Bill No.

 Concerning: Establish a Critical Digital

 Infrastructure Floating Zone and update other CDI

 requirements.

Introduced

Revised: Draft No.

Enacted:

Effective:

Expires:

Frederick County Code, Chapter 1-19

Section(s) 10.1100, 8.402, 8.403, 6.100, 5.310

**COUNTY COUNCIL**

**FOR FREDERICK COUNTY, MARYLAND**

 By: Council Member Steve McKay and Council Member Jerry Donald

**AN ACT** to: Establish a Critical Digital Infrastructure Floating Zone and update other CDI requirements.

Date Council Approved: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date Transmitted to Executive: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Executive: Date Received:

Approved: Date:

Vetoed: Date:

Date returned to Council by County Executive with no action: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

By amending:

 Frederick County Code, 1-19 Section(s) 10.1100, 8.402, 8.403, 6.100, 5.310

 Other:

**Boldface** *Heading or defined term.*

Underlining *Added to existing law.*

**[**Single boldface brackets**]** *Deleted from existing law.*

\* \* \* *Existing law unaffected by bill.*

Bill No. \*\*-\*\*

The County Council of Frederick County, Maryland, finds it necessary and appropriate to amend the Frederick County Code to establish a Critical Digital Infrastructure Floating Zone and to update other CDI requirements.

NOW, THEREFORE, BE IT ENACTED BY THE COUNTY COUNCIL OF FREDERICK COUNTY, MARYLAND, that the Frederick County Code be, and it is hereby, amended as shown on the attached Exhibit 1.

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 Brad W. Young, President

 County Council of Frederick County,

 Maryland

**Exhibit 1**

**ARTICLE X: OPTIONAL METHODS OF DEVELOPMENT (§§ 1-19-10.100 — 1-19-10.1100[1000])**

**DIVISION 11. CRITICAL DIGITAL INFRASTRUCTURE FLOATING ZONE DISTRICT**

**§ 1-19-10.1100. CRITICAL DIGITAL INFRASTRUCTURE FLOATING ZONE DISTRICT (CDI).**

1. Purpose and intent.
2. The Critical Digital Infrastructure Floating Zone (CDI-FZ) is established to provide a location for facilities consisting of one or more buildings used primarily for the storage, management, processing, and transmission of digital data, which houses computer and/or network equipment, systems, servers, appliances, and other associated components related to digital data operations. The siting of these facilities is dependent upon several factors, including proximity to sufficient electrical power and data conveyance infrastructure.
3. Critical Digital Infrastructure Facilities and Critical Digital Infrastructure Electric Substations that have an approved site plan (final or conditional) or an approved Adequate Public Facilities Letter of Understanding as of [the effective date of this bill] are exempt from the requirements of this section and remain principal permitted uses with site plan approval in the LI and GI zones.
4. Permitted Uses.
5. The uses permitted within the CDI-FZ are limited to:
6. Critical Digital Infrastructure Facilities.
7. Critical Digital Infrastructure Electric Substation.
8. Use of structures in existence as of [the effective date of this Bill] for customary accessory uses to a CDI facility (such as storage of maintenance equipment or office).

(C) Location.

1. The CDI-FZ may be established only where:

(a) The tract of land receiving the CDI-FZ has a Comprehensive Plan land use designation or zoning of Limited Industrial (LI) or General Industrial (GI);

(b) The tract of land receiving the CDI-FZ is located within a Community Growth Area, as designated on the Comprehensive Plan Land Use map; and

(c) The tract of land receiving the CDI-FZ is located within 2 miles of an existing high-voltage electrical substation (minimum 115 kV capacity).

