DAVIDSON COUNTY PLANNING DEPARTMENT

GOVERNMENTAL CENTER
913 GREENSBORO STREET
POST OFFICE BOX 1067
LEXINGTON, NORTH CAROLINA 27293-1067

R. LEE CROOK, JR.
PLANNING DIRECTOR/
ZONING ADMINISTRATOR

JOSHUA D. TUSSEY
ASST. DIRECTOR/
SUBDIVISION ADMINISTRATOR

LEXINGTON 336-242-2220

TO: Planning Board Members
FROM: R. Lee Crook, Jr. Planning Director
SUBJECT: Next Planning Board Meeting
DATE: September 8, 2026

The next meeting of the Planning Board will be on Tuesday, September 15, 2026, at 6:00 PM. We will have two subdivision items on the agenda and an informal workshop on data centers.

The first request is for preliminary approval for a subdivision known as Emma's Place. The proposed location is adjacent to the existing Hunting Ridge subdivision off NC Hwy 109 just south of Thomasville. Board members may remember this site plan was previously granted preliminary approval in July of 2024. Since then, the developer has attempted to request annexation of this property into the City of Thomasville. However, the City of Thomasville did not accept their annexation petition, so the developer is requesting a new approval for this 12-lot subdivision, since the previous preliminary approval expired after one year. The developer has been approved for up to 12 sewer taps on this property from the City of Thomasville.

The second item is a request for final approval for Phase 2 of Kennedy Place, located in Thomasville Township off Kennedy Road. The three lots approved as part of phase 1 are located along Kennedy Road. The remaining 19 lots in this phase will be accessed from the interior. Our office is in receipt of septic permits for each of these lots. We expect to have the remaining certifications later this week. The developer will be in attendance on Tuesday to answer any questions.

The Davidson County BOC plans to initiate a text amendment on September 14, 2026, for the Davidson County Zoning Ordinance regarding data centers. You should officially see the request at your October 6, 2026, Planning Board Meeting. As you are aware, this is a hotly contested topic, and I wanted to forward you some information that has been collected so you can familiarize yourself with the concerns created by these uses and what other jurisdictions are regulating. I look forward to going over this information on the 15th with everyone.

As always, feel free to contact our office before then if you have any questions or concerns. We look forward to seeing you all next Tuesday.

RLC/JDT/AMA

DAVIDSON COUNTY PLANNING BOARD AGENDA

09/15/2026

6:00PM

I. ***Welcome by the Chairman***

II. ***Adoption of the Agenda***

III. ***Approval of the Planning Board Minutes***

A. 08/18/2026

IV. ***Approval of the Planning Board Meeting Dates for 2027.***

V. ***Public Address***

VI. ***Subdivisions***

A. Emma's Place – Preliminary - Thomasville Township.
B. Kennedy Place, Phase II – Final - Thomasville Township.
C. The Pines at Stoney Point – Bond Release – Healing Springs Township

VII. ***Informal workshop on Data Centers.***

VIII. ***Adjournment***

Persons with disabilities who may need special accommodations to participate in this meeting should notify the County Manager's office at 336-242-2200 at least twenty-four hours prior to the start of the meeting.

COMMISSIONERS MEETING ROOM
DAVIDSON COUNTY
GOVERNMENTAL CENTER
913 GREENSBORO STREET, LEXINGTON, NORTH CAROLINA

Minutes of the Planning Board
Davidson County, North Carolina

Tuesday, August 18, 2026
6:00 PM

Commissioners' Meeting Room
County of Davidson

PRESENT
Board Members: Chairman Greg Greene, Randy Barney, Joe Hayworth and Dennis Shoaf. Alternate Board Members Jim Myers and Christian Jones.

OTHERS PRESENT
Assistant County Attorney Andrew Howe, Deputy Clerk to the Board of Commissioners Lynn Wilson, Planning Director Lee Crook, Assistant Planning Director Josh Tussey, and Zoning Officers John Wheeler and Adam Fleig.

1. WELCOME BY THE CHAIRMAN
Chairman Greene called the meeting to order.
Chairman Greene stated that Vice-Chairman Ted Myers needed to be excused from the meeting. Mr. Hayworth moved, seconded by Mr. Shoaf to excuse Vice-Chairman Myers from the meeting. The motion carried unanimously, (4-0). Chairman Greene reported that an Alternate Board Member needed to be included as a voting member for this meeting. It was noted that Mr. Myers is due to serve. Mr. Hayworth moved, seconded by Mr. Barney to include alternate Board Member Jim Myers as a voting member for this meeting. The motion carried unanimously, (4-0).
2. ADOPTION OF AGENDA
Mr. Crook requested that item V.B. be removed from the Agenda as the application had been withdrawn. Mr. Myers moved, seconded by Mr. Hayworth to adopt the Agenda as amended. The motion carried unanimously, (5-0).
3. APPROVAL OF MINUTES
Mr. Hayworth moved, seconded by Mr. Shoaf, to approve the August 4, 2026 meeting minutes as presented. The motion carried unanimously, (5-0).
4. PUBLIC ADDRESS
There were no requests to speak at public address.
Before proceeding to the first rezoning request, Alternate Board Member Jones requested to be recused from items V.A. and V.C., both involving Group 21, LLC, on the grounds that Group 21 is his client, creating a business relationship that he felt warranted him being recused from participating in those hearings. Chairman Green acknowledged the request and asked Mr. Howe to advise the Board.

Mr. Howe explained that the governing standard is found in General Statute 160D, which governs land use matters. He stated that the relevant test is whether a board member has a direct financial interest or a close business, associational, or personal relationship with an applicant. Having spoken with Mr. Jones prior to the meeting, Mr. Howe felt that Group 21 being Mr. Jones's client, very likely satisfies the close business relationship standard, and potentially the financial interest standard as well, making recusal not only appropriate but good practice. Mr. Howe further noted that stepping away from the dais entirely, as Mr. Jones proposed, was entirely proper and likely preferred.

Mr. Hayworth moved, seconded by Mr. Barney to recuse Mr. Jones from participating in both applications presented by Group 21, LLC. The motion carried unanimously, (5-0).

Mr. Jones stepped away from the dais for the duration of those items.

5. REZONING REQUEST

A. Group 21, LLC – RA-1 and RA-2 to CZ-RC – Cotton Grove Township

Mr. Crook reported this request by Group 21, LLC to rezone property located in Cotton Grove township, tax map 13, lot 26 containing 7.33 acres more or less. The property is located on the north side of Belmont Road approximately .85 mile west of the Linwood-Southmont Road intersection. Rezoning is requested to change from RA-1 and RA-2, Rural Agricultural Districts, to CZ-RC, Conditional Zoning Rural Commercial District.

Mr. Fleig noted the location of the property. He stated that the property is currently split-zoned RA-1 and RA-2, Rural Agricultural Districts, and the Applicant seeks to rezone it to CZ-RC, Conditional Zoning, Rural Commercial District, for the purpose of developing a self-storage facility. Mr. Fleig displayed a conceptual site plan and an elevation rendering, noting that both are conceptual in nature and subject to change. A copy of the plan and rendering is included with the original Minutes. Mr. Fleig yielded the floor to the Applicant's representative.

Ms. La-Deidre Matthews, with Fox Rothschild, LLP, located in Charlotte, North Carolina, appeared on behalf of the Applicant, Group 21, LLC. She introduced herself and members of Group 21 who were in attendance. Ms. Matthews noted that she had personally visited both Belmont Road and the subject property prior to the hearing. She gave a brief presentation and presented a PowerPoint to the Board addressing the two primary frameworks applicable to rezoning requests: reasonableness under the Davidson County Zoning Ordinance (consistent with G.S. 160D-605) and consistency with the Davidson County Land Development Plan. A copy of the PowerPoint is included with the original Minutes.

Ms. Matthews noted that a professional evaluation had determined that the property lacks suitable soils to support a conventional septic system adequate for residential development. A self-storage facility requires significantly less water and wastewater infrastructure than residential or most commercial uses, making it a practical and appropriate use given the site's physical constraints. She characterized self-storage as a low-impact, commercial use that would generate minimal traffic and noise and place no burden on public services such as schools, emergency services, or utility capacity. Ms. Matthews stated that it would serve the surrounding residential population, which has been expanding. Ms. Matthews noted that there has been considerable growth in the area, including nearby industrial uses and multiple approved residential subdivisions, resulting in increased population and demand for services.

Ms. Matthews stated that the Davidson County Land Development Plan designates this area as an economic development corridor and that the site sits near Interstate 85, bordered to the south by the Norfolk Southern Railroad, and surrounded by a mix of vacant farmland and, further to the east, sits chemical and manufacturing operations. She noted that locating a low-impact commercial use like self-storage in this transitional area is entirely consistent with the Land Development Plan's growth goals. She cited several supporting policies, including economic development policies, and displayed a map from the Land Development Plan showing the site falling within the commercial and industrial center designation.

Jonathan Cochran appeared on behalf of Group 21, LLC to answer questions. The Board inquired about the Amazon parcel locker feature shown on the conceptual site plan. Mr. Cochran explained that the locker concept is similar to a PO box arrangement, whereby customers with incoming packages can use a secure, code-accessed lockbox rather than have deliveries left at their door. He noted that the Amazon locker would ideally be located inside the fenced area for security purposes and that delivery access could potentially be facilitated through a gate code arrangement with shippers. Mr. Cochran acknowledged this aspect of the design had not been fully finalized.

Chairman Green raised the question of whether an outdoor water tap or hose bib would be installed on-site. Mr. Cochran indicated that he did not foresee the need for one, noting that pressure washing equipment could include water via trailer, though he acknowledged that an ice vending machine, also shown on the conceptual plan, would require a water connection.

An extensive discussion followed regarding exterior lighting. The Board expressed concern that lighting on building facades could affect neighboring properties and project into the roadway, which could blind drivers traveling on Belmont Road. The Board advocated for what is commonly called "shoebox" lighting, consisting of downward-directed fixtures that concentrate all illumination on-site without spillage toward adjacent properties or the roadway. Mr. Cochran affirmed that the Applicant's intention was to use minimal lighting, primarily motion-activated lights near unit doors rather than large wall-pack fixtures, and that lighting on road-facing facades could be avoided or shielded. The Board noted that the site operates on a 24-hour access basis, making exterior lighting a matter of public interest.

Ms. Matthews stated on behalf of the Applicant that they are willing and agreeable in principle to a textual condition restricting light pollution, and that they would work with Mr. Crook and Planning Staff to develop specific language. Mr. Crook indicated that Staff would draft appropriate language and confirm the wording with the Applicant, including provisions prohibiting lighting on the road-facing facade and eliminating illumination spilling beyond the property line.

No members of the public came forward to speak on this item.

Mr. Fleig noted that the Planning Department had received two phone calls from neighboring property owners who expressed concern about potential impacts to their property values, but indicated that they did not intend to appear at the Planning Board meeting and would instead attend the Board of Commissioners hearing.

Mr. Crook presented Staff's recommendation and read the proposed conditions of the conditional zoning. He provided geographical background, noting the proximity of the Davidson County I-85 Corporate Center approximately 700 feet to the southwest, some limited industrial property further east, and the county's extended public sewer infrastructure in the area as evidence of changing conditions. He stated that the Land Development Plan designates this area as an economic development corridor, a designation that promotes non-residential growth, and that numerous plan policies support the request. He stated that Staff finds the application

reasonable and consistent with the zoning ordinance and the Land Development Plan, and recommended approval. He also asked whether the Applicant would agree to submit a textual commitment limiting the property uses to those shown on the conceptual plan (compartmentalized storage, Amazon drop box, and ice vending machine). Ms. Matthews indicated that the Applicant would prefer a textual commitment over treating the conceptual plan as a binding condition, and agreed to that approach.

Board discussion reflected general support for the application. The board confirmed that the motion to recommend approval would incorporate the agreed upon additions: a textual commitment limiting the permitted uses and a lighting condition to be fully developed by staff and approved by the Applicant.

Mr. Barney moved, seconded by Mr. Myers to approve this request by Group 21, LLC, that includes the proposed conditions as amended to include a textual commitment limiting uses and a lighting restriction condition, to rezone property located in Cotton Grove township, tax map 13, lot 26 containing 7.33 acres more or less from RA-1 and RA-2, Rural Agricultural Districts, to CZ-RC, Conditional Zoning Rural Commercial District. The motion carried unanimously, (5-0).

The Applicant was advised that the matter would proceed to the Davidson County Board of Commissioners for final action on Monday, September 14, 2026, at 6:00 PM, in the same meeting room.

B.	**Maria Isabel Bejarano & Arnulfo Montes Ortiz – RA-3 to CZ-LI – Thomasville Township**

This item was withdrawn by the Applicant prior to the meeting and removed from the Agenda upon adoption of the Agenda. No action was taken.

C.	**Group 21, LLC – RA-3 to CZ-RM-2 – Midway Township**

Mr. Crook reported this request by Group 21, LLC to rezone property located in Midway township, tax map 21, lot 5 containing 32.35 acres more or less. The property is located on the southeast corner of I-285 and Eller Road. Rezoning is requested to change from RA-3, Rural Agricultural District to CZ-RM-2, Conditional Zoning, High Density Residential District.

Mr. Wheeler introduced the application noting the location of the property as being highlighted in yellow on the GIS map. He stated that the request is to develop a high-density apartment community on Eller Road off of Old US Highway 52.

Board Member Randy Barney disclosed to the board that he owns two duplexes located approximately one-quarter mile from the subject property on Eller Road and wished to know whether he should recuse himself. Chairman Green deferred the question to Mr. Howe.

Mr. Howe noted the same 160D analysis previously applied to Mr. Jones. He asked Mr. Barney whether he had any direct financial interest, whether the project's approval or denial would financially impact him, whether he had a close personal, associational, or business relationship with the Applicant, or whether he had any such relationship with potential opponents. Mr. Barney answered no to each question. Mr. Howe stated that merely living in Davidson County, even fairly close to a subject property, does not create a disqualifying conflict; one is simply a citizen in that circumstance. He concluded that, in his view, there was no appreciable issue and

no grounds for recusal. The board concurred without taking a formal vote, and Mr. Barney remained a voting member.

Ms. La-Deidre Matthews again addressed the board on behalf of Group 21, LLC. She oriented the board to the site using zoning and aerial maps, noting the property's proximity to Highway 285 to the west and Highway 52 to the east. She stated that the application would allow for 288 apartment units on the approximately 32-acre site. Ms. Matthews presented a PowerPoint presentation for the Board. A copy of the PowerPoint is included with the original Minutes.

Ms. Matthews noted the three factors identified in the Davidson County Zoning Ordinance for determining site appropriateness for high-density residential development: public water and sanitary service, proximity to municipalities, and proximity to arterial roads. She stated that a 12-inch gravity sewer main was installed through the western portion of the property around 2010 as part of the Davidson County Northwestern Regional Sewer System extension to the Town of Midway, making sewer service available. She further stated that the site would be served by Winston-Salem's sanitary service collection system, and that Davidson Water has a water line on Eller Road. Ms. Matthews displayed maps showing the site's proximity to the Town of Midway. She noted that I-285, immediately adjacent to the property, and Highway 52 accessible via Eller Road, are both within one-half mile of the site.

Ms. Matthews displayed a conceptual site plan showing six three-story buildings with approximately 48 units each clustered toward the road end of the property to minimize impacts, with significant open space retained, including stream buffers. She noted that the allowable density under RM-2 would actually be closer to 400 units, but the Applicant is self-limiting to a maximum of 288. The conceptual plan also includes a clubhouse, pool, and park area. She stated that Group 21 envisions a mix of one-bedroom, two-bedroom, and three-bedroom units to contribute to housing diversification.

Ms. Matthews reported that the Applicant had engaged with NCDOT prior to the hearing. She stated that NCDOT representative Adam Freeman physically visited the site and assessed the proposed driveway locations. NCDOT's analysis, conducted under a conservative "worst case" scenario of two driveway access points serving 300 units, resulted in an initial determination that the traffic generated by the site would not require roadway improvements on Eller Road at that time, and that no Traffic Impact Analysis study would be needed. Ms. Matthews offered to share the email correspondence from NCDOT with the Board and Staff.

Ms. Matthews cited data from Community Scale indicating that Davidson County will need approximately 11,188 additional housing units over the next five years to keep pace with projected growth, including approximately 7,000 units to address expected growth and 4,000 units to address existing shortfalls. She noted that the county's rental vacancy rate is approximately 3.7 percent, roughly half the nationally recommended standard of 7.4 percent, and that approximately 2,860 rental units are needed to address the existing rental vacancy deficit before accounting for new job growth. She cited multiple incoming employers along with their projected jobs as evidence of incoming population pressure that will further strain the housing market.

Ms. Matthews concluded by citing multiple Land Development Plan policies supporting the application and noted that the comprehensive plan expressly directs high-density development to locations near municipalities, arterial roads, and targeted growth areas, exactly the type of location before the board. She respectfully requested a recommendation of approval and asked to reserve time for rebuttal following public comment.

Chairman Green invited members of the public to speak and requested that speakers be concise and avoid unnecessary repetition.

Mr. Mike Huddleston, of 694 Jes Wes Lane, addressed the Board. He clarified several points that he believed were mischaracterized in the presentation, stating that there is no direct access to Highway 52 from Eller Road. He noted that the secondary rural roads that would be utilized to access Highway 52 are not built to handle high-volume traffic. He described experiencing routine traffic backups on Old Highway 52 at Midway School Road during school hours, lasting 20 to 30 minutes, and reported that adding hundreds of additional vehicle trips from a 288-unit apartment complex would create serious hazards. Mr. Huddleston questioned whether the area constitutes a "mixed use" corridor in any meaningful sense, noting that nearby non-residential uses consist primarily of a small electrical company and a daycare. He acknowledged that the county's sewer extension was news to him. He expressed concern that once one apartment complex is permitted, others will follow, overwhelming the area's infrastructure and stated that if growth is coming, developers should bear the cost of necessary infrastructure improvements rather than passing that burden to the state or county.

Ms. Angela Tullock with husband Jimmy Tullock, a retired NCDOT employee, of lot 117 addressed the Board. The Tullocks pointed to the GIS map and noted their lot that is immediately adjacent to the proposed development. Ms. Tullock stated that Eller Road cannot handle the traffic that would be generated, describing it as a road where speeds routinely reach 80 to 85 miles per hour, and where she has nearly been rear-ended multiple times when attempting to turn into her own driveway. Ms. Tullock noted that she had contacted the State Highway Patrol on multiple occasions with limited effect. She reminded the board that in 2005, when she sought permission to build on the road, the Planning Board itself told her the number of homes was being limited due to traffic. She also noted that she had spoken with every member of the Midway Town Council and each indicated they would not allow a development of this kind within the town limits. Ms. Tullock additionally raised the concern that the conceptual site plan appears to route development across a private easement known as Ruby Lane, which provides access to her neighbor Chris's property, and questioned how that access would be preserved.

Mr. Tullock stated that based on his professional experience, he has serious safety concerns about the driveways proposed on Eller Road. He described a significant hill on Eller Road immediately before the first proposed driveway access that has limited sight distance. He stated that correcting the sight distance problem to the standard NCDOT calls for would likely require several million dollars in road reconstruction, and expressed doubt that the driveway permits would be approved without addressing this issue.

Mr. Crook addressed Ms. Tullock's concern regarding why she was not allowed to build more homes on her road that did not relate to traffic.

Mr. Livesay of lot 116, being approximately 100 feet from the proposed buildings, addressed the Board and raised concerns about the impact on his property value, the fate of the Ruby Lane easement, and whether he would have access to the county sewer system that would run across or near his property, noting that he had recently had to replace his septic system at significant expense.

Mr. John Grossman, of US Highway 52, originally from Iowa and Chicago, addressed the Board and reported that he moved to the area to enjoy the rural nature. He expressed his concern with this being low-income housing and there was not any direct access to the highway. He reported statistics with North Carolina now being 9th in the United States for growth, previously being 26th. Mr. Grossman further referenced "food desert" and noted his concerns with the lack of community services that would address this issue.

Mr. Brandon Griggs, who identified himself as a multi-generational farmer and landowner of a century family farm south of the subject property. He addressed the Board and stated that he

has a child who attends Midway Elementary School. He stated that the scale of the proposed development is completely incompatible with the surrounding area. He raised concerns about light pollution, school capacity, the absence of sidewalks, public transportation, and nearby commercial amenities as factors making the location unsuitable for high-density residential use. Mr. Griggs also raised the concern that clustering a large number of people adjacent to agricultural land creates potential conflicts with farming operations.

Ms. Kim Woodruff, of 175 Laurel Court, off of David Smith Road, addressed the Board and reported that she had communicated with NCDOT directly and was told that all available resources are currently directed toward Western North Carolina recovery, and that planned improvements to Hickory Tree Road are not projected to occur until 2033, at the earliest. She stated that the Midway area is patrolled by only one to two sheriff's vehicles at any given time, and expressed concern that adding a large apartment complex would increase demand for law enforcement services beyond what is currently available. Ms. Woodruff also noted that break-ins from Winston-Salem are already occurring in their community.

Ms. Rachel Lekaj, daughter of Angela and Jimmy Tullock, and a lifelong area resident, addressed the Board and stated that she grew up at the lot adjacent to the proposed development, and that she has a child on the way whom she hopes to raise in the same rural environment in which she was raised. She described the traffic issues and how it added to her daily commute when she resided in the area. Ms. Lekaj further raised the issue of emergency services response times, stating from her professional experience as a healthcare worker at Novant Hospital during the COVID-19 pandemic, the current emergency services response time for this area already exceeds 30 minutes, a situation that would only worsen with added population density.

Ms. Jamie Hester of 324 Eller Road, addressed the Board and noted that she lives across the street from the proposed property. She stated that the project does not fit this area and would be better suited in a city setting.

Mr. Andrew Danner, of 1164 Crescent Court, addressed the Board and stated that the characterization of the area as urban is inaccurate, pointing to a barn near his residence visible on the aerial map. He added that the area lacks not just grocery stores but also doctor's offices and public transportation, infrastructure that is typically expected in locations where apartment complexes are sited. He reported that this project does not fit this area.

Ms. Robin Perryman, of 410 Eller Road, addressed the Board and shared that she regularly picks up trash along Eller Road, including liquor bottles, lottery tickets, and beer cans, and expressed concern that a large apartment complex would worsen conditions on the road. She also referenced negative reviews she had read about apartment complexes in Winston-Salem involving vehicle break-ins and vandalism.

Mr. Brian Sizemore, of 487 Claratom Drive, addressed the Board and stated that his agricultural land extends to Eller Road and that he regularly operates farm equipment on the road, often stopping traffic. He said the trees that previously screened the subject property from his farm have been cleared, leaving a direct line of sight from his operation to the proposed building sites. Mr. Sizemore raised concerns about light pollution and the security implications of having a large number of unknown residents adjacent to his farm, noting that every building on his property had been broken into two years prior with no resolution from the Sheriff's Department.

Ms. Rosa Ladd, of 440 Eller Road, addressed the Board and stated that she is in her 80s and must cross Eller Road to access her mailbox and she does not feel safe doing so given current traffic speeds. She expressed concern about how long construction of a five-building complex

would take, given that the Williams pipeline project had occupied a large portion of her one-acre property for nearly a year. She questioned whether the same developer owns the property across the road and whether more development would follow.

Chairman Green addressed Ms. Ladd directly and noted that the U.S. Postal Service allows for mailbox relocation to private property for individuals with mobility concerns, and he encouraged her to pursue that option regardless of the outcome of the rezoning request.

Mr. Jonathan Cochran returned to address the board in rebuttal and to answer some of the questions and concerns raised by the community. He reiterated that an NCDOT representative conducted an on-site visit on July 31st, assessed the proposed driveway locations, and verbally indicated that sight distance was acceptable. He stated that NCDOT conducted their traffic analysis at 300 units, an amount greater than the proposed 288 units, and confirmed in writing that no Traffic Impact Analysis is required and that no road improvements or turn lanes will be mandated. He offered to share this correspondence with the board and Planning staff. Mr. Cochran addressed the Ruby Lane easement issue, stating that the Applicant is aware of the concern, he attempted to contact neighboring property owners prior to the hearing, and is open to conversations about improving and maintaining access to adjacent properties through a paved connection. He confirmed that the development is not HUD-funded, is not income-restricted, and is not age-restricted, it will be market-rate housing priced at whatever the rental market demands. Mr. Cochran addressed the sewer capacity question, indicating that utility providers, including Energy United, Duke Energy, and Davidson Water, have all confirmed the ability to serve the project. He stated that any infrastructure costs, including turn lanes, signal improvements, and sewer extensions, would be borne by the developer, not taxpayers. Mr. Cochran also addressed the construction phasing question, indicating that development will be phased based on market feasibility studies conducted closer to the groundbreaking date.

Ms. Matthews followed with additional rebuttal remarks. She clarified that she has personally driven Eller Road and Belmont Road and does not present a site to a Board without having visited it. She stated that there are no plans for annexation and that, under North Carolina law, involuntary annexation is extraordinarily difficult and cannot be mandated by a developer for property belonging to others. Ms. Matthews addressed the future-expansion concern, stating that any changes beyond the current 288-unit maximum would require a new rezoning application and a full return to both the Planning Board and the Board of Commissioners. She stated that the Applicant is agreeable in principle to conditions addressing light pollution, preservation of existing trees where feasible, enhanced buffering along the eastern property line, and improved streetscape landscaping along Eller Road, and noted that they are willing to work with Staff to develop specific language. Ms. Matthews noted that assumptions about who will live in the apartments and crime implications are not legally cognizable considerations in a land use determination, and she directed the Board back to the applicable consistency and reasonableness standards. Ms. Matthews requested a recommendation of approval.

Mr. Crook presented Staff's recommendations. He noted that the subject property has carried its current RA-3 designation since the inception of county zoning in 1973, and he cited several material changes in conditions that have occurred. Mr. Crook noted the existence of a legal non-conforming manufactured home park directly west of the I-285 overpass on Eller Road, 23 homes on just under seven acres, as evidence that higher-density residential development is not without precedent in the immediate vicinity, though he acknowledged it is not the typical development pattern for the road. He described the character of Eller Road and adjacent David Smith Road as rural, with most development consisting of single-family stick-built homes on individual lots of 20,000 square feet or larger, using conventional septic systems.

Mr. Crook reviewed policies in the Land Development Plan that support the application and those that weigh against it. He stated that policies addressing centralized sewer concentration, planned employment and housing concentrations near major arterials, density appropriate to location factors, and high-density residential development near employment and shopping centers all lend support. Mr. Crook stated that policies addressing rural character preservation, adequate walkability to urban services, and the contrast between the proposed use and the existing development pattern weigh in opposition. He noted that the Land Development Plan designates the Town of Midway as a commercial and industrial center, supporting the inference that goods and services are available in proximity and more will come with economic development.

Mr. Crook stated that the Land Development Plan appears to support the application in terms of sheer numbers, but cautioned that the Board is not bound by the plan and may base its decision on specific findings that differ from the plan's general guidance, provided the Board states specifically why. He acknowledged that the school impact depends heavily on the ultimate mix of one-, two-, and three-bedroom units.

Mr. Crook, if the request is approved, asked whether the Applicant would agree to additional conditions that included a more substantial buffer along the eastern property line and providing more robust landscaping along the Eller Road frontage. Ms. Matthews confirmed the Applicant's agreement to those conditions in principle.

Mr. Crook closed by stating that this is a difficult application given the genuine pros and cons involved, that the proposed development represents a difference from the existing development pattern on Eller Road, and that while this type of development is coming to the county, the central question before the Board is whether this is the proper location.

Mr. Hayworth moved to deny this request by Group 21, LLC to rezone property located in Midway township, tax map 21, lot 5 containing 32.35 acres more or less from RA-3, Rural Agricultural District to CZ-RM-2, Conditional Zoning, High Density Residential District, stating his personal belief that the development would be detrimental to the safety and welfare of the community and that it is not a fit for the proposed location. Discussion ensued with the Board acknowledging that high-density residential development is coming to the county but argued that the area simply is not the right place for it, contrasting the proposed location with examples of successful apartment developments elsewhere in the county that are situated adjacent to major commercial corridors, grocery stores, and restaurants. There was concern whether the location satisfies the plan's directives that high-density residential be convenient to commercial centers and located in compact targeted growth areas near existing towns and cities, a standard that is inadequately met by this location. The Board approved of the Applicant's product, but believed that it is the wrong location and should be more accessible to restaurants, grocery stores, and other commercial services. The Board reported having driven to the area and reported their concerns with the traffic. Mr. Barney seconded the motion. The motion to deny carried unanimously, (5-0).

Chairman Green informed those present that the Board's recommendation of denial would be forwarded to the Davidson County Board of Commissioners for their consideration on September 14th at 6:00 PM in this room. He noted that the Board of Commissioners is not bound by the Planning Board's recommendation and encouraged the Applicant to be present at that hearing.

D.	**Deborah Lewis – CZ-RC to RA-3 – Abbotts Creek Township**

Following a brief recess, Mr. Jones returned to the dais for the remainder of the meeting.

Mr. Crook reported this request by Deborah B. Lewis to rezone property located in Abbotts Creek township, tax map 16, lots 3C & part of lot 3 containing 1 acre more or less. The property is located on the west side of North Clodfelter Road approximately .45 mile north from the Willie Bodenheimer Road intersection. Rezoning is requested to change from CZ-RC, Conditional Zoning Rural Commercial to RA-3. Rural Agricultural District.

Mr. Wheeler provided a brief context noting that the property was rezoned to CZ-RC approximately one year prior to accommodate a proposed used car lot, which either never came to fruition or has since ceased operation. Ms. Lewis now operates a farm on the broader property, approximately 44 acres in total, and she wishes to use this parcel for farm buildings and equipment storage. The commercial zoning designation is also producing a commercial tax assessment, which is inconsistent with the Applicant's agricultural use. Mr. Wheeler invited Ms. Lewis to address the board.

Ms. Deborah Lewis explained briefly that the car lot was her son's idea, it did not work out, and she simply wants the property returned to agricultural zoning so she can use it for farm buildings and equipment as part of her broader farm operation. Ms. Lewis indicated that she is not considering agritourism activities, she wants to bring the parcel back into farm use consistent with the surrounding acreage. Ms. Lewis indicated there is a small building on the site that was going to be used for the car lot, and she intends to incorporate it into farm use

No members of the public came forward to speak in support of or in opposition to the application.

Mr. Crook presented Staff's recommendation, noting that the subject property is entirely surrounded by RA-3 zoning, making the request contiguous and consistent with Article 7 of the Zoning Ordinance. He cited policies in the Davidson County Land Development Plan that support the application. Mr. Crook stated that Staff recommended approval.

Based on Staff's recommendation, Mr. Hayworth moved, seconded by Mr. Myers to approve this request by Deborah B. Lewis to rezone property located in Abbotts Creek township, tax map 16, lots 3C & part of lot 3 containing 1 acre more or less from CZ-RC, Conditional Zoning Rural Commercial to RA-3. Rural Agricultural District. The motion carried unanimously, (5-0).

Ms. Lewis was advised that the matter would proceed to the Davidson County Board of Commissioners for final action on Monday, September 14, 2026, at 6:00 PM, in the same meeting room.

6. SUBDIVISIONS

A. Friedberg Grove – Preliminary – Arcadia Township

Mr. Tussey stated that the preliminary plat for Friedberg Grove subdivision is a proposed 11-lot subdivision located off Reuter Way in the Arcadia township, in what was described as the northernmost part of the county near Friedberg Church Road. The subject tract is the last undeveloped parcel in a larger area known as Friedberg Place, developed many decades ago. The proposed internal access road, to be maintained as a state road, has been given the proposed name Peach Hill Lane.

