

9.17 Data Center Task Force Meeting



Agenda

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Moratorium Timeline

Task Force Next Steps

Formal Vote

Digital Realty Presentation

Moratorium Timeline

Council Moratorium Extension Timeline



Task Force Next Steps

Additional Work Needed

- ▶ Evaluate changes to applicable ordinances from findings identified in WRI report (3-6 months + 3-month council adoption process)
- ▶ Solicit and engage a consultant to develop conservation plans (9 months)
- ▶ Adopt changes to the noise ordinance and consider enforcement measures (6-9 months)
- ▶ Engage the development/data center industry to identify incentives to best encourage voluntary best practices (3 months)
- ▶ Under current regulatory authority, identify how the City can develop standards for different types and scales of data centers (9 months)
- ▶ Engage with entities where the City lacks authority to relay recommendations from the community and discuss potential changes (6-9 months)

Moving Forward...

- ▶ **Future meeting topics**
- ▶ **Future meeting cadence**
- ▶ **Policy Recommendation Structure**

Formal Vote

Tonight, you all will vote on whether to recommend that City Council extend the current moratorium on data center development through a recommended new expiration date, and it will be formally submitted to Council.

Proposed Language

The Data Center Task Force respectfully recommends extending the current data center moratorium for an additional _____. period, through _____. This extension is necessary to allow adequate time to finalize ongoing analyses, policy development, and external agency engagement efforts related to the long-term planning and regulation of data center development within the City of Charlotte. The Data Center Task Force recommends that the City Council formally approve a _____ extension of the current data center moratorium, effective November 5, 2026 through _____.

Digital Realty

Digital Realty

Charlotte Data Center Task Force

AGENDA

- ▶ Our Company
- ▶ Data Centers
- ▶ Our Proposed Project(s)
- ▶ Community Relations
- ▶ Site Selection
- ▶ Mitigating Impacts
- ▶ Sustainability
- ▶ Community Benefits



Digital Realty

Long-Term Owner of Data Centers

We operate the world's largest data center platform – where companies, technology and data come together