1. The tract of land proposed to receive the CDI-FZ may not be located within a Priority Preservation Area (PPA), a Rural Legacy Area (RLA), or a Treasured Landscape Management Area.
2. The tract of land proposed to receive the CDI-FZ may not have a designation of No Planned Service (NPS) in the Water and Sewerage Plan.
3. The tract of land receiving the CDI-FZ may not be adjacent to land zoned Residential.
4. Approval criteria. - In addition to the criteria in §1-19.3.110.4.(A), applications for CDI-FZ are subject to the following approval criteria:
5. The applicant must demonstrate that the visual impact of the project on the viewshed, surrounding properties, public roadways, including roadways with Rustic, scenic, or historic designation, and historic sites will be avoided or minimized to the maximum extent practicable.
6. The applicant must demonstrate that schools, colleges and universities, daycare centers, health care facilities, houses of worship, residences, and other non-industrial uses in the vicinity have been identified and negative impacts to these uses will be avoided or minimized to the maximum extent practicable.
7. The applicant must demonstrate that fragile ecosystems and watersheds in the vicinity have been identified and negative impacts will be avoided or minimized to the maximum extent practicable.
8. The applicant must demonstrate that negative impacts to local, state, and federal recreational amenities and private parks, as defined in §1-19.11.100, will be avoided.
9. The applicant must demonstrate that the siting of the proposed use(s) will not negatively impact underrepresented or economically disadvantaged communities.
10. The applicant must demonstrate that sufficient electrical capacity exists within the regional and local electrical transmission network, that sufficient electrical capacity will be generated on site, or a combination of the two.
11. The applicant must demonstrate that reliance on potable water as a cooling resource will be minimized to the maximum extent practicable.
12. The applicant must demonstrate planned inclusion of on-site power generation through means other than diesel generators (i.e., emergency back-up power).
13. The applicant must demonstrate the need for additional land required for Critical Digital Infrastructure based on the degree of utilization of existing approved Critical Digital Infrastructure zoning.
14. Application and approval.
15. *Preapplication conference.* Prior to application submission, a pre-application conference shall be held with the Division. The conference is intended to provide information to the applicant regarding application requirements, review and approval procedures, and the County Comprehensive Plan. The applicant must submit preapplication information in a format acceptable to the Division, including an accurate description of the tract or tracts of land for which the CDI-FZ is proposed; existing land uses; existing historic and natural features; and other information as required to adequately evaluate the application.
16. Phase I justification and floating zone reclassification application and procedures established in §§ 1-19-3.110.1 through 1-19-3.110.6 will apply.
17. The Phase II (execution phase) application must be provided in accordance with all applicable subdivision and site development plan requirements, in addition to other required submissions and approvals (including but not limited to Adequate Public Facilities Ordinance studies, Forest Resource Ordinance plans, sight-distance studies, and stormwater management plans).
18. Application.

The application submitted must include the following:

* 1. A map of the property at a scale conducive to a review of site features.
	2. A vicinity map at a scale of 1inch equals 2,000 feet or more to the inch, indicating the location of the property with respect to surrounding property and streets. The map must show all streets and highways within 2,000 feet of the applicant's property.
	3. A map of all existing structures on the properties that identifies existing and proposed uses.
	4. Identification of sensitive environmental resources and how impacts to these resources are avoided or minimized to the maximum extent practicable. Sensitive environmental resources include but are not limited to:
		1. FEMA floodplain boundaries, including a 25-foot floodplain buffer;
		2. Priority forest conservation and forestation areas as listed under § [1-21-40](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-9650#JD_1-21-40);
		3. Jurisdictional wetland boundaries and 25-foot buffers;
		4. Hydrography, including perennial and intermittent streams and stream body buffer setbacks;
		5. Steep slopes (over 25%) associated with hydrological features and/or erodible soils; and
		6. Areas identified as green infrastructure networks and/or sensitive species areas in the green infrastructure sector of the Livable Frederick Master Plan.
1. The location and description of all sites, districts, buildings, structures, or other objects listed on or eligible for the National Register of Historic Places, Frederick County Register of Historic Places, or as listed on the Maryland Inventory of Historic Properties.
2. Any additional information necessary to meet the approval criteria in (D), including a viewshed analysis.

**ARTICLE VIII: SPECIFIC USE REGULATIONS**

**DIVISION 4: PERMITTED USES.**

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**§ 1-19-8.402. CRITICAL DIGITAL INFRASTRUCTURE FACILITIES [IN THE LI AND GI DISTRICTS].**

 The following provisions apply to critical digital infrastructure [facility in the LI and GI Districts] facilities. Critical Digital Infrastructure Facilities that have an approved site plan (final or conditional) as of [the effective date of this bill] are exempt from the changes in this section.