Mr. Tussey stated that the plat in the Board's packets may not reflect the most current version. A copy of the updated plat is included with the original Minutes. Following ongoing

correspondence between the developer, their engineer, and the NCDOT offices in Salisbury, NCDOT had initially expressed concerns about the proposed driveway connection not aligning with the existing Krause Lane to the south. After further review, NCDOT determined that alignment is geometrically impossible given the available frontage, and verbally approved the proposed connection as the best available option. NCDOT also required that Lot 1, a small, oddly shaped corner lot wedged near the Reuter Way entrance, access the development via the internal Peach Hill Lane rather than Reuter Way, a change that is reflected in the updated plat.

Mr. Tussey clarified that this reconfiguration means the front setback for Lot 1 will be measured from Peach Hill Lane rather than Reuter Way. He stated that Lot 1 still meets the minimum 125-foot lot depth requirement when measured as the average of its two side property lines, given the lot's irregular shape. He noted that the lot's configuration may be revisited between preliminary and final approval to determine whether it remains viable or should be reconfigured as common area.

Mr. Tussey stated that the property is located within a watershed area. Most lots are below that threshold individually, but the inclusion of a larger Lot 10 (approximately 83,000 square feet) and common area brings the overall project into compliance. A stream runs along the rear of the property, and a required 50-foot undeveloped buffer on both sides, prohibiting septic systems, structures, and roadways within that buffer, was noted and shown on the soil map. A copy of the soil map is included with the original Minutes.

Developer representatives Clay Mize and Robert Frost (engineer) were present and available to answer questions. In response to the Board's inquiry about the anticipated product type, Mr. Mize confirmed that the homes will be single-family detached residences consistent with the existing Friedberg Place neighborhood.

No one from the public requested to speak on behalf of this matter.

Mr. Hayworth moved, seconded by Mr. Myers, to approve the preliminary plat for Friedberg Grove subdivision. The motion carried unanimously, (5-0).

B. Woodland Creek – Preliminary – Arcadia Township

Mr. Tussey presented Woodland Creek subdivision for the Board's consideration. He noted that it is a larger proposed subdivision by the same development team as Friedberg Grove, and is also located in Arcadia township. The subject property has a unique shape, a roughly 50-foot-wide access strip along Sunset Road that leads to a larger main parcel set back from the road. The development is located off of Sunset Road, which functions as a cut-through between Friedberg Road and NC-150 just north of the Arcadia area. The internal access road will connect to Sunset Road as a state-maintained road, and Mr. Tussey confirmed that NCDOT has reviewed the proposed access and expressed no concerns.

Mr. Tussey stated that the property is likewise subject to watershed regulations requiring a minimum density of one dwelling unit per 40,000 square feet. The proposed plat uses a variety of lot sizes, some smaller, some larger, along with common open space areas to achieve overall compliance with the density requirement. A stream also runs through this property, and the required 50-foot buffer on both sides was identified and noted on the plat. Mr. Tussey expressed appreciation that the developer has noted this buffer on the plat, ensuring it will be recognized and maintained during the permitting process.

Mr. Tussey stated that the soil analysis performed by Piedmont Environmental indicates that the site is generally well suited for conventional septic, with some areas rated suitable, some

unsuitable, and some requiring additional investigation. Mr. Tussey noted that Mr. Mize is available to answer further questions about the development's goals and design. A copy of the soil map is included with the original Minutes.

The Board expressed appreciation for the visible delineation of stream buffers on the plat.

No members of the public came forward to speak on this item.

Mr. Hayworth moved, seconded by Mr. Barney, to approve the preliminary plat for Woodland Creek subdivision. The motion carried unanimously, (5-0).

C. Whispering Mill (Grindstone) – Final – Reedy Creek Township

Mr. Tussey presented the request for final approval of the subdivision formerly known as Grindstone, now renamed Whispering Mill, located off Old Mill Farm Road in Reedy Creek township. He provided historical context noting that the board previously granted a variance for five lots (Lots 1, 2, 12, 13, and 14) that were unable to meet the minimum lot depth requirement, and granted preliminary approval of the plat at that time. Those five lots remain identical in dimension and configuration to the previously approved preliminary plat, and the previously granted variance continues to apply.

Mr. Tussey reported that he drove to the site the morning of the meeting. Water lines are installed, building pads have been prepared, and the development is progressing. He presented photos of the subdivision in its current condition. A copy of the photos is included with the original Minutes. He stated that Staff received certifications and approvals from soil scientist Eric Bailey confirming that all 14 lots will support a septic system; a water system has been installed to required specifications, signed by engineer Mitchell Latham and accepted by Ben Palmer of Davidson Water; and NCDOT issued a driveway permit approving the driveway connection, and a certification of pavement completion to required specifications.

Mr. Brian Lucas stated that the subdivision is being sold to a group of local builders who are each taking three to four lots. He confirmed that the builder mix has not been finalized for every lot, but that slab-on-grade construction is anticipated, with some builders potentially using an elevated slab/stem wall approach. He also clarified that the name change from Grindstone to Whispering Mill was a decision made by the incoming builder group, though the road name, Grindstone Drive, will remain.

No members of the public came forward to speak on this item.

Mr. Hayworth moved, seconded by Mr. Shoaf, to approve the final plat for Whispering Mill subdivision. The motion carried unanimously, (5-0).

D. Baymeade, Phase 2 – Bond Release – Reedy Creek Township

Mr. Tussey provided background on this bond release request for Baymeade, Phase 2. The Board previously granted final approval for Baymeade Phase 1B and Phase 2A in June. At that time, the water lines for the development had not yet been certified as installed, and the Board accepted a performance bond in the amount of $250,000 in lieu of that certification in order to allow the final approval to proceed.

Since that meeting, Staff received a sealed and signed certification from Mitchell Latham and Ben Palmer of Davidson Water confirming that the water system has been constructed and

installed to the required specifications. With all required improvements now complete and documented, Staff requested that the Board formally release the $250,000 bond.

Mr. Brian Lucas expressed his appreciation to the Board for the bond mechanism, noting that the ability to post a bond and proceed to final approval while completing the last items, given the scheduling constraints of planning board dates and agenda availability, is a meaningful and practical tool that helps developers to stay on schedule.

Mr. Myers moved, seconded by Mr. Hayworth, to approve the bond release for Baymeade, Phase 2, subdivision. The motion carried unanimously, (5-0).

7. ADJOURN

Mr. Barney moved, seconded by Mr. Myers to adjourn the meeting. The motion carried unanimously, (5-0).

Lynn Wilson, Secretary
Davidson County
Planning Board

Greg Greene, Chair
Davidson County
Planning Board

2027 Meeting Schedule for the Planning Board

January 5

January 19

February 2

February 16

March 2

March 23**

April 6

April 20

May 4

May 18

June 1

June 15

July 6**

July 20

August 3

August 17

September 7

September 21

October 5

October 19

November 2**

November 16

December 7

December 21

All meetings are normally held on the first and third Tuesdays of each month beginning at 6:00 PM in the Commissioners Meeting Room, 4th Floor, Davidson County Governmental Center, Lexington. Meetings are subject to cancellation/rescheduling due to weather conditions, availability of quorums and other extenuating circumstances.

**Election and/or holiday weeks may be canceled or rescheduled at the discretion of the Planning Board

Persons with disabilities who may need special accommodations to participate in this meeting should notify the Planning Department at least 24 hours prior to the start of the meeting.

State of North Carolina
County of Davidson

I, _____, Review Officer of Davidson County, certify that the map or plat to which this certification is affixedmeets all statutory requirements for recording.

_____
Review Officer

PRELIMINARY PLAT
NOT FOR RECORDATION
CONVEYANCES OR SALES

Final Plat

109 COMMERCIAL PARK
PHASE 2

P.B. 20 PG. 88

Owner's Certification

I (we) hereby certify that I (we) are the owners of the property shown and described herein, that the property is within the subdivision jurisdiction of the City of Thomasville and that I (we) hereby adopt the plan of subdivision with my (our) free consent and hereby establish as lots and dedicate all streets, alleys, easement, walks, parks and other open spaces to public or private use as noted.

_____ _____
Date

_____ _____
Date

_____ _____
Date

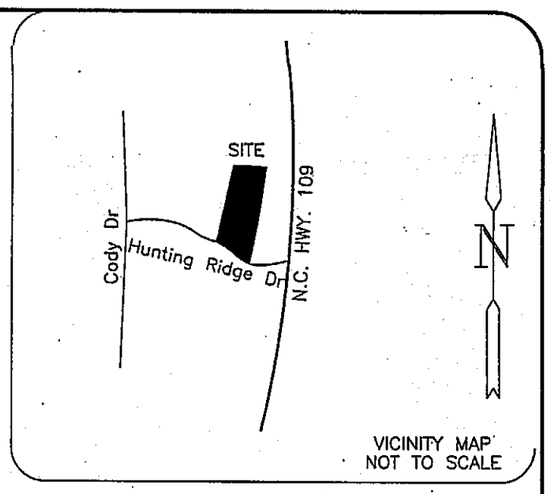
Owner: Thomas A. Furr & wife
Kimberly W. Furr
3 JW Thomas Way
Thomasville, NC 27360
336-345-3877

EGW Holdings, LLC
22 Winston Street
Thomasville, NC 27360

Furr and Company, Inc.
283 Old Greenboro Road
Thomasville, NC 27360

LEGEND

EIP	EXISTING IRON PIN
IPS	IRON PIN SET
R/W	RIGHT-OF-WAY
E/P	EDGE OF PAVEMENT
E/G	EDGE OF GRAVEL
CM	CONCRETE MONUMENT
PP	POWER POLE
M.B.L.	MINIMUM BUILDING LINE
LP	LIGHT POLE
--E--	OVERHEAD SERVICE LINES
PT.	POINT
●	5/8" Rebar Set



VICINITY MAP
NOT TO SCALE

No liablity is assumed by the undersigned for any loss resulting from the exercise of any governmetal agency affecting the use of the premises and is subject to any facts (prior easements and conveyances of record or agreements that may be disclosed by an abstract or full and accurate title search.

Notes:

Ref. Unrecorded Map by Charles C. Whicker Job# 94-1409, Survey For Michael T. Hubbard and wife Sarah S. Hubbard and Rigel Incorporated dated May 19, 1994.

Final Map 2, HUNTING RIDGE SUBDIVISION, Plat Book 21 Page 8, Tract 2.

Underground utilities are located on Tract "A" and are not located or shown on map.

Pin Id: 6785-01-18-2524, 6785-01-17-2984.

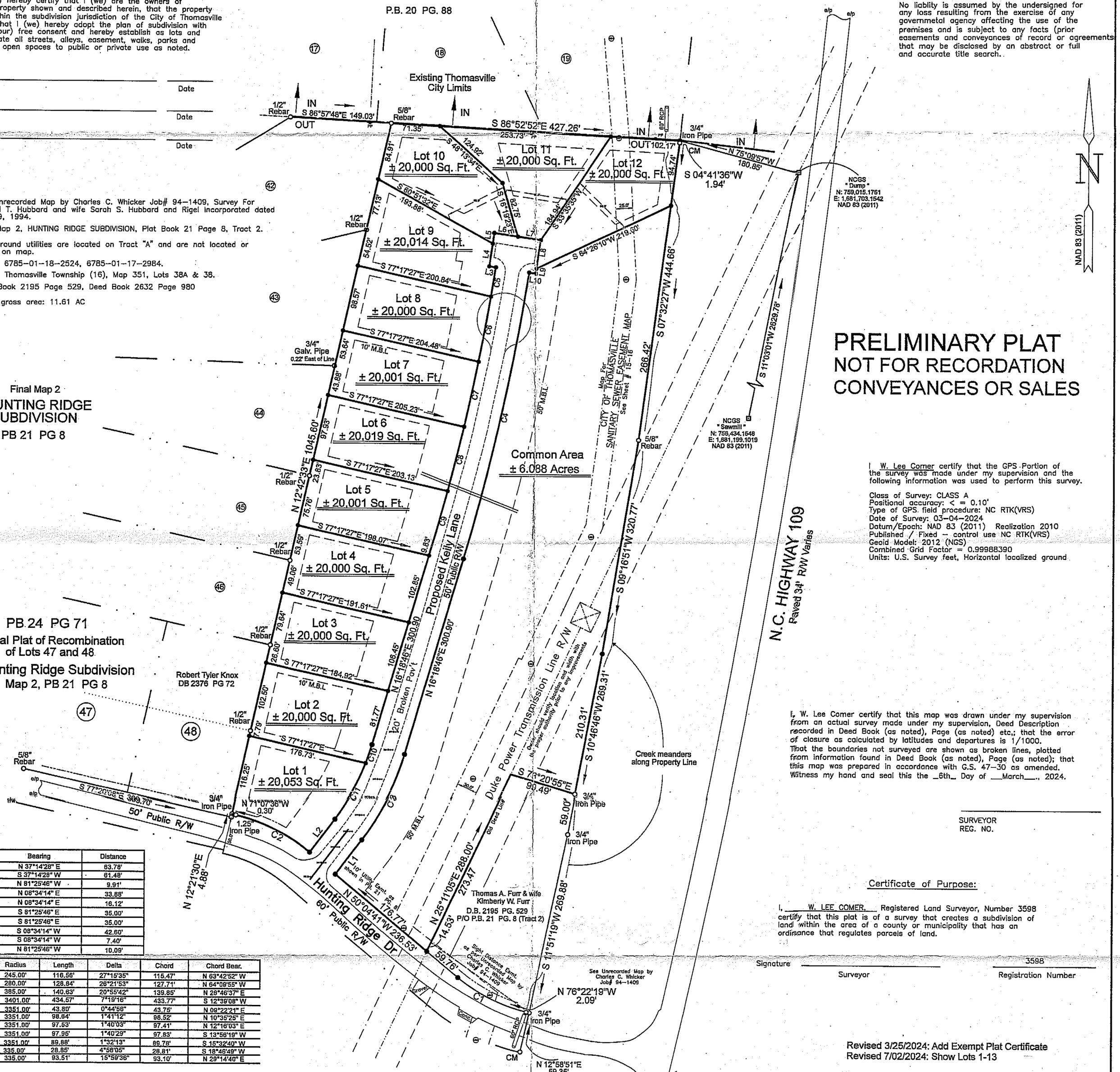
Tax Id: Thomasville Township (16), Map 351, Lots 38A & 38.

Deed Book 2195 Page 529, Deed Book 2632 Page 980

Toatal gross area: 11.61 AC

Final Map 2
HUNTING RIDGE SUBDIVISION
PB 21 PG 8

PB 24 PG 71
Final Plat of Recombination of Lots 47 and 48
Hunting Ridge Subdivision
Map 2, PB 21 PG 8



Course	Bearing	Distance
L1	N 37°14'28" E	63.78'
L2	S 37°14'28" W	61.48'
L3	N 81°25'46" W	9.91'
L4	N 08°34'14" E	33.88'
L5	N 08°34'14" E	16.12'
L6	S 81°25'46" E	35.00'
L7	S 81°25'46" E	35.00'
L8	S 08°34'14" W	42.60'
L9	S 08°34'14" W	7.40'
L10	N 81°25'46" W	10.09'

Curve	Radius	Length	Delta	Chord	Chord Bear.
C1	245.00'	116.56'	27°15'35"	115.47'	N 63°42'52" W
C2	280.00'	128.84'	26°21'53"	127.71'	N 64°09'55" W
C3	385.00'	140.63'	20°55'42"	139.85'	N 26°46'37" E
C4	3401.00'	434.57'	7°19'16"	433.77'	S 12°39'08" W
C5	3351.00'	43.80'	0°44'56"	43.75'	N 09°22'21" E
C6	3351.00'	98.64'	1°41'12"	98.52'	N 10°35'25" E
C7	3351.00'	97.53'	1°40'03"	97.41'	N 12°16'03" E
C8	3351.00'	97.95'	1°40'29"	97.83'	S 13°56'19" W
C9	3351.00'	89.88'	1°32'13"	89.78'	S 15°32'40" W
C10	335.00'	28.85'	4°56'05"	28.81'	S 18°46'49" W
C11	335.00'	93.51'	15°59'36"	93.10'	N 29°14'40" E

I, W. Lee Comer certify that the GPS Portion of the survey was made under my supervision and the following information was used to perform this survey.

Class of Survey: CLASS A
Positional accuracy: < = 0.10'
Type of GPS field procedure: NC RTK(VRS)
Date of Survey: 03-04-2024
Datum/Epoch: NAD 83 (2011) Realization 2010
Published / Fixed - control use NC RTK(VRS)
Geoid Model: 2012 (NGS)
Combined Grid Factor = 0.99988390
Units: U.S. Survey feet, Horizontal localized ground

I, W. Lee Comer certify that this map was drawn under my supervision from an actual survey made under my supervision, Deed Description recorded in Deed Book (as noted), Page (as noted) etc.; that the error of closure as calculated by latitudes and departures is 1/1000. That the boundaries not surveyed are shown as broken lines, plotted from information found in Deed Book (as noted), Page (as noted); that this map was prepared in accordance with G.S. 47-30 as amended. Witness my hand and seal this the _6th_ Day of ___March___., 2024.

_____
SURVEYOR
REG. NO.

Certificate of Purpose:

I, ___W. LEE COMER,___ Registered Land Surveyor, Number 3598 certify that this plat is of a survey that creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land.

Signature _____ 3598
Surveyor Registration Number

Revised 3/25/2024: Add Exempt Plat Certificate
Revised 7/02/2024: Show Lots 1-13

PRELIMINARY PLAT
NOT FOR RECORDATION
CONVEYANCES OR SALES

BAR SCALE
100 50 0 100 200

TRI▲COUNTY LAND SURVEYING
11 WEST MAIN STREET SUITE 3
THOMASVILLE N.C. 27360
THOMASVILLE ▲ (336) 472-9408
LEXINGTON ▲ (336) 243-7429
WINSTON-SALEM ▲ (336) 788-0703
C-1106

No attempt has been made as a part of this survey to obtain or show data concerning location, size, depth condition, capacity, or existance of any utility or public service facility. For information regarding utilities or facilities, contact the appropriate agency.

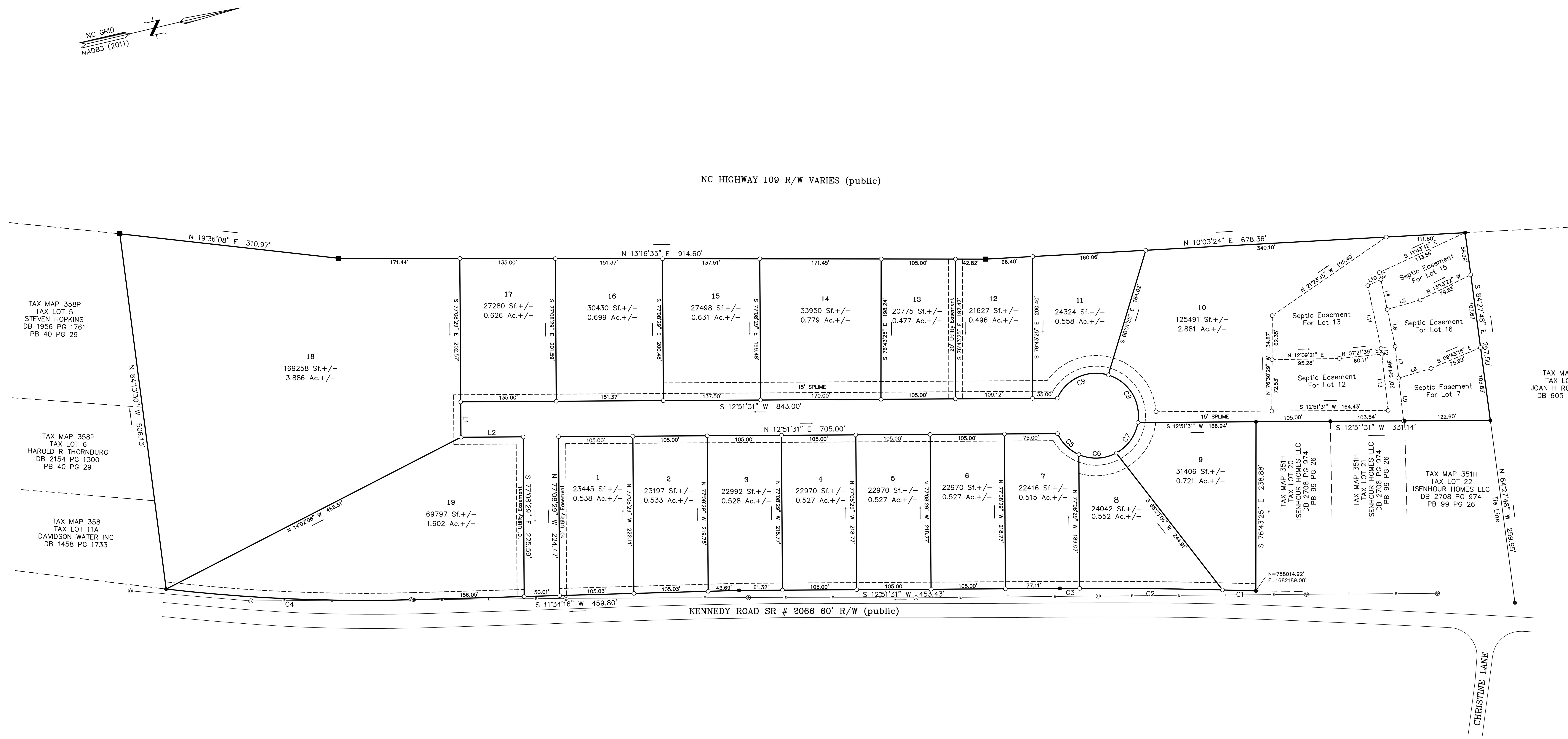
Emma's Place

Off NC HWY 109, Hunting Ridge Drive, Thomasville NC 27360

DRAWING DATA	DWG. No.:	REVISION DATES
SCALE: 1" = 100'	245878-A	03/25/2024
DRAWN BY: GC, JG	DATE: 03/04/2024	07/01/2024
SURVEYED BY: GC, JG		

COUNTY: Davidson TOWNSHIP: Thomasville STATE: NC

Pin Id: 6785-01-18-2524, 6785-01-17-2984 Tax Id: 16-351-38 & 38A



LINE	BEARING	DISTANCE
L1	S 77°08'29" E	50.00'
L2	N 12°51'31" E	88.00'
L3	S 88°50'54" E	10.24'
L4	S 88°50'54" E	43.06'
L5	N 02°55'11" W	48.41'
L6	S 03°26'11" E	47.67'
L7	N 83°16'06" W	45.14'
L8	N 88°50'54" W	53.32'
L9	S 83°16'06" E	60.81'
L10	S 11°09'02" E	20.46'
L11	S 88°50'38" E	91.05'
L12	S 83°16'05" E	7.83'
L13	S 83°16'05" E	79.91'

CURVE	RADIUS	CHORD BEARING	CHORD LENGTH	ARC LENGTH
C1	7503.59'	S 14°47'35" W	47.09'	47.09'
C2	7503.59'	S 13°50'33" W	201.87'	201.87'
C3	7503.59'	S 12°57'55" W	27.89'	27.89'
C4	2451.04'	S 15°40'06" W	350.25'	350.55'
C5	60.00'	N 57°37'07" E	42.25'	43.18'
C6	60.00'	N 10°51'55" E	52.86'	54.74'
C7	60.00'	N 41°24'35" W	52.86'	54.74'
C8	60.00'	S 71°12'37" W	79.11'	86.38'
C9	60.00'	S 11°16'28" E	79.11'	86.38'

SURVEYOR CERTIFICATION FOR SUBDIVISION

I, Christian L. Jones, PLS #5522, certify to one or more of the following as indicated:

____a. That this plat creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land.
____b. That this survey is located in a portion of a county or municipality that is unregulated as to an ordinance that regulates parcels of land.
____c. Any of the following:
___1. That the survey is of an existing parcel or parcels of land or one or more existing easements and does not create a new street or change an existing street. For the purposes of this subsection, an "existing parcel" or "existing easement" is an area of land described in a single, legal description or legally recorded subdivision that has been or may be legally conveyed to a new owner by deed in its existing configuration.
___2. That the survey is of an existing feature, such as a building or other structure, or natural feature, such as a watercourse.
___3. That the survey is a control survey. For the purpose of this subsection, a "control survey" is a survey that provides horizontal or vertical position data for support or control of other surveys or for mapping. A control survey, by itself, cannot be used to define or convey rights of ownership.
___4. That the survey is of a proposed easement for a public utility as defined in G.S. 62-3.
____d. That this survey is of another category, such as the recombination of existing parcels, a court-ordered survey, or other exemption or exception of the definition of subdivision.
____e. That the information available to the surveyor is such that the surveyor is unable to make a determination to the best of the surveyor's professional ability as to provisions contained in (a) through (d) above.

PRELIMINARY
NOT FOR CONVEYANCES
SALES OR RECORDATION

Christian L. Jones, PLS #5522 ____________ date

SURVEYOR CERTIFICATION FOR CLOSURE

I, Christian L. Jones, certify that this plat was drawn under my supervision from an actual survey made under my supervision, (description recorded in ((See Title Block)), that the boundaries not surveyed are clearly indicated as such, that the ratio of precision is 1:10,000'+/- or positional accuracy is 0.10' as calculated, and that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, license number and seal this .... day of ...., A.D., 20..................

PRELIMINARY
NOT FOR CONVEYANCES
SALES OR RECORDATION

Christian L. Jones
NC PLS #5522

I, Christian L. Jones, certify that this map was drawn under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:
1) Class of survey: Class A
2) Positional Accuracy: 0.10'
3) GPS Field Procedure type: RTK, Carlson BRX7 base/rover
4) Date(s) of survey: xxxxx
5) Datum/Epoch: USA/NAD83/NC
6) Published/Fixed Control: NC NTRIP RTK
7) Geoid Model: CONTINENTALUS_NGS2018
8) Mean Combined Grid Factor: xxxxxxxx
9) Units: US Survey feet
10) All distances are horizontal ground.

THIS MAP IS SUBJECT TO ANY EASEMENTS OR RIGHTS-OF-WAY OF RECORD PRIOR TO THE DATE OF THIS MAP WHETHER VISIBLE OR NOT

TITLE SEARCH NOT PROVIDED.

REVIEW OFFICER

I, ______________________________, Review Officer of Davidson County, certify that the map or plat of which this certification is affixed meets all statutory requirements for recording.

Approved ______________________________
Review Officer Date

DAVIDSON COUNTY
NORTH CAROLINA

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS FOR DAVIDSON COUNTY NORTH CAROLINA, AND THAT SUCH PLAT HAS BEEN APPROVED ACCORDING TO THE PROCEDURES FOR APPROVAL OF SUBDIVISIONS.

DATE SUBDIVISION ADMINISTRATOR/CHAIRMAN PLANNING BOARD

ANY DEVELOPMENT OR CONSTRUCTION ON THE LOTS SHOWN ON THIS PLAT MUST MEET ALL THE BUILDING AND DEVELOPMENT REGULATIONS OF THE APPROPRIATE GOVERNMENT AGENCY.

DATE SUBDIVISION ADMINISTRATOR / CHAIRMAN PLANNING BOARD

CERTIFICATE OF APPROVAL FOR RECORDING

I certify that the plat shown hereon complies with the watershed protection ordinance and is approved by the watershed administrator for recording in the Register of Deeds office.

Date Watershed adm./Chmn.Review Board

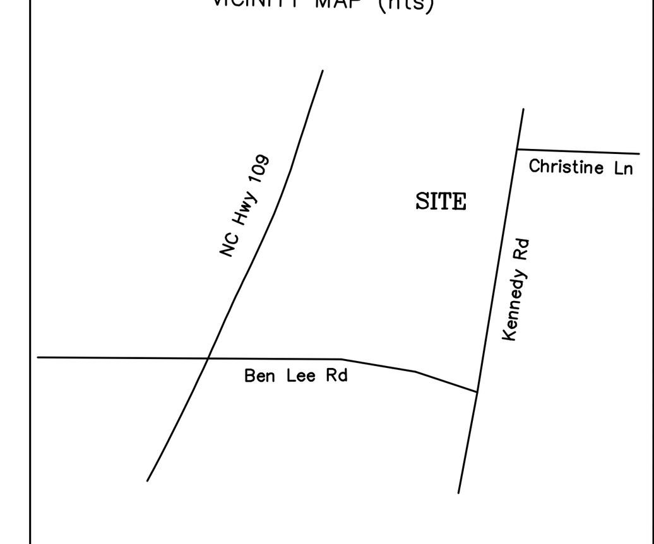
CERTIFICATE OF OWNERSHIP AND DEDICATION

I(we) hereby certify that I(we) am(are) the owner(s) of the property shown and described hereon, which is located in the subdivision jurisdiction of the County of Davidson and that I(we) hereby adopt this plan of subdivision with my(our) free consent, establish minimum building setback lines, and dedicate all streets, alleys, walks, parks, and other sites and easements to public or private use as noted.

date owner

date owner

VICINITY MAP (nts)



LEGEND

80' 40' 0 80'

(nts) NOT TO SCALE
UTILITY POLE
IRON FOUND
IRON PIPE SET
STONE FOUND
CONCRETE MONUMENT
PROPERTY LINE (surveyed)
PROPERTY LINE (not surveyed)
POINT NOT MONUMENTED
OVERHEAD POWER LINE
SPLIME SEPTIC PUMPLINE INSTALLATION MAINTENANCE EASEMENT

Plat of

KENNEDY PLACE PHASE 2

SCALE	COUNTY	TOWNSHIP	STATE	DATE
1" = 80'	Davidson	Thomasville	North Carolina	date xxx

TAX MAP 351 TAX LOT 32
REF: DB 2708 PG 974 - PB 99 PG 26
OWNER: ISENHOUR HOMES LLC

AREA BY COORDINATES

JONES-COE LAND SURVEYING, PLLC P-3161
P.O. BOX 36
WALLBURG, N.C. 27373
PHONE: (336) 769-4673
EMAIL: cjones@jonescoesurvey.com

JOB # 26001

DRAFTED BY: MO

SURVEYED BY TG

Topics of Discussion for the 09-03-26 BOC Meeting Regarding Data Centers

1. Noise- Sound Study required as part of application, dbl level, flat or day night

2. Setbacks- regular setbacks, 75 feet to 1320 ft (1/4 mile) Black Mountain, 1500 ft in Troup Co Ga

3. Lot Size- Minimum lot size to acreage based on building size?

4. Landscaping, Buffering & Architectural Design- Sound absorption panels around cooling equipment and generators, Existing tree foliage, Required Plantings or berms. Sound proofing of buildings or architectural features of building

5. Water & Cooling-?

6. Power- See Document

7. Violations & Enforcement Penalties

8. Application

9. Environmental

10. Approval Process- Zoning District, Special Use Permit, Development Standards, By Right
11.

12. Decommissioning Plan, Funded Plan at approval, Bond? Level of Reclamation? Reuse of building?

13. Visits to existing facilities?

Data Center Ordinance Standards: What Other Jurisdictions Have Adopted

Compiled by Tavis Curry | Benchmark figures from adopted and formally proposed data center ordinances nationally
Updated: August 30, 2026

This sheet compiles specific, numeric standards other jurisdictions have already reviewed, debated, and formally adopted or proposed — for reference during drafting, not as a recommendation for any particular figure. Note: most source ordinances apply one standard to all data centers regardless of type; figures are labeled [G] generic/undifferentiated or [H] hyperscale-specific where that distinction is documented in the source.

Noise (Property Line)

Jurisdiction	Standard
North Carolina SB 730 (passed House, pending Senate)	Requires site assessment of sound impact on residences/schools within 500 ft of property boundary [G]
Kent County, DE (2026, adopted 7–0)	55 dB flat cap [G]
Albemarle County, VA (adopted)	60 dB day / 55 dB night [G]
South Carolina (statewide bills, 2026)	60 dBA (7am–10pm) / 50 dBA (10pm–7am) [G]
Calvert County, MD (2025, adopted)	75 dB day / 70 dB night (industrial zones) [G]
NACo national guidance	~65 dB property line; ~55 dB residential [G]

Adopted/proposed standards cluster 50–65 dB at the property line for residential-adjacent siting. NC's own SB 730 does not set a decibel number, but requires a formal sound-impact assessment — worth noting as the most directly relevant pending standard. All noise standards found were undifferentiated by facility type. See the new Power Quality section below for a stricter model standard (with a tonal-noise penalty) that has been proposed for adoption elsewhere.