5,000+

Customers

\$60B

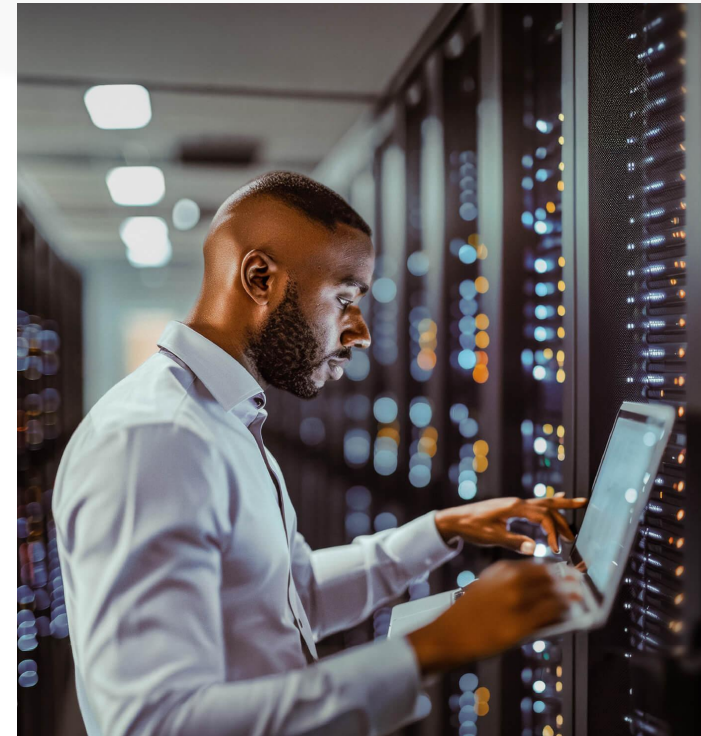
Equity market capitalization

20+

Years of expertise

4,000+

Employees globally



Data Centers

The Critical Infrastructure of Our Digital World

OUR DEVICES



Cell Phones



Tablets



Laptops

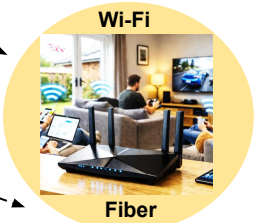


Smart Appliances

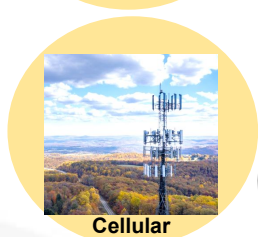


Implants

CONNECTION



Wi-Fi



Fiber



Cellular



