



New Structure – Data Center Buildings

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Building Official

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Background

Data Center Buildings are unique for the continually evolving technology and the industry's time to market requirements. This Policy is for the Building Permitting Approval and Occupancy Process for a New Structure – Data Center Building. This Policy will result in one building address with one Final Certificate of Occupancy. (NOTE: If multiple Certificates of Occupancy are required, refer to the Building Development [Policy: Commercial Partial Permitting Process for Shell Buildings.](#))

Definitions

1. **Alteration/Repair Permit** means a permit for construction in an existing building with a Certificate of Occupancy.
2. **Certificate of Occupancy** means a certificate issued by the Building Official that indicates the completion and approval of the permitted work and allows for the occupancy of a building or structure.
3. **Data Center Building** means a facility whose primary services are the storage, management, and processing of digital data and is used to house:
 - A. Computer and network systems, including associated components such as servers, network equipment and appliances, telecommunications, and data storage systems;
 - B. Systems for monitoring and managing infrastructure performance;
 - C. Equipment used for the transformation, transmission, distribution, or management of at least one megawatt of capacity of electrical power and cooling, may include substations, standby power supply systems, electrical plant equipment, and associated air handlers; and
 - D. Support systems, including internet-related equipment and services; data communications connections; environmental controls; fire protection systems; and security systems and services.



4. **Footing and Foundation Permit** means a Building Permit that is issued for the construction of the footings, foundation, and slab of a building.
Note: Associated Trade Permits may be issued for groundwork only (e.g., plumbing, gas, electrical, fire protection, and mechanical in-slab radiant heating).
5. **Phased Occupancy Plan** means a plan submitted with the building design drawings that indicates the order in which the building will be occupied. The Phased Occupancy Plan must demonstrate that all life safety requirements for occupancy comply with the Virginia Uniform Statewide Building Code before any occupancy of the building.
6. **Superstructure Building Permit** means a partial Building Permit to construct the footings, foundation, exterior walls, and roof. The building may also include slab and groundwork only (e.g., plumbing, gas, electrical, fire protection, and mechanical in-slab radiant heating). A Superstructure Building Permit shall not be issued a Certificate of Occupancy.

Overview

A New Structure – Data Center Building will be permitted as one Building Permit resulting in one Certificate of Occupancy. The Data Center Building Plans will be designed for all areas of the building to meet the Virginia Uniform Statewide Building Code's minimum requirements for occupancy. The building areas that are not intended for immediate use will be designed to meet the Storage (S-1) Use Group's minimum requirements. The designer may also include the Business (B) Use Group in the area not intended for immediate use. After the Certificate of Occupancy is issued, an Alteration/Repair Building Permit will be issued to convert or "fit-out" the unused Storage (S-1) Use Group and Business (B) Use Group areas.

During the initial construction of a New Structure – Data Center Building, the owner may determine that a portion of the unused Store (S-1) Use Group and Business (B) Use Group areas need to be converted or "fit-out" for use. A Plan Revision must be submitted for review and approval. If the owner intends to request a phased occupancy of the building, a Phased Occupancy Plan must be filed with the Plan Revision. The Phased Occupancy Plan shall address separation between occupied and unoccupied areas, emergency egress, and building fire protection.

Refer to the Building Development Policy: [Commercial New Structures Data Center Buildings Flowchart](#) for additional overview information.

Partial Permitting Options

There are two options allowed for Partial Permitting in advance of the Building Permit issuance for the New Structure – Data Center Building. The first option is a Footing and Foundation Building Permit with Trade Permits for groundwork. The second option is a Superstructure Building Permit with Trade Permits for groundwork. Only one of the options can be selected for the New Structure – Data Center Building.



Temporary Certificate of Occupancy

A Temporary Certificate of Occupancy for the Data Center Building can be issued when all Site, Building, and Trade Permits have been approved or partially approved with a recommendation for Temporary Certificate of Occupancy.

If a Phased Occupancy Plan has been approved, a Partial Temporary Certificate of Occupancy for a portion of the Data Center Building can be issued. The part of the building to be occupied must obtain all Final Inspection Approvals. All the life safety requirements for the site work (i.e., Site Final Inspection Approval; Prince William Service Authority Final Approval) and the building construction must be inspected and approved.

Presubmission Requirements

A [Data Center New Structure - Application Request](#) form will be submitted to the Building Official. A Building Development Commercial Project Manager will be assigned and will schedule a Project Early Assistance Meeting with the owner's project team. Based on the outcome of the Project Early Assistance Meeting, the Building Official may approve the [Data Center New Structure - Application Request](#).

Other Considerations

- Fire Sprinkler Room Location** – The Prince William County Design and Construction Standards Manual (DCSM) is an extension of the County's Zoning Ordinance. The DCSM, Section 303.5 Underground Fire Lines states in part:
"E. Underground fire lines for fire sprinkler, fire sprinkler/standpipe, or fire standpipe systems shall be installed such that the underground line terminates in a riser room located immediately adjacent to an exterior wall with a personnel door, permitting immediate access to the main fire sprinkler, fire sprinkler/fire standpipe, or fire standpipe control valves, located in the riser room for use by Fire/Rescue personnel."
- Delayed Egress** – In accordance with the International Building Code, Section 1010.1.9.7 Delayed Egress, the Building Official may approve delayed building egress. Submit a [Code Modification Request](#) for consideration by the Building Official.
- Plumbing Fixture Reduction** – The actual occupant load of a Data Center Building may be less than the calculated occupant load prescribed by the International Building Code, Section 1004 Occupant Load. In accordance with the Virginia Uniform Statewide Building Code, Section 106.3 Issuance of Modifications, the Building Official may consider the actual occupancy load when determining the required toilet fixtures. Submit a [Code Modification Request](#) for consideration by the Building Official.

Owner's Project Team for the New Structure Data Center Building – This Policy requires that the same Designer of Record and the General Contractor be retained throughout the entire project until the Certificate of Occupancy is issued. After the issuance of the Certificate of Occupancy, the owner may retain other design professionals and contractors for future Building Alteration/Repair Permits.



Attachment/Hyperlinks

- [Policy: Commercial Partial Permitting Process for Shell Buildings](#)
- [Policy: Commercial New Structures Data Center Buildings Flowchart](#)
- [Code Modification Request](#)
- [Data Center New Structure – Application Request](#)
- [Data Center New Structure – Footing and Foundation Checklist](#)
- [Data Center New Structure – Commercial Plans Checklist](#)