Setbacks from Residential Property Lines

Jurisdiction	Standard
Albemarle Co., VA / Fairfax Co., VA	200 ft (most common figure) [G]
King George County, VA	75 ft (equipment-specific minimum) [G]
Georgia ordinances generally (32+ counties)	100 ft common baseline [G]
Spalding County, GA	100 ft residential / 50 ft nonresidential [G]
Jackson County, GA (tiered by proximity)	1,000 ft residences / 150 ft major roads [G]
Fort Worth, TX (proposed, Aug. 2026)	300 ft buffer, project-specific commitment [H]
Albemarle County, VA (from Rural Areas)	500 ft [G]
Troup County, GA (most restrictive found)	1,500 ft [G]

200 ft is the most frequently adopted baseline; 1,500 ft (Troup Co., GA) is the most restrictive adopted example identified. All setback standards found were undifferentiated by facility type (Jackson County tiers by proximity/road type, not by facility type).

Minimum Lot Size / Acreage Requirements (New)

Distinct from a setback (a required distance from a property line), several jurisdictions instead or additionally require a minimum overall parcel size for a data center, which indirectly creates buffering room without specifying a foot-based setback figure.

Jurisdiction	Standard
Limerick Township, PA (adopted)	3-acre minimum lot size (or existing minimum for commercial/industrial uses, whichever applies) [G]
Jackson County, GA (adopted)	10-acre minimum [G]
Pike County, GA (adopted)	10-acre minimum [G]
Archbald, PA (adopted)	120-acre minimum, combined with maximum building/impervious surface coverage limits [G]
Adairsville, GA (adopted, most restrictive found)	450-acre minimum [G]

The range is wide, 3 to 450 acres, depending on how restrictive a given jurisdiction wants to be. A requirement in the 5–10 acre range sits toward the smaller, more common end of what's already been adopted elsewhere, not an outlier.

Landscaping, Buffering & Architectural Design Standards (New)

Separate from setbacks and acreage, a number of jurisdictions regulate what a facility looks like from the outside and what physical screening separates it from neighboring uses.

Jurisdiction	Standard
Limerick Township, PA (adopted)	100 ft vegetative buffer yard required between a data center and any district permitting residential use; heightened buffers may require an earthen berm at least 6 ft tall (max 2:1 slope); no buildings or parking permitted within the buffer [G]
Wallingford, CT (adopted)	Caps cumulative building floor area and requires façade design interruptions at least every 75 ft, to reduce large blank-wall, warehouse-like appearance [G]
Georgia jurisdictions generally	Common pattern of architectural design standards (façade material and massing requirements) specifically aimed at reducing warehouse-like appearance, applied alongside acreage/setback rules [G]

These tools address a different concern than noise or water — the visual and neighborhood-character impact of a large industrial building — and are commonly adopted alongside, not instead of, setback and acreage requirements.

Water and Cooling — Specific Volume Caps

Jurisdiction / Example	Standard
North Carolina SB 730 (passed House, pending Senate)	Would ban evaporative/open-loop cooling systems statewide, eff. Dec. 1, 2026 [G]
Randolph County, NC (adopted, Aug. 2026)	Requires closed-loop cooling systems and noise impact studies as ordinance conditions [G]
Durham County, NC (adopted, Aug. 25, 2026)	9-month moratorium exempts facilities under 100,000 sq ft or using closed-loop cooling — a size/technology threshold rather than a flat standard [G]
Chesterfield County, VA (Google proffers)	1.755 MGD, 850,000 gal/day, 6 MGD (three sites) [H]
Chandler, AZ (adopted 2015)	115 gal/day per 1,000 sq ft (scalable) [G]
San Angelo, TX (adopted 2026)	Closed-loop initial fill: 8 gal/sq ft, within 12 mo. [G]
El Paso, TX (Meta agreement)	2.5M gal/day max; 480,000 gal/day average [H]
Susquehanna River Basin Commission	Permit required above 100,000 gal/day [G]

[H] = hyperscale-specific; [G] = generic. NC's SB 730 is stricter than any adopted local ordinance found. Randolph County, NC and Durham County, NC each took a conditions/threshold-based approach rather than a blanket moratorium — two real in-state examples of this sheet's approach. True closed-loop can cut water use ~70% vs. open evaporative (see companion Data Center Facts document, Section 7). **Caution:** a Salem, OR facility marketed as closed-loop (Aug. 2026) still secured 8M gal/day, and in California's Imperial Valley a developer that had publicly pledged never to use river water sued for access to ~260–287 million gallons/year of Colorado River water after its recycled-wastewater plan fell through — a pledge alone is not an enforceable commitment.

Generators and Emissions

Standard / Source	Detail
Federal EPA rule (40 CFR 63.6640(f))	100 hrs/yr cap (maint. + testing + non-emergency); 50 hr sub-limit for non-emergency use [G]
Actual typical usage (VA regulatory data)	~10–30 min/month testing = ~6–15 hrs/yr real-world runtime [H, cited re: hyperscale]
Virginia DEQ (2026 revision, eff. July 1)	Tier 4-equivalent controls required for hyperscale fleets; 20–25% of units stack-tested annually [H]
PA model ordinance	EPA Tier 4 standard; annual testing + public reporting [G]
Albemarle County, VA	Routine testing limited to weekdays, 10am–4pm [G]
CSG/AQMD reference figure (not a standard)	Diesel generators can emit 200–600x more NOx than a natural gas plant of comparable output [G]

Virginia DEQ's 2026 revision is the one standard here explicitly tied to hyperscale fleet size — most others apply uniformly regardless of facility type.

Violations and Enforcement Penalties (New)

A recurring, reasonable question: what actually happens if an adopted standard is violated? Below are numeric penalty figures other jurisdictions have adopted, along with real-world context on how enforcement has actually played out.

Jurisdiction	Standard
Benton County, AR	Flat $1,000 fine for a data center ordinance violation [G]
Prince William County, VA	$5,000 cap for repeated noise ordinance violations [G]
Forney, TX (municipal ordinance)	Up to $2,000 per offense; each day a violation continues counts as a separate offense [G]
General Texas municipal zoning penalty statute	Same $2,000/day-as-separate-offense structure applied in other TX zoning-violation ordinances, including data-center-specific bans [G]
Kent County, DE	Requires a funded facility removal/site restoration plan as a condition of approval — addressed before construction, not after the fact [G]

Real-world enforcement example, corrected from an earlier version of this research: In Fayette County, GA, a large data center campus (QTS) moved ~29 million gallons of water through unmetered hookups over roughly 15 months before resident complaints about water pressure led to discovery. The county billed $147,474 in retroactive charges — but confirmed it will **not** impose any additional fine, even though residents were being asked to conserve water during the same drought window. A UCLA water-policy researcher noted the underlying dynamic: when a utility depends on one very large customer, enforcement incentives can shift. A similar outcome (no fine, back-billing only) occurred with the same company at a separate, Iowa-linked site.

Policy implication: A numeric standard is only as strong as its enforcement mechanism. Flat fines in the $1,000–$5,000 range are unlikely to meaningfully deter a billion-dollar operator. A per-day-of-violation structure (like the $2,000/day Texas model) scales

with the duration of noncompliance. Independent of the dollar figure, giving the county explicit authority to revoke a permit or certificate of occupancy for repeated or serious violations — and building in a mechanism other than resident complaints to actually detect a violation — are the two features most consistently identified in data center policy research as necessary for a penalty structure to have real teeth.

Power Quality Standards (New)

Large, variable electrical loads can cause “flicker, sags, and swells” on the local grid that affect nearby homes' appliances and electronics — a distinct concern from noise or water use that has not historically been addressed in most data center ordinances reviewed for this sheet.

Standard	Detail
Model ordinance standard (2026 revision, applied e.g. Upper Merion Twp., PA)	Caps Total Voltage Harmonic Distortion (VTHD) at 5.0% and individual harmonics at 3.0%, measured at the facility's Point of Common Coupling with the grid [G]
Same model ordinance — tonal noise penalty	Applies a 5 dBA penalty to the allowed noise limit when a persistent, discrete tone (e.g., transformer hum) is detected, effectively tightening the standard in that situation [G]
Same model ordinance — monitoring requirement	Recommends continuous, permanent sound monitoring stations for any facility sited within 1,000 ft of a residence, to verify 24/7 compliance rather than relying on periodic spot checks [G]

These figures come from a detailed 2026 model ordinance framework circulated by environmental/community advocacy groups and applied in at least one Pennsylvania township's ordinance review; they have not been identified as adopted in North Carolina specifically, but represent a more technically detailed standard than most of the noise/setback figures above, and are worth having on hand as a reference point during drafting.

Application & Review Integrity Standards (New)

Distinct from physical siting standards, these address how an application itself is structured and reviewed — closing gaps that let a project avoid the scrutiny a larger facility would otherwise receive.

Jurisdiction / Source	Standard
Sierra Club data center model ordinance (v7.1, 2026 — model language, not itself adopted anywhere)	Anti-segmentation certification language addressing separate parcels, tenants, meters, affiliates, phased applications, and common infrastructure structures used to stay under size-based thresholds [G]
Pittsfield Township, MI (draft ordinance, May 2026 — not yet confirmed adopted)	Requires aggregation of multiple buildings, modules, or phases on the same or contiguous parcels under common ownership or control when determining whether size thresholds are exceeded [G]
Chadds Ford Township, PA (adopted 2026)	Aggregation applies regardless of whether parcels are under common ownership at the time of application or are later consolidated via transfer, lease, or operational control [G]
Sierra Club data center model ordinance (v7.2, 2026 — model language, not itself adopted anywhere)	Adds a formal Cumulative Impact Review Area concept so genuinely separate, nearby applications are reviewed for their combined effect on the same neighboring communities, not evaluated in isolation [G]
City of Chicago (mayoral executive order, Aug. 2026, adopted)	Requires the Department of Planning & Development commissioner to formally evaluate cumulative environmental impacts, alongside water, power, noise, and emissions, on any data center planned-development application, with mandatory cross-department review [G]

These address a real, documented pattern — large projects structured specifically to avoid triggering the review a full-size facility would otherwise require, and multiple nearby projects each individually clearing review while their combined impact goes unexamined. Chicago's and Chadds Ford's requirements are notable since they're adopted, operating policy rather than proposals; the Sierra Club and Pittsfield entries are included as documented models/drafts, not as evidence of a widely-adopted standard.

Environmental & Infrastructure Review Requirements (New)

Beyond the water volume caps in the table above, a number of jurisdictions require specific pre-approval studies and capacity confirmations before a data center can be permitted at all.

Jurisdiction / Source	Standard
Anchorage, AK (Ordinance AO 2026-27, adopted Mar. 27, 2026)	Requires applicants to demonstrate that sufficient electrical, water, and wastewater capacity already exists to support the proposed facility, before approval [G]
West Pennsboro Township, PA (adopted Aug. 2026)	Requires developer confirmation from the local electricity supplier that adequate power capacity exists to serve the facility [G]
Chadds Ford Township, PA (adopted 2026)	Requires a study by a licensed hydrogeologist demonstrating, via empirical testing, that the project will not adversely affect groundwater quantity or quality for any well within a 2,500 ft radius; also requires a 200 ft riparian buffer from any stream, river, wetland, or water body, with buildings, impervious surfaces, and even substations prohibited within it [G]
PennFuture model ordinance (model language, not itself adopted anywhere)	A stricter model version of the same hydrogeological-study concept: 3,000 ft well-testing radius, plus a legal presumption the operator is responsible for any adverse well impacts occurring within 60 months of operation [G]
Linn County, IA (adopted 2026)	Requires traffic and road-impact review for data center projects, alongside setbacks, noise limits, and emergency planning, as part of standard site plan review [G]
Hatfield Township, PA (adopted, standing ordinance)	Requires a formal Traffic Impact Study for qualifying developments; the applicant either funds the specific road/intersection improvements the project's traffic requires or pays a transportation impact fee toward capital improvements — not data-center-specific, but a real, adopted mechanism that would apply [G]

Most of these are genuinely adopted, standing requirements, not proposals; the PennFuture entry is the one model-only exception, included because it's a documented, more detailed version of a concept two adopted ordinances already establish.

Full Prohibition Ordinances (Reference Point)

Distinct from a temporary moratorium, at least two jurisdictions have adopted outright, permanent bans on new data center construction rather than a pause:

- Monterey Park, CA — Ordinance No. 2278, a citywide prohibition on data centers (adopted 2026)
- At least one Texas municipality has enacted a full ban enforced under general Texas zoning-violation law, carrying penalties up to $2,000 per day of continued violation

These represent the far end of the regulatory spectrum, useful as a reference point when evaluating where a proposed moratorium or ordinance falls relative to the full range of approaches other jurisdictions have taken — from full prohibition, to conditions-based tiered standards (Randolph County, Durham County, NC), to no local action at all.

By-Right vs. Special Use Permit, and Modification Triggers (New)

Beyond specific numeric standards, jurisdictions differ on a more basic question: does a data center get approved administratively as a matter of right, or does it require discretionary review and a public hearing? And once approved, does changing the project later require going through that process again?

Jurisdiction	Standard
Fairfax County, VA (adopted)	Data centers remain permitted by-right in select industrial/commercial zones, with added buffers, size thresholds, and location restrictions layered on top [G]
Harrisonburg, VA (adopted)	Removed by-right permission entirely; data centers in industrial zones now require a special use permit, adding discretionary review and public input [G]
Anchorage, AK (Ordinance AO 2026-27, adopted)	Also requires conditional use approval rather than by-right construction, triggering public notice and a discretionary review process [G]
Chadds Ford Township, PA (adopted 2026)	Any modification that increases the intensity of use or alters external impacts is deemed a Material Modification, requiring a new Conditional Use approval and a new public hearing, not treated as a minor amendment [G]

This is a genuine fork in the road other counties have taken differently — by-right treatment is faster and more predictable for a developer, while a special-use/conditional-use requirement preserves a public hearing and discretionary review for every project, at the cost of speed and certainty. Requiring a fresh review on material expansions (Chadds Ford) closes a gap several other jurisdictions' initial ordinances left open.

Decommissioning

- Kent County, DE: requires a funded facility removal / site restoration plan as a condition of approval — addressed before construction, not after the fact.

Note on use: A proposed standard falling meaningfully outside these ranges — e.g., a noise limit well under 50 dB, a water cap far below what closed-loop systems can achieve, a setback beyond the most restrictive adopted example (1,500 ft) for a non-unusual site, or a violation penalty with no per-day escalation or revocation authority — is a genuine outlier relative to current adopted/proposed practice nationally, worth documenting the reasoning for.

Sources: NC SB 730 (2026); Randolph County, NC ordinance amendment (Aug. 2026); Durham County, NC moratorium (Aug. 25, 2026 — GovTech.com, WUNC, WRAL, WHQR, Public Radio East); Calvert County, MD; Albemarle County, VA; Kent County, DE Ord. LC26-06; Fairfax County, VA; King George County, VA; SC Bills 867/902; Georgia Tech EPIcenter dashboard; Chesterfield County, VA; Chandler, AZ (2015); San Angelo, TX Code Ch. 11; KFOX/El Paso Water; Susquehanna River Basin Comm.; 40 CFR 63.6640(f); Loudoun Now; Data Center Knowledge; NACo Primer; PA DEP Ordinance Guide v1.0; CBS Texas (Fort Worth, Aug. 2026); Salem Business Journal (Aug. 2026); KPBS Public Media (June 2026); Western Water/Water Education Foundation (Aug. 2026); North Star Data Center Policy Toolkit, AI Now Institute; Tom's Hardware (May 2026); Winbuzzer (May 2026); KCRG (May 2026); City of Forney, TX Ordinance; Sierra Club data center model ordinance resource, spg-data (v7.1/v7.2, 2026); Monterey Park, CA Ordinance No. 2278; Limerick Township, PA Zoning Ordinance Ch. 184, Art. II, §184-10; Archbald, PA and Adairsville, GA ordinances (via Clearfield County, PA planning resource and Georgia Tech EPIcenter); Wallingford, CT ordinance; Pittsfield Township, MI draft ordinance (May 2026); Chadds Ford Township, PA data center ordinance (2026); City of Chicago mayoral executive order (Aug. 2026, via Greenberg Traurig/National Law Review); Anchorage, AK Ordinance AO 2026-27 (Davis Wright Tremaine, Mar. 2026); West Pennsboro Township, PA ordinance (Govtech.com, Aug. 2025); PennFuture model ordinance (via Sierra Club spg-data comparison); Linn County, IA data center ordinance (2026); Hatfield Township, PA Traffic Impact Study ordinance, Art. X; Harrisonburg, VA and Anchorage, AK conditional/special use requirements (AAAS Community Strategies fact sheet); CSG, "The Data Center Boom" (Aug. 2026). Compiled by Tavis Curry, Davidson County resident and IT professional.

Data Center Facts: Common Community Questions

A neutral, fact-based reference organized by facility type | Prepared by Tavis Curry
Updated: August 31, 2026

1. Three Types of Data Centers

Data centers are not a single category. Facility type materially affects power draw, water use, employment, and construction timeline.

A note on terminology: General industry explainers often break data centers into a wider list of categories, commonly Enterprise, Colocation, Hyperscale, Edge, Micro, and Cloud. That taxonomy is accurate but answers a different question than this document does. Edge and Micro facilities are small, distributed units placed near end users for latency reasons (e.g., at a cell site or retail location); no proposal of that kind is at issue in a large rural-site zoning debate. Enterprise data centers, a company's own server room for internal use, are already covered here, just not under that label; they're what the Windstream Kinetic central office, hospital server rooms, and the community college server room examples below actually are. “Cloud” largely describes a use case rather than a distinct facility type, the operators (AWS, Azure, Google Cloud) are the same companies covered under Hyperscale. This document narrows to the three categories below because they are the ones with materially different power, water, employment, and footprint profiles, the differences that actually matter for a zoning or ordinance decision.

Colocation (Colo)

Shared facility where multiple companies rent server space; typically smaller footprint, moderate power draw.

Power usage:

- Individual tenant racks typically draw 5–15 kW per rack, compared to 20–50+ kW per rack in AI-focused facilities
- Whole-facility power draw for a mid-size colo campus usually falls in the 1–20 MW range; larger “wholesale colo” campuses can reach 30–50 MW
- Because colo facilities serve multiple tenants at varying utilization, actual draw is often well below contracted/rated capacity

Permanent jobs:

- Colocation facilities generally employ more workers per megawatt than hyperscale campuses, given hands-on client support
- Roughly 20–30 permanent staff per 100 MW at the most automated end, up to 80–150 at a mid-size (~20 MW) facility

Common citizen concerns:

- Traffic/noise during construction — shorter build timelines (12–18 months) mean concentrated but temporary disruption
- Tax base impact — often qualify for the same abatements as larger facilities while employing fewer people
- Water use — generally lower than hyperscale, but cooling systems still draw municipal water in many designs
- Precedent-setting — concern that approving a colo facility opens the door to larger buildouts later

Responding to the concerns: Colo facilities are generally the lowest-impact of the three types on power and water, and typically produce the highest jobs-per-megawatt ratio — a real point in their favor. The “precedent-setting” concern is a land-use planning question, not a reason approval of one type commits a board to future, larger facility types.

Hyperscale (Traditional Cloud/Storage)

Large, single-tenant facilities (e.g., AWS, Azure, Google Cloud) built for scale, redundancy, and storage/compute at volume.

Power usage: Single hyperscale campuses can draw 50–150+ MW

Permanent jobs:

- A single hyperscale campus typically employs roughly 100–200 permanent staff (industry-cited range 100–1,000 depending on campus size)
- Construction is a temporary but substantial employment surge — commonly 1,000–6,400 workers at peak, disappearing once operational
- A 2026 Brookings study found hyperscale counties saw measurable information-sector job gains after six years, while colocation counties largely did not — though a separate Texas-focused analysis found the net county-level employment effect close to zero, as workers shifted between subsectors

Common citizen concerns:

- Power draw — grid capacity and whether ratepayers subsidize new transmission infrastructure
- Water consumption — evaporative cooling can use hundreds of thousands to millions of gallons/day; the most common driver of local water debate
- Land use/tax incentives — large parcels, often with abatements; raises net fiscal benefit questions
- Low permanent employment — high construction employment, but often only 30–100 permanent jobs for a large campus
- Noise — generator testing and cooling equipment are the most common ongoing post-construction complaints

Responding to the concerns: The employment concern has real data behind it — a Virginia state tax analysis found the industry added roughly 1,610 jobs statewide in one fiscal year while receiving $1.9 billion in tax benefits (about $1.2 million per job). The Brookings finding that hyperscale specifically does generate measurable broader job growth is a relevant counterpoint. Power and water concerns are addressed in Sections 2–7.

Hyperscale AI (GPU/Training Clusters)

Purpose-built for AI training/inference; distinguished by extremely high power density per rack rather than storage volume.

What is a GPU, and why does it use more power? A GPU is a chip originally designed to render images, built to perform huge numbers of simple calculations in parallel — well-suited to AI training, which requires the same. A traditional hyperscale data center mostly runs CPUs, optimized for varied tasks but at lower power draw per chip. GPUs draw significantly more electricity per chip, and AI racks pack more of them into the same space — which is why hyperscale AI facilities can require 3–5x the power per square foot of traditional hyperscale. This is also why AI facilities are driving the shift toward liquid cooling, since standard air cooling can't remove heat fast enough from GPU-dense racks.

Common citizen concerns:

- Power density — AI training clusters can require 3–5x the power per square foot of traditional hyperscale
- Cooling method — many are shifting to liquid cooling, which can reduce water draw vs. older evaporative designs — a frequently misunderstood point
- Speed of buildout — AI facilities are being built faster, giving local governments less lead time to model impact
- Uncertainty over permanence — newer asset class with less long-term operating history
- Regional grid competition — whether new generation capacity is prioritized for data centers vs. residential ratepayers

Responding to the concerns: This is the facility type with the thinnest track record — there isn't yet enough operating history to say with confidence how it performs long-term. The liquid-cooling point is double-edged: it can reduce water draw, but per Section 7 that depends on whether the full heat-rejection system is verified closed-loop, not just the loop touching the chips.

Real examples of what this technology is actually used for: Public debate over data centers often stays abstract. Below are four current, independently verified examples of concrete results, spanning medicine, disaster preparedness, and materials science — not exhaustive, but a useful check against both overstating and dismissing what this compute is actually producing.

- **AlphaFold (Google DeepMind):** solved a decades-old scientific challenge — predicting a protein's 3D structure from its amino acid sequence — work that earned its creators the 2024 Nobel Prize in Chemistry. It is freely available and has been used by researchers worldwide to accelerate biology and drug research broadly, arguably the single best-established example of AI producing a landmark scientific breakthrough
- **Rentosertib (Insilico Medicine):** the first drug where AI both discovered the disease target and designed the molecule, for idiopathic pulmonary fibrosis, a serious lung disease with limited treatment options. Published in Nature Medicine, its Phase IIa trial showed a real measured lung-function benefit (+98.4 mL vs. a 20.3 mL decline on placebo); it advanced into Phase III trials in July 2026
- **WeatherNext (Google DeepMind):** published in Nature, this AI model predicted Hurricane Melissa's sudden jump to Category 5 intensity three days in advance with near-100% confidence, working directly with the U.S. National Hurricane Center and giving Jamaica extra time to prepare and evacuate ahead of the strongest storm ever to hit the island. It is now used operationally alongside NOAA's own AI-driven forecast models
- **Microsoft & Pacific Northwest National Laboratory — battery material discovery:** using Microsoft's Azure Quantum Elements platform, researchers screened 32 million candidate materials down to 18 promising leads in 80 hours, then synthesized and tested a top candidate in under 9 months total — a process that traditionally takes years. The resulting material could reduce battery-related lithium dependence by an estimated 70%, notable given global lithium supply concerns

One honest caveat, and one honest counterpoint, on compute usage: available reporting on the melanoma and lung-fibrosis examples does not specify whether that research relied on large-scale hyperscale AI training infrastructure or more modest

bioinformatics computing — tumor and biomarker analysis pipelines are typically far less compute-intensive than training a large generative AI model, so those two are good examples of AI's benefit in the abstract, not necessarily a specific case for hyperscale-AI-sized facilities. On the other hand, a separate, comparable AI weather model (Microsoft's Aurora) has been reported to run at several hundred times lower computational cost than traditional physics-based forecasting — a useful reminder that AI adoption does not always mean more compute demand; in some applications it can mean substantially less.

Historical context: Research from the University of Texas at Austin, cited in a July 2026 CSG report, frames data center development in three eras: 1990s–2010 (traditional workloads), 2010–2023 (cloud/SaaS era), and 2024–present (the "AI boom" era) — useful context for why the hyperscale AI tier has such a short track record: it's a genuinely new category, not just a bigger version of what came before.

Sources for Section 1: WRAL.com; Brookings Institution; Data Center Knowledge; Council of State Governments, "The Data Center Boom" (July 2026); Merck & Co. press release (Aug. 19, 2026); STAT News; Fierce Biotech; AJMC; C&EN/ACS; Nobel Prize/Google DeepMind (AlphaFold); Insilico Medicine/EurekAlert/PR Newswire (Rentosertib, June 2025 & July 2026); Google DeepMind blog and Nature (WeatherNext, Aug. 2026); SingularityHub; Science/AAAS and PNNL (Microsoft battery material discovery); Gulf News/Nature (Microsoft Aurora weather model efficiency).

2. On-Site Power Generation ("Building Their Own Power Plants")

On-site generation is increasingly common, driven by grid interconnection queue delays and proposed regulation.

- A proposed bill, the Ratepayer and Resource Protection Act, would require large-scale data centers to generate at least 25% of their electricity on-site using clean energy
- A March 2026 Carolina Journal poll of 600 likely NC voters found more than 78% support requiring data centers to provide their own energy generation
- On-site generation typically takes the form of gas turbines, fuel cells, or (less commonly) small modular reactors — not full utility-scale plants in most cases
- Worth noting on renewable energy specifically: information and communications technology companies account for an estimated 70%+ of all corporate renewable energy procurement nationally, and Amazon, Meta, Google, and Microsoft, all major data center operators, are consistently cited among the largest corporate investors in renewable energy generation capacity, with Amazon reportedly the largest single overall investor

3. Backup Generators: Full-Load Capacity and Noise

Capacity: Yes. Backup generators are engineered (N+1 or 2N redundancy) to carry a facility's full IT load plus cooling during an outage — standard design practice.

Noise while running (estimates, not facility-specific): ~7m (23ft): ~85–100 dB, comparable to heavy truck traffic. ~100 ft: ~70–80 dB, comparable to a vacuum cleaner. ~500–1,000 ft (typical property line): ~50–65 dB, varies with terrain/enclosures.

- Facilities running a full bank of generators simultaneously are louder than a single-unit test — sound doesn't add linearly, but multiple units can meaningfully raise fence-line dB
- Most large facilities test generators monthly under load for a limited window (often 30–60 minutes), when nearby residents most commonly report noise

4. Normal Operational Noise (Not Running on Generator)

Continuous noise sources during normal operation: chillers, cooling towers, CRAC/CRAH units, transformers.

Estimates: ~7m: ~75–85 dB (lawnmower-level). ~100 ft: ~55–65 dB (normal conversation level). ~500–1,000 ft: ~35–50 dB (quiet residential street level).

- Continuous, not episodic — present 24/7, versus generators which run only during outages or tests
- Liquid-cooled AI facilities tend to have somewhat lower cooling-tower noise than older evaporative hyperscale designs
- Low-frequency transformer hum can be perceptible at greater distances than the dB figure alone suggests

Regulatory context: Most local noise ordinances (including typical NC county ordinances) set nighttime residential limits in the 50–60 dB range at the property line. A stricter, adopted model standard also applies a 5 dBA "tonal penalty" when a persistent discrete tone (such as transformer hum) is detected — see Section 15 for details.

5. Status of Power Rate Protections for Consumers (North Carolina)

As of mid-August 2026, this is an active, unresolved policy area moving through both the legislature and utility rate cases. No comprehensive rate protection bill has been signed into law yet.

State legislative bills — current status:

- Senate Bill 730 (Ratepayer Protection Act), sponsored by Sen. Steve Jarvis, would prohibit eminent domain use by data center developers, require large data centers (100+ MW) to enter direct utility contracts preventing cost-shifting, and ban evaporative/open-loop cooling statewide. Passed the NC House 69–44 on June 3, 2026, but has sat in Senate Rules Committee since June 8 with no further action
- The Ratepayer and Resource Protection Act would require large-scale data centers to pay cost-based electric rates and generate at least 25% of their electricity on-site

Regulatory/utility action:

- Duke Energy proposed a "large load tariff" in June 2026 testimony; on ~July 20–21, Duke reached a settlement lowering its rate request (~5.9%/3.6% over two years) and establishing a dedicated proceeding for the tariff
- NC Attorney General Jeff Jackson rejected the settlement, and Governor Josh Stein publicly criticized it, both arguing for a binding tariff rather than "continued discussions"
- The Utilities Commission must rule by September 20, 2026

North Carolina — an actual enacted change:

- Governor Stein signed the state's 2026 budget in early July, repealing the sales tax exemption on data center electricity purchases while leaving equipment/capital-investment exemptions in place
- Projected to add ~$21.4 million to the General Fund in FY2026-27, rising to ~$28.6 million by 2030-31
- NC's exemption dated to 2006 (expanded 2015); NC was one of only seven states with a no-expiration exemption
- A broader bill (HB 1213) that would have repealed the full incentive suite did not pass — only the electricity portion was repealed
- Georgia's Senate has separately voted to repeal its own exemption; Virginia's Senate included a similar sunset in its budget proposal
- The Data Center Coalition characterized the narrower NC repeal as preserving continued "certainty for data centers to continue investing in North Carolina"

South Carolina bills (regional comparison):

- S.867 (Data Center Development Act) advanced to the full Senate in late April 2026, still pending a vote
- S.902 (Data Center Siting Act) remains in Senate Judiciary Committee
- A competing House moratorium bill (H.5286) is also pending

Other states — already enacted law, not just proposals:

- New Jersey enacted its Data Center Fair Share Act (July 7, 2026) — a signed, binding law requiring 50+ MW facilities to cover at least 85% of projected power costs for a decade
- Virginia added a $0.011/kWh energy consumption tax on data centers (capped at $600M/year statewide) while keeping its existing sales tax exemption
- New York's legislature passed a statewide one-year moratorium on permits for large (20+ MW) data centers in June 2026; the governor ultimately acted via executive order in late July (see Section 16)

Positive examples — rate protection models already working elsewhere:

- Wisconsin regulators finalized a tariff requiring large-load customers to cover the full cost of infrastructure built to serve them — a real, adopted version of what NC is still debating
- In New Albany, Ohio, a developer broke ground on a battery storage project specifically designed to ease price spikes for the area's dense cluster of data centers

Federal-Level Action (July 2026):

- Trump expanded a federal "Ratepayer Protection Pledge" (July 23–24) — ~200 stakeholders, including 23 Republican governors, committed to funding their own power infrastructure. Cited examples: Georgia Power freezing its base rate until 2029; Alliant Energy freezing Iowa rates for 5+ years
- This pledge is non-binding, unlike the state tariff proposals. A related DOE proposal asserting federal authority over grid connections has drawn criticism from a former (Trump-appointed) FERC chairman as a potential overreach on states' ratepayer-protection authority
- Nationally, at least 75 data center projects worth ~$130 billion were blocked or postponed in Q1 2026, and active opposition groups more than doubled to 833 across 49 states

Context: NC electric bills have risen ~22% since 2020. Data centers currently represent a small share of energy usage but are projected to account for ~80% of future demand growth in the state.