(A)   *Bulk regulations.*

(1)   The Planning Commission may approve a reduction to, but not elimination of, the required yard setbacks in § 1-19-6.100 between adjoining critical digital infrastructure facilities [in the LI and GI Districts] during the site plan review process, if the Planning Commission finds that reducing the setbacks:

(a) Increases the size and usability of open space areas;

(b) Increases the landscape buffer areas along other adjacent property lines with different land uses;

(c) Provides additional buffer areas for environmentally sensitive areas or resources; or

(d) Facilitates compliance with the design criteria listed under §1-19-8.402(B).

(2)   Notwithstanding any reduction approved by the Planning Commission, the distance between structures must comply with applicable building code requirements.

(B)   *Design requirements.*

(1) Buildings must be predominantly designed and constructed to include finishes and materials of consistent quality and design on all sides. All building facades that are in public view must avoid the use of undifferentiated facades and long, plain wall sections by including a combination of the following design elements: change in building height, building step-backs or recesses, windows, doors, changes in building material, patterns, textures, colors, or use of accent materials. Architectural renderings or plans must be submitted as part of the site development plan application for approval by staff and the Planning Commission to assure that the appearance, type of building materials, or other aspects of the building are consistent with the purposes and intent of the critical digital infrastructure design requirements.

(2) Visual impacts of the critical digital infrastructure on designated preservation areas, such as rural legacy areas, agricultural preservation areas, critical farms, Monocacy scenic river, designated heritage areas, historic sites, and sites eligible for historic designation, must be avoided or minimized to the maximum extent practicable. A viewshed analysis must be submitted as part of the site development plan application for approval by staff and the Planning Commission to assure that visual impacts are avoided or minimized to the maximum extent practicable through such means as building placement, height, building materials, landscaping, and screening.

([2] 3) Building entrances must be designed and oriented in terms of their relationship to the human scale and must reflect this relationship through the inclusion of human-scaled architectural elements.

 ([3] 4) Refuse and recycling dumpsters, service doors, and mechanical equipment must face away from roadways, pedestrian routes, and public areas.

 ([4] 5) In order to minimize visibility from adjacent roads and adjacent properties, ground level and roof top mechanical equipment, power generators, water cooling and storage facilities, utility substations, and other associated utility infrastructure to support sustained operations of the infrastructure must be screened. This screening may be provided by a principal building. Mechanical equipment not screened by a principal building must be screened by a visually opaque fence, screen wall or panel, parapet wall, or other visually opaque screen that must be constructed of materials compatible with those used in the exterior architectural finishes of the principal building.

([5] 6) Staff shall refer site plans to the Architectural Review Committee, if the Committee exists in good standing, for review prior to the site plan being scheduled for Planning Commission. The recommendations of the Architectural Review Committee may be considered by the Planning Commission.

([6] 7) In addition to meeting the requirements of § [1-19.6.400](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-43463#JD_1-19-6.400), the following landscaping, screening, and buffering requirements must be met.

(a) Front yard(s) abutting a roadway must include a landscaped buffer.

(b) Except where adjoining a critical digital infrastructure use, side and rear yards must include a landscaped buffer.

(c) A landscaped buffer must include a four-season visual screen resulting in multi-layered, staggered rows of overstory and understory trees and shrubs that are a mix of evergreen and deciduous vegetation, with an emphasis on species that are native to Frederick County.

(d) The minimum height of overstory trees within a landscape screen or buffer at planting must be a minimum of 6 feet with a minimum caliper of 2 inches. The minimum height of understory trees and shrubs at the time of planting must be 3 gallon or larger. Trees and shrubs larger than the minimum sizes listed above will be required where the minimum planting sizes will not provide adequate screening or buffering within 2 years. Vegetation used to establish a visual screen shall not be trimmed so as to stunt upward and outward growth or to otherwise limit the effectiveness of the visual screen.

(e) A berm, wall, or fence may be used in combination with vegetation to satisfy the screening requirement where deemed appropriate by County Staff and the Planning Commission. Walls and fences must be made of quality materials and enhance rather than detract from the beautification of the site. Walls and fences that are in public view must avoid long, undifferentiated facades and long, plain sections by including a combination of the following design elements: variations in height, step-backs or recesses, changes in material, patterns, textures, colors, or use of accent materials.

(f) If security fencing is proposed, vegetative screening must be placed between the fence and the public view. Fencing must be made of high quality materials. Chain-link and similar woven metal or plastic fencing shall not be used.

