the Wingate Substation will adhere to all of the requirements of the Union County Development Ordinance, which will limit overall site development and be screened and/or landscaped in way that will protect the visual quality of the area. Furthermore, the electrical infrastructure is necessary to support the electrical demands of the area.

Nearby Property Owners

The table below lists all parcels within 500 feet of the subject property. Data was obtained from the Union County Parcel GIS website on April 17, 2025.

PIN	OWNER	MAILING ADDRESS	CITY	STATE	ZIP
02202008	UNION COUNTY	%ADMINISTRATIVE SERVICES 500 N MAIN ST STE 709	MONROE	NC	28112
02205004	HOLLY FARMS FOODS, INC	0 ANSONVILLE RD.	MONROE	NC	28103
02202009	NORA KAY DAVIS	2017 MT PLEASANT CHURCH RD.	CHARLOTTE	NC	28112

Typical Union Power 100-12.5 kV Substation Photograph

Mt Pleasant Substation (Cabarrus County, NC)