Bottom line: No comprehensive NC rate protection measure has been finalized. SB 730 remains stalled; Duke's tariff has its own proceeding but is undecided (ruling due Sept. 20); the one enacted NC change is the narrower electricity tax repeal; and the federal pledge is voluntary. These remain active, overlapping processes.

Sources for Sections 2–5: WRAL.com; The Center Square; GovTech.com; Inside Climate News; Canary Media; Brookings Institution; Revelio Labs; Data Center Knowledge; Governing.com; Reuters; Spectrum News; Data Center Watch; NC General Assembly bill tracking; NC Newsline; Axios Raleigh; Environmental Defense Fund Climate 411; WHQR; South Carolina Legislature Online; New Jersey Data Center Fair Share Act; Virginia budget coverage; datacenterbans.com; Carolina Journal; WFDD; Public Service Commission of Wisconsin; Data Center Dynamics; 2025 industry-produced Loudoun County data center fact sheet (publisher not independently confirmed; treat figures as industry-reported). Noise, power, and employment figures reflect general industry ranges, not measurements of any specific proposed facility.

6. "Forever Chemicals" (PFAS) in Cooling Systems

PFAS are used in some data center cooling systems — specifically two-phase immersion and direct-to-chip cooling — as well as semiconductors and fire suppressants. Their carbon-fluorine bonds resist breaking down, hence "forever chemicals."

- This cooling method is not universal — estimated active in less than 5% of data centers, mostly dense AI/HPC compute
- PFOA and PFOS (the most-studied carcinogenic PFAS) are already banned from manufacturing use; thousands of other PFAS compounds remain legal
- Federal PFAS reporting requirements have been repeatedly delayed, now pushed to January 2027
- Several states have their own reporting/phase-out rules; Maine's PFAS coolant ban doesn't take effect until 2040
- 3M has phased out its Novec PFAS coolant; at least one vendor has announced a 2026 target to eliminate PFAS
- As of 2026, single-phase direct-to-chip liquid cooling has become the dominant liquid cooling method industry-wide, with roughly 55% market share; it uses a PFAS-free water/glycol mixture rather than PFAS-based fluids, meaning the industry's most commonly deployed cooling method today does not raise the PFAS concern at all
- In June 2026, Chemours agreed to a $450 million settlement with the EPA over alleged PFAS discharges into rivers in North Carolina, New Jersey, and West Virginia, addressing alleged violations of the Clean Water Act and related statutes
- A coalition of 17 environmental groups, led by Earthjustice, is currently urging the EPA to reject a new PFAS-based coolant (Chemours' "Opteon 2P50") proposed specifically for data center cooling use; as of August 2026 the EPA's review and any resulting decision remain pending

7. Does "Closed-Loop" Cooling Still Use Significant Water?

This is genuinely disputed depending on what "closed-loop" refers to — the term is used two different ways with very different water footprints.

- True closed-loop: sealed, reused water with no evaporation. Reduces water use up to ~70% vs. open evaporative cooling. Still requires periodic "blowdown" and an initial fill/flush
- Partial closed-loop: only the inner loop is sealed; it rejects heat to an outer evaporative tower. The facility overall can still evaporate substantial water despite the "closed-loop" label
- Microsoft has acknowledged some of its "optimized" closed-loop sites were still consuming large volumes of water

Practical takeaway: The term "closed-loop" alone doesn't establish water impact. Ask whether the entire cooling system, including heat rejection to outside air, is sealed — or only the loop touching the servers.

A real, recent example: In Salem, Oregon (August 2026), a facility marketed as closed-loop cooling was reported to have secured rights to approximately 8 million gallons of water per day — a cautionary example of why the term should be treated as a starting point for questions, not confirmation of low impact.

A second, more dramatic current example — broken water pledges escalating into litigation: In California's Imperial Valley, developer Imperial Valley Computer Manufacturing (IVCM) repeatedly and publicly pledged its proposed 330 MW AI data center — which would be the largest in the state — would rely entirely on recycled municipal wastewater and never touch Colorado River water. After the cities of El Centro and Imperial declined to supply that recycled wastewater, and the Imperial Irrigation District denied a follow-up request, IVCM reversed course and sued the Irrigation District in June 2026 for access to roughly 260–287 million gallons of Colorado River water per year — in a region where agriculture already uses about 80% of California's river allocation and roughly 180,000 residents depend on that same river as their only freshwater source. As of early August 2026, Imperial County separately imposed its own moratorium on new data centers, and IVCM is now fighting that county freeze in court as well, alongside the water-access lawsuit. This is a useful, current illustration of why a cooling-method pledge made during permitting is not the same as a binding, enforceable commitment.

Fair context on scale: A 2024 Berkeley Lab report estimated U.S. data centers directly consumed about 17 billion gallons of water in 2023 (with an additional, larger indirect footprint tied to the electricity they use). For comparison, several other common land

uses consume more water than data centers do, including the cattle industry, power plants, residential water use, golf courses, and steel production. This doesn't erase local water concerns at a specific site, especially in water-stressed areas, but it's useful context when weighing data centers against other land uses a county might otherwise attract.

Where regulation is heading, beyond closed-loop: proposed South Carolina legislation would go further than requiring closed-loop cooling — it would require data centers to achieve zero net water withdrawal and zero net wastewater discharge, and would prohibit the use of groundwater or municipal water for cooling entirely. This represents a stricter emerging standard than any currently in the companion Benchmark document, worth watching as a possible model.

Sources for Sections 6–7: Schneider Electric Blog; Environmental and Energy Study Institute; Environmental Health Sciences; Bay Journal; Data Center Dynamics; Vantage Data Centers; Oracle; Microsoft Cloud Blog; World Resources Institute; Salem Business Journal (Aug. 2026); KPBS Public Media (June 2026); Western Water/Water Education Foundation (Aug. 2026); Tom's Hardware; 8NewsNow/KLAS.

8. Other Potential Chemical/Air Exposures for Neighbors

Diesel/gas generator emissions (best-documented concern):

- Generators emit PM2.5, NOx, and other pollutants linked to asthma, heart disease, and premature death — established general diesel exhaust effects, not novel to data centers
- Diesel generators can emit 200–600 times more NOx than natural gas plants of comparable output, though actual runtime is low
- VCU research found Northern Virginia data center generator emissions rose 196% (CO), 111% (NOx), and 139% (particulate matter) from 2015–2023
- Google announced a June 2026 partnership supporting water conservation in Nebraska and Iowa near its facilities

When Regulations Are Violated: What Enforcement Actually Looks Like

A fair, updated answer requires correcting one example previously cited here. In Fayette County, Georgia, a 6.2-million-square-foot data center campus (Quality Technology Services/QTS) moved roughly 29 million gallons of water through two unmetered hookups over about 15 months before residents' complaints about low water pressure led to it being discovered. The county determined QTS owed $147,474 in retroactive charges for the unbilled water — but county officials confirmed they do **not** intend to impose any additional fine, even though residents in the same drought window were being asked to stop watering their lawns. A UCLA water-policy researcher pointed to the underlying dynamic directly: when a utility becomes financially dependent on one very large customer, “the normal enforcement calculus can change.” A similar pattern played out with the same company at an Iowa-linked project, where the local utility again declined to fine the company, explaining, “they're our largest customer and we have to be partners.”

This points to a broader, well-documented gap: many existing data center ordinances set penalties too low to meaningfully deter a billion-dollar operator. Benton County, Arkansas caps violations at a flat $1,000 fine; Prince William County, Virginia caps repeated noise violations at $5,000. By contrast, general municipal zoning penalties in Texas can run up to $2,000 per day, with each day of continued violation treated as a separate offense — a structure with real teeth, since it scales with how long a violation persists rather than capping out at a single flat number.

Policy guidance from data center regulation researchers is consistent on what actually works: enforcement needs to be able to reach a facility at any point — during construction, at startup, and throughout ongoing operation — and penalties need to go beyond fines alone to include the ability to revoke a permit or certificate of occupancy if conditions aren't met. Just as important, and less discussed: in the Fayette County case, the violation was caught by resident complaints about water pressure, not by proactive government monitoring. A local government relying solely on self-reporting or occasional inspection may not catch a violation until residents already feel the effects directly.

On-site gas turbines (newer, less-studied):

- Some facilities install gas turbines on-site as primary power, not just backup — prompting legal action in Memphis, TN under the Clean Air Act
- A Caltech/UC Riverside model estimated data center air pollution could contribute to 1,300 premature deaths/year nationally by 2030 — a projection, not an observed outcome

Sources for Section 8: Schneider Electric Blog; Environmental and Energy Study Institute; VCU research; Data Center Dynamics; North Star Data Center Policy Toolkit (AI Now Institute); Tom's Hardware (May 2026); Winbuzzer (May 2026); KCRG (May 2026); City of Forney, TX Ordinance; general Texas municipal zoning penalty statute; PMC/NCBI peer-reviewed literature.

9. Claims of Cancer or Illness From Living Near Data Centers

Direct, peer-reviewed evidence linking data center proximity specifically to elevated cancer rates is currently thin. Most public claims extrapolate from general air-pollution health science rather than measured cancer outcomes near actual data centers.

A useful parallel: nuclear plant proximity studies are similarly contested and mixed — illustrating that proximity-based cancer studies are prone to confounding factors (age, income, smoking, other pollution, healthcare access).

EMF from transmission infrastructure: a large UK population-based study found no evidence linking proximity to electrical installations with increased childhood leukemia or other cancer risk.

A specific, currently circulating claim worth addressing directly: Rolling Stone reported that officials in Morrow County, Oregon linked elevated nitrate levels in the county's groundwater to a nearby Amazon data center, and the report connected that contamination to reports of miscarriages and rare cancers in the area. Amazon has strongly disputed the connection. Separately, in central Ohio, the state EPA's own regional water study found that water districts with the worst water quality do show some geographic correlation with data center concentrations, but the agency stated explicitly that there is not enough data to establish a definitive connection. This is a genuine, currently unresolved claim, distinct from the air-pollution pathway discussed elsewhere in this section, and it should be treated the same way: neither dismissed nor treated as proven.

Fair summary: Generator emissions are the most concrete, documented concern. A direct link between data center proximity and elevated cancer rates has not been established in peer-reviewed literature. Emissions limits and monitoring are the more actionable, enforceable levers. Separately, AI-assisted medical research (unrelated to proximity effects) has produced genuine recent progress against cancer — see Section 1's discussion of the 2026 Merck/Moderna mRNA melanoma trial — which is worth distinguishing clearly from the proximity-and-illness question addressed here; the two are not the same topic.

Sources for Section 9: Bay Journal; Data Center Dynamics; CAES/Univ. of Georgia; Frontiers in Climate; MDLinx; The Breakthrough Institute; PMC/NCBI peer-reviewed literature; Rolling Stone; NBC4/WCMH-TV Columbus (Dec. 2025); Ohio EPA Central Ohio Regional Water Study.

10. Data Center Harm Compared to Other Industries Near Residential Areas

Vs. power plants (VCU study, Northern Virginia): data center air pollution rivals, and sometimes exceeds, nearby power plant emissions. Current emissions are 3% of regional CO, 11% of nitrous oxide, 3% of particulate matter among point-source facilities — but represent only 4–7% of legally permitted maximums, meaning future emissions could rise substantially without new facilities being added.

Vs. factories/warehouses: without on-site combustion, a data center's main routine emission is water vapor — generally modest compared to a factory. This changes significantly once a facility runs diesel/gas combustion for extended periods.

Vs. broader industries: globally, data centers account for roughly 1–2% of electricity use; agriculture and heavy industry remain far larger climate contributors.

Fair summary: The VCU comparison is the most useful direct data point. The permitted-vs-actual emissions gap is the most actionable lever for local permitting.

Source for Section 10: Virginia Commonwealth University research; Data Center Knowledge; Newsweek; NetZero Insights; arXiv ICT/AI environmental impact review.

11. Tax Abatements and Clawback Provisions

As of July 2026, 40 states and DC have active data center tax incentives (CSG/Data Stream Centers; other trackers range 36–40). North Carolina is among them — most commonly sales-and-use tax exemptions tied to investment/job-creation thresholds.

- Job floors range from 5 to 100 positions depending on the state; at least 11 states require above-median wages; NC requires health insurance benefits
- Most agreements include clawback provisions if investment/job targets aren't met
- Good Jobs First has proposed model reforms: capping exemption duration, 20-year operational requirements, state-level impact reporting
- Illinois, Ohio, Massachusetts, and Arizona have each formally paused new data center tax incentives as of mid-2026, and the list has grown further since: Arizona enacted a three-year moratorium on its sales tax exemption (July 2026–June 2029, saving an estimated $57 million); Illinois Gov. Pritzker directed a two-year suspension of its Data Center Investment Program starting July 1, 2026 (existing agreements are grandfathered in); Ohio Gov. DeWine ordered a similar executive pause; Nebraska's governor ended access to data center incentives under the ImagiNE Nebraska Act; Washington state eliminated its sales/use tax exemption for qualifying urban refurbishment projects effective July 1, 2026; and Maine enacted a law removing data centers beginning operations on or after August 1, 2026 from certain incentive eligibility

- As of mid-2026, the National Conference of State Legislatures counts 38 states offering dedicated data center tax incentives, with lawmakers in at least 28 of those states introducing 2026 bills to curb or add guardrails to existing programs, and at least 9 states having considered repealing their incentives outright — a sharp reversal from a decade of states mainly competing to offer more generous terms
- North Carolina itself repealed its electricity sales tax exemption in the 2026 budget (see Section 5), while leaving equipment/capital exemptions in place — a partial, targeted narrowing
- Oregon data (Aug. 2026): statewide, data centers are projected to avoid $450+ million in property taxes in 2026, with schools losing ~$275 million to abatements in 2024. One local project's 75-job promise drew scrutiny against Oregon's own average of under 80 jobs per site across 120+ facilities — illustrating why project-specific figures are worth verifying against state averages

Question worth asking locally: Does any incentive agreement include clawback provisions, a minimum operating period, and public reporting — and who enforces it?

Sources for Section 11: LegalClarity; Good Jobs First; Build.inc; NAIOP; Tax Notes; CSG South; Stateline; Data Center Knowledge; Bisnow; National Conference of State Legislatures; MultiState.us; Newsweek (July 2026); Arizona Capitol Times; Bloomberg Tax; Thomson Reuters Multistate Monitor.

12. Impact on Nearby Property Values

This is actively studied, and the research base has grown substantially since mid-2026 — the honest picture is now genuinely mixed rather than pointing one direction, which is worth stating plainly rather than leaning on a single favorable study.

- A 2025 George Mason University study of Northern Virginia (the world's largest data center market) found no evidence proximity reduces home values — homes closer sold higher on average, with the model explaining 87% of the variance in the sales data studied
- A May 2026 National Bureau of Economic Research working paper found data center growth increased house prices at the county level, alongside gains in employment and business activity — but also higher electricity prices in those same areas
- By contrast, a separate nationwide study focused specifically on hyperscale facilities (large cloud/AI campuses) found openings reduced nearby house prices by an estimated 6.8%, with the effect fading beyond roughly 14 kilometers; the same study found little to no price effect for non-hyperscale facilities — a finding that lines up with this document's broader point that facility type matters materially to local impact
- University of Rochester research found data center development has little measurable effect on nearby home prices overall
- A separate June 2026 working paper found slower home-price growth in some affected communities, alongside higher local electricity consumption and prices post-development
- Immediate-adjacency effects (within a few hundred feet to a quarter mile) remain less rigorously studied than county- or region-level effects, and anecdotally more mixed; one Ohio real estate agent reported the practical effect in her market has been more about buyer hesitancy and distrust than measurable price drops

Fair summary: There is no longer a single, uncontested finding here. Results vary meaningfully by geographic scale (county-level vs. immediate-adjacency), facility type (hyperscale vs. other), and methodology. The clearest pattern across the newer research: hyperscale-specific facilities show more evidence of a real, if geographically limited, negative price effect than smaller or non-hyperscale facilities do — reinforcing why this document treats facility type as a materially different question throughout, rather than evaluating “data centers” as one undifferentiated category.

Sources for Section 12: George Mason University Center for Regional Analysis (Schar School); National Bureau of Economic Research working paper (May 2026); University of Rochester research; The Close/TechnologyAdvice (Aug. 2026); Data Center Knowledge; HousingWire (July 2026); AI GridWatch; BGR; Integra Realty Resources (Indiana study).

13. EMF Effects on Pollinators (Bees) Near Power Infrastructure

Because data centers require new substations and transmission lines, EMF effects on pollinators sometimes get raised. This is a genuinely active, unsettled research area.

- A 2023 Science Advances study reported EMF from transmission towers caused physiological stress and reduced pollination effectiveness in honeybees
- That study has faced a published rebuttal arguing its lab experiments used static fields, not the 50Hz alternating fields power lines actually produce
- Other peer-reviewed studies (Scientific Reports, 2018) found ELF EMF can impair honeybee learning/flight under lab conditions, though generally at field strengths close to conductors

- Australia's ARPANSA concluded the evidence “remains weak with some conflicting results”
- This concern relates to transmission infrastructure generally — not unique to data centers as a facility type

Fair summary: Real research exists on both sides, but no scientific consensus. Neither “proven harmful” nor dismissal is accurate.

Sources for Section 13: Molina-Montenegro et al., Science Advances (2023) and technical comment; Environmental Health Sciences; Shepherd et al., Scientific Reports (2018); ARPANSA.

14. Economic Consequences of Enacting a Moratorium

A separate question from whether any specific project is a good fit is what a moratorium itself signals to the broader industry — not just the project under review. This is a well-documented dynamic in site selection.

The industry's own view:

- A Data Center Coalition VP of state policy stated local moratoriums “send a signal that the area is closed for business, both for data centers and for other significant economic development projects”
- An industry site-selection analysis put it directly: “A site with strong grid access but in a jurisdiction trending toward moratorium is not a clean opportunity” — regulatory risk now belongs in the first pass of due diligence
- That analysis noted secondary Southeast markets benefit “precisely because they have not accumulated the community opposition” seen elsewhere

North Carolina-specific evidence:

- As of late August 2026, more than 20 NC counties, cities, and towns have enacted data center moratoriums or bans since late 2025, and the pace has continued to accelerate through the month
- An industry site-selection guide advises developers to “focus on counties with pro-development leadership,” naming Person, Vance, and Richmond counties as active alternatives
- Carolina Journal (July 2026): “Capital flows where it is wanted and stays where it's welcome... maintaining that reputation requires continuing to provide the certainty and predictability businesses need”

A regional wave, very close to home — the Piedmont Triad and Triangle, August 2026:

- Surry County unanimously enacted a full two-year moratorium (July 20–21, 2026), extending an earlier 60-day pause from June. The extension requires the board to appoint a steering committee — including visiting an operating data center and consulting power providers and environmental officials — rather than simply waiting out the clock. The county attorney called it “a complicated issue” with “a lot of polarized information”
- Greensboro reversed course within two weeks: City Council voted 5–4 against starting a moratorium process on July 21, then voted 9–0 on Aug. 3 to begin one — specifically a 120-day moratorium for facilities exceeding 10 megawatts, a threshold-based approach rather than a blanket rule. Mayor Marikay Abuzuaiter stated there are currently no plans to bring or recruit a data center to Greensboro — the moratorium is preemptive, similar to the framing used in Davidson County's own debate
- Alamance County commissioners held an Aug. 17 public hearing on a proposed six-month moratorium. Proponents specifically cited the county's lack of countywide rural zoning as leaving officials with limited authority to reject projects that technically meet bare-minimum land-use frameworks — a structural gap worth noting alongside Davidson County's own zoning classification questions
- Randolph County took a different approach entirely — rather than a moratorium, commissioners amended their existing ordinance to require closed-loop cooling systems and noise impact studies as conditions of approval. This is a real, adopted, in-state example of the conditions-based regulatory model detailed further in Section 15
- Durham County commissioners voted 4–1 on Aug. 25 to adopt a nine-month moratorium (through May 2027), aligned with a similar pause already in place in the city of Durham. Notably, the county's version exempts smaller facilities under 100,000 square feet or using closed-loop cooling — a threshold/tiered approach similar to Greensboro's, rather than a blanket rule. The lone dissenting vote, Commissioner Nida Allam, argued the exemption did not go far enough
- Jackson County, in Western NC, adopted a full one-year moratorium on Aug. 18, running through Aug. 18, 2027, prohibiting all data center permits including zoning, development, building, and demolition permits
- In Edgecombe County, a developer withdrew a proposed $19.2 billion AI data center project in early July while the county was considering its own 24-month moratorium — another real example (alongside Raleigh, below) of a developer stepping back under local pressure rather than a formal denial being required
- Statewide, a tracking count from the North State Journal identifies at least 11 counties and 17 towns that have enacted moratoriums since the wave began with Gates County in December 2025, spreading first through western NC mountain communities, then the Triangle (Chatham, Orange, and now Durham counties), and now the Piedmont Triad and Charlotte regions

Not every NC locality is moving the same direction:

- In Raleigh, a proposed data center was withdrawn by its own developer after sustained public opposition — citizens flooding council members with emails and filling all available public comment slots at a hearing. This is notable as public pressure succeeding without any government moratorium or denial being required
- Charlotte City Council remains deadlocked 5–5 on the question, with the mayor casting a tie-breaking vote against even holding a public hearing on a proposed moratorium — illustrating that the wave is not uniform even among NC's largest cities
- A separate statewide legislative attempt (House Bill 1189, a proposed two-year moratorium for 100+ MW facilities) did not advance beyond the House Rules Committee — mirroring SB 730's stall and suggesting broad statewide moratorium action, as opposed to narrower local action, has repeatedly failed to gain traction in the General Assembly
- In Stokes County, the planning board has twice recommended denial of a specific named project ("Project Delta," a proposed hyperscale facility near Walnut Cove) — a project-specific rejection distinct from a general moratorium
- In Richmond County, officials approved Amazon's proposed $10 billion data center — a real, current NC example of a county choosing to move forward rather than pause

The wave is national and accelerating, not specific to North Carolina:

- In the first two weeks of August 2026 alone, Palm Beach County, FL's zoning commission unanimously recommended a one-year pause (with commissioners asking staff to strengthen it further); Fort Worth, TX began considering a 90-day moratorium with a proposed advisory committee; and Louisville, KY's Metro Council advanced a moratorium out of committee 7–1 after nearly a year of delay
- Fort Worth officials were explicit that a moratorium would not apply retroactively to already-approved projects — illustrating moratoriums are commonly forward-looking pauses, not attempts to unwind existing approvals
- Some jurisdictions have gone further and adopted outright, permanent prohibitions rather than temporary pauses — e.g., Monterey Park, CA's citywide data center ban (Ordinance 2278) — representing the far end of the regulatory spectrum compared to the tiered/conditions-based models discussed in Section 15
- Even Virginia, the market most closely identified with large-scale data center development (see the Loudoun County discussion above), is not immune: a state senator called for a statewide moratorium in 2026, and the Spotsylvania County Board of Supervisors adopted a resolution supporting a pause. Governor Abigail Spanberger has not endorsed a statewide moratorium, instead pursuing measures to shift more infrastructure cost onto developers — showing that even in a mature, established market, the political boundaries around future growth remain actively contested

The other side of this:

- Moratoriums are not always purely obstructive — several counties (including Surry, above) have used the pause period productively, standing up advisory committees or directing staff to draft permanent, more specific zoning regulations
- Brookings Institution research notes this partly reflects a genuine trust deficit — declining public trust in AI and large tech companies, combined with limited developer transparency, fuels resistance independent of any single project's merits
- The clearest concrete example of the upside case: Loudoun County, Virginia — the world's largest data center concentration — generates almost half its property tax revenue from data centers, allowing reduced residential property taxes and increased school funding. For anyone wanting to ask questions directly rather than rely on secondhand accounts, Loudoun County's Department of Economic Development can be reached at 43777 Central Station Drive, Suite 300, Ashburn, VA 20147, (703) 777-0426; Executive Director Buddy Rizer, who has led the office since 2007 (before the county's data center concentration existed), can be reached directly at (703) 777-0592
- A 2025 industry-produced fact sheet (source appears to be an economic-development or data-center-industry group; treat its figures as industry-reported rather than independently audited) adds more specific detail worth having on hand: data center real estate in Loudoun is assessed at roughly $858 per square foot, far above office ($182), retail ($213), or flex/industrial space ($158); FY24 data center tax revenue totaled $875 million, about $35 million more than the county's entire general operations budget that year. A genuine caveat in the same source: about 85% of that revenue comes from computer equipment rather than the buildings themselves, and since data center clients typically refresh server equipment every 3–5 years, that revenue stream is less stable long-term than fixed real estate taxes would be. The same source cites concrete community examples: Digital Realty donated $90,000 to the Ashburn Volunteer Fire & Rescue Department, its largest single donation ever received, and AWS donated the land rights needed for the Dulles West Blvd. extension, a public road project in the county
- A proposed Ohio AI data center is being watched as a test case for early community engagement and public disclosure as a standard permitting approach

- Effingham County, Georgia approved incentives for a large OpenAI-backed campus in 2026, with roughly 1,000 permanent jobs committed — a real example of local government support rather than opposition
- Meta's 2026 Data Center Community Action Grants program funded an Autonomous Technology and AI Hub at Isothermal Community College in Rutherford County, NC — the same county as Meta's Forest City data center — providing residents hands-on training in computer vision and autonomous navigation for agriculture, manufacturing, and aerospace work. It's a concrete, NC-specific example of a community benefit tied directly to an operating facility, rather than a general incentive-agreement promise

Fair summary: There is credible, industry-sourced, NC-specific, and now Triad-and-Triangle-regional evidence that even a temporary moratorium can function as a durable signal to the broader industry. Whether a given moratorium meaningfully damages a county's long-term competitiveness likely depends on its duration, how clearly it's scoped, and whether it concludes with specific, predictable permanent regulations — the Randolph County, Durham County, and Surry County examples above illustrate different ways a county can use this process productively — versus extending indefinitely or functioning as a de facto ban.

Why Rumors Often Precede Any Formal Announcement: the "Phantom Data Center" Pattern

A recurring, genuinely useful piece of context for understanding local speculation (including rumors about specific roads or parcels in Davidson County that have circulated without any confirmed project attached): the data center industry itself has a name for this phenomenon — a "phantom data center," where public certainty that a project is coming forms well before any project is formally announced, financed, or permitted. A 2026 industry trade publication described the pattern directly: a utility interconnection study, a rezoning inquiry, an unusual land purchase, or even informal discussion among brokers and economic development officials can be enough to convince residents a hyperscale campus is imminent, and social media can turn scattered signals into a firm local narrative before any formal project exists. By the time a real application is filed, if one ever is, public narratives about water use, noise, or tax incentives may already be fully formed.

This cuts both ways and doesn't resolve whether any specific rumor is true. It does explain why speculation about a site can circulate confidently for months without a confirmed project ever surfacing (utilities routinely study projects that never become firm commitments, and land assembly can precede a public announcement by years), and separately, why some rumors do turn out to be accurate early signals of a real, still-developing project. The practical takeaway: land purchases, utility studies, or broker chatter are worth tracking, but are not themselves confirmation of an actual project until a real application, rezoning request, or public filing exists.

Sources for Section 14: Data Center Coalition; Build.inc; Carolina Journal; GPU Lease Index NC Moratorium Tracker; Brookings Institution; CBS12 (Palm Beach); CBS Texas (Fort Worth); Louisville Public Media; dcmap.us; Data Center Knowledge (Ohio); Effingham County GA IDA; Meta/about.fb.com (Mar. 2026); WFDD/WFAE/WHQR/WUNC/Public Radio East; WRAL; WUNC; GovTech.com (Aug. 26, 2026); Smoky Mountain News (Aug. 26, 2026); Data Center Dynamics (Edgecombe withdrawal); North State Journal; Yahoo News; Monterey Park, CA Ordinance No. 2278; NC Data Center Newsletter (ncdatacenters.substack.com); 2025 industry-produced Loudoun County data center fact sheet (publisher not independently confirmed; treat figures as industry-reported); Melissa Farney, "The Phantom Data Center Effect: When Perception Precedes Project Reality," Data Center Frontier (Aug. 26, 2026), on Virginia's Sturtevant/Spotsylvania/Spanberger developments and the phantom data center phenomenon.

15. Setting Defensible Standards: Real-World Benchmark Figures

A moratorium's stated purpose is typically to allow time to draft specific standards, not to block development indefinitely. A full table of adopted/proposed noise, setback, minimum acreage, landscaping/architectural design, water, generator, and violation-penalty figures — along with a section on power-quality standards — is provided in the companion document, *Data Center Ordinance Standards: What Other Jurisdictions Have Adopted*.

Practical takeaway: The figures compiled there are not unusually generous to developers — they represent standards dozens of jurisdictions have already adopted as reasonable and enforceable. A standard falling meaningfully outside those ranges is a genuine outlier worth asking about directly. The lack of tiering by facility type across most examples is a real gap — Davidson County adopting tiered standards (lighter for colo, progressively stricter for hyperscale and hyperscale AI) would be more precise than most peer jurisdictions, not less rigorous.

16. The National Picture: Public Awareness and the Broader Policy Landscape

A July 2026 CSG report — a nonpartisan, all-50-states policy organization — provides useful national context.

Most Americans know little about data centers, across multiple surveys:

- Navigator Research (Dec. 2025): 58% had seen, read, or heard "nothing" or "a little" about the discussion
- Pew Research Center (Jan. 2026): 75% had heard "a little" or "nothing at all"
- CBS News/YouGov (June 2026): only 16% claimed to know "a lot"
- No respondents identified data centers as the most important problem facing America in Gallup's tracking poll

At the same time, opposition is genuinely widespread, and has continued climbing through 2026:

- 70% of Americans oppose an AI data center in their own community (Gallup, April 2026); 57% per Reuters/Ipsos (June 2026)
- The most recent available polling shows opposition higher still: a Heatmap Pro/Embold Research poll conducted August 8–13, 2026 found 75% of American registered voters would oppose a new data center near where they live, with more than 60% saying they would strongly oppose it — the most negative result recorded since that poll began tracking the question roughly a year earlier. A separate Emerson College poll found opposition rising from 42% in December 2025 to 63% by July 2026
- A more granular March 2026 Pew Research study found the picture is not uniformly negative across every specific concern: only 38% of U.S. adults consider data centers "mostly bad" specifically for home energy costs, and Americans were more likely to see data centers as having a positive than a negative effect on local jobs and tax revenue specifically. This suggests the broad opposition figures above may reflect general unease more than uniformly negative views on every individual impact
- Active local opposition groups more than doubled nationally, 396 to 833 across 49 states; separately, Heatmap Pro data now counts more than 530 counties and municipalities nationwide that have restricted or banned data center construction
- At least 20 proposed projects were halted by local opposition in Q1 2026 alone; more broadly, Data Center Watch estimated $98 billion in data center projects were blocked or delayed from late March through June 2026 alone — more than the total blocked or delayed during the entire prior two years (2023 to early 2025) combined
- 528 data center-related state bills introduced since Jan. 1, 2026, with 58 already enacted

The most significant recent state-level action: New York Gov. Kathy Hochul signed Executive Order No. 62 in late July 2026, a temporary one-year statewide moratorium on new hyperscale data center construction. By contrast, Maine's legislature's attempt at a permanent ban was vetoed by its own governor in April 2026 — suggesting temporary pauses have proven more durable than permanent bans, even in states moving to restrict data centers.

CSG's own framework mirrors the conditions-based approach in this document: evaluate proposed projects against specific questions — energy sufficiency, who bears infrastructure cost, environmental/cooling approach, and job durability — rather than a binary yes/no on data centers as a category.

Why this matters locally: the documented reality that most Americans, not just Davidson County residents, are working from limited information reinforces the case for decisions grounded in specific, accurate information rather than a national mood pollsters describe as under-informed.