(g) If forest or hedgerows exist where screening or buffering is required, it must be preserved to the maximum extent practicable and supplemented with new plantings where necessary to provide the desired screening or buffering.

(h) All landscaping, screening, and buffering must be maintained in living condition.

(i) Applicant must submit a landscape, buffering, and screening plan as part of the site plan application addressing the requirements and timing of plantings. Screening and buffering must be installed as early in the development process as possible. Occupancy shall not be granted if screening and buffering requirements are not installed in accordance with the approved site plan.

(j) The Planning Commission may approve a modification to the landscaping, buffering, and screening standards where an alternate landscaping, buffering, and screening plan is provided that meets the purpose and intent of these design requirements.

      (**[**7**]** 8)   Parking, loading, and signage must be provided in accordance with § [1-19-6.200](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-34430#JD_1-19-6.200) through § [1-19-6.340](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-49539#JD_1-19-6.340).

      (**[**8**]** 9)   **[**Lighting must comply with § [1-19-6.500](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-43473#JD_1-19-6.500), but light poles must not exceed a height of 18 feet. The Planning Commission may require more restrictive lighting heights where deemed appropriate by the Planning Commission.**]** In addition to meeting the requirements of § [1-19-6.500](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-43473#JD_1-19-6.500), the following lighting requirements must be met:

(a) Pole mounted and building mounted lights must not exceed a height of 18 feet.

(b) Lighting shall include elements that reduce negative impacts to wildlife migration, nocturnal habits, and circadian rhythms, such as the utilization of lights with amber or yellow tints instead of blue or white light and the use of timers, motion detectors, and light-sensitive switches to actively regulate the emission of light from light fixtures.

(c) The Planning Commission may require more restrictive lighting standards where deemed appropriate by the Planning Commission.

   (**[**9**]** 10)   Bicycle rack requirements shall be in accordance with industrial parks in table § 1-19-6.220 (H)(1).

(**[**10**]** 11)   Critical digital infrastructure facilities must meet all criteria found in §§ [1-19-7.600](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-34629#JD_1-19-7.600) and [1-19-7.610](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-34635#JD_1-19-7.610).

(C) *Subdivision and street frontage.*

(1) Subdivision of lot(s) for critical digital infrastructure uses shall comply with [Chapter 1-16](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-4678#JD_Chapter1-16) of the County Code.

(2) Where two or more lots are proposed for critical digital infrastructure uses, the lot frontage requirement of § [1-19-4.520](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-34246#JD_1-19-4.520) may be met by construction of a private street subject to Planning Commission approval and the following:

(a) The lot or parcel from which the new lot is being created has fee-simple frontage on a public street.

(b) The private street connects directly to a public road.

(c) The private street will not serve any uses that would be frequented by the general public.

(d) For the purposes of establishing bulk regulations (setbacks, lot width, etc.), the measurements along the portion of the lot(s) fronting a private street must be the same as established for public streets.

(e) The design of the private street must comply with [Chapter 1-16](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-4678#JD_Chapter1-16) of the County Code.

(f) Private streets may not create long, dead-end street networks and must serve a limited number of lots and sites, as determined by the Planning Commission.

(g) Private streets must be maintained by a property owner association or similar organization.

(h) Easements, maintenance agreements, and covenants must be provided to the County for review with the submission of a final plat, and must be recorded by the applicant prior to lot recordation and the recording reference noted on the final plat.

(D)   *Performance standards.* These performance standards for critical digital infrastructure facilities are intended to mitigate potential detrimental effects on adjacent properties and the neighborhood. All applications for site plan approval must be accompanied by a registered engineer's certification that the use complies with all of the performance standards. If, after occupancy of the structures, continuous or frequent (even if intermittent) violations of the performance standards occur, and after notice is given, bona fide and immediate corrective work is not performed which successfully prevents the violation(s) from reoccurring, the Zoning Administrator may suspend or revoke the Zoning Certificate and the Certificate of Occupancy and require the operations and occupancy to immediately cease. The Zoning Certificate and Certificate of Occupancy will be reinstated after the property owner demonstrates to the Zoning Administrator's satisfaction, that operation of the facilities is able to conform to these requirements.

(1) *Noise.*

(a) Noise must be measured with a sound level meter.