Satellite

DATA CENTERS



OUR DIGITAL WORLD



Travel



Transportation



Navigation



Medicine



Movies



Government



Research



Investment



Communication



Education



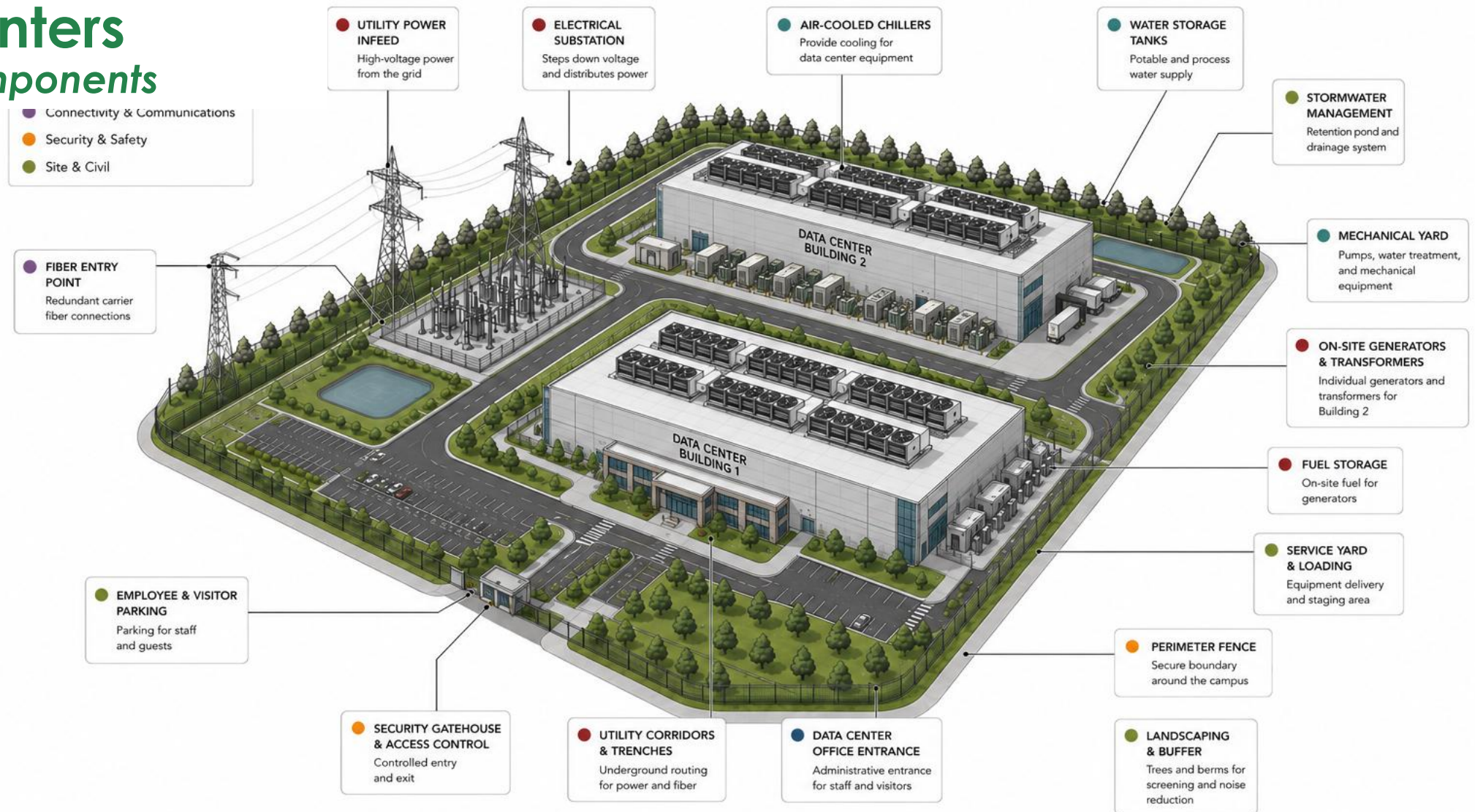
Gaming



On-Line Shopping

Data Centers

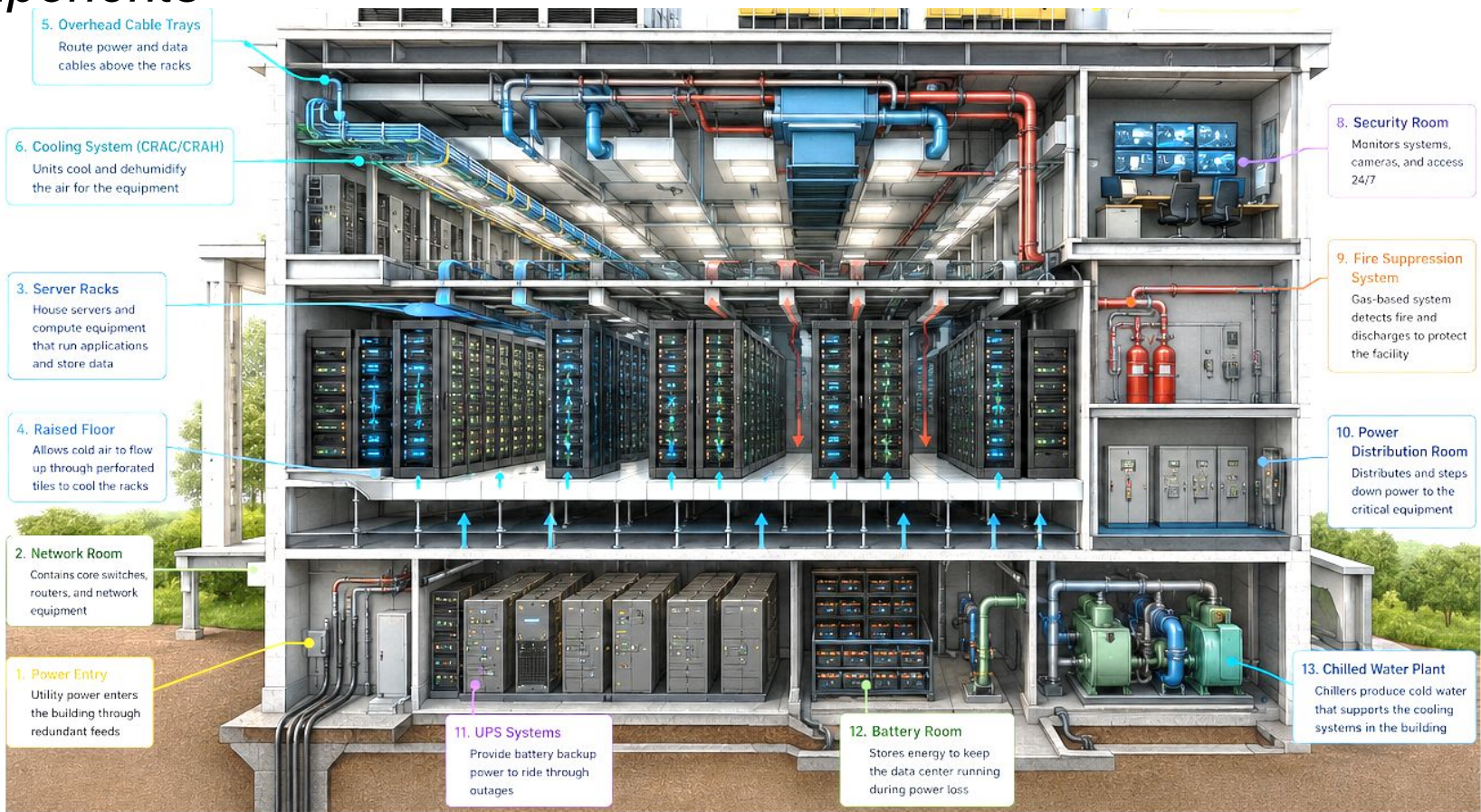
Exterior Components



Note: The graphic represents a typical data center campus.
Designs and configurations can vary.

