



COUNTY OF ALBEMARLE PLANNING STAFF REPORT SUMMARY

Proposal: ZTA202400002 Data Centers Phase 1	Staff: William D. Fritz, AICP; Amelia McCulley, AICP
Planning Commission Public Hearing: February 25, 2025	Board of Supervisors Hearing: April 2, 2025
Proposal: To establish regulations for Data Centers.	
The proposed ordinance:	
<ul style="list-style-type: none">– Updates the definition of Data Center and removes Data Processing Facility, from the use category Storage / Warehousing / Distribution / Transportation.– Allows an accessory Data Center serving an establishment in new Supplementary Regulations.– Requires a special use permit for a Data Center in Commercial districts.– Allows a Data Center of up to and including 40,000 square feet of gross floor area (GFA), as a by-right use in the industrial districts. A Data Center that exceeds that size is subject to a special use permit.– Requires new supplementary regulations for performance and development standards for all Data Centers:<ul style="list-style-type: none">○ A Data Center must be served by public water and sewer. This requirement may not be waived through a special exception.○ Any water cooling must use a closed loop or recycled water system.○ Data Center buildings and all associated equipment and accessory structures (such as generators, HVAC and battery backups) must be set back a minimum of 200 feet from all lot lines and 500 feet from the Rural Areas zoning district.○ Generator exercise maintenance is limited to Monday-Friday between the hours of 10 am and 4 pm.○ Generators must be housed in an enclosure that limits the sound as specified.	
RECOMMENDATIONS: Staff recommends the Planning Commission support this zoning text amendment and recommend approval to the Board of Supervisors.	

STAFF CONTACT: William D. Fritz, AICP and Amelia McCulley, AICP

PLANNING COMMISSION: February 25, 2025

BOARD OF SUPERVISORS: April 2, 2025

PETITION: ZTA 2024-02 Data Centers Phase 1

ORIGIN: Resolution by the Board of Supervisors adopted on January 22, 2025.

PROPOSAL: To adopt regulations that better address the impacts of Data Centers.

PUBLIC PURPOSE TO BE SERVED: Data Centers are a rapidly growing industry with unique impacts, including energy demand and associated infrastructure, sound, water consumption, and visual impacts, among others. The current ordinance allows Data Centers of any size by right within all industrial zoning districts (Light Industry, Heavy Industry and Planned Development Industrial Park). It also allows them by right up to 4,000 square feet and by special exception over that size, in Highway Commercial, Planned Development Shopping Center and Planned Development Mixed Commercial districts. There are currently no specific regulations to address the unique impacts of Data Centers.

BACKGROUND:

To better address these impacts, staff proposes two zoning text amendments. The first would allow Data Centers over a specified size by special use permit with limited performance standards. Following the first text amendment, staff would more thoroughly research the impacts and best practices for addressing Data Centers. During this second phase, staff would engage the community, possibly including formal and informal contact, workshops, informational meetings, and Planning Commission work session(s).

Due to the limited scope of this first phase and plans for a more extensive ordinance amendment to follow, staff proposed and the Board endorsed this public hearing schedule.

Regulations of Data Centers vary greatly among localities - ranging from a specific overlay district to allowing them by-right with or without performance/community standards, to requiring a special use permit / special exception with or without specific standards. Of those jurisdictions addressing Data Centers as a distinct use, most utilize performance standards for noise, setbacks, building design and equipment enclosures.

The draft ordinance, including proposed supplementary regulations, is consistent with many best practices we have studied (Attachment 3). Many Virginia localities have either recently amended their policies or zoning regulations relating to Data Centers (Fairfax, Fauquier, Harrisonburg and Stafford,) or are in the process (Chesterfield, Loudoun, Prince William, Warrenton and York). At least 18 Data Center-related bills were introduced this legislative session – addressing things ranging from land use to taxation to billing protection for non-Data Center customers. Many of these bills have been defeated.

SUMMARY OF THE PROPOSED ORDINANCE:

The proposed ordinance:

- Updates the definition of Data Center consistent with Virginia Code introductory language; and removes the use Data Processing Facility, including from the use category Storage / Warehousing / Distribution / Transportation.

- Allows an accessory Data Center serving an establishment subject to that definition and limitations including size, in new Supplementary Regulations.
- Requires a special use permit for a Data Center in Commercial districts (Downtown Crozet District, Commercial 1, Commercial Office and Highway Commercial).
- Allows a Data Center of up to and including 40,000 square feet of gross floor area (GFA), as a by-right use in the industrial districts (Light Industry, Heavy Industry, Planned Development Industrial Park). A Data Center that exceeds this size is subject to a special use permit. A small Data Center located on industrial property and subject to both industrial and proposed Data Center-use specific standards is expected to have more limited impacts. This tiered approach is consistent with several localities we surveyed.
- Requires new supplementary regulations for performance and development standards of all Data Centers, whether by-right or by special use permit. These regulations require:
 - A Data Center must be served by public water and sewer. This requirement may not be waived through a special exception.
 - Any water cooling must use a closed loop or recycled water system.
 - Data Center buildings and all associated equipment and accessory structures (such as generators, HVAC and battery backup) must be set back a minimum of 200 feet from all lot lines and 500 feet from the Rural Areas zoning district.
 - Generator exercise maintenance is limited to Monday-Friday between the hours of 10 am and 4 pm. (This does not apply to emergency operations such as during power outages.)
 - Generators must be housed in a level 3 enclosure or other type of enclosure that limits the sound as specified.