(b) The maximum sound pressure levels permitted from any source, including but not limited to air handlers, generators, and other mechanical devices, measured within an adjacent property line, are set forth below:

|  |  |
| --- | --- |
| ***Sound Measured To*** | ***Decibels Continuous Slow Meter Responses*** |
| Industrial uses | 70 |
| Commercial uses | 64 |
| Residential uses in any zoning district | 55 |
| Institutional uses | 55 |
| All other uses | 55 |

(c) All applications for site plan approval must include a sound study that is prepared by a qualified engineer with experience in environmental acoustics. The purpose of the detailed study is to assess the impact of all noise sources and determine the appropriate layout, design, and control measures. The study must include:

1. Details of assessment methodology.

2. Existing baseline noise levels along adjacent property lines.

3. Incorporation of sound studies for adjoining critical digital infrastructure that is not included in the existing baseline noise levels.

4. List of all air handlers, generators, and other mechanical devices that are included in the sound evaluation, including manufactures specifications.

5. Predicted sound levels for three scenarios:

a. All mechanical and electrical equipment required for normal operation at 100% load.

b. Generator testing and maintenance.

c. Emergency scenario with all generators, mechanical equipment, and electrical equipment operating at 100%.

When multiple buildings are proposed on the site plan application, the study must include sound levels for each phase of building construction to ensure that the sound levels listed in the table in (D)(1)(b) above are met during all phases of buildout.

6. Summary of the results and recommended control measures.

(d) Prior to occupancy of any CDI building, actual sound levels for each scenario listed under (D)(1)(c) 5. above must be measured by a qualified engineer with experience in environmental acoustics and a final sound level report must be submitted to the County for review and approval. If actual sound levels exceed the maximum sound pressure levels listed in (D)(1)(b) above, corrective actions must be taken prior to occupancy.

(e) If, upon receipt of credible evidence, sound levels are suspected to exceed the maximum sound pressure levels listed in (D)(1)(b) above at any time after occupancy, the property owner must hire a third-party qualified engineer with experience in environmental acoustics within 30 days of notice from the County to conduct sound testing along all property lines. A report of this testing shall be provided to the County within 60 days of the original notice from the County. If actual sound pressure levels exceed the maximum sound pressure levels listed in (D)(1)(b) above, corrective actions must be identified in the report and executed within 90 days of the original notice from the County. Once corrective efforts have been made, another sound study by a third-party qualified engineer with experience in environmental acoustics must be conducted to confirm if the corrective measures have brought the sound pressure levels into compliance with this section.

(f) The provisions of this section do not apply to:

1. Transportation vehicles not under the control of the use.

2. Occasionally used safety signals, warning devices, and emergency pressure relief valves.

3. Temporary construction activity between 7:00 a.m. and 7:00 p.m.

4. Other exemptions identified in § [1-11-6](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-15898#JD_1-11-6)(F).

(2) *Vibration.*

(a) No vibration may be produced which is transmitted through the ground and is discernible without the aid of instruments at any point beyond the property line; nor may any vibration produce a particle velocity of 2 inches per second measured at or beyond the property line. This provision does not apply between adjoining critical digital infrastructure facilities uses.

(b) All applications for site plan approval must include a vibration impact study that is prepared by a qualified individual with experience in vibration analysis.

(c) Prior to occupancy of any CDI building, actual vibration levels must be measured by a qualified individual and a final vibration report must be submitted to the County for review and approval. Corrective actions must be taken prior to occupancy if the report concludes that the requirements of this section have not been met.

(d) If, upon receipt of credible evidence, vibration levels are suspected to exceed the levels listed in (D)(2)(a) above at any time after occupancy, the property owner must hire a third-party qualified individual with experience in vibration analysis within 30 days of notice from the County to conduct vibration testing along all property lines. A report of this testing shall be provided to the County within 60 days of the original notice from the County. If vibration levels exceed the maximum levels listed in (D)(2)(a) above, corrective actions must be identified in the report and executed within 90 days of the original notice from the County. Once corrective efforts have been made, another vibration study by a third-party qualified individual with experience in vibration analysis must be conducted to confirm if the corrective measures have brought the vibration levels into compliance with this section.

(3) *Generators.*

(a) Generators must meet or exceed Tier 4 or equivalent emission standards as defined by the United States Environmental Protection Agency.

