



COUNTY OF ALBEMARLE PLANNING
WORK SESSION REPORT
DATA CENTER PHASE 2

STAFF CONTACT: William D. Fritz, AICP
BOARD OF SUPERVISORS DATE: August 6, 2025

PROPOSAL: Work session to discuss regulations for data centers and the location of overlay district(s).

ORIGIN: On May 7, 2025 the Board of Supervisors adopted resolutions of intent to consider amendment to the regulations for data centers and the potential creation of overlay district(s) for data centers.

BACKGROUND: Current regulations for data centers include:

- Limited to 40,000 square feet by-right in Industrial districts.
- Allowed by special use permit over 40,000 square feet in Industrial Districts and of any size in commercial districts and the Downtown Crozet District.
- Accessory data centers are permitted but limited to 25% of the area of the primary use.
- Must be served by public water and sewer.
- If water cooling is used, it must be a closed loop system.
- Setbacks of 200 feet from lot lines and 500 feet from the Rural Areas district.
- Limits on when generator maintenance can occur.
- Limits on noise produced by generators.

A County webpage has been created to provide information on the data center rezoning and zoning text amendment process. One function of this website is to allow the community to ask questions. Those questions and the County responses are available on the website. The County held a Community Meeting on June 30, 2025. This meeting was attended by approximately 40 people. Attachment A1 is a complete listing of the written notes received at the community meeting and feedback received at Engage Albemarle. Attachment A9 includes additional comments received at Engage Albemarle. Community comments or concerns included:

- Impact on water supply
- Impact on electrical supply and power cost
- Potential use of SMRs (Small Modular Reactors)
- Desire for public comments on individual data center projects
- Need for setbacks
- Locate centers underground
- Noise and pollution impact from generators
- Noise impacts generally
- Coordination with the Comprehensive Plan and Economic Development Plan
- Delaying project due to potential changes in technology requiring less power and water

- Total amount of data centers that could be constructed
- Limit by-right size to 40,000 square feet
- 500,000 square foot limit is too high
- Do not permit data centers.
- Questions about the fiscal impact of data centers
- Climate impact of data centers
- Impact on quality of life
- Allow flexibility in building design if adequately screened
- Use of green walls and native plants for screening

PROPOSAL: The County's ability to regulate data centers has restrictions. The County is not required to permit data centers. If data centers are permitted there are limitations on what the County can regulate. The County does not have the authority to regulate the electric power consumption of a data center or how the electricity is generated. The County can regulate the location of electrical substations. The authority to regulate high voltage power lines is limited if the utility obtains a certificate of convenience and necessity from the State. The County has no authority to regulate who a data center serves, what technologies are used or where equipment is produced.

Staff is proposing enhanced performance standards, which include modification of some regulations and new regulations, as well as the establishment of five data center overlay district(s) locations. The draft ordinance is included as Attachment A2.

Regulations: Staff researched regulations and experiences in other localities in Virginia and across the Country. Using the knowledge gained from the research, staff developed the proposed regulations. Staff is working with our partners at Rivanna Water and Sewer Authority (RWSA) and Albemarle County Service Authority (ACSA) to determine what, if any, regulations are appropriate to address potential water demands. At the time of preparation of this report no additional regulations have been identified. However, additional work is being done to address potential water impacts and changes in regulations may be proposed. The proposed regulations are in addition to the other regulations contained in the County Code.

Except as noted, all existing regulations for data centers would remain. The modified regulations include:

- Reducing the setbacks within the overlay district to 200 feet from the boundaries of the district. The standard setbacks of the underlying district would still apply.

The proposed new regulations include:

- Requiring coordination with RWSA/ACSA for flushing and refilling of water cooling systems.
- Requiring generators to be low emission.
- Allowing battery energy storage systems.
- Establishing screening requirements including:
 - o Three rows of trees from a County approved list.
 - o The County can specify where plantings are required.
 - o Fencing must be between the building and landscaping.
- Establishing building design requirements to break the mass and façade of the building.
- Establishing noise limits including:
 - o Maximum day/night levels lower than other industrial uses.
 - o Requiring a noise study prior to site plan approval.
 - o Requiring noise monitoring post construction.

- Requiring noise mitigation if noise monitoring indicates that noise levels have been exceeded.
- Requiring cooling, ventilating and other equipment to be within a building, walled courtyard or behind a roof parapet.
- Requiring information on how power will be supplied if a special use permit is requested.

Overlay District(s)

An overlay district(s) is being considered to allow the development of data centers where existing infrastructure can adequately support the proposed use and where negative impacts to nearby properties and resources are limited. The overlay district would be a type of zoning designation that is in addition to the existing zoning. All existing uses would be permitted just as they are today. The overlay district would have a list of permitted uses by-right and by special use permit. The overlay district would permit and does not require the construction of a data center. If a data center were proposed, it would have to meet the existing requirements of the zoning ordinance, such as height, parking, stormwater, and other requirements. The data center would also have to meet any special regulations the Board establishes, such as the proposed enhanced performance standards.

Large data centers can have impacts that are different than other industrial or office uses. Because of this, not all locations may be appropriate for large data centers. For example, data centers require more electrical energy than other industrial uses. Placing large data centers near existing high voltage power lines minimizes the impact of providing necessary power. Staff considered the impacts of data centers and developed criteria to select locations that may be appropriate for large data centers. The criteria used to determine locations for potential overlay district(s) includes:

- Within the development area.
- Recommended for industrial, research and development or similar uses in the Comprehensive Plan.
- Served by public water and sewer.
- Located near high voltage power lines where power can be extended without significant impact on residential or commercial areas.

Staff used these criteria and identified five locations for an overlay district. Maps showing those areas are included as Attachments A3-A9.

The Board may choose to eliminate any proposed districts, as well as to add or remove properties proposed for an overlay district. The Board may also designate each district as a specific tier. The attached draft ordinance includes the option for tiered districts as follows: Tier 1 would allow data centers of up to 125,000 square feet by-right and Tier 2 would allow data centers of up to 500,000 square feet by-right. Staff has not identified any districts as Tier 1 or 2 but has only shown the boundaries of potential districts.

RECOMMENDED ACTION

Staff is requesting guidance from the Board of Supervisors on the following questions:

1. Does the Board support the concept of the proposed regulations?
2. Does the Board support the boundaries of the proposed overlay districts?
3. Does the Board support tiered districts?
4. If the Board supports consideration of tiered districts how should each area be designated?

ATTACHMENTS

Attachment A1 - Comments the public.

Attachment A2 - Draft ordinance

Attachment A3 - Proposed overlay district - Route 29/I64

Attachment A4 - Proposed overlay district – Airport Industrial area

Attachment A5 - Proposed overlay district – Airport Industrial area (northern area)

Attachment A6 - Proposed overlay district – Airport Industrial area (southern area)

Attachment A7 - Proposed overlay district – Rivanna Station/Emerson (GE Fanuc)

Attachment A8 - Proposed overlay district – State Farm (Pantops)

Attachment A9 – Comments from Engage Albemarle