Data Centers

Interior Components



HOW IT WORKS TOGETHER



Digital Realty Charlotte Facilities

Uptown Charlotte – 113 N Myers, 125 N Myers & 731 E Trade



113 N Myers

29,200 SF
1 MW IT load in place

125 N Myers

25,400 SF
~1 MW IT load in place

731 E Trade

40,900 SF
Tenant Operated

Portfolio totals: ~100k total SF across three buildings | ~2 MW IT load in place

All three facilities operate on closed loop, air cooled chiller systems

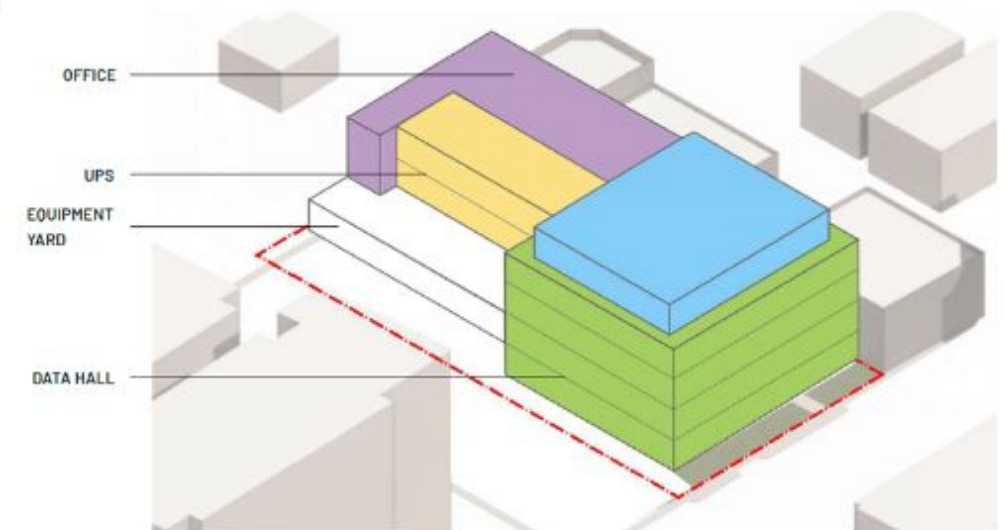
Figures reflect in-place operating capacity and building areas; subject to change.

725 E Trade

Charlotte, NC – adjacent to 113 & 125 N Myers

Summary

- 12 MW IT capacity
- Three 4 MW data halls
- Initial delivery expected in early 2028
- Four stories
- 150k estimated total SF
- **Cooling:** Closed loop systems. Air cooled chillers, built to support liquid cooling