(b) Generator testing shall be limited to Monday thru Friday, 8am to 5pm. Only one generator per building may be tested at a time and for a period not to exceed 30 minutes.

(c) Generators must be installed at ground level.

(d) Stand-alone Fuel Storage Tanks with a Capacity Between 270 Gallons and 1,100 Gallons:

1. For the purposes of this section, fuel storage includes the storage of all petroleum bases fuels, natural gas liquids, biofuels, and liquids derived from other hydrocarbon sources.

2. The storage tank shall be placed above ground with a capacity not to exceed 1,100 gallons.

3. Only one storage tank is permitted per critical digital infrastructure building.

4. The storage tank shall be located a minimum of 100 feet from a well or as provided in § [1-6-50](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-15849#JD_1-6-50) of the County Code (Wellhead Protection Ordinance), whichever is greater.

5. The storage tank shall be governed by the International Building Code 2006 as amended concerning storage tanks, and the National Fire Protection Association 30, as amended.

6. Storage tanks shall have 100% catchment basin, or double-walled containment, and a spill protection overfill alarm.

7. Shall comply with § [1-6-50](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-15849#JD_1-6-50) of the County Code (Wellhead Protection Ordinance).

8. The storage tank must have a minimum setback of 100 feet from all property lines.

9. Storage tanks must meet all applicable State and Federal regulations for above ground storage tanks.

(e) Fuel storage tanks attached to stationary equipment:

1. For the purposes of this section, fuel storage includes the storage of all petroleum bases fuels, natural gas liquids, biofuels, and liquids derived from other hydrocarbon sources.

2. Shall not have a capacity greater than 10,000 Gallons per attached storage tank.

3. The storage tank and stationary equipment shall be located a minimum of 100 feet from a well or as provided in § [1-6-50](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-15849#JD_1-6-50) of the County Code (Wellhead Protection Ordinance), whichever is greater.

4. The storage tank shall be governed by the International Building Code 2006 as amended concerning storage tanks, and the National Fire Protection Association 30, as amended.

5. Storage tanks shall have 100% catchment basin, or double-walled containment, and a spill protection overfill alarm.

6. Shall comply with § [1-6-50](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-15849#JD_1-6-50) of the County Code (Wellhead Protection Ordinance).

7. The storage tank must have a minimum setback of 100 feet from all property lines.

8. Storage tanks must meet all applicable State of Maryland and Federal regulations for above ground storage tanks.

**§ 1-19-8.403. CRITICAL DIGITAL INFRASTRUCTURE ELECTRIC SUBSTATION [IN THE LI AND GI DISTRICTS].**

The following provisions apply to critical digital infrastructure electric substations [in the LI and GI Districts]. Critical Digital Infrastructure Electric Substations that have an approved site plan (final or conditional) as of [the effective date of this bill] are exempt from the changes in this section.

1. A critical digital infrastructure electric substation may only be constructed for the purpose of providing power to critical digital infrastructure facilities, and when a critical digital infrastructure facility has received site plan approval from the Planning Commission. An application for a critical digital infrastructure electric substation may be processed concurrently with an application for a critical digital infrastructure facility.
2. A critical digital infrastructure electric substation may be connected to another electrical system within the region. Any expansion of a critical digital infrastructure electric substation for the purpose of supporting other uses or users must follow the rules, regulations, and procedures applicable to nongovernmental electric substation use.
3. An application for a critical digital infrastructure electric substation must include the following:

(1) Information indicating the general conditions of use and existing improvements on adjoining properties within a 1,000-foot radius surrounding the subject property.

(2) A description of the potential environmental and ecological (including water, air, wildlife, and vegetation) effects of the proposed critical digital infrastructure electric substation on properties in the vicinity of the proposed development.

(3) An assessment of the impact on nearby properties from electromagnetic fields to be generated by the critical digital infrastructure electric substation.

(4) An assessment of safety and reliability, including provisions for emergency operations and shutdowns.

(5) Information as to how the applicant proposes to address the visual impact of the critical digital infrastructure electric substation on designated preservation areas, such as rural legacy areas, agricultural preservation areas, critical farms, Monocacy scenic river, designated heritage areas, historic sites and sites eligible for historic designation.