Sources for Section 16: Council of State Governments, "The Data Center Boom" (July–Aug. 2026), citing Navigator Research, Pew Research Center, CBS News/YouGov, Gallup, Reuters/Ipsos, Data Center Watch, Heatmap News, and NY Executive Order No. 62; Heatmap Pro/Embold Research poll (Aug. 8–13, 2026); Emerson College polling (ABC4, July 2026); NBC News (Data Center Watch $98B figure).

17. Zoning Authority: Why City vs. County Control Matters

A recurring, under-explained question is why it matters whether a county or city controls the zoning/annexation decision for a given site. National research confirms this is not a minor technicality.

The core distinction: Research from the University of Texas at Austin, cited in the CSG report, found: city councils have full zoning authority, adhere to public processes, and establish enforceable noise/design standards. By contrast, unincorporated counties often have no zoning power beyond tax abatements and cannot stop construction of data centers outright.

- In practice, a county can express strong opposition without having actual legal authority to stop a project once it's annexed into a city's zoning jurisdiction
- A city council approving annexation and zoning exercises real, binding authority — including imposing conditions and enforceable standards — that a county may not have
- States differ on this at the state level too: West Virginia eliminated local authority over data centers entirely (full state preemption, blocking any ordinance that would "limit, in any way" a qualifying project), while South Dakota passed legislation (SB 135, the "Data Center Bill of Rights for Citizens," plus companion bill HB 1038, both signed March 24, 2026) specifically protecting local authority to regulate data centers and barring the state from granting data centers tax exemptions — no single national consensus exists

Why this matters for any specific project: understanding which government body holds binding authority over a parcel — versus which only hold indirect levers like moratoriums or public pressure — is essential to understanding what a public debate can and cannot change. A county-level moratorium generally cannot reach land already annexed into, or under, a municipality's separate zoning jurisdiction.

Sources for Section 17: Council of State Governments, "The Data Center Boom," Section 7.b, citing University of Texas at Austin research; West Virginia data center preemption legislation (AP News, 2026); South Dakota SB 135/HB 1038 (South Dakota Searchlight, Feb.–Mar. 2026); Columbia Law School Climate Law Blog.

18. Jobs and Trades: What the Data Actually Shows

Beyond permanent-staffing figures in Section 1, a fuller employment picture includes construction-phase work and the skilled trades specifically.

Construction-phase employment and wages:

- Colorado: each large-scale data center creates up to 1,500 construction jobs over up to three years, averaging ~$140,000 in annual wages and benefits per worker
- Northern Virginia: data center construction generated 29,000+ jobs and supported 36,700 construction jobs statewide in 2025; accounts for 22% of non-residential, non-road construction statewide (44% in Northern Virginia specifically)
- Beyond construction, a 2025 industry-produced fact sheet estimates that for every job located inside a Virginia data center itself, roughly 3.5 additional jobs are supported elsewhere in the state's economy, not counting construction employment, amounting to over 40,000 jobs statewide in 2023. Treat this multiplier as an industry-reported estimate rather than an independently audited figure
- Construction wages run 25–30% higher than workers' previous roles in the same region

The skilled trades specifically:

- An estimated 45–70% of construction effort on a data center project involves electrical work — electricians are the trade most in demand
- HVAC manufacturers benefit from long-term partnerships with operators requiring custom cooling and steady ongoing business
- Google has funded training for 100,000 existing electricians and 30,000 new apprentices by 2030
- The United Association (plumbers/pipe fitters union) states data centers currently demand more of its workforce than any other industry
- Skilled trades in "data center hotspot" areas earn an estimated 7% wage premium
- An Ohio Chamber of Commerce report (Sept. 2025) found demand for electricians, network engineers, and HVAC specialists outpacing supply

On maintenance and repair specifically — who actually does this work: This is worth separating into two distinct categories, since the answer differs by facility type and by what's being repaired. Day-to-day server and hardware maintenance at hyperscale facilities (Google, Amazon, Microsoft, Meta) is typically performed by locally-hired, on-site technicians who are part of the facility's permanent staff, not outside contractors flown in for the job. This is because the work requires 24/7 shift coverage by someone reliably present in person, and hyperscalers have built dedicated local hiring pipelines specifically for these roles — for example, Google's Data Center Academy at its Lithia Springs, GA campus has hired directly from Chattahoochee Technical College for over a decade, Microsoft's Datacenter Academy partners with community colleges in 15+ states, and Amazon runs a similar paid apprenticeship model. By contrast, rarer, more specialized, or highly technical repairs — complex electrical/mechanical systems, proprietary equipment issues beyond a site technician's training, or repairs at smaller colocation facilities without in-house staff — are more commonly handled through OEM-direct service contracts or third-party maintenance (TPM) providers, whose technicians are often based in regional hub cities and dispatched as needed rather than living locally. In short: the routine hands-on work is usually local; the rare specialized escalation is more often not.

On the "construction jobs are only temporary" concern: real basis — typically 12–18 months per project. But multi-building phased sites (directly relevant to a large site like Carolina Corridor) let tradespeople move between phases, creating a "sustained pipeline" beyond a single building's window.

Workforce education response: Mesa Community College (AZ), Ohio University, University of Illinois Urbana-Champaign, George Mason University, Lawrence Technological University, and Penn State have all stood up dedicated data center workforce programs — suggesting the demand is treated as durable, not speculative. A notably early, NC-specific example: Google partnered with Caldwell Community College & Technical Institute (CCC&TI) in 2008 to develop a dedicated IT curriculum tied to its Lenoir, NC data center, the first of what's since grown into dozens of employer-customized workforce training programs at that college. Caldwell County Economic Development, the office that helped facilitate that partnership, can be reached at 1909 Hickory Blvd. SE, Lenoir, NC 28645, (828) 728-0768, caldwelledc.org, for anyone wanting a direct, close-up perspective on how that relationship has actually worked in practice.

Sources for Section 18: Council of State Governments, "The Data Center Boom," Section 9, citing Newsfromthestates.com, Northern Virginia Technology Council, CRE Daily, Wired, Ohio Chamber of Commerce Foundation, and university workforce program announcements; Built In (Jan. 2026); Data Center Geeks (2026, L1 technician staffing and Google/Microsoft/Amazon local training academies); Park Place Technologies and Maintech (third-party hardware maintenance staffing models);

Caldwell County Economic Development (caldwelledc.org/workforce); 2025 industry-produced Loudoun County data center fact sheet (publisher not independently confirmed; treat figures as industry-reported).

19. Additional Areas Worth Raising With a Developer or Applicant

These areas have thinner research bases than the topics above, but are worth direct questions to any specific applicant since they're typically addressed in project-specific agreements:

- **Grid reliability:** Beyond rate cost, does a large new load affect outage frequency or grid stability for existing residential customers?
- **Water source and rights:** Municipal/potable supply or dedicated non-potable source, and how does that interact with regional agricultural water allocation? (See Section 7's Imperial Valley example for why this question matters even when a pledge has already been made.)
- **Fire risk:** Battery energy storage systems carry different fire risks than conventional structures — has the local fire department been consulted?
- **Decommissioning and bonding:** Is there a funded plan covering removal/remediation? Long-term utility transmission agreements (15–25 years) can make projects difficult to unwind once built
- **Community benefit agreements:** Has the applicant offered noise mitigation, local hiring, or infrastructure commitments separate from standard tax incentives?
- **Stormwater:** Has flooding/runoff impact been modeled for the specific site and soil conditions?

Source for Section 19: Future Bridge Americas; Burnham Nationwide; United Casualty; general industry practitioner commentary.

20. Questions for a Facilities Manager or Company Representative (Site Visits)

Questions where a representative's answer should be specific and verifiable, not general marketing language.

Facility type and scale:

- Which tier — colocation, traditional hyperscale, or hyperscale AI/GPU training — and is that written into the site plan?
- Total contracted power draw (MW), and maximum permitted vs. expected typical utilization?
- How many permanent on-site jobs, at what wage relative to county median?

Power and generators:

- On-site generation for primary power, or only diesel/gas backup for emergencies?
- Number of backup generators permitted, and maximum combined emissions output allowed under the permit?
- Generator testing schedule and advance notice to residents?
- Distance from generators to nearest residential property line — has a noise study been conducted at that distance?

Cooling and water:

- Evaporative, closed-loop, or hybrid — and if closed-loop, is the entire heat-rejection system sealed?
- Water source (municipal/potable vs. non-potable/reclaimed) and projected daily draw at full operation? Is that source contractually secured, or still pending, as in the Imperial Valley example in Section 7?
- PFAS-containing cooling fluids, and if so, leak detection/containment plan?

Emissions, fire, and financial commitments:

- Permitted maximum emissions (PM2.5, NOx, CO), and public reporting schedule?
- Battery storage systems — has the local fire department reviewed the response plan?
- Clawback provisions, decommissioning bond, and length of utility transmission agreements?
- What specific penalty applies if a permitted limit (water, noise, emissions) is exceeded, and does the county retain authority to revoke the permit, not just issue a fine?
- Any community benefit agreement offered separate from standard tax incentives?

21. Weighing the Factors: What This Research Supports

The sections above point toward a conditions-based framework rather than a simple yes/no on data center development in general. “Data center” is not one category — the relevant factors should be weighed against the specific facility type and site plan under review, not against data centers as a category.

Factors that tend to support approval:

- Property value research (Section 12) is more reassuring than intuition suggests — no negative effect found, even a mild positive association, though limited to one region/year
- Facilities without on-site combustion are generally closer to a warehouse than a factory in day-to-day emissions (Section 10)
- A well-structured incentive agreement with enforceable clawback/reporting terms can produce a legitimate fiscal trade (Section 11)

Factors that tend to warrant additional conditions or scrutiny:

- The gap between current and permitted emissions (Section 10) means low current pollution isn't an enforceable ceiling
- Facility type materially changes power, water, and generator profiles (Section 1); applications without that specificity limit how well this research applies
- Health science on long-term illness claims (Section 9) remains genuinely unsettled — supporting neither dismissal nor treating claims as proven
- Decommissioning, bonding, and clawback terms (Sections 11 & 19) are often unresolved at application stage, while long transmission agreements can make projects hard to unwind
- Enforcement of any adopted standard is only as strong as its penalty structure — real-world examples (Section 8) show fines are sometimes waived entirely for large operators, so permit-revocation authority and proactive monitoring matter as much as the numeric standard itself
- A moratorium's reputational effect on the broader industry (Section 14) — now visible in real time across the Piedmont Triad and Triangle — is a separate consideration from any single project's merits
- Where standards are written matters as much as whether they exist (Section 15) — a check against standards so restrictive they function as a de facto ban
- National polling (Section 16) shows most Americans report knowing little about data centers, even as opposition has grown sharply
- Which government body holds binding authority over a specific parcel (Section 17) determines what any public debate can realistically change
- Construction and skilled-trades employment (Section 18) is more substantial and, for multi-phase sites, longer-lasting than the 12–18-month figure often cited suggests

Practical takeaway: The research compiled here is most useful as a basis for conditions — facility type disclosure, enforceable emissions ceilings, decommissioning bonds, clawback provisions, verified cooling/water claims, and penalties with real teeth backed by permit-revocation authority — rather than as a basis for approving or rejecting data center development as a category.

A note on complexity versus uncertainty: A reasonable question when weighing a set of standards like these is whether the cumulative number of requirements, studies, and review steps becomes a deterrent on its own, separate from how strict any single figure is. The available evidence points to a different conclusion: it's regulatory uncertainty, not regulatory complexity, that drives developers away. A 2026 legal industry site-selection advisory put it directly: developers arriving with transparency and community benefits are winning approval, while those arriving with secrecy are meeting zoning denials, and the same source cautions that a jurisdiction with no clear rules at all isn't safer for a developer, since unpredictable local moratoriums can still appear at any time; “silence” is not the same as certainty. A separate industry trade publication (Data Center Frontier, Aug. 26, 2026) made a notably candid, related point directed at its own industry readers: firm, sustained community opposition should be read as a genuine constraint, not a communications problem to be overcome with more outreach — “we need to realize when no means no, and not interpret it as ‘try harder.’” Loudoun County, Virginia — still the largest data center market in the world — is the clearest real-world illustration of the complexity point specifically: it eliminated by-right approval entirely between 2023 and 2025, now requires a special exception permit and a public hearing for every new data center application, and continues adding further design and noise standards. That is a genuinely burdensome, multi-step process, and the market remains dominant regardless. A clear, bounded, even demanding set of standards is something a serious, well-capitalized developer can plan and budget around; an open-ended or unpredictable process is what tends to send that same developer looking elsewhere.

Source for this note: Nixon Peabody LLP, “Data center site selection strategy update” (May 2026); Melissa Farney, “The Phantom Data Center Effect: When Perception Precedes Project Reality,” Data Center Frontier (Aug. 26, 2026); Loudoun County, VA zoning administrator opinion and Board of Supervisors record (2023 ordinance overhaul; further by-right restrictions, 2025); Loudoun Now; Data Center Dynamics (Loudoun 2026 zoning proposals); Loudoun County Economic Development FAQ.

Data Center Facts: One-Page Summary

A condensed overview | Prepared by Tavis Curry

Updated: August 30, 2026 — full detail and sources in the companion documents (see note at bottom)

"Data center" is not one category. Facility type — colocation, traditional hyperscale, or hyperscale AI — materially changes power draw, water use, jobs, and footprint. Standards and impacts should be weighed by type, not against data centers as a single class.

Water & Cooling

- True closed-loop cooling can cut water use ~70% vs. evaporative systems — but "closed-loop" claims need verification; some marketed as closed-loop still draw millions of gal/day
- Real precedent exists for pre-approval hydrogeological studies, water/sewer capacity confirmation, and drought-priority clauses (adopted: Anchorage AK, Chadds Ford Twp PA)

Power

- On-site generation requirements are a growing trend nationally; NC bills pending would require 25%+ on-site clean generation for large facilities (not yet law)
- No comprehensive NC ratepayer-protection law is final yet; Duke's tariff case is pending (ruling due Sept. 20, 2026)

Jobs & Economy

- Permanent jobs are real but modest (30–200 for a large campus); construction-phase and skilled-trades impact is substantial and, for multi-phase sites, longer-lasting than often assumed
- Property value research is genuinely mixed: county-level studies show gains; hyperscale-specific studies show a real, if geographically limited (~14km), negative effect — facility type matters here too
- Tax revenue can be substantial (Loudoun Co., VA model) but state tax incentives are being narrowed or paused nationally as of 2026

Zoning, Authority & Enforcement

- County vs. city zoning authority differs significantly; a county moratorium generally cannot reach land already annexed into a municipality
- By-right vs. special-use-permit is a real, adopted choice elsewhere (Fairfax Co. VA vs. Harrisonburg VA); enforcement penalties are often too weak to deter large operators unless tied to per-day fines or permit revocation

Moratoriums & Regulatory Signal

- More than 20 NC counties/towns have enacted moratoriums since late 2025; industry treats prolonged, open-ended pauses as a signal a jurisdiction is closed for business
- Evidence points to regulatory *uncertainty*, not regulatory *strictness*, as what actually deters serious developers — Loudoun Co., VA remains the world's largest market despite eliminating by-right approval entirely and requiring a public hearing for every project

Bottom Line

The strongest-supported path is a conditions-based framework, tiered by facility type, drawing on standards dozens of jurisdictions have already adopted (see companion Benchmark document), rather than either a blanket approval or an indefinite, open-ended pause.

This is a condensed summary only. Full research, direct sources, and the complete jurisdiction-by-jurisdiction comparison are in the companion documents: Data Center Facts: Common Community Questions (full reference) and Data Center Ordinance Standards: What Other Jurisdictions Have Adopted (numeric benchmarks). Ask Tavis Curry for either.

NLC NATIONAL LEAGUE OF CITIES

A CENTURY OF STRENGTHENING CITIES

EPI Center
CENTER FOR SCIENTIFIC EVIDENCE IN PUBLIC ISSUES

AAAS

Community Strategies to Address Data Center Development and Operation

Overview

This fact sheet explores how local governments can manage land use and the community impacts of data center development and operation. Building on insights about energy and environmental considerations, it highlights zoning ordinances, permitting strategies and policy tools that help cities, towns and villages guide data center siting while aligning with economic, sustainability and community development goals.

Zoning and Permitting

With the growth of artificial intelligence (AI) and the need for more data centers, a common challenge facing local governments is that older zoning codes do not explicitly address data centers. These facilities often fall between classifications. This ambiguity can result in case-by-case determinations and ad hoc review processes. Zoning code typically allows for specified development types through the following: by right, by conditional use, or by special exception.

TABLE 1: ZONING CATEGORIES

ZONING APPROACH	FEATURES
By Right	Projects that meet all zoning requirements are allowed to proceed without discretionary review or public hearings. Streamlined and predictable process.
By Condition Use	Projects may be allowed if they meet specific conditions set by the zoning ordinance. Typically requires a public hearing and approval from a zoning board or commission.
By Special Exception	Projects not normally permitted under current zoning may be approved if they meet certain criteria and do not adversely impact the surrounding area. Usually involves a public hearing and discretionary review.

Some local governments are adopting zoning amendments to specifically address data centers. For example, in Fairfax County, VA, officials have updated their zoning ordinance to define data centers and permit them by-right in select industrial and commercial zones, while introducing buffers, size thresholds, and location restrictions to guide development away from transit-oriented areas. Harrisonburg, VA took a different approach by removing by-right permissions and requiring special use permits for data centers in industrial zones, enabling more discretion in site selection and public engagement.

Loudoun County, VA is considering shifting from by-right permissions to a special exception model for new data centers. Proposed comprehensive plan changes would also limit future data center development in designated urban centers near transit.

Several local governments have used **overlays**, which provide additional rules on top of existing zoning regulations. Overlays can allow local governments to exercise greater control over where and how data centers are built. These mechanisms often include supplemental requirements related to noise, aesthetics, setbacks and environmental impact. Prince William County, VA created multiple overlay zones between 2016 and 2023, including the "Digital Gateway" district. These zones impose specific criteria, including 24-hour noise limits and landscaping requirements, while also enabling large-scale rezoning for data center parks. Limerick Township, PA created a data center overlay that requires compliance with detailed standards for noise, woodland preservation, water use and emergency access.

In Chandler, AZ, all new data centers must now go through a public hearing process and are restricted to specific districts. The city's ordinance requires detailed noise mitigation studies and regulates generator testing schedules to reduce disruptions.

Policy Tools and Local Incentives

Beyond zoning, local governments are experimenting with policy tools to shape the environmental footprint and community contributions of large building projects.

Some cities have adopted or explored **energy and water benchmarking requirements**. In 2023, Detroit, MI enacted an ordinance requiring large commercial buildings to report annual energy and water use. Similar policies exist in Chicago, IL and Atlanta, GA forming part of a broader trend toward transparency in high-resource-use sectors.

Several jurisdictions have explored **renewable energy and water efficiency incentives** tailored to data centers. While some operators voluntarily co-locate renewable energy, local governments have begun facilitating this through streamlined permitting and flexible zoning for on-site generation.

In New Albany, OH, a large **tax abatement was paired with community benefits** in a development agreement for a data center. In return for a 15-year, 100 percent property tax abatement, the developer committed to stormwater mitigation, scholarships for local students and cultural programs.

Community Engagement and Placemaking

Community engagement should begin early, before zoning changes are proposed or negotiations with data center developers take place. Proactive outreach to residents and community-based organizations builds trust, surfaces local priorities and creates opportunities to align development with community goals.

Creative placemaking offers a useful framework for engaging the public in data center planning and ensuring these projects contribute positively to the built environment. For example:

- Transforming required buffer zones into **public green spaces** or **walking trails** that benefit nearby neighborhoods.
- Using **community-led design processes** to shape screening, signage or building facades so they reflect local identity or cultural themes.
- Developing **public benefit agreements** tied to local education, job training or public Wi-Fi access, co-designed with community stakeholders.

In addition to public engagement, **collaboration with utilities and regional partners is essential**.

- Work with energy and water utilities early in the planning process to assess infrastructure capacity and coordinate long-term investments.
- Coordinate regionally with other municipalities and public utility commissions (PUCs) to address cumulative grid impacts, resource availability and shared development pressures.

By embedding engagement and collaboration into the planning process, cities, towns and villages can ensure data center development is more responsive to local needs and contributes to long-term community well-being.

TABLE 2: HOW LOCAL GOVERNMENT'S ADDRESS DATA CENTERS

JURISDICTION	ZONING APPROACH	KEY FEATURES
Fairfax County, VA	By-right in high-intensity zones with thresholds and restrictions	Triggers special review above 40,000 sq ft (commercial) or 80,000 sq ft (industrial); prohibited within 1 mile of Metro stations; performance standards for cooling and noise.
Harrisonburg, VA	Shifted from by-right to special use permitting	Requires public hearings and city council approval for data centers in industrial zones.
Prince William County, VA	Data center overlay zones	Includes Digital Gateway; applies 24-hour noise limits, architectural screening, and buffer standards.
Loudoun County, VA	Data center overlay zones	Would require discretionary review for all new facilities; restricts development in transit zones.
Chandler, AZ	Data center overlay zones	Requires public hearings, noise mitigation studies, and generator use restrictions.
Mesa, AZ	Data center overlay zones	Encourages clustering in advanced manufacturing zone; requires infrastructure capacity review and often includes design or noise provisions in development agreements.

Additional Resources

- Urban Land Institute, Local Guidelines for Data Centers
- American Planning Association, Data Center primer for planners

D. Facilities for pets shall be indoors or fully screened from adjacent streets and other uses.

4.3.30. CRYPTOMINING OPERATIONS AND DATA CENTERS

(Amended 11-3-25 UDOTA5-25)

Cryptomining operations and data centers shall comply with all applicable requirements in this Ordinance, including the following:

A. DISTRICTS PERMITTED

Except for data centers proposed within the M-2 General Industrial District, uses subject to these standards shall only be established in accordance with the procedures and requirements in Section 2.3.5, Conditional Rezoning, or Section 2.3.16, Planned Development. In no instance shall a cryptomining operation be permitted on a lot within a conventional zoning district.

B. NEIGHBORHOOD MEETING REQUIRED

Except for data centers proposed on lots located within the M-2 General Industrial District, all applicants for a cryptomining operation or a data center shall conduct at least one neighborhood meeting in accordance with the Section 2.4.3, Neighborhood Meeting.

C. ANNUAL ZONING COMPLIANCE PERMIT REQUIRED

Uses subject to these standards are required to maintain continual compliance with these standards and as such, shall obtain Zoning Compliance Permit approval in accordance with Section 2.3.29, Zoning Compliance Permit, by January 31st of each year following issuance of the initial Certificate of Occupancy. Failure to comply with this requirement may result in issuance of a stop work order or other applicable remedy in accordance with Section §7.5, Remedies.

D. REQUIRED SETBACKS

1. Except for off-street parking spaces, vehicular accessways, and underground utilities, all structures and development associated with a data center or cryptomining operation shall maintain a minimum setback of at least 100 feet from any lot line.
2. Principal buildings associated with a data center or cryptomining operation shall be located no less than 500 linear feet from any lot line shared with a lot in a residential zoning district that contains an existing or approved residential dwelling unit. In no instance shall this minimum setback requirement be reduced as part of a conditional rezoning or planned development district approval.
3. No data center or cryptomining operation shall be located within 1,000 linear feet of an existing or approved public or private school, congregate care use, or child day care.

E. MAXIMUM HEIGHT

Data centers and cryptomining operation shall be exempted from the height standards in this Ordinance, but may include a maximum building height as part of a conditional rezoning or planned development district approval.

F. LANDSCAPING AND SCREENING

Uses subject to these standards shall comply with all applicable standards in Section §6.5, Landscaping and Screening, except that such uses shall maintain a Type C Opaque Buffer supplemented with a fully opaque fence, wall, or berm of at least six feet in height along all lot lines abutting or adjacent to a residential zoning district. In no instance shall this requirement be reduced as part of a conditional or planned development district approval. Provision of additional landscaping may be provided as a means of ensuring compliance with Section G4.3.30.G, Exterior Lighting

Development subject to the standards of this section shall comply with all the standards in Section §6.3, Exterior Lighting, and the following:

1. Building-mounted exterior lighting shall not project above the roof or top of the building it is mounted to;
2. Parking lot exterior lighting shall not exceed a maximum height of 30 feet above grade; and
3. No exterior lighting located within 50 feet of a lot in a residential zoning district that contains an existing or approved residential dwelling unit shall exceed a maximum height of 15 feet above grade.

Maximum Noise Levels.

G. EXTERIOR LIGHTING

Development subject to the standards of this section shall comply with all the standards in Section §6.3, Exterior Lighting, and the following:

1. Building-mounted exterior lighting shall not project above the roof or top of the building it is mounted to;
2. Parking lot exterior lighting shall not exceed a maximum height of 30 feet above grade; and
3. No exterior lighting located within 50 feet of a lot in a residential zoning district that contains an existing or approved residential dwelling unit shall exceed a maximum height of 15 feet above grade.

H. MAXIMUM NOISE LEVELS

1. Through the utilization of noise dampening features or configuration methods, a cryptomining operation or data center shall be engineered to maintain a maximum noise threshold of 60 dBA or less at all times, as measured at the lot line.
2. In no instance shall this maximum noise threshold be reduced as part of a conditional rezoning or planned development district approval.
3. The Planning Director may require a noise study prepared by the County's acoustical engineer at the applicant's expense at any time prior to issuance of a Certificate of Occupancy, upon receipt of a noise complaint, as part of required annual renewal of a Zoning Compliance Permit, or as needed to ensure compliance with these standards is maintained.

I. UTILITY USAGE

1. ELECTRICAL SERVICE FROM A PUBLIC ELECTRICITY SERVICE PROVIDER

In cases where a data center or cryptomining operation utilizes electricity in any amount from a public electricity service provider, including for uses and/or activities incidental to the data center itself, the following standards shall apply:

i. ATTESTATION OF ELECTRICAL CAPACITY

Prior to approval of a Building Permit and along with the required annual Zoning Compliance Permit renewal application, the applicant shall provide written verification signed by the applicable electrical service provider stating the following:

a. Adequate capacity is available on existing supply lines and substation(s) to ensure there is or will be adequate electrical capacity available to serve the proposed use at peak operational levels while also serving the needs of other electricity users in the service area;
b. Existing utility supply equipment and related electrical infrastructure are sufficiently sized and can safely accommodate the proposed use; and
c. The use will not cause electrical interference or fluctuations in line voltage on or off the premises.

ii. PERIODIC CAPACITY ASSESSMENT ATTESTATION

Every data center or cryptomining operation served by a public electricity service provider shall furnish an updated attestation of electrical capacity addressing all items from subsection (i) above to the Planning Department by January 31st of each year. Failure to provide a signed attestation in accordance with this schedule shall be a violation of this Ordinance and may result in issuance of a stop work order or other applicable remedy in accordance with Section §7.5, Remedies.

2. RENEWABLE ENERGY SOURCES ENCOURAGED

i. Utilization of electricity generated from a renewable energy source, such as wind or solar, are strongly encouraged.

ii. In no instance shall a data center or cryptomining operation include a nuclear reactor, though nothing shall limit the use of electricity generated from a lawfully-established off-site nuclear reactor operated by a public or private electricity service provider.

3. POTABLE WATER SERVICE FROM A PUBLIC PROVIDER

In cases where a data center or cryptomining operation utilizes potable water from a public potable water provider, the following standards shall apply:

i. ATTESTATION OF POTABLE WATER CAPACITY

Prior to approval of a Building Permit and along with the required annual Zoning Compliance Permit renewal application, the applicant shall provide written verification signed by the applicable potable water service provider stating the following:

a. Adequate capacity is available from existing water sources to ensure there is adequate potable water capacity available to serve the proposed use at peak operational levels while also serving the needs of other users in the service area;
b. Existing potable water supply equipment and related infrastructure are sufficiently sized and can safely accommodate the proposed use; and
c. The use will not cause a loss in water pressure necessary to maintain functional fire protection off the premises.

ii. PERIODIC CAPACITY ASSESSMENT ATTESTATION

Every data center or cryptomining operation served by a public potable water provider shall furnish an updated attestation of potable water capacity addressing all items from subsection (i) above to the Planning Department by January 31st of each year. Failure to provide a signed attestation in accordance with this schedule shall be a violation of this Ordinance and may result in issuance of a stop work order or other applicable remedy in accordance with Section §7.5, Remedies.

4. POWER GENERATION DEVICES

On-site power generation devices, whether permanent or temporary, shall comply with the following standards:

i. Such devices, including fuel storage areas, shall be fully enclosed by building or a masonry wall of a minimum height exceeding the height of the tallest portion of the device, and shall be considered principal structures for the purpose of determining minimum required setback from all lot lines;

ii. Such devices, including associated fuel storage, shall comply with all applicable Fire Codes and National Fire Protection Association (NFPA) standards; and

iii. Such devices shall secure all required State and federal permits prior to operation.

J. COMPLIANCE WITH LOCAL, STATE, AND FEDERAL LAWS

Data centers and cryptomining operations shall maintain compliance with all applicable State, federal, and local laws at all times. Failure to comply with all applicable laws and conditions of

approval shall be a violation of this Ordinance and shall subject to the owner and/or operator to the enforcement procedures and remedies identified in Article 7, Violations.

4.3.31. ELECTRONIC GAMING OPERATION

A. Such uses shall be separated from the following use types by at least one-half mile (2,640 feet):
1. A bar, cocktail lounge, private club;
2. A community/youth/senior center;
3. An elementary, middle, or high school;
4. A nightclub or dancehall;
5. A park (whether public or private);
6. A religious institution; or
7. Another commercial operation offering games of skill;

B. Such uses shall not operate between the hours of 11:00 PM and 7:00 AM; and

C. Such uses shall not include or display electronic sweepstakes.

4.3.32. EQUESTRIAN FACILITY

A. There shall be minimum 100-foot distance between manure storage areas, barns or stables and any adjacent residentially zoned or used property.

B. All unpaved areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties.

C. Restroom facilities shall be approved by the Edgecombe County Health Department.

4.3.33. EVENT VENUE, INDOORS OR OUTDOORS

A. Indoor only event venues of 5,000 square feet or more of floor area in the AR-30 district shall be subject to the standards in Section 2.3.20, Special Use Permit. **(Amended 4-3-23 UDOTA 2-23)**

B. Outdoor activity areas shall be set back from lot lines shared with a residential use by an amount at least twice the minimum rear setback for the district where the use is located.

C. The maximum number of guests shall be in accordance with the maximum occupancy of the principal structure as determined by the fire marshal or fire chief.

D. Outdoor activities shall not take place between the hours of 10:00 PM and 7:00 AM. **(Amended 4-3-23 UDOTA 2-23)**

E. Exterior lighting shall not project into adjoining residential lots. Use of stadium-style or other pole-mounted lighting is prohibited. Lighting of accessible paths may be provided, if necessary.

F. The event venue shall provide sufficient on-site trash receptacles and shall ensure that windblown trash or other debris does not accumulate anywhere on the site.

G. Event venue uses shall demarcate the boundaries of the event venue site for guests and shall include fences, walls, or other techniques such as landscaping to ensure guests to do not inadvertently trespass on adjacent lots.

H. Event venues shall ensure adequate ingress and egress from all buildings and structures to accommodate emergencies.

4.3.34. EXTRACTIVE INDUSTRY

A. The edges of any pit where an extractive industry operation is taking place and any equipment used in the processing of rock and gravel, any asphalt plant, or other industrial uses operated in conjunction with the mine or quarry shall be located at least 100 feet from any property line.

B. Where the mining operation site is bounded by a railroad right-of-way currently being used for rail service to the mining operation, no setback shall be required between the railroad right-of-way and such operation.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2025

S **5**

SENATE BILL 730

Second Edition Engrossed 5/7/25
House Committee Substitute Favorable 5/21/26
House Committee Substitute #2 Favorable 6/2/26
Fifth Edition Engrossed 6/3/26

Short Title: Ratepayer Protection Act. (Public)

Sponsors:

Referred to:

March 26, 2025

A BILL TO BE ENTITLED

AN ACT TO ESTABLISH REQUIREMENTS FOR SITING AND OPERATION OF DATA CENTERS AND TO MAKE VARIOUS CHANGES TO STATE ENERGY AND UTILITIES POLICY.