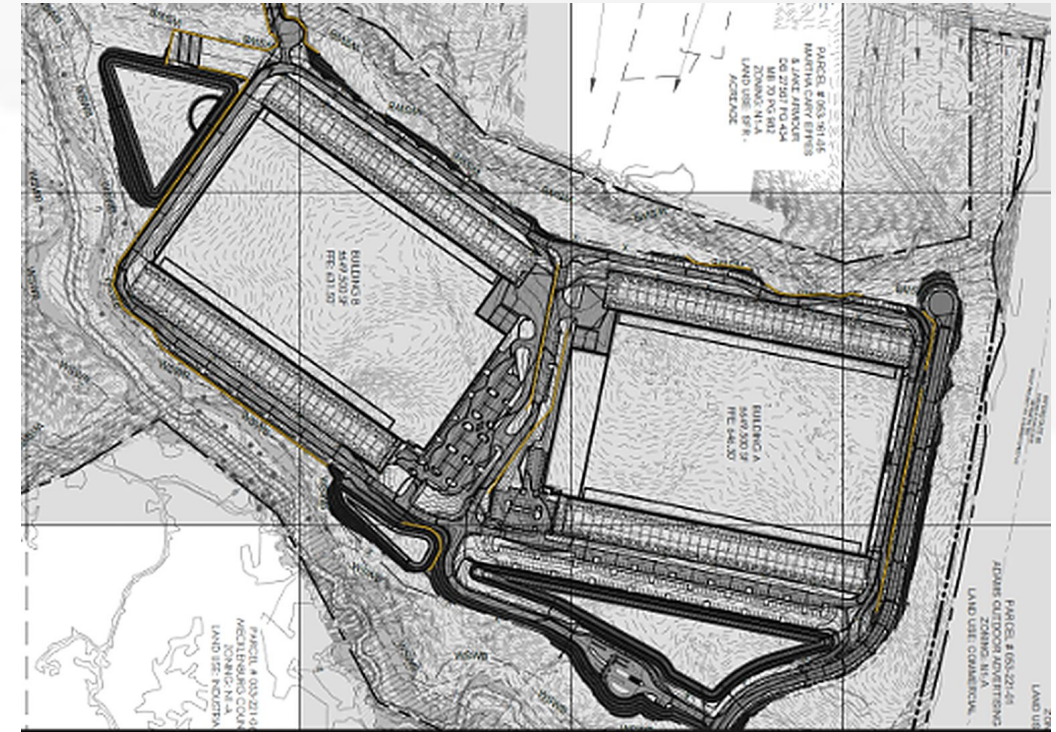
Delivery dates are preliminary and currently under assessment for viability and/or acceleration. All information herein subject to change.

Moores Chapel

Charlotte, NC – 157 acres, 10 miles west of Downtown Charlotte

Summary

- ▶ 400 MW IT capacity
- ▶ Forty 10 MW data halls
- ▶ Initial delivery expected in 2027
- ▶ Full 400 MW capacity by end of 2030
- ▶ Two stories
- ▶ 1.3M estimated total SF per building
- ▶ Cooling: Closed loop systems. Air cooled chillers, built to support liquid cooling



Delivery dates are preliminary and currently under assessment for viability and/or acceleration. All information herein subject to change. Regional requirement by utility provider Duke Energy for participation in power shedding program.

Community Relationships

Digital Realty – A Transparent and Responsive Partner



- **Listen Early:** Engage on local priorities and address people's concerns
- **Support Local Business:** Create jobs and source local goods and services
- **Community Investments:** Infrastructure, education and local needs
- **Work Locally:** Partner with schools, non-profit organizations and community groups