(6) A description of methods to be utilized to mitigate any waste disposal, air quality, visual or noise impacts associated with the development or operation of the critical digital infrastructure electric substation.

(D) *Design requirements.*

(1) *Landscaping, screening, and buffering.*

(a) A landscaped buffer must include a four-season visual screen resulting in multi-layered, staggered rows of overstory and understory trees and shrubs that are a mix of evergreen and deciduous vegetation, with an emphasis on species that are native to Frederick County.

(b) The minimum height of overstory trees within a landscape screen or buffer at planting must be a minimum of 6 feet with a minimum caliper of 2 inches. The minimum height of understory trees and shrubs at the time of planting must be 3 gallon or larger. Trees and shrubs larger than the minimum sizes listed above will be required where the minimum planting sizes will not provide adequate screening or buffering within 2 years. Vegetation used to establish a visual screen shall not be trimmed so as to stunt upward and outward growth or to otherwise limit the effectiveness of the visual screen.

(c) A berm, wall, or fence may be used in combination with vegetation to satisfy the screening requirement where deemed appropriate by County Staff and the Planning Commission. Walls and fences must be made of quality materials and enhance rather than detract from the beautification of the site. Walls and fences that are in public view must avoid long, undifferentiated facades and long, plain sections by including a combination of the following design elements: variations in height, step-backs or recesses, changes in material, patterns, textures, colors, or use of accent materials.

(d) If security fencing is proposed, vegetative screening must be placed between the fence and the public view. Fencing must be made of high quality materials. Chain-link and similar woven metal or plastic fencing shall not be used.

(e) If existing forest or hedgerows exist where screening or buffering is required, it must be preserved to the maximum extent practicable and supplemented with new plantings where necessary to provide the desired screening or buffering.

(f) All landscaping, screening, and buffering must be maintained in living condition.

(g) The Planning Commission may approve a modification to the landscaping, buffering, and screening standards where an alternate landscaping, buffering, and screening plan is provided that meets the purpose and intent of this section.

(h) Applicant must submit a landscape, buffering, and screening plan as part of the site plan application addressing the requirements and timing of plantings. Screening and buffering must be installed as early in the development process as possible. Occupancy shall not be granted if screening and buffering requirements are not installed in accordance with the approved site plan.

(2) Lighting, if provided, must comply with § [1-19-6.500](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-43473#JD_1-19-6.500), and light poles shall not exceed a height of 18 feet. The Planning Commission may reduce lighting height(s) where deemed appropriate by the Planning Commission.

(3) *Noise.*

(a) Noise will be measured with a sound level meter.

(b) The following table describes the maximum sound pressure level permitted from any source and measured at any adjacent property line.

|  |  |
| --- | --- |
| ***Sound Measured To*** | ***Decibels Continuous Slow Meter Responses*** |
| Industrial uses | 70 |
| Commercial uses | 64 |
| Residential uses in any zoning district | 55 |
| Institutional uses | 55 |
| All other uses | 55 |

(c) All applications for site plan approval must include a sound study that is prepared by a qualified engineer with experience in environmental acoustics. The purpose of the detailed study is to assess the impact of all noise sources and determine the appropriate layout, design, and control measures. The study must include:

1. Details of assessment methodology.

2. Existing baseline noise levels along adjacent property lines.

3. Incorporation of sound studies for adjoining critical digital infrastructure that is not included in the existing baseline noise levels.

4. List of all devices that are included in the sound evaluation, including manufacturers specifications.

5. Predicted sound levels.

6. Summary of the results and recommended control measures.

(d) Prior to operation, actual sound levels must be measured by a qualified engineer with experience in environmental acoustics and a final sound level report must be submitted to the County for review and approval. If actual sound levels exceed the maximum sound pressure levels listed in (b) above, corrective actions must be taken prior to occupancy.

(e) If, upon receipt of credible evidence, sound levels are suspected to exceed the maximum sound pressure levels listed in (F)(3)(b) above, the property owner must hire a third-party qualified engineer with experience in environmental acoustics within 30 days of notice from the County to conduct sound testing along all property lines. A report of this testing shall be provided to the County within 60 days of the original notice from the County. If actual sound pressure levels exceed the maximum sound pressure levels listed in (F)(3)(b) above, corrective actions must be identified in the report and executed within 90 days of the original notice from the County. Once corrective efforts have been made, another sound study by a third-party qualified engineer with experience in environmental acoustics must be conducted to confirm if the corrective measures have brought the sound pressure levels into compliance with this ordinance.