The General Assembly of North Carolina enacts:

PART I. REQUIREMENTS FOR DATA CENTERS

REQUIREMENTS FOR LOCAL DEVELOPMENT APPROVAL PROCESS

SECTION 1.(a) Article 9 of Chapter 160D of the General Statutes is amended by adding a new section to read:

"**§ 160D-974. Site assessment required for data centers; other requirements.**

(a) Prior to any approval of a rezoning application, special exception, conditional or special use permit, or building permit for the siting of a new data center, a local government shall require that an applicant:

(1) Perform and submit a site assessment to examine the sound profile of the data center on residential units and schools located within 500 feet of the data center property boundary. A locality may also require that a site assessment examine the effect of the proposed facility on the community with regard to (i) ground and surface water resources, (ii) air quality, (iii) thermal plumes, (iv) agricultural resources, (v) parks, (vi) registered historic sites, and (vii) forestland on the data center site or immediately contiguous land.

(2) Submit an attestation that the data center will employ a closed-loop water or a liquid cooling system that will result in minimization of water consumption for cooling systems to the maximum extent possible, in compliance with G.S. 143-355.5A.

(b) The site assessment submitted to a local government pursuant to subdivision (1) of subsection (a) of this section shall be used by the local government to assess consistency with the policies of the local government's comprehensive plan, if any, and compliance with the local government's adopted noise ordinances, zoning ordinance provisions, and other applicable laws and regulations, if any.

(c) This section shall not apply to a site with an existing legislative, quasi-judicial, or administrative approval where an applicant is seeking an expansion or modification of an already

existing or approved facility and such expansion does not exceed an additional monthly electrical demand of 100 megawatts or more.

(d) For purposes of this section, the term "data center" means a facility, campus of facilities, or array of interconnected facilities used by an entity or other business enterprise for the primary purpose of storing, retrieving, managing, and processing digital data, which has a peak monthly electricity demand of 100 megawatts or greater. The term "data center" does not include a facility or portion of a facility containing electronic equipment that is incidental to and used in support of a business whose primary business activity is not the storing, retrieving, managing, and processing of digital data.

(e) Nothing in this section shall be construed to prohibit, limit, or otherwise supersede existing local zoning authority."

SECTION 1.(b) This section is effective when it becomes law and applies to applications for rezoning, special exceptions, conditional or special use permits, or building permits submitted on or after that date.

WATER USE STANDARDS FOR DATA CENTERS

SECTION 2.(a) Article 38 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"**§ 143-355.5A. Water use standards for data centers.**

(a) The Department shall adopt rules establishing water use standards for data centers to ensure the protection of surface water and groundwater resources.

(b) The water use standards adopted by the Department: (i) may require data centers to employ closed-loop or reclaimed water systems as necessary to avoid impacts to areas with water availability concerns; and (ii) shall not permit a data center to use an evaporative cooling system. For purposes of this subsection, an "evaporative cooling system" means any cooling system that consumes water through evaporation as a primary method of heat rejection.

(c) For purposes of this section, the term "data center" means a facility, campus of facilities, or array of interconnected facilities used by an entity or other business enterprise for the primary purpose of storing, retrieving, managing, and processing digital data, which has a peak monthly electricity demand of 100 megawatts or greater. The term "data center" does not include a facility or portion of a facility containing electronic equipment that is incidental to and used in support of a business whose primary business activity is not the storing, retrieving, managing, and processing of digital data."

SECTION 2.(b) The Department of Environmental Quality shall adopt permanent rules to implement the requirements of this section no later than September 1, 2026. The rules adopted shall apply only to data centers for which no local development approvals or State permits, certifications, or authorizations have been issued for siting of the data center on or before the date the rules become effective.

PROHIBIT CERTAIN FOREIGN OWNERSHIP OF DATA CENTERS AND LAND UPON WHICH DATA CENTERS ARE SITED

SECTION 3.(a) Chapter 64 of the General Statutes is amended by adding a new Article to read:

"Article 5.

"Prohibit Adversarial Foreign Government Ownership of Data Centers and Land on which Data Centers are Located.

"**§ 64-64. Definitions.**

As used in this Article, the following definitions apply:

(1) Adversarial nation. – One of the following:

a. China.

b. Iran.

c. North Korea.
d. Russia.

(2) Data center. – A facility, campus of facilities, or array of interconnected facilities used by an entity or other business enterprise for the primary purpose of storing, retrieving, managing, and processing digital data, which has a peak monthly electricity demand of 100 megawatts or greater. The term "data center" does not include a facility or portion of a facility containing electronic equipment that is incidental to and used in support of a business whose primary business activity is not the storing, retrieving, managing, and processing of digital data.

(3) De minimis direct interest. – Any ownership of land or a data center resulting from ownership of registered equities in a publicly traded company owning the land or data center and if the ownership interest in the company is either of the following:

a. Less than five percent (5%) of any class of registered equities. Ownership of registered equities is determined by processes established under federal law.

b. Less than five percent (5%) interest in an entity controlled by a company that is both registered with the United States Securities and Exchange Commission as an investment adviser under the Investment Advisers Act of 1940, as amended, and is not a foreign entity.

(4) Foreign government. – Any government other than the federal government or the government of a state or a political subdivision of a state.

(5) Interest. – Any estate, remainder, or reversion, or any portion of the estate, remainder, or reversion, or an option pursuant to which one party has a right to cause the transfer of legal or equitable title to land described in G.S. 64-65(a), including, without limitation, a lease of land described in G.S. 64-65(a) (i) for a term of one year or longer or (ii) renewable by option for terms which, if the options were all exercised, would total one year or longer.

(6) Party. – Any individual, corporation, company, association, firm, partnership, society, joint-stock company, trust, estate, or any other legal entity.

(7) Prohibited foreign party. – Any of the following:

a. A citizen or resident of an adversarial nation.

b. A foreign government formed within an adversarial nation.

c. A party other than an individual or government that is created or organized under the laws of a foreign government within an adversarial nation.

d. A party other than an individual or a government that meets all of the following criteria:

1. Is created or organized under the laws of any state.

2. A significant interest or substantial control is directly or indirectly held or is capable of being exercised by one or more of the following:

I. An individual referred to in sub-subdivision a. of this subdivision.

II. A foreign government referred to in sub-subdivision b. of this subdivision.

III. A party referred to in sub-subdivision c. of this subdivision.

IV. A combination of the individuals, parties, or governments referred to in this sub-sub-subdivision.

e. An agent, trustee, or other fiduciary of a person or entity enumerated in this subdivision.

f. This definition does not apply to an entity that meets any of the following criteria:

1. The entity has received a determination from the Committee of Foreign Investment in the United States (CFIUS) that there are no unresolved national security concerns with respect to the entity in connection to a matter submitted to CFIUS and which CFIUS concluded all action pursuant to section 721 of the Defense Production Act of 1950, as amended.

2. The entity has a national security agreement with CFIUS and maintains the validity of such national security agreement.

3. A United States domiciled subsidiary of an entity that meets the criteria of sub-sub-subdivisions 1. or 2. of this sub-subdivision.

(8) Residence. – A person's principal dwelling place where that person intends to remain permanently for an indefinite period of time.

(9) Resident alien. – A person who is not a citizen of the United States and is a resident of one of the following:

a. A state of the United States.

b. A territory of the United States.

c. A trusteeship of the United States.

d. A protectorate of the United States.

(10) Significant interest or substantial control. – Any interest, other than a de minimis direct interest, held by one or more of the following:

a. An individual referred to in sub-subdivision (7)a. of this section.

b. A single government referred to in sub-subdivision (7)b. of this section.

c. A party referred to in sub-subdivision (7)c. of this section.

d. A party referred to in sub-subdivision (7)d. of this section.

"**§ 64-65. Prohibited foreign party ownership of data centers and land on which a data center is located.**

(a) Notwithstanding any provision of law to the contrary, no adversarial nation shall either:

(1) Purchase, acquire, lease, or hold any interest in land on which a data center is located.

(2) Have any significant interest in or substantial control of a data center.

(b) Except as provided in this section, a prohibited foreign party shall not acquire by grant, purchase, devise, descent, or otherwise any interest, other than a de minimis direct interest, in land described in subsection (a) of this section or a data center in this State. A party may not knowingly hold land, or a significant interest in or substantial control of a data center, as an agent, trustee, or other fiduciary for a prohibited foreign party in violation of this section. A prohibited foreign party that acquires land, or holds a significant interest in or substantial control of a data center, in violation of this section remains in violation as long as the prohibited foreign party holds an interest in the land, or the significant interest in or substantial control of a data center. A prohibited foreign party who is a resident alien of the United States shall have the right to acquire and hold land described in subsection (a) of this section, or a significant interest in or substantial control of a data center, in the State upon the same terms as a citizen of the United States during the continuance of the party's residence in this State.

(c) A prohibited foreign party that has acquired any interest in land described in subsection (a) of this section, or a significant interest in or substantial control of a data center, in this State prior to the effective date of this section may continue to own or hold that interest but may not acquire by grant, purchase, devise, descent, or otherwise any additional interest in land described in subsection (a) of this section, or a significant interest in or substantial control of a data center, in this State and must register with the Secretary of State and the Attorney General. The Secretary of State and the Attorney General shall maintain one joint database of those foreign parties that have registered, and the database shall be accessible and searchable by the public on each agency's website. The Secretary of State and the Attorney General shall establish a registration form for the purposes of this subsection, and the form shall include at least the following information:

(1) The name of the owner of the land or the owner of the interest in the land, or the owner of the data center, as applicable.

(2) The address of the land, the parcel identification number, and the property's legal description, or the address of the data center, as applicable.

(3) The number of acres of the land on which the data center is located.

(4) The mailing address of the owner of the land or the data center, as applicable.

(5) Country of citizenship and residency status or country of incorporation of the owner of the land or the owner of the interest in the land, or the owner of the data center, as applicable.

(d) A prohibited foreign party that fails to timely file a registration with the Secretary of State and the Attorney General pursuant to subsection (c) of this section is subject to a civil penalty of not less than one thousand dollars ($1,000) for each day that the registration is late, the clear proceeds of which shall be remitted to the Civil Penalty and Forfeiture Fund, in accordance with G.S. 115C-457.2. The unpaid balance of any penalties assessed under this subsection shall constitute a lien against the land if a lien, denoted as a Notice of Foreign Ownership Violation Lien, has been recorded by the Attorney General in the office of the register of deeds in the county where the property is located, and the lien shall have priority from the date and time of recordation and shall be enforced by the Attorney General.

(e) A prohibited foreign party that acquires land described in subsection (a) of this section, or a significant interest in or substantial control of a data center, on or after the effective date of this section, by devise or descent, through the enforcement of security interests, or through the collection of debts, other than a de minimis direct interest, shall sell, transfer, or otherwise divest itself of the land within three years after acquiring the land, or the significant interest in or substantial control of the data center.

(f) At the time of purchase, a buyer of any interest in land described in subsection (a) of this section shall provide an affidavit signed under penalty of perjury attesting that the buyer is (i) not a prohibited foreign party and (ii) in compliance with the requirements of this section. The affidavit is not required to be notarized and shall be attached as an exhibit to the deed or other document that conveys an ownership interest in the land. The failure to obtain or maintain the affidavit shall not affect the title or insurability of the title for the land, and shall not result in civil or criminal liability to any person or entity, unless the person or entity is in violation of subsection (k) of this section herein, or subject any nonparty to the purchase to civil or criminal liability, unless a nonparty to the purchase has actual knowledge that the transaction will result in a violation of this section. The Real Estate Commission shall establish the form for the affidavit required under this subsection.

(g) Upon receipt of information that leads the Attorney General to believe that a prohibited foreign party has not divested itself of the land described in subsection (a) of this section, or a significant interest in or substantial control of a data center, as required under subsection (e) of this section, the Attorney General shall enforce a violation of this section by commencing a receivership proceeding in the county where the property or data center is situated

under Article 38A of Chapter 1 of the General Statutes seeking the appointment of a general receiver pursuant to G.S. 1-507.24(e1). Any interest in real property acquired or held in violation of this section shall be subject to divestiture pursuant to G.S. 64-66.

(h) A violation of this section by an adversarial nation may, at the discretion of the noteholder, be deemed a default under a loan, mortgage, or deed of trust and shall provide the lender the automatic right to trigger default on the loan, mortgage, or deed of trust.

(i) The responsibility for determining whether an individual or other entity is subject to this Article, pursuant to either civil or criminal law, rests solely with the State of North Carolina and no other individual or entity.

(j) Title to land described in subsection (a) of this section is not invalid or subject to divestiture due to a violation of this section by any former owner or any other person holding or owning a former interest in the land described in subsection (a) of this section.

(k) A party who knowingly sells an interest in land described in subsection (a) of this section in violation of this section or who has actual knowledge that the transaction will result in a violation of this section but aids and abets a party in knowingly selling an interest in land described in subsection (a) of this section shall be guilty of a Class 2 misdemeanor. It is an affirmative defense to prosecution under this subsection that a prohibited foreign party is a resident alien of this State.

(*l*) An individual or other entity who is not a prohibited foreign party shall bear no civil or criminal liability for failing to determine or make inquiry of whether an individual or other entity is a prohibited foreign party.

(m) This Article does not create or authorize a private right of action to enforce the provisions of this Article.

"**§ 64-66. Divestiture procedure.**

(a) Upon receipt of information that leads the Attorney General to believe that a violation of G.S. 64-65 may have occurred, the Attorney General shall investigate the alleged violation and may issue subpoenas requiring any of the following:

(1) Appearances of witnesses.

(2) Production of relevant records.

(3) Giving of relevant testimony.

(b) The Attorney General shall enforce a violation of G.S. 64-65 by commencing a receivership proceeding under Article 38A of Chapter 1 of the General Statutes seeking the appointment of a general receiver pursuant to G.S. 1-507.24(e1). The following apply to a receivership proceeding initiated pursuant to this section:

(1) Proceeds of the sale shall be paid as follows:

a. The costs of the receivership and sale.

b. To secured parties, in their order of priority, except for liens which under the terms of the sale are to remain on the property.

c. No proceeds shall be distributed from the receivership sale to the prohibited foreign party. Any excess proceeds are forfeited and shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. 115C-457.2.

(2) At the receivership sale, any secured party shall be able to place a bid in an amount that is not more than the amount owed plus any costs incurred to the secured party as of the date of the sale, as established in the court order for the sale of the property.

(3) Upon commencement of an action under this section, the Attorney General shall file a notice of lis pendens as soon as practicable with the register of deeds of the county or counties in which the real property is situated. Upon the entry of an order for the sale of the property under this section, the Attorney General shall record a copy of the order as soon as practicable in the

office of the register of deeds of the county or counties where the real property is situated.

(4) The receiver shall honor and give priority to any default that has been triggered on a loan, mortgage, or deed of trust prior to the commencement of a receivership under this section."

SECTION 3.(b) Article 2 of Chapter 161 of the General Statutes is amended by adding a new section to read:

"**§ 161-14.04. Citizenship and residential status of parties to a deed or conveyance.**

When recording a deed or other document that conveys an ownership interest in land described by G.S. 64-65(a), the register of deeds shall attach the affidavit as an exhibit to the deed or other document that conveys an ownership interest in land as required by G.S. 64-65(f) according to the requirements of G.S. 161-22."

SECTION 3.(c) G.S. 1-507.24 is amended by adding a new subsection to read:

"(e1) Receiver for Sale of Real Property Owned by Prohibited Foreign Party. – A general receiver may be appointed for the purpose of conducting a sale of real property in accordance with G.S. 64-66 upon a finding by the court that an interest in the real property is held by a prohibited foreign party in violation of G.S. 64-65(a)."

SECTION 3.(d) This section becomes effective December 1, 2026. Subsection (a) of this section applies to offenses committed on or after that date.

REQUIREMENTS FOR UTILITY SERVICE CONTRACTS WITH DATA CENTERS

SECTION 4.(a) Article 7 of Chapter 62 of the General Statutes is amended by adding a new section to read:

"**§ 62-142.1. Contracts with data centers.**

(a) Each data center located in North Carolina is required to enter into an electric service contract with the electric public utility providing service to the data center. Each contract between an electric public utility and a data center for the provision of electric service shall include terms and conditions designed to (i) protect residential, other retail, and wholesale electricity customers from costs incurred or reasonably anticipated to be incurred by the electric public utility to provide electric service to the data center and (ii) prevent, to the maximum extent reasonably feasible, other retail customers from subsidizing the cost of the data center's electric service. Such contracts shall include all of the following:

(1) Minimum billing requirements designed to recover incremental costs associated with serving or preparing to serve a data center.

(2) A contract term that is sufficient to recover all of the electric public utility's incremental costs and which may exceed the length of the applicable service tariff.

(3) Performance and credit provisions designed to protect retail customers in the event of contract default.

(4) Termination provisions designed to protect retail customers in the event of termination of the contract for electric service.

(b) Each contract between an electric public utility and a data center for the provision of electric service shall be filed with the Commission as soon as practicable but in no event later than 30 days from the date of contract execution by both parties. Either the utility or the data center, or both, may designate all or any portion of a contract as confidential information as defined in G.S. 132-1.2, or sensitive public security information as defined in G.S. 132-1.7. Information shall be considered confidential only to the extent provided by law. Any dispute about whether information has been properly designated as confidential shall be determined by the Commission upon motion and response of interested parties. Subject to the requirements of G.S. 62-34(c), the Public Staff shall have the right to examine confidential information, as well

as sensitive public security information, in exercising any power or performing any duty authorized by this Chapter.

(c) As part of the report required on the long-range needs for the expansion of facilities for the generation of electricity pursuant to G.S. 62-110.1(c), the electric public utility shall include details on contracted demand versus actual demand for each data center for the previous three years.

(d) As used in this section, the term "data center" means a facility, campus of facilities, or array of interconnected facilities used by an entity or other business enterprise for the primary purpose of storing, retrieving, managing, and processing digital data, which has a peak monthly electricity demand of 100 megawatts or greater. The term "data center" does not include a facility or portion of a facility containing electronic equipment that is incidental to and used in support of a business whose primary business activity is not the storing, retrieving, managing, and processing of digital data.

(e) The Commission may adopt rules to implement the requirements of this section. Nothing in this section shall be construed to limit the authority of the Commission to adopt such additional rules as are in the public interest to protect retail customers from costs incurred by electric public utilities to provide electric service to data centers."

SECTION 4.(b) This section is effective when it becomes law and applies to agreements between an electric public utility and a data center entered into on or after that date.

NO CONDEMNATION FOR DATA CENTERS

SECTION 5. Article 1 of Chapter 40A of the General Statutes is amended by adding a new section to read:

"**§ 40A-14. No condemnation to facilitate siting of data center.**

Notwithstanding any authority granted under this Chapter, no condemnor shall exercise the power of eminent domain for the purpose of acquiring land for a data center to be sited upon."

NO LOCAL GOVERNMENT INCENTIVES FOR DATA CENTERS

SECTION 6.(a) G.S. 158-7.1 is amended by adding a new subsection to read:

"(i) Notwithstanding subsection (a), (b), or (d) of this section, local governments are prohibited from providing any economic development incentives for siting of a data center within their jurisdiction. For purposes of this section, the term "data center" means a facility, campus of facilities, or array of interconnected facilities used by an entity or other business enterprise for the primary purpose of storing, retrieving, managing, and processing digital data, which has a peak monthly electricity demand of 100 megawatts or greater. The term "data center" does not include a facility or portion of a facility containing electronic equipment that is incidental to and used in support of a business whose primary business activity is not the storing, retrieving, managing, and processing of digital data."

SECTION 6.(b) This section is effective when it becomes law and applies to data centers for which no local development approvals or State permits, certifications, or authorizations have been issued for siting of the data center on or before that date. This section shall not be construed to impair agreements for incentives executed on or before that date.

PART II. ENERGY POLICY PROVISIONS

UTILITIES COMMISSION TO DELAY COMPLIANCE WITH CEPS REQUIREMENT THROUGH USE OF SWINE WASTE RESOURCES FOR ELECTRIC MEMBERSHIP CO-OPERATIVES AND MUNICIPAL ELECTRIC PROVIDERS

SECTION 7. The Utilities Commission shall delay the required compliance with G.S. 62-133.8(e) by the Electric Membership Co-operatives and Municipal Electric Providers (the Systems) until January 1, 2029, unless the systems request the ability to execute a contract

for this purpose at an earlier date. No later than January 1, 2029, the Commission shall initiate a process to review the reasonableness of the proposed costs of the associated renewable energy credits, and the costs to be passed on to the ratepayers, prior to the execution of a contract between the systems and a swine waste generator. Reasonableness of the costs being proposed should include the costs of other renewable energy credits. The systems shall not pass along any costs to the ratepayers deemed by the Commission to be unreasonable.

RFP FOR STUDY OF UTILITY POLICIES TO INCREASE AFFORDABILITY OF ELECTRIC RATES

SECTION 8. Recognizing the rising costs of utility service, the General Assembly finds that an examination of various utility policies should be conducted to ensure these policies are not exacerbating affordability issues for citizens of the State, including the 2050 goal for a reduction in carbon dioxide (CO2) emitted in the State from electric generating facilities that results in carbon neutrality, pursuant to G.S. 62-110.9. In addition to examining these existing utility policies, the General Assembly finds that expert analysis should be performed to determine the most effective approach to ensuring that costs of utility service to large load customers is not borne by other residential, commercial, and industrial customers in North Carolina, including appropriate terms for a large load tariff. The North Carolina Collaboratory (Collaboratory) shall issue a request for proposals for a study to be conducted by an entity with nationally recognized expertise in research and analysis of utility policy and rates to (i) ascertain the current impacts, and projected impacts over the next 25 years, to residential, commercial, and industrial customer bills from the 2050 carbon neutrality goal, and whether any changes to this policy or other policies are advisable to enhance customer affordability and (ii) provide recommendations for effective policies to prevent rate impacts from large load customers on other customer classes, including requirements that large load customers generate a portion of their own power, as well as curtailment policies for large load customers. The study shall adhere to the following time line:

(1) The request for proposals (RFP) shall be issued on or before August 1, 2026.
(2) A contract to award the RFP shall be executed on or before November 1, 2026.
(3) The study shall be completed and submitted to the Joint Legislative Commission on Energy Policy on or before May 1, 2027, in order to inform the development of utility policy during the 2027 Regular Session.

The Utilities Commission and the Public Staff shall assist the (i) Collaboratory, as needed, in the development of the RFP and the selection of a contractor and (ii) selected contractor, in every permissible manner within the constraints of their respective authority, in the conduct of the study.

EXPRESS PERMIT REVIEW FOR ENERGY PROJECTS

SECTION 9.(a) G.S. 143B-279.13 reads as rewritten:

"**§ 143B-279.13. Express permit and certification reviews.**

(a) The Department of Environmental Quality shall develop an express review program to provide express permit and certification reviews in all of its regional offices. Participation in the express review program is voluntary, and the program shall be supported by the fees determined pursuant to subsection (b) of this section. The Department of Environmental Quality shall determine the project applications to review under the express review program from those who request to participate in the program. The express review program may be applied to any one or all of the permits, approvals, or certifications in the following programs: the erosion and sedimentation control program, the coastal management program, and the water quality programs, including water quality certifications and stormwater management. The express review program shall focus on the following permits or certifications:

(1) Stormwater permits under Part 1 of Article 21 of Chapter 143 of the General Statutes.
(2) Stream origination certifications under Article 21 of Chapter 143 of the General Statutes.
(3) Water quality certification under Article 21 of Chapter 143 of the General Statutes.
(4) Erosion and sedimentation control permits under Article 4 of Chapter 113A of the General Statutes.
(5) Permits under the Coastal Area Management Act (CAMA), Part 4 of Article 7 of Chapter 113A of the General Statutes.

(a1) The Department of Environmental Quality shall have the authority to create express permitting options for programs in addition to those listed in subsection (a) of this section where it deems there to be a need or where it determines an express permitting option would create greater efficiencies for the permitting process.

(a2) The Department of Environmental Quality shall create an express review program for all permits, authorizations, and certifications required from the Department for projects involving the generation, distribution, or transmission of energy or fuel, including natural gas, diesel, petroleum, or electricity. Participation in the express review program is voluntary.

(b) The Department of Environmental Quality shall set the fees for express application review under the express review program at a level sufficient to cover all program expenses. Notwithstanding G.S. 143-215.3D, the maximum permit application fee to be charged under subsection (a) of this section for the express review of a project application requiring all of the permits under subdivisions (1) through (5) of subsection (a) of this section shall not exceed five thousand eight hundred eight dollars ($5,808). Notwithstanding G.S. 143-215.3D, the maximum permit application fee to be charged for the express review of a project application requiring all of the permits under subdivisions (1) through (4) of subsection (a) of this section shall not exceed four thousand seven hundred fifty-two dollars ($4,752). Notwithstanding G.S. 143-215.3D, the maximum permit application fee charged for the express review of a project application for any other combination of permits under subdivisions (1) through (5) of subsection (a) of this section shall not exceed four thousand two hundred twenty-four dollars ($4,224). As set forth in subsection (a1) of this section, express review of a project application involving additional permits or certifications issued by the Department of Environmental Quality other than those under subdivisions (1) through (5) of subsection (a) of this section may be allowed by the Department, and, notwithstanding G.S. 143-215.3D or any other statute or rule that sets a permit fee, the maximum permit application fee charged for the express review of a project application that includes a permit, approval, or certification designated for express review under subsection (a1) of this section shall not exceed four thousand two hundred twenty-four dollars ($4,224), plus one hundred fifty percent (150%) of the fee that would otherwise apply by statute or rule for that particular permit, approval, or certification. Additional fees, not to exceed fifty percent (50%) of the original permit application fee under this section, may be charged for subsequent reviews due to the insufficiency of the permit applications. The Department of Environmental Quality may establish the procedure by which the amount of the fees under this subsection is determined, and the fees and procedures are not rules under G.S. 150B-2(8a) for the express review program under this section."

SECTION 9.(b) G.S. 143B-279.20 reads as rewritten:

"**§ 143B-279.20. Report on Department activity to process applications for permits required for natural gas pipelines and gas-fired electric generation facilities.**

The Department of Environmental Quality shall report on any applications received for ~~permits~~ permits, authorizations, or certifications required for siting or operation of natural gas pipelines and gas-fired electric generation facilities within the State, and activities of the Department to process such applications, including tracking of processing times. The report shall

also include information on all activities under the express review program required pursuant to G.S. 143B-279.13(a2). The processing time tracked shall include (i) the total processing time from when an initial permit application is received to issuance or denial of the permit and (ii) the processing time from when a complete permit application is received to issuance or denial of the permit. The Department shall report quarterly to the Joint Legislative Commission on Energy Policy pursuant to this section."

SECTION 9.(c) Within 30 days of the date this section becomes law, the Department shall notify applicants for all entities with pending applications for permits, authorizations, and certifications required from the Department for projects involving the generation, distribution, or transmission of energy or fuel, including natural gas, diesel, petroleum, or electricity, of the express review program enacted by subsection (b) of this section, and shall inform the applicants of the ability to process pending applications through the program upon payment of the applicable fee pursuant to G.S. 143B-279.13(b).

SECTION 9.(d) This section is effective when it becomes law and applies to applications for permits, authorizations, and certifications pending on or submitted after that date.

REQUIRE DEVELOPMENT OF NUCLEAR RESOURCES PRIOR TO RETIREMENT OF BASELOAD FACILITIES OR FACILITIES WITH DISPATCHABLE ELECTRIC GENERATION ABOVE 100 MW TO ENSURE ADEQUACY OF GRID

SECTION 10. G.S. 62-110.9(4) reads as rewritten:

"(4) Retain discretion to determine optimal timing and generation and resource-mix to achieve the least cost path to compliance with the authorized carbon reduction goal, including discretion in achieving the authorized carbon reduction goal by the date specified in order to allow for implementation of solutions that would have a more significant and material impact on carbon reduction; provided, however, the Commission shall not exceed the date specified to achieve the authorized carbon reduction goal by more than two years, except in the event the Commission authorizes construction of a nuclear facility or wind energy facility that would require additional time for completion due to technical, legal, logistical, or other factors beyond the control of the electric public utility, or in the event necessary to maintain the adequacy and reliability of the existing grid. In making such determinations, the Utilities Commission shall receive and consider stakeholder input. The Commission shall not authorize retirement of baseload facilities or facilities with dispatchable electric generation above 100 MW until such time as a certificate of public convenience and necessity has been issued to an electric public utility for construction of one nuclear facility with a generating capacity of at least 1,000 MW to ensure the adequacy of baseload and dispatchable generation from a clean energy resource."

PART III. MISCELLANEOUS

COOLING-OFF PERIOD FOR UTILITIES COMMISSIONERS AND STAFF

SECTION 11.(a) Article 15 of Chapter 62 of the General Statutes is amended by adding a new section to read:

"**§ 62-327A. Post-employment restrictions on members and employees of Commission.**

(a) Cooling-Off Period. – It shall be unlawful for any former commissioner or employee of the Commission to make, with the intent to influence on behalf of an employer or client, any communication to or appearance before the Commission within a period of six months following the termination of his or her service or employment with the Commission.

(b) Penalty. – A violation of this section is a Class 3 misdemeanor."

SECTION 11.(b) This section becomes effective December 1, 2026, and applies to offenses committed on or after that date.

SEVERABILITY/EFFECTIVE DATE

SECTION 12. If any section or provision of this act is declared unconstitutional or invalid by the courts, it does not affect the validity of this act as a whole or any part other than the part so declared to be unconstitutional or invalid.

SECTION 13. Except as otherwise provided, this act is effective when it becomes law.

Data Center Zoning Compilation: North Carolina

Zoning Ordinances that Address Data Centers:

Buncombe County, NC Zoning Ordinance (November, 2024)
Edgecombe County, NC Unified Development Ordinance (November, 2025)
Madison County, NC Land Use Ordinance (May, 2025)
Albermarle County, VA Zoning Ordinance (October, 2025)
Loudoun County, VA Zoning Ordinance (December, 2023)
York County, VA Zoning Ordinance (June, 2025)
Missoula County, MT Zoning Regulations (September, 2023) (cryptocurrency mining)

Data Center-Specific Zoning Provisions:

General

- Define data centers
  - Ex: Edgecombe County, NC defines a data center as "[a] commercial operation designed to house and operate computer servers, data storage equipment, and associated networking and telecommunications systems, together with the supporting infrastructure necessary for their continuous operation. Supporting infrastructure may include electrical service and distribution equipment, backup power supplies (such as batteries or emergency generators), cooling systems, fire suppression, and security systems." Unified Development Ordinance § 8.4.
- Allow in certain zoning districts only
  - Ex: Madison County, NC allows small data centers (less than 10,000 square feet of servers) in commercial districts and any size data center in industrial districts. Land Use Ordinance §§ 3.6.8, 3.6.9.
- Require a special use permit to construct
  - Ex: Madison County, NC requires a proposed data center acquire a Special Use Permit. Land Use Ordinance §§ 3.6.8, 3.6.9, 8.12.
- Require transparent reporting of energy, water, and wastewater use, and system capacity for such uses
  - Ex: York County, VA requires data center applications, and every five years thereafter, to be accompanied by letters from the electric and water utility providers confirming that there is sufficient capacity to serve the data center and specifying the amount of energy and water the data center will use at full capacity. Zoning Ordinance § 24.1-489.1(a).
- Construction ban

- Ex: Buncombe County, NC prohibits cryptocurrency mining operations in the county. Zoning Ordinance § 78-581.