ANALYSIS OF THE PROPOSED ZONING TEXT AMENDMENT

Zoning Ordinance section 33.6(B) establishes factors to be reasonably considered by the Planning Commission and Board of Supervisors in the review of ZTAs. Each factor is reviewed below:

(i) the existing use and character of property

Many commercial, office and industrial businesses utilize accessory Data Centers to support their operations. Due to their small size and incorporation into the building with the business they support, offsite impacts and water demands from accessory Data Centers are negligible. The presence of the accessory Data Centers on property is often not apparent to casual observers and they do not typically detrimentally impact the character of the area.

The proposed ordinance is written to allow the accessory Data Centers to continue by right and to regulate the larger Data Centers with appropriate review and supplementary regulations.

(ii) the comprehensive plan

The proposed ordinance has been evaluated against the existing comprehensive plan. Data Centers are mentioned with regards to Target Industry Needs and Locations under Business & Financial Services with the statement: "Data Centers have special fiber optic, electrical, and water needs." The proposed ordinance is also consistent with AC44 Data Center language in draft form.

(iii) the suitability of property for various uses

Data Centers in appropriate locations with relevant performance standards can be good neighbors and notable contributors to the local economy. However, unrestricted use of property by Data Centers can potentially impact existing and proposed uses on adjoining

property, whether zoned Residential, Rural Areas, Industrial or Commercial. Under the current regulations, even a hyperscale Data Center (which can go up to a million square feet) is allowed by right in industrial zoning, without the ability to deny it or apply appropriate regulations to mitigate adverse impacts.

The current regulations do not adequately address noise: both from numerous large generators exercising for routine weekly maintenance or from the ongoing low frequency hum from servers inside the building. If a water cooling system is used, a Data Center can use large quantities of water. The current zoning regulations do not require that a Data Center be connected to public water and sewer. And as a by-right use in the industrial districts, there is no opportunity to consider water consumption. The proposed ordinance addresses these gaps in regulations.

(iv) the trends of growth or change

The substantial growth in and impacts of the Data Center industry in Virginia, led lawmakers last year to table the pending bills and direct Joint Legislative Audit and Review Commission (JLARC) staff to review the overall impacts of the Data Center industry in Virginia. The resolution for this study acknowledges the economic benefits to localities and the substantial tax revenue without high demands for services such as schools. The resolution balances this with noted concerns about power and water consumption, as well as impacts on residential areas and community resources. The [JLARC report](#) completed in December, 2024 included numerous findings and recommendations for state and local officials.

(v) the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies

The proposed ordinance imposes performance and development standards for Data Center development. The increased review afforded through a special use permit as opposed to a by-right use, allows protection of the needs of the community.

(vi) the transportation requirements of the community

Data Centers employ fewer employees than many other industries; therefore, the daily traffic volumes are minimal. Transportation impacts, including site access, will be evaluated during the special use permit process for large Data Centers or Data Centers within commercial districts.

(vii) the requirements for airports, housing, schools, parks, playgrounds, recreation areas, and other public services

The proposed performance and development standards such as increased setbacks and restrictions on noise, are designed to address impacts on housing, schools, parks and other adjoining properties. The requirement of a special use permit for Data Centers in commercial zoning and larger Data Centers in industrial, allow review of impact to these uses. Given the nature of the use, airports are not expected to have impacts from Data Centers. Data Centers do not generate significant demand for housing, schools, parks, playgrounds, recreation areas or other public services.

(viii) the conservation of natural resources

The proposed ordinance maintains current conservation of natural resources. Establishing the requirement of a special use permit for large Data Centers in industrial and all Data Centers in commercial zoning, allows review of the impact on natural resources that is not currently available with Data Centers allowed by right.

(ix) the preservation of flood plains

The proposed ordinance has no impact on the preservation of flood plains.

(x) the protection of life and property from impounding structure failures
Data Centers have no unique impacts to impounding structures.

(xi) the preservation of agricultural and forestal land

The proposed setbacks from Rural Areas zoning district as well as performance standards relating to sound, are expected to better protect and preserve agricultural and forestal land.

(xii) the conservation of properties and their values

The proposed ordinance allows a special use permit review of Data Centers in commercial districts as well as large and more impactful Data Centers in industrial.

(xiii) the encouragement of the most appropriate use of land throughout the County

As noted in iii, v, and vii, the proposed ordinance better assures the appropriate use of land throughout the County.

(xiv) equity

The proposed regulations are designed to impose the minimum number of regulations that clearly allow accessory and smaller Data Centers, and establish a special use permit for larger Data Centers. The phase 1 supplementary regulations are the minimum for this initial phase, allowing us to reconsider and revise the regulations based on phase 2 best practices and interested parties' input.

Strategic Plan: Quality of Life – Encourage a vibrant community with economic and recreational opportunities that serve all community members.

This ordinance will be reviewed by the three (3) criteria previously established by the Board for amendments:

Administration/Review Process: The proposed ordinance establishes definitions and supplementary regulations. They should provide more clarity and consistency, improving administration.

Housing Affordability: There are no identified impacts of this ordinance on housing affordability.

Implications to Staffing/Staffing Costs: These additional regulations should have limited impact on staffing. Data Centers special use permits are subject to the applicable special permit fee to offset staffing costs.

RECOMMENDED ACTION

Staff recommends the Planning Commission support this zoning text amendment (Attachment 2) and recommend approval to the Board of Supervisors. The Board public hearing is scheduled for April 2nd.

ATTACHMENTS

Attachment 1 – [ZTA2024-02 Data Centers - Resolution of Intent](#)

Attachment 2 – [ZTA2024-02 Data Centers - Proposed Ordinance](#)

Attachment 3 – [ZTA2024-02 Data Centers - Locality Comparison of Data Center Use Regulation](#)