(f[c]) The following sources of noise are exempt:

1. Transportation vehicles not under the control of the use.

2. Occasionally used safety signals, warning devices, and emergency pressure relief valves.

3. Temporary construction activity between 7:00 a.m. and 7:00 p.m.

(4) *Vibration.* No vibration may be produced which is transmitted through the ground and is discernible without the aid of instruments at any point beyond the property line; nor may any vibration produce a particle velocity of 2 inches per second measured at any point beyond the property line. All applications for site plan approval must include a vibration impact study that is prepared by a qualified individual with experience in vibration analysis. This provision does not apply between adjoining critical digital infrastructure uses.

(5) *Height.* The Planning Commission may approve an increase in the maximum height established in § [1-19-6.100](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-34381#JD_1-19-6.100), if it finds the increased height would not have an adverse impact on properties in the vicinity of the proposed critical digital infrastructure electric substation. For each 3-foot increase in the height above the maximum height established in § [1-19-6.100](https://codelibrary.amlegal.com/codes/frederickcounty/latest/frederickco_md/0-0-0-34381#JD_1-19-6.100), the required front, side, and rear yards set back measurements must be increased by one additional foot.

**ARTICLE V: ZONING MAP AND DISTRICTS**

**DIVISION 3: USE TABLE.**

\*\*\*

**§ 1-19-5.310. USE TABLE.**

1. Permitted uses and required development review.

\*\*\*

|  |  |
| --- | --- |
|  | *Zoning Districts* |
| *Uses* | *RC* | *A* | *R1* | *R3* | *R5* | *R8* | *R12* | *R16* | *VC* | *MX* | *GC* | *ORI* | *LI* | *GI* |
| \*\*\* |
| *Industrial Uses* |
| \*\*\* |
| [~~Critical digital infrastructure facility~~] |  |  |  |  |  |  |  |  |  |  |  |  | [~~PS~~] | [~~PS~~] |
| [~~Critical digital infrastructure electrical substation~~] |  |  |  |  |  |  |  |  |  |  |  |  | [~~PS~~] | [~~PS~~] |

**ARTICLE VI: DISTRICT REGULATIONS**

**DIVISION 1: DESIGN REQUIREMENTS AND MODIFICATIONS.**

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**§ 1-19-6.100. DESIGN REQUIREMENTS FOR SPECIFIC DISTRICTS.**

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|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Use Classification*** | ***Minimum Lot Area*** | ***Minimum Lot Area per Unit*** | ***Lot Width*** | ***Front Yard*** | ***Side Yard*** | ***Rear Yard*** | ***Height*** |
| ***Limited Industrial District LI*** |
| ***\*\*\**** |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Critical digital infrastructurefacility | 80,000 | - | [~~200~~]300 | [502]1004 | [502]1004 | [502]1004 | 60 |
| Critical digital infrastructureelectric substation |  20,000 | - | [~~200~~]300 | [50]100 | [50]100 | [50]100 | 30 |
| \*\*\* |
| ***General Industrial District GI*** |
| \*\*\* |
| Critical digital infrastructurefacility | 80,000 | - | [~~200~~]300 | [502]1004 | [502]1004 | [502]1004 | 60 |
| Critical digital infrastructureelectric substation | 20,000 | - | [~~200~~]300 | [50]100 | [50]100 | [50]100 | 30 |
| \*\*\* |

\* Equal to the height of structure.

\*\* Minimum 10' green area no parking within area

\*\*\* For development within the Village Center Zoning District see also §§ 1-19-7.500(B)(2) and (3)

\*\*\*\* Or as determined under [§]§ 1-19-7.500(B)(3), whichever is greater

\*\*\*\*\* Except as provided in § 1-19-8.450(B)(2) and § 1-19-8.450(D)(1).

1 Any proposed addition would have to meet setbacks required for new structures. Parking requirements of §§ 1-19-6.200 through 1-19-6.240.

2 As shown or equal to height of structure, whichever is greater.

3 Development within the VC zoning district may not exceed the density as specified within [§]§ 1-19-7.500(B)(1).

4 Or twice the height of the structure, whichever is greater.