Energy

- Require or encourage renewable energy use
  - Ex: Edgecombe County, NC states that "[u]tilization of electricity generated from a renewable energy source, such as wind or solar, are strongly encouraged." Unified Development Ordinance § 4.3.30(I)(2).
  - Ex: Missoula, MT requires cryptocurrency mining operations to develop or purchase new renewable energy to offset 100 percent of the electricity consumed by the operation. Zoning Regulations § 5.10(B)(1).
- Limit use of diesel generators for back-up/emergency power only
  - Ex: Loudoun County, VA requires that a data center located adjacent to residential development may use generators only for back-up/emergency power needs. Zoning Ordinance § 4.06.02(D)(8)(c).

Water

- Prohibit use of groundwater
  - Ex: York County, VA prohibits the use of wells for a data center's water supply. Zoning Ordinance § 24.1-489.1(b).
- Limit potable water used for cooling
  - Ex: Albermarle County, VA requires data center cooling systems to be either a closed loop or recycled water system. Zoning Ordinance §18-5.1.65(B)(2).

Air

- Limit backup generator testing windows, days, and times
  - Ex: Buncombe County, NC prohibits generators from undergoing maintenance or testing between the hours of 8:00 p.m. and 8:00 a.m. Zoning Ordinance § 78-678(6)(d).
  - Ex: York County, VA allows testing of generators Monday-Friday, 5:00 p.m. to 8:00 p.m., for a maximum of 1 hour per week. Zoning Ordinance § 24.1-489.1(d)(4).

Noise

- Require a noise study
  - Ex: Madison County, NC requires a data center's permit application to include a noise study that describes the anticipated noise level of the facility and any proposed mitigation efforts such as sound walls, baffles, ventilation, silencers, separation, etc. Land Use Ordinance § 8.12.4.3.

  - Ex: Buncombe County, NC requires a proposed data center to conduct a pre-construction sound study at the property to establish a noise baseline that cannot be exceeded by the data center and all associated equipment. Zoning Ordinance § 78-678(6)(a).
- Limit sound emitted
  - Ex: Buncombe County, NC prohibits noise from data centers from exceeding 55 decibels (A-weighted) at any time of the day, measured from the property lines. Zoning Ordinance § 78-678(6)(a).

Siting/appearance

- Require setbacks and buffers
  - Ex: Edgecombe County, NC requires a setback of 100 feet from the lot line for all data center structures, of 500 feet from any lot line shared with a residential zoning district for principal data center buildings, and of 1,000 feet from any existing or approved school or day care. Unified Development Ordinance § 4.3.30(D).
  - Ex: York County, VA requires all data center developments to be surrounded by a 50 feet wide perimeter buffer, landscaped with evenly landscaped vegetation. Zoning Ordinance § 24.1-489.1(f).
- Limit building height
  - Ex: Madison County, NC prohibits data center structures above 35 feet high. Land Use Ordinance § 8.12.2.
- Require lighting
  - Ex: Edgecombe County, NC prohibits building mounted lighting from projecting above the top of the building, parking lot lighting above a height of 30 feet from grade, and lighting within 50 feet of a residential zoning district above a height of 15 feet from grade. Unified Development Ordinance § 4.3.30(G).
- Limit view of building, equipment, and other structures
  - Buncombe County, NC requires that a data center's operations are completely enclosed in a building and that data centers within the Commercial Service zoning district must conceal mechanical operations from all road frontages using solid architectural screening or commercial landscaping buffers. Zoning Ordinance § 78-678(6)(b), (e).

DATA CENTER TYPES AND COMMUNITY IMPACT

Comparing Scale, Resource Use & Land Requirements

	EDGE DATA CENTER	ENTERPRISE / CORPORATE	COLOCATION	CLOUD / REGIONAL	HYPERSCALE
					
Size (SQ FT)	1,000 – 10,000	10,000 – 50,000	50,000 – 200,000	100,000-500,000	500,000+
Power Demand	100 kW – 5 MW	5 – 10 MW	10 – 50 MW	50 – 100 MW	100 – 300 MW
Water Demand	Low	Low	Medium	Significant	Significant
Land Requirement	0.1 – 1 acre	1 – 5 acres	5 – 40 acres	40 – 100 acres	100+ acres
Equivalent Big Box Store (power)	<1	1-5	5-25	25 – 50	50+

Zoning and Data Centers

Adam Lovelady

2026 County Attorneys Summer Conference

School of Government

Data Center Basics Under Current Zoning Pondering New Zoning

What is your county's experience with data centers?

What is one question you have?

What are these things?

Users

- Tech and social media
- Telecommunications
- Media, streaming, and gaming
- Banks, healthcare, research
- Cloud storage and computing
- Cryptocurrency
- Artificial intelligence models

Types of Data Centers

- Internal / On-site
  - from closet to room to nearby building
- Stand-alone / Offsite
  - enterprise or multi-tenant/colocation
- Hyperscale (campus-sized)
  - Amazon Web Services (AWS), Apple, Google, Meta, Microsoft, Oracle,
  - Digital Reality, Equinix, Vantage Data Centers


Corners at Crystal Lake
Search this area
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Wake Forest University
4.8★ (26) · Wholesale
Lutron Pricing
$8.99 Meal Deal
Cook Out
Dunkin'
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Woods Rd
Fairlawn Dr
Huntington Ct
Owen Dr
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Tisun Beauty
Beauty supply store
Don Pedro
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- South Data Center
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Starlight Vapes
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Babymoon Cafe
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3.7 ★ (103)
2-star hotel
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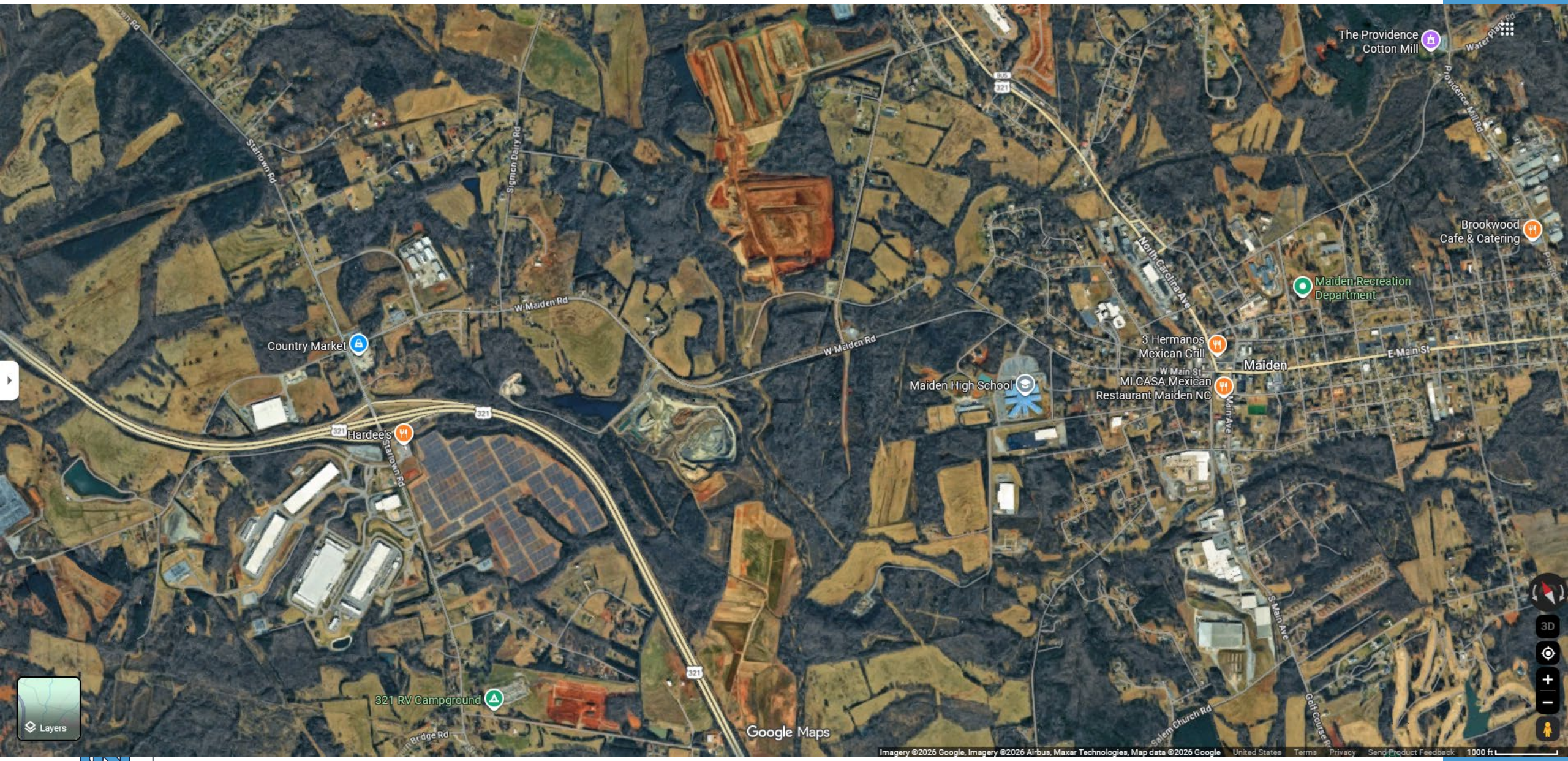
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Maiden High School
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Production Facility
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EMS Maiden Base
Apple Data Center
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Wilson's Sewing Mac
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Jillian's Bridal Outlet
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15th Ave SE
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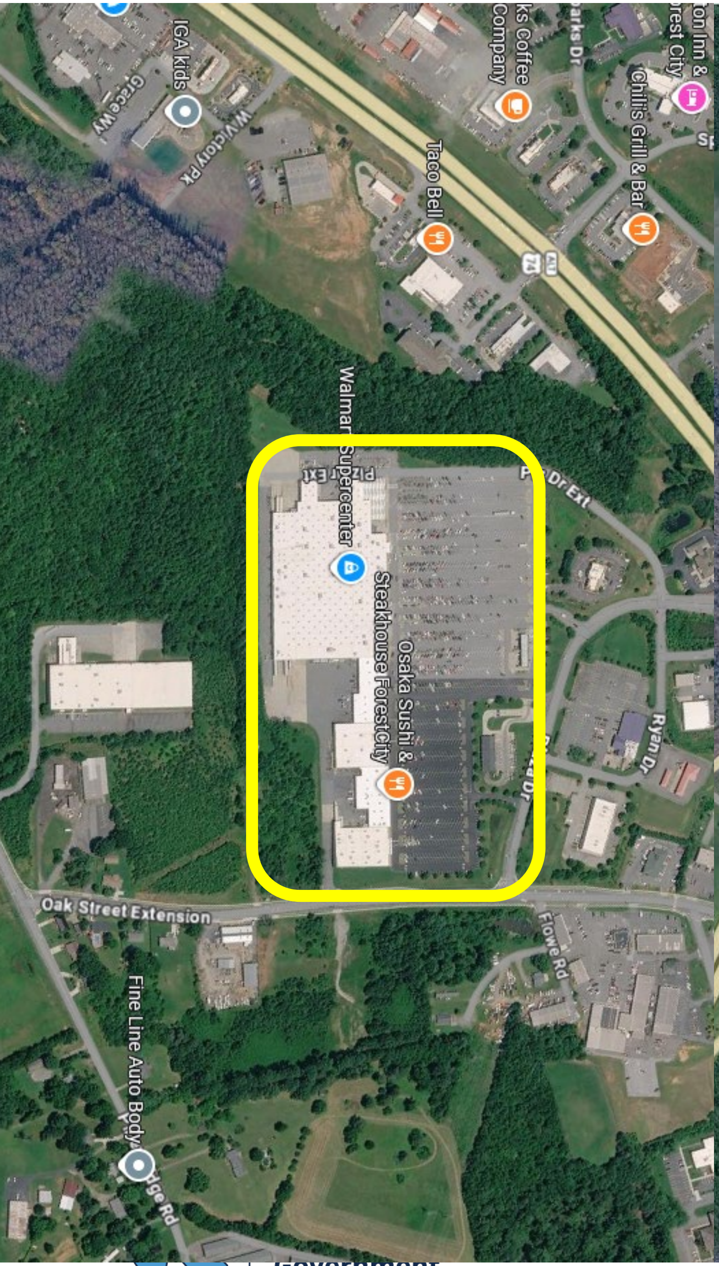
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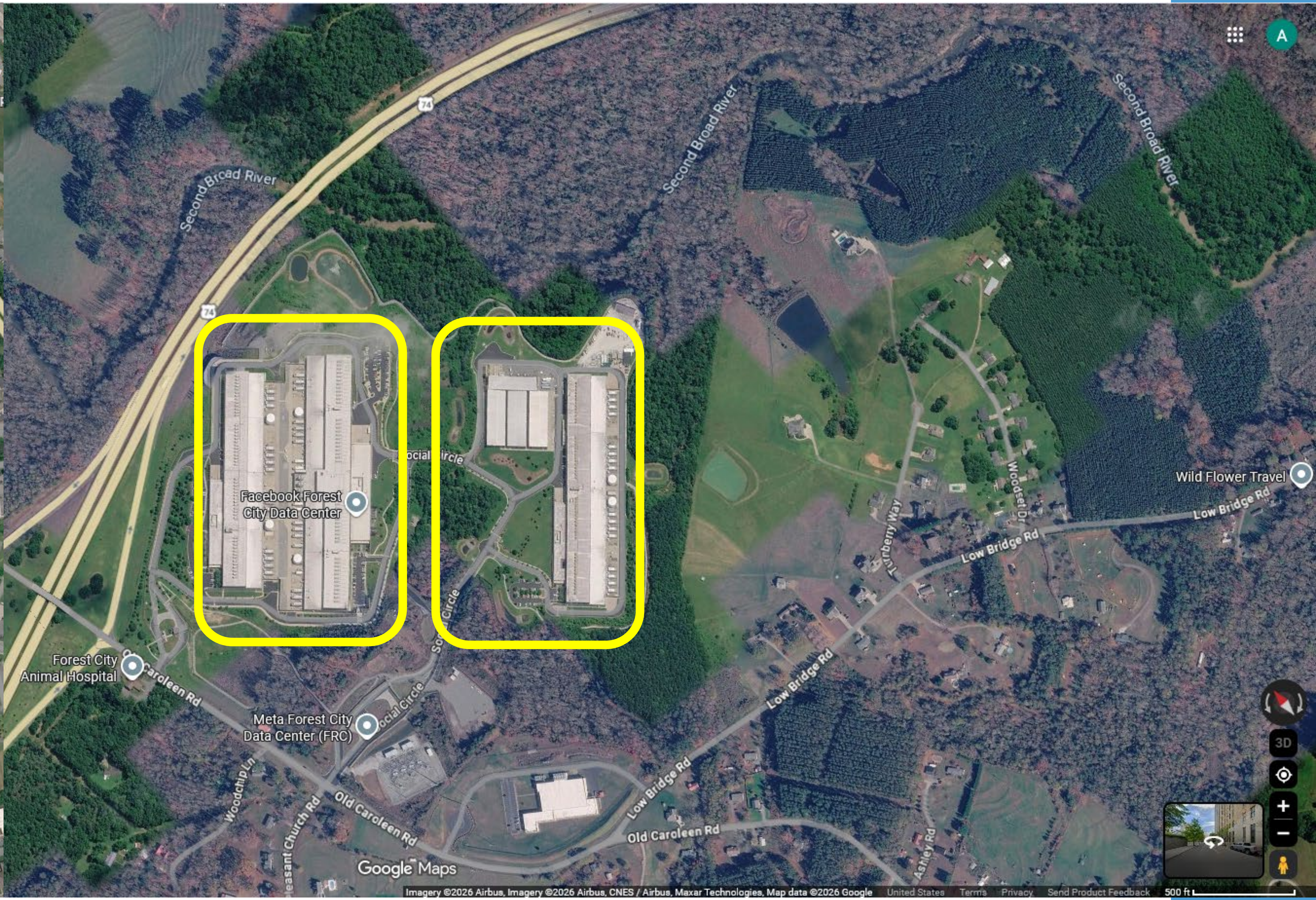
Walmart Supercenter
Osaka Sushi & Steakhouse ForestCity
Oak Street Extension
Ryan Dr
Flowe Rd
Fine Line Auto Body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Forest City Animal Hospital
Meta Forest City Data Center (FRC)
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Wild Flower Travel
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QTS Richmond Data Center 1
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QTS Green lot
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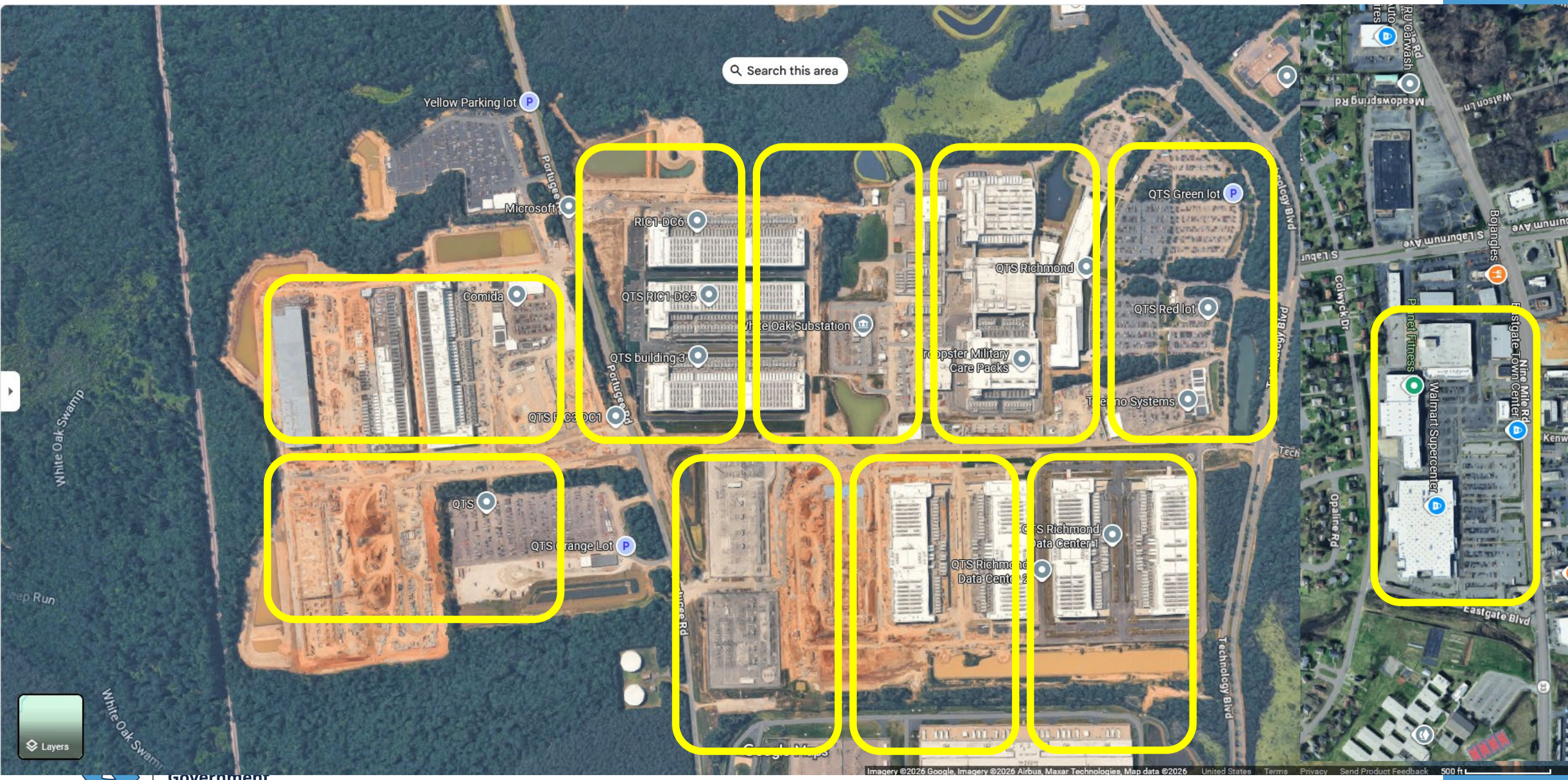
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QTS
QTS Richmond
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Walmart Supercenter
Eastgate Town Center
Eastgate Blvd
Nine Mile Rd
Bojangles
Meadowspring Rd
Watson Ln
S Laburnum Ave
Colwyck Dr
Opaline Rd

Government

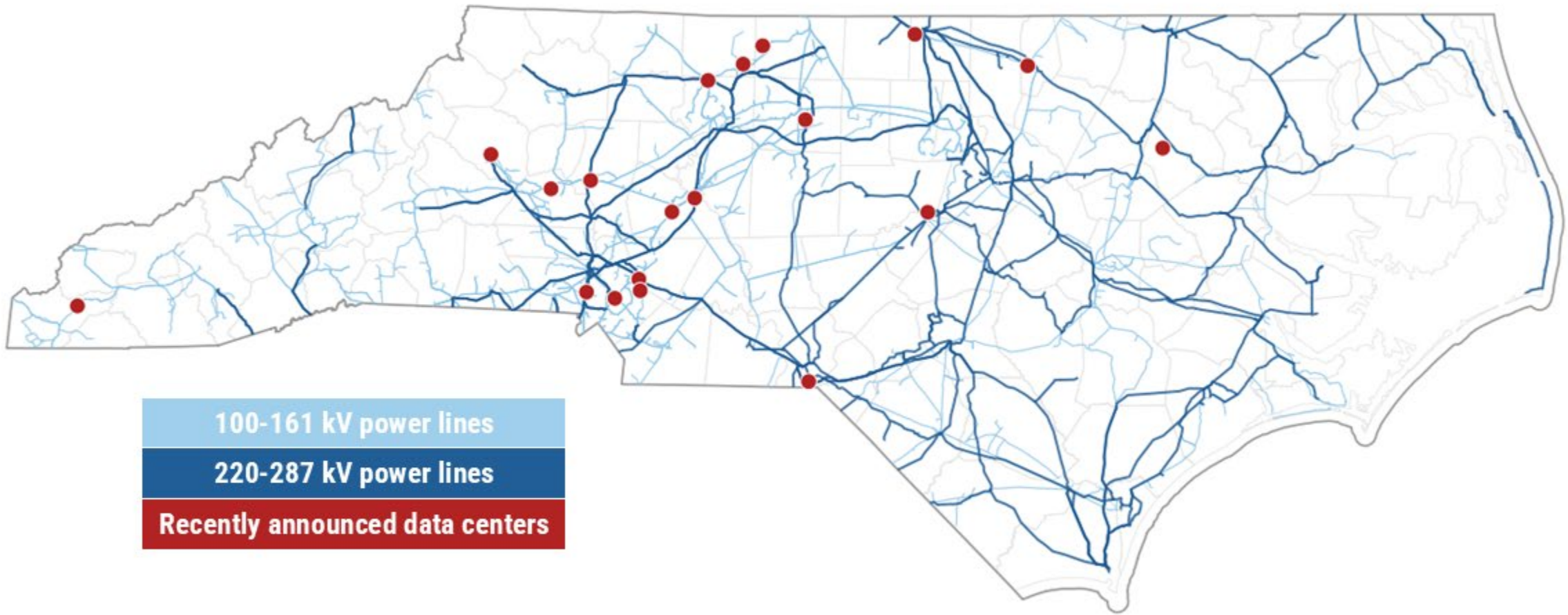
What are the factors for siting data centers?

Siting Factors

- Electric power
  (high-voltage line, capacity, and substation availability)
- Water (depending on cooling system)
- Data connection
- Land availability
- Hazard risks

Data centers tend to be built near high-voltage power lines

(That also have capacity.)

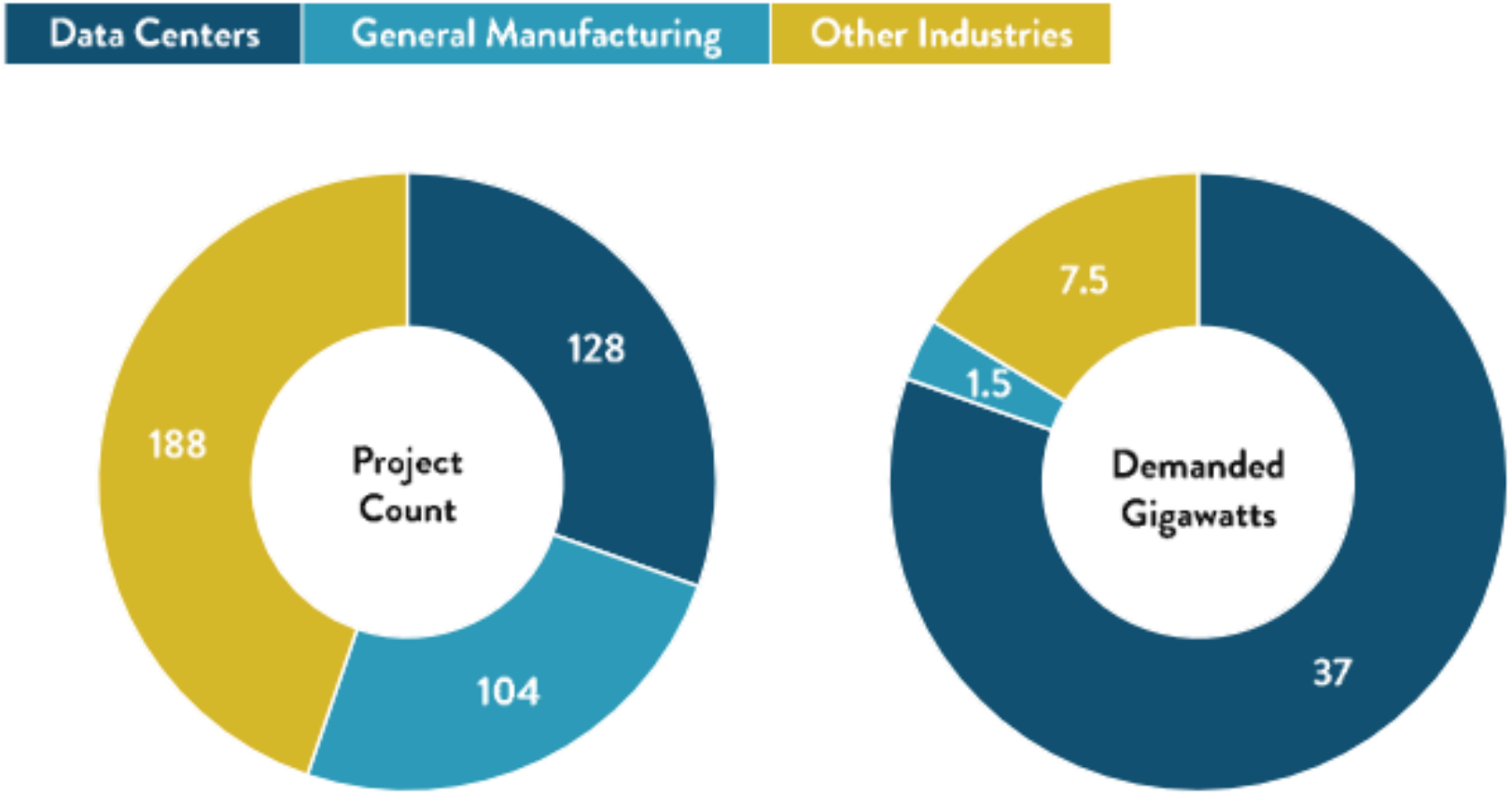


Map by Frank Muraca
ncdatacenters.substack.com

May 18, 2026

Carolinas Economic Development Pipelines

Source: Duke Energy as of October 8, 2025



Note: Data includes all economic development projects tracked by Duke Energy, not just the more vetted projects included in the IRP.

North Carolina Energy Policy Task Force Interim Report

What permits do they need?

Permitting Data Centers

- Development Approvals (zoning, building, etc.)
- Environmental Permits (stormwater, waters/wetlands, etc.)
- Utility Approvals (electric utility agreement, water connection, etc.)
- Utilities Commission for Onsite Generation

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2025

H

HOUSE BILL 1063

Short Title:	Ratepayer and Resource Protection Act.
Sponsors:	Representatives Prather, Johnson-Hostler, Longest, and Helfric Sponsors).
	For a complete list of sponsors, refer to the North Carolina General A.
Referred to:	Rules, Calendar, and Operations of the House

April 28, 2026

A BILL TO BE ENTITLED

AN ACT TO REGULATE LARGE-SCALE DATA CENTERS IN ORDE RATEPAYERS, WATER RESOURCES, AND GRID RELIABILITY ON-SITE CLEAN GENERATION, COST-BASED RATES, INFRASTI RESPONSIBILITY, DISCLOSURES, AND REPORTING FOR C CENTERS; TO LIMIT STATE AND LOCAL INCENTIVES FOR DATA TO MAKE RELATED CHANGES TO PUBLIC UTILITIES LAW.

Whereas, North Carolina's electric and water utility systems ar services relied upon daily by households, small businesses, and local gover

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2025

S

SENATE BILL 730
Second Edition Engrossed 5/7/25
House Committee Substitute Favorable 5/21/26
House Committee Substitute #2 Favorable 6/2/26
Fifth Edition Engrossed 6/3/26

Short Title:	Ratepayer Protection Act.	(Public)
Sponsors:		
Referred to:		

March 26, 2025

A BILL TO BE ENTITLED

AN ACT TO ESTABLISH REQUIREMENTS FOR SITING AND OPERATION OF DATA CENTERS AND TO MAKE VARIOUS CHANGES TO STATE ENERGY AND UTILITIES POLICY.

The General Assembly of North Carolina enacts:

PART I. REQUIREMENTS FOR DATA CENTERS

REQUIREMENTS FOR LOCAL DEVELOPMENT APPROVAL PROCESS

SECTION 1.(a) Article 9 of Chapter 160D of the General Statutes is amended by adding a new section to read:

"**§ 160D-974. Site assessment required for data centers; other requirements.**

(a) Prior to any approval of a rezoning application, special exception, conditional or special use permit, or building permit for the siting of a new data center, a local government shall require that an applicant:

(1) Perform and submit a site assessment to examine the sound profile of the data center on residential units and schools located within 500 feet of the data center property boundary. A locality may also require that a site assessment

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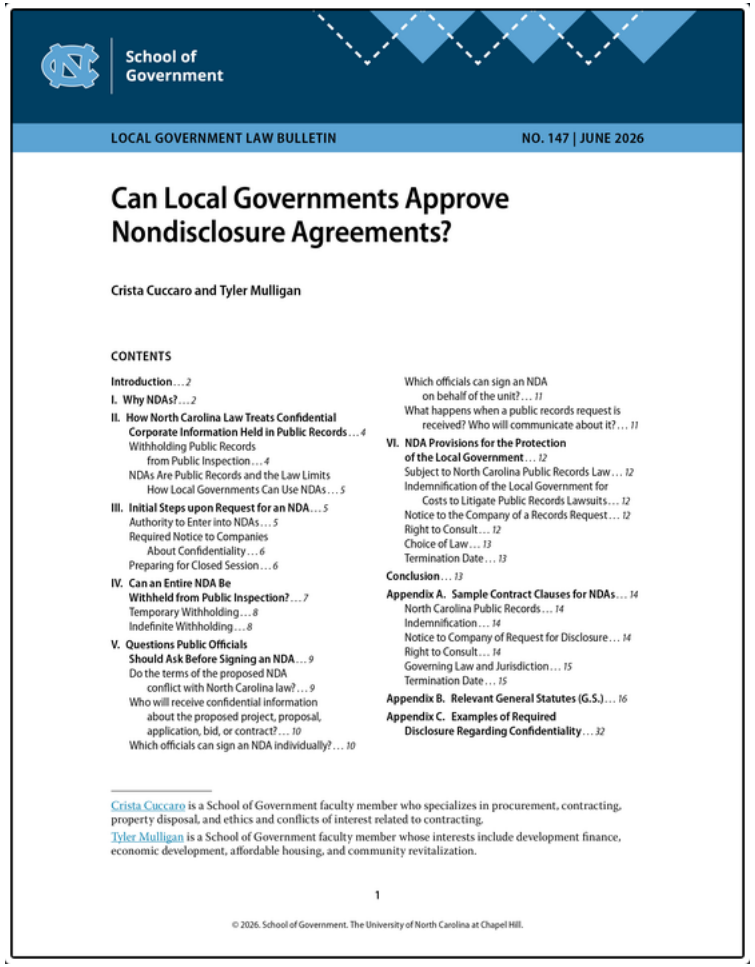
Related Issues

Legal Issues Beyond Zoning

- Nondisclosure Agreements
- Economic Development
- Tax Implications
- Water Connections
- Power Connections
- More



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LOCAL GOVERNMENT LAW BULLETIN NO. 147 | JUNE 2026

Can Local Governments Approve Nondisclosure Agreements?

Crista Cuccaro and Tyler Mulligan

CONTENTS

Crista Cuccaro is a School of Government faculty member who specializes in procurement, contracting, property disposal, and ethics and conflicts of interest related to contracting.

Tyler Mulligan is a School of Government faculty member whose interests include development finance, economic development, affordable housing, and community revitalization.

Policy and Operational Considerations

- Economic development
- Tax and budget implications
- Opportunity costs for utility capacity
- Noise, including low-frequency
- Potential emergency response (onsite chemical hazards, diesel storage, batteries, etc.)

School of Government

Data Center Basics Under Current Zoning Pondering New Zoning

What if the ordinance does not include “data center” as a use?

Dealing with Unlisted Uses

- Interpretation depends on the ordinance
- Commonly language such as this:

  “In the event, a use of property is proposed that is not addressed by the terms of this ordinance, the minimum ordinance standards for the use addressed by this ordinance that is most closely related to the land use impacts of the proposed use shall apply.”

Dealing with Unlisted Uses

- Beware a blanket prohibition such as

  "[u]ses not specifically listed in the Table [ ] are prohibited."

- Courts err in favor of the free use of land and reject blanket prohibition of unlisted uses
  - Byrd v. Franklin Cnty., 368 N.C. 409, 778 S.E.2d 268 (2015)
  - Land v. Vill. of Wesley Chapel, 206 N.C. App. 123, 697 S.E.2d 458 (2010)

Coates' Canons

NORTH CAROLINA LOCAL GOVERNMENT LAW BLOG

November 17, 2015

Last revised: June 27, 2022

Print

Regulating Land Uses Not Specifically Mentioned in a Zoning Ordinance

David Owens

If a person is considering undertaking a particular land use, it is important that they know whether or not that would be allowed by the zoning ordinance.

It is usually a simple proposition to determine whether or not the use is allowed. The owner finds out how the property is zoned – what zoning district applies to this parcel – and then sees whether the intended use is listed as a permitted use on the property. The ordinance may provide that the use is always allowed in the applicable zoning district (often referred to as a "use by right" or "permitted use") or only allowed with a special review (a special use permit). If the intended use is prohibited, the person must find a different site or apply to have the property rezoned to a district that allows the intended use.

But what if the zoning ordinance does not specifically address the intended use? Perhaps it is a new type of land use that was not contemplated when the ordinance was adopted. For example, many older zoning regulations did not address solar farms or sweepstakes parlors. Perhaps it is a use the local government did not

Can we adopt a moratorium?

G.S. 160D-107

- Authority
- Process
- Exemptions
- Findings
- Time Limits
- Judicial Review

Necessity, Scope, and Plan

- "the ***problems or conditions necessitating the moratorium*** and what courses of action, alternative to a moratorium, were considered by the local government and why those alternative courses of action were not deemed adequate."
- "***development approvals subject to the moratorium*** and how a moratorium on those approvals will address the problems or conditions leading to imposition of the moratorium."
- "***date for termination of the moratorium*** and a statement setting forth why that duration is reasonably necessary to address the problems or conditions leading to imposition of the moratorium."
- "***actions, and the schedule for those actions***, proposed to be taken by the local government during the duration of the moratorium to address the problems or conditions leading to imposition of the moratorium."

Duration and Extensions

- “[t]he duration of any moratorium shall be reasonable in light of the specific conditions that warrant imposition of the moratorium and may not exceed the period of time necessary to correct, modify, or resolve such conditions.”

- Limits on extension or renewal

Process

- 60 days or less: notice at least seven days before a legislative hearing
- Greater than 60 days: standard notice for legislative zoning decisions
- Public safety exception from notice requirement “in cases of imminent and substantial threat to public health or safety.”

Exemptions

Timing matters: application date, call for hearing, effective date

Exempt from moratorium

- project with a valid building permit
- project for which a special use permit application has been accepted as complete
- development with statutory or common law vested rights
- development with common law vested rights
- subdivision plats under review

- Permit choice applies when moratorium expires

- Can't adopt moratorium "for the purpose of developing and adopting new or amended plans or development regulations governing residential uses"

Coates' Canons

NORTH CAROLINA LOCAL GOVERNMENT LAW BLOG

February 23, 2023

Print

Hit the Pause Button: Temporary Development Moratoria in North Carolina

Adam Lovelady

Help! New development has outpaced our water and sewer capacity! There's a high impact industry talking about locating in our community, and the land use is not addressed in our ordinance! What's a community to do? Can we hit the pause button on development?

One option is to adopt a temporary moratorium on development permits long enough to adopt new plans or rules. Under **G.S. 160D-107** North Carolina local governments "may adopt temporary moratoria on any development approval required by law." While the authority is available, it is limited by specific procedures and a carve-out for residential uses. This blog outlines the procedures and limits for temporary development moratoria in North Carolina.

Necessity, Scope, and Plan

G.S. 160D-107(d) requires the local government to be clear about why the moratorium is necessary as well as when and how the issues will be resolved. At the time of adopting a development moratorium the regulation must include the following details:

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Data Center Basics Under Current Zoning Pondering New Zoning

What about down-zoning?

G.S. 160D-601

(d) Down-Zoning. – No amendment to zoning regulations or a zoning map that down-zones property shall be initiated, enacted, or enforced without the written consent of all property owners whose property is the subject of the down-zoning amendment. For purposes of this section, "down-zoning" means a zoning ordinance that affects an area of land in one of the following ways:

(1) By decreasing the development density of the land to be less dense than was allowed under its previous usage.

(2) By reducing the permitted uses of the land that are specified in a zoning ordinance or land development regulation to fewer uses than were allowed under its previous usage.

(3) By creating any type of nonconformity on land not in a residential zoning district, including a nonconforming use, nonconforming lot, nonconforming structure, nonconforming improvement, or nonconforming site element.

Coates' Canons

NORTH CAROLINA LOCAL GOVERNMENT LAW BLOG

December 20, 2024

Print

Limits on “Down-Zoning”

Adam Lovelady

The North Carolina General Assembly amended state law to greatly restrict local government discretion to amend local zoning ordinances. The statutory provision, amended as part of the Disaster Recovery Act of 2024 – Part III, Session Law 2024-57 (S.B. 382), broadly defines “down-zoning” and provides that local governments cannot adopt a down-zoning without written consent from all impacted owners.

The precise interpretation and breadth of impact of this law are not perfectly clear. There are many questions. One thing is clear: the law dramatically alters the authority for local governments to amend local zoning ordinances.

This blog seeks to decipher the meaning and scope of the new limits on down-zoning. The blog outlines the amended statutory language; it investigates the meaning and scope of “down-zoning” as defined by state law; and it identifies some of the ways that local zoning administration may be impacted by the new limits.

Property Rights and Ordinance Changes

State and local law has long addressed this question of fairness that is central to land use regulations: To what

How do we define and assign districts for “data centers”?*

*Local ordinances are unique and local policy preferences will vary.

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Definition and District Considerations

- Distinguishing based on size
- Broad enough to capture range of applications, narrow enough to avoid every office building
- Distinguishing based on substance of computing (crypto)?

- Districts? Industrial, campus/institutional, commercial

- Can we just ban ‘em? For counties, likely no.

Application and review process?

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Types of Decisions

- Administrative zoning permit and site plan review
- Quasi-judicial special use permit
- Legislative zoning or conditional zoning

Application Fees (160D-402)

- Reasonable fees to cover the costs of review
- May charge applicant for necessary technical review by third-party

- Cannot use application fees as deterrent nor revenue generation

What about typical development standards?

Typical Standards

- Setbacks
  - From property lines
  - From sensitive properties (residential, schools, churches)
  - Specific to mechanical equipment
- Screening for equipment
- Vegetative buffers at boundary
- Building height, massing, design

Typical Standards

- Accessory uses and buildings (generator and/or battery back-up)
- Operational Limits
  - Noise levels
  - Lighting levels
  - (Consider are the general rules sufficient?)
- Adequacy of public utilities
- Parking (not after S.L. 2026-39 (HB162))

What about other development standards?

Beyond the Standard Standards?

- Specify type of cooling system?
- Require use of renewable energy?
- Community benefits agreements?

- Environmental Impact Statements (Art. 1, Ch. 113A)
- Conditional Zoning (160D-703)

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Data Center Basics Under Current Zoning Pondering New Zoning

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PRACTICE DATA CENTERS

Zoning for Data Centers and Cryptocurrency Mining

By David Morley, AICP

Data centers are the physical facilities where the internet lives. Fundamentally, they consist of networked computer systems used for data storage and processing, along with supporting equipment, such as batteries, back-up power generators, and cooling devices. Modern data centers are the direct descendants of the, so-called, *telecom hotels* that began springing up in downtowns in the late 1990s to accommodate the rapid expansion of the commercial internet and, before that, of automated telephone exchange facilities that made it possible to place landline telephone calls across a city, the nation, or the world (Evans-Cowley 2002).

An emerging segment of the data center market consists of facilities dedicated in whole or part to "mining" cryptocurrency. A cryptocurrency is a decentralized digital currency that uses encrypted data strings to denote individual units, or coins, and a peer-to-peer database known as a blockchain to maintain a secure ledger of transactions. Several of the most popular cryptocurrencies, most notably Bitcoin, require extremely complex computations to verify each transaction and add a record, or block, for that transaction to the blockchain. Whoever verifies a transaction first receives a new cryptocurrency coin as a reward. While, theoretically, anyone with a computer server can "mine" new coins by helping to verify these transactions, large-scale cryptocurrency mining requires a massive amount of computing power.

This article explores the reasons why cities, towns, and counties may wish to define and regulate data centers and cryptocurrency mining as distinct uses in their zoning codes and provides a summary of contemporary approaches. It begins with a brief overview of the factors that drive demand for data centers or cryptocurrency mines in particular locations before examining the key planning issues that may merit special attention through zoning and posing a series of questions to guide code drafting.

Chad Davis / Flickr (CC BY 2.0)

A hyperscale Google data center in Council Bluffs, Iowa.

The article concludes with short profiles of local zoning approaches that may serve as models for others.

DEMAND DRIVERS

Industry analysts predict sustained growth in data center construction in the coming years (Dunbar and Bonar 2021). This includes demand for larger and larger "hyperscale" data centers as well as more widely distributed "edge" data centers (Sowry et al. 2018). Data center developers (or operators) are attracted to sites with low latency to end users and dependable and affordable electricity.

While data centers have historically been clustered around major internet access points, information technology companies, and government employment centers, the proliferation of cloud computing and the internet of things is pushing demand out to network edges. This means more data centers in smaller metropolitan and nonmetropolitan areas.

Big technology companies are likely to continue looking for sites that can accommodate new, large single-story structures. But operators that specialize in leasing space in the same facility to multiple companies (i.e., collocated data centers) may be more open to infill sites and existing structures, especially if those sites have access to fiber optic infrastructure.

Data centers use a lot of electricity (see below) to power processing and storage hardware and to keep that hardware cool. The amount of electricity (and often water) needed for cooling is higher in warm, humid climates than in cool, dry areas. Consequently, holding other factors equal, developers favor locations with low electricity rates and cooler climates. Furthermore, because these facilities operate continuously, developers are also looking for sites that are less vulnerable to natural hazards.

Cryptocurrency miners are also looking for locations with cheap electricity and low hazard risk; however, dedicated mining facilities are not concerned about proximity to customers and are less likely to invest in backup power. While there seems to be a widespread consensus that data centers are essential to global communications and the global economy, cryptocurrency miners

have a more limited "social license" to operate. Widespread concerns about the energy use of mines and the limited utility of the coins they produce has led some countries, including China, to ban Bitcoin mining. Consequently, many cryptocurrency miners are relocating to the U.S. (Obando 2022).

PLANNING ISSUES

From the exterior, data centers and cryptocurrency mining facilities may be physically indistinguishable from many commercial or light industrial uses. However, the operational characteristics of these facilities are typically quite distinct from those of surrounding land uses. From a planning perspective, the most noteworthy characteristics relate to their electricity and water use, noise production, enhanced safety and security needs, and low employment densities.

They Use a Lot of Electricity (and Water)

In 2020, data centers used between 200 and 250 terawatt hours (TWh) of electricity, accounting for approximately one percent of global consumption (IEA 2021). While the total consumption has grown steadily along with global power demand, this ratio has held relatively constant over the past 20 years as efficiency improvements have proportionally offset increased demand from data centers. However, this pattern is unlikely to hold as growth in streaming video, online gaming, cloud computing, machine learning, virtual reality, and the internet of things begins to outstrip efficiency improvements.

The figures above exclude cryptocurrency mining. Bitcoin miners alone used an estimated additional 60 to 70 TWh in 2020. According to Cambridge University, if Bitcoin was country, it's annual electricity consumption would be slightly higher than that of Poland or Malaysia (2022).

Data center and cryptocurrency mining equipment also generates a tremendous amount of waste heat, which must be dissipated by fans or absorbed by a cooling medium to avoid hardware damage and ensure efficient operations. Many data centers and cryptocurrency mines use water as a cooling medium. Water is also necessary for most forms of electricity production. In aggregate, a medium-sized data center typically uses more water each year than two 18-hole golf courses (Mytton 2021).

They Can Be Noisy

Inside a data center or cryptocurrency mine server room, the noise can make it difficult to carry on a conversation at a normal volume. While most data centers and large cryptocurrency mines incorporate construction and soundproofing techniques that ensure this server noise isn't audible outside of the building, air conditioner compressors mounted on the roof or on ground near these facilities can generate noise that carries across property lines.

In some contexts, vegetation or other structures may rapidly attenuate this sound. In others, the sound may travel over long distances. Obviously, the degree to which these sounds constitute nuisance "noise" depends on surrounding land uses and ambient noise levels. The problem is typically most acute when data centers or mines are near residences.

They Have Enhanced Safety and Security Needs

Data centers typically aim to run continuously, and any outage or downtime can threaten business operations. Furthermore, data centers house expensive, highly specialized hardware, and many handle sensitive data. Consequently, most data centers incorporate enhanced safety and security features, such as gated access points, fencing, or bright lighting, to prevent unauthorized access and to minimize the likelihood of disruption.

Cryptocurrency mines have similar safety and security needs, with two key distinctions. First, miners want to maintain network access, but the stakes are lower than for data centers because an outage wouldn't negatively affect any other services or users. Second, cryptocurrency mines generally aren't receiving any clients and have little incentive to draw attention to themselves with fencing or lighting.

They Have a Low Employment Density

Data centers typically have far fewer workers per square foot than professional offices or light industrial facilities (Tarczynska 2016). And cryptocurrency mines generally have even lower employment densities than data centers. For some communities, data centers (and potentially cryptocurrency mines) are highly desirable from an economic development perspective because they often generate a large property tax surplus that can subsidize more service-intensive land uses, such as single-family homes. Others, however, are reluctant to devote too much commercial or light industrial space to uses that generate few jobs.

ZONING CONSIDERATIONS

Any community interested in regulating data centers and cryptocurrency mining through zoning should consider three key questions:

1. Do these uses need new use definitions?
2. Where should these uses be permitted?
3. Do these uses need special development or performance standards?

Do They Need New Use Definitions?

New land uses don't necessarily require new use definitions in the local zoning code. It depends, in part, on whether the use fits

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The roof of eBay's Topaz data center in South Jordan, Utah.

neatly under a broader use category or is substantially like another defined use. And it depends on whether treating the new use the same as this use category or other similar use would be likely to generate negative effects on nearby properties or the community as a whole.

Many communities have defined data centers (or some closely analogous term) as a distinct use in their zoning codes. These definitions typically reference the general function of the facility and the degree to which it is occupied by computer systems and related equipment. For example, Anne Arundel County, Maryland, defines *data storage center* as "a facility used primarily for the storage, management, processing, and transmission of digital data, which houses computer or network equipment, systems, servers, appliances, and other associated components related to digital data storage and operations" (§18-1-101.(44)).

Comparatively fewer communities have defined cryptocurrency mining as a distinct use. Many of these definitions focus on the specialized purpose of the facility, often with references to other newly defined terms, such as *high density load* or *server farm*, that clarify its distinct characteristics. For example, Moses Lake, Washington, specifies that *cryptocurrency mining* often uses more than 250 kilowatt-hours per square foot each year (§18.03.040).

Where Should They Be Permitted?

Communities that choose to regulate data centers or cryptocurrency mines as distinct uses may permit these uses either by right or with a discretionary use permit (i.e., conditional, special, or special exception use permits) in one or more existing base or overlay zoning districts. Alternatively, they may elect to establish a new special-purpose base or overlay zoning district for either use.

Many communities permit data centers and cryptocurrency mines either by right or with a discretionary use permit in commercial and industrial districts. While data centers and mines can fit in a wide range of existing commercial or industrial buildings, purpose-built facilities are often single-story structures with large floorplates.

Given that they generally have few employees and visitors, these uses may not be appropriate in ground-floor street-frontage spaces in pedestrian-oriented commercial areas. Wenatchee, Washington, addresses this issue by permitting data centers and cryptocurrency mines by right in multiple pedestrian-oriented commercial districts, with a simple stipulation that they cannot occupy "grade level commercial street frontage" (§10.10.020).

A new special-purpose zoning district can help steer data centers or cryptocurrency mines toward corridors or other subareas that have suitable utility infrastructure. When adopted as floating zones, special districts can also provide an extra layer of review for large projects that may cover dozens or hundreds of acres.

Prince William County, Virginia, added a Data Center Opportunity Zone Overlay District to its zoning code in 2016 (§32-509). The county has mapped this overlay to more than 70 percent of its industrially zoned land. The overlay permits data centers and includes design standards for these facilities; however, it does not otherwise modify the existing use permissions for underlying districts.

Do They Need Special Development or Performance Standards?

Communities that decide to regulate data centers or cryptocurrency mines as distinct uses may choose to adopt use-specific standards that modify or supplement other relevant universal or district-specific development or performance standards. This approach can help communities target standards to the distinct features of these uses to address specific community concerns.

Use-specific standards can help minimize reliance on discretionary approvals and improve the consistency of local decisions. Without these standards, local officials may be more likely to require all data centers and cryptocurrency mines to obtain a discretionary use permit, and they may be more likely to adopt wildly varying conditions of approval for substantially similar proposals.

Communities that have adopted use-specific standards for data centers and cryptocurrency mines often establish building design and buffering or screening requirements to minimize the visibility or improve the appearance of these facilities from public streets or nearby properties. Other common standards address environmental performance, including noise and light pollution, and evidence of electric utility approval.

EXAMPLES OF DEFINED USES

Jurisdiction	Defined Uses
Alpharetta, GA	Data center (§1.4.2)
Anne Arundel County, MD	Data storage center (§18-1-101.(44))
Fairfax County, VA	Data center (§9103)
Frederick County, MD	Critical digital infrastructure facility (§1-19-11.100)
Moses Lake, WA	Cryptocurrency mining; Data center/server farm/cluster (§18.03.040)
Pitt County, NC	Data processing facility (large scale) (§15)
Plattsburgh, NY	Commercial cryptocurrency mining; Server farm; High density load service (LL 6-2018)
Prince George's County, MD	Qualified data center (§27-2500)
Prince William County, VA	Data center (§32-100)
Somerville, MA	Data center (§9.8.b)
Vernal, UT	Data center (§16.04.173)
Wenatchee, WA	Cryptocurrency mining; Data center (§10.08)

POTENTIAL MODEL APPROACHES

It would be difficult to find a community with more experience with data centers than Loudon County, Virginia. And the county's approach to zoning for data centers serves as a potential model for other communities with suitable sites and sufficient infrastructure to accommodate data center development. In contrast, Missoula County, Montana, was one of the first local jurisdictions to craft zoning regulations for cryptocurrency mining operations. And its emphasis on mitigating the potential climate impacts represents a different type of potential model.

Loudon County, Virginia

Northern Virginia's Data Center Alley, primarily clustered around Routes 7 and 267 in Loudon and Fairfax Counties is the largest data center market in the world (Fray and Koutsaris 2022). Its combined power consumption capacity is more than 1.6 gigawatts (GW), nearly twice as much as the next largest market. And within Data Center Alley, Loudon County has the highest concentration of data centers. As of October 2021, data centers occupied more than 25 million square feet, with another 4 million square feet in development (LCDED 2022).

Several important factors have driven demand for data center development in Loudon County. It is home to the Equinix internet exchange, one of the largest internet access points in the world and a successor to Metropolitan Area Exchange, East, the first U.S. exchange. The county has abundant (and redundant) fiber optic infrastructure, relatively cheap power, and sufficient water. Additionally, it has a high concentration of skilled technology workers and businesses that support the data center industry.

By the year 2000, there was already an emerging data center cluster in Loudon County. However, the county did not define and regulate data centers as a distinct use in its zoning code until 2014 (ZOAM 2013-0003). According to Acting Planning & Zoning Director James David, prior to this, the county defined data centers as commercial offices.

The latest version of the county's zoning ordinance permits data centers by right in Planned Office Park, Research and Development Park, Industrial Park, and General Industrial districts and as a special exception use in Commercial Light Industry districts. New data centers (without vested rights) must comply with a set of use-specific standards governing façade design, screening of mechanical equipment, exterior lighting, pedestrian and bicycle facilities, and landscaping, buffering, and screening (§5-664).

According to David, these standards are intended to improve the aesthetics of data centers, minimize visibility from nearby residential areas, and ensure continuous sidewalk and trail networks. Overall, they represent a light-touch approach that has, so far, worked well for a county with enormous demand for data centers and relatively modest competition for space from other commercial and industrial uses.

However, in February 2022, county officials directed staff to research regulatory options to prevent new data centers in the

EXAMPLES OF USE-SPECIFIC STANDARDS FOR DATA CENTERS AND CRYPTOCURRENCY MINING

Jurisdiction	Use-Specific Standards
Alpharetta, GA	Requires evidence of compliance with noise standards; specifies exterior lighting fixture design; establishes minimum building height; requires building façade design elements; establishes other fencing, screening, and landscaping requirements to minimize visibility from adjacent roads and properties (§2.7.2.1)
Anne Arundel County, MD	Establishes minimum lot size and setbacks; prohibits residences on the same lot; establishes limit on outdoor storage (§18-10-119)
Fairfax County, VA	Requires all equipment to be enclosed within a building; establishes maximum floor area by zoning district (§4102.6.A)
Frederick County, MD	Establishes criteria for reducing setbacks; specifies building design standards; specifies landscaping, screening, and buffering requirements; clarifies parking, loading, signage, and lighting standards; establishes criteria for private roads; establishes noise and vibration standards (§1-19-8.402)
Moses Lake, WA	Clarifies review process for business license; prohibits container storage; requires evidence of electrical utility approval; requires evidence of electrical permit and inspection; establishes environmental performance standards, addressing noise, heat, and electric and magnetic fields; limits amount of exposed equipment on facades (§18.74)
Pitt County, NC	Limits height; requires separation from sensitive uses; requires noise study and compliance with noise standards; requires underground wiring; requires security fencing and vegetative screening; requires evidence of electrical utility approval; clarifies signage standards; requires notification of abandonment (§8(UUUU))
Plattsburgh, NY	Requires fire suppression and mitigation techniques; limits internal ambient temperature and the direct release of heat on colder days; establishes permissible noise levels (LL 6-2018)
Prince George's County, VA	Requires building façade design elements; specifies exterior lighting fixture design; requires screening for security fencing and limits fence height; requires compliance with landscape manual; clarifies applicable off-street parking standard; clarifies signage standards; requires an acoustical study; specifies additional site, locational, and noticing requirements for facilities in rural residential districts (§27-5102(e)(4)(B))
Somerville, MA	Establishes special review criteria related to aesthetic impacts and employment opportunities (§9.8.b)
Vernal, UT	Requires fencing and structural screening for electrical generators; requires noise mitigation plan for facilities near residential zones or existing hotels or motels (§16.20.250)
Wenatchee, WA	Clarifies review process for business license; prohibits container storage; requires evidence of electrical utility approval; requires evidence of electrical permit and inspection; clarifies blank wall limitation standards; requires an affidavit verifying operating sound levels (§18.48.310)

Route 7 corridor. While data center demand remains high in this area, the county's comprehensive plan designates most of this corridor as Suburban Mixed Use, which envisions a compact, pedestrian-friendly mix of commercial, residential, cultural, and recreational uses. Furthermore, the existing electricity network infrastructure is insufficient to accommodate the existing demand for new data centers (LCDED 2022).

The county is working on its first complete overhaul of its zoning code since 1993. And it intends to incorporate any new regulations for data centers into the new code, which officials hope to adopt by the end of 2022.

Google Earth

The heart of Northern Virginia's Data Center Alley in Ashburn, Virginia.

Google Earth

The former Bonner sawmill in Missoula County, Montana, was once home to the HyperBlock cryptocurrency mine.

Missoula County, Montana

In April 2019, Missoula County, Montana, adopted an interim zoning resolution that established a cryptocurrency mining overlay (Resolution No. 2019-026). The county had one large cryptocurrency mine already, and its low electricity rates and cool climate made it an attractive area for prospective miners. While a few other jurisdictions had already defined cryptocurrency mining in their zoning codes, Missoula County appears to be the first to explicitly position its zoning approach as a response to climate change.

According to county planner Jennie Dixon, AICP, local officials originally took an interest in regulating cryptocurrency mining as a distinct use after multiple complaints of noise from cooling fans at an existing Bitcoin mine operating out of a former sawmill in unincorporated Bonner. Soon, though, the county expanded its focus to include energy consumption and electronic waste.

Montana law only authorizes interim zoning in the case of an emergency involving "public health, safety, morals, or general welfare" (§76-2-206). Dixon says the Intergovernmental Panel on Climate Change's 2018 Special Report on *Global Warming of 1.5° C* helped justify climate change as a local emergency that warranted interim zoning to mitigate greenhouse gas emissions (and other potential environmental impacts) from cryptocurrency mining.

The interim zoning regulations defined cryptocurrency mining as a distinct use and created a Cryptocurrency Mining Overlay Zone, mapped to the entire unincorporated geographic extent of the county (which includes some un-zoned areas). The overlay restricted cryptocurrency mining operations to industrial districts and required operators to obtain a discretionary use permit if the mine was adjacent to a residential district or within 500 feet of a residential property boundary. These regulations also required all mining operations to verify that all electronic waste be handled by a licensed recycling firm and that all electricity use be offset by new renewable energy production.

Caroline Lauer, the county's Sustainability Program Manager, stresses the importance of this last requirement. If cryptocurrency miners purchased existing supplies of renewable energy, it could actually displace existing utility customers to dirtier sources. While most of the county's electricity comes from hydropower, coal accounts for much of the remainder.

Missoula County's 2016 *Growth Policy* plan includes an objective to "reduce the county's contribution to climate change" (4.1) and lists policies that promote alternative energy development (4.1.3) and reduce energy use and waste generation as implementation actions (4.1.6). A day before it adopted the interim cryptocurrency mining regulations, the county further strengthened its policy rationale by adopting a joint commitment with the City of Missoula to achieve 100 percent clean electricity use by 2030.

County officials extended the interim zoning for another year in 2020 before adopting the same regulations as a permanent zoning amendment in March 2021 (§1.04

& §5.05). According to Dixon, the Bonner mine ceased operations during the interim zoning period, but not because of the county's zoning. It declared bankruptcy two days after the "Black Thursday" Bitcoin crash in March 2020, leaving the tribal-owned independent power producer that provided its electricity with a $3.7 million unpaid bill (Rozen 2020).

CONCLUSIONS

The rapid rise in data center development has coincided with dramatic decreases in the costs of producing solar and wind power. This, in combination with a growing trend toward clean power commitments among technology companies, has blunted some of the climate impacts of an increased demand for data storage and processing.

The increased digitalization of life virtually guarantees that data centers will continue proliferating in strategic locations across the country (Gomez and DeAngelis 2022). Soon, communities may start seeing a sharp increase in interest in very small edge data centers that could fit in underutilized commercial spaces or even be collocated with other telecommunications infrastructure, such as small cell facilities, in public rights-of-way (Sowry et al. 2018).

The future of cryptocurrency mining facilities is less certain. Bitcoin and other energy-intensive cryptocurrencies are facing social pressure to transition to more energy-efficient transaction verification methods, and several existing cryptocurrencies already use these methods. However, we are still at the very beginning of the cryptocurrency story. While this form of currency currently exists primarily as a speculative investment vehicle, this could change rapidly if valuations stabilize and large numbers of goods and service providers accept cryptocurrencies for payment.

Not every community will see the value in defining data centers or cryptocurrency mines as distinct uses in their zoning codes. Nevertheless, doing so can give local jurisdictions a leg up when it comes to signaling preferences to developers and operators and minimizing or mitigating potential adverse impacts.

REFERENCES AND RESOURCES

Dunbar, Courtney and Robert Bonar. 2021. "Siting Next-Generation Data Centers." *Area Development*, Q2. bit.ly/390dyJ3

Evans-Cowley, Jennifer. 2002. *Telecom Hotels: A Planners Guide*. PAS Report No. 505. Chicago: American Planning Association. bit.ly/39Dezaa

Fray, Andrew and Bobby Koutsaris. 2022. *2022 Global Data Center Market Comparison*. Chicago: Cushman & Wakefield. cushwk.co/3P8JOdB

Gomez, Alexsandra and Joseph DeAngelis. 2022. *Digitalization and Implications for Planning*. Chicago: American Planning Association. bit.ly/3KUP1lT

International Energy Agency (IEA). 2021. "Data Centres and Data Transmission Networks." Tracking Report, November. bit.ly/3FsMSwR

Loudon County [Virginia] Department of Economic Development (LDED). 2022. *Loudon County Data Center Land Study*. bit.ly/3P7DYto

Missoula (Montana), County of. 2021. "Cryptocurrency Mining." bit.ly/3PbSr72

Mytton, David. 2021. "Data Centre Water Consumption." *NPJ Clean Water*, 4(11). bit.ly/3wjRUaR

Obando, Sebastian. 2022. "Cryptocurrency Bans Fuel US Data Center Construction." *Construction Dive*, February 16. bit.ly/3w7aG6t

Rozen, Jacob. 2020. "Poor Business Model, Not COVID-19 Behind Hyperblock Early Struggles." *Coingeek*, December 23. bit.ly/37uFHYp

Tarczynska, Kasia. 2016. *Money Lost to the Cloud: How Data Centers Benefit From State and Local Government Subsidies*. Washington, D.C.: Good Jobs First. bit.ly/398mn3m

Sowry, David, Jani Dharmesh, Don Duet, Frank Yan, Harry Smeenk, James Young, Phillip Marangella, and Robert Bunger. 2018. *TIA Position Paper: Edge Data Centers*. Arlington, Virginia: Telecommunications Industry Association. bit.ly/3N3U58Y

University of Cambridge. 2022. "Cambridge Bitcoin Electricity Consumption Index." bit.ly/38hj1v1

ABOUT THE AUTHOR

David Morley, AICP, is a research program and QA manager with the American Planning Association and editor of *Zoning Practice*.

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205 N. Michigan Ave.
Suite 1200
Chicago, IL 60601–5927

HOW DOES YOUR ZONING TREAT DATA CENTERS AND CRYPTOCURRENCY MINES?

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