- **Comply with all Regulations:**

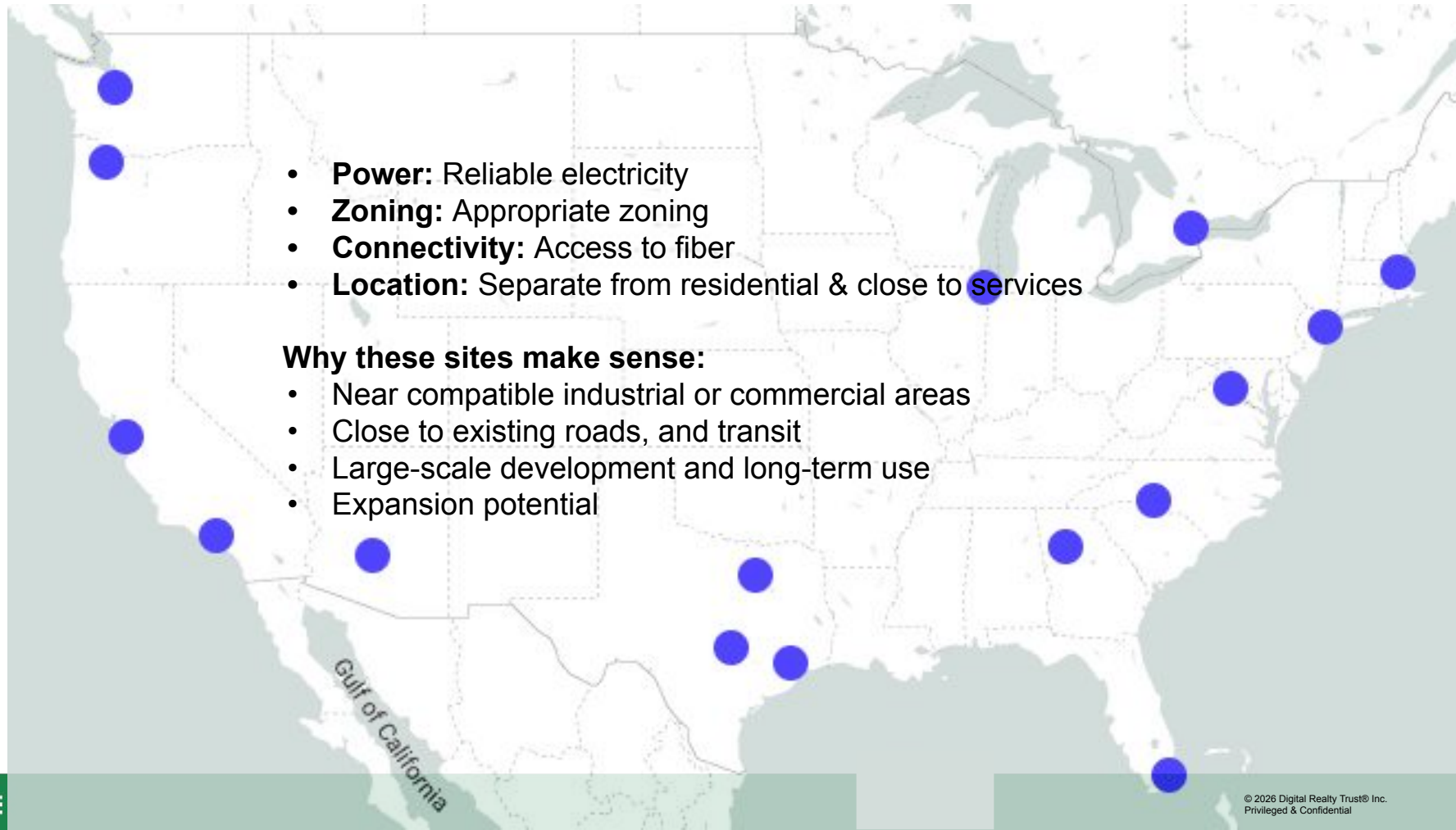
- ✓ Zoning
- ✓ EPA
- ✓ Building Codes
- ✓ OSHA

- **Minimize Impacts:**

- ✓ Avoid Electrical Bill Impacts to Residents
- ✓ Minimize Noise
- ✓ Conserve Water
- ✓ Avoid Disruption During Construction

Site Selection

Choosing Locations with the Right Infrastructure, Access, and Fit



- **Power:** Reliable electricity
- **Zoning:** Appropriate zoning
- **Connectivity:** Access to fiber
- **Location:** Separate from residential & close to services

Why these sites make sense:

- Near compatible industrial or commercial areas
- Close to existing roads, and transit
- Large-scale development and long-term use
- Expansion potential

Electricity Use

Invest in Infrastructure & Avoiding Community Costs

- **Long-Term Agreements**

- ✓ Multi-decade commitment with Duke Energy
- ✓ Digital funds 100% of transmission and substation upgrades
- ✓ No costs transferred to the community

- **Customer Protection Plus**

- ✓ Preserve Reliability
- ✓ Power Responsible Growth
- ✓ Produce Shared Value

"Duke Energy has stated its contracts with data centers will bring at least \$3.6 billion in long-term bill relief for customers over a 15-year period starting in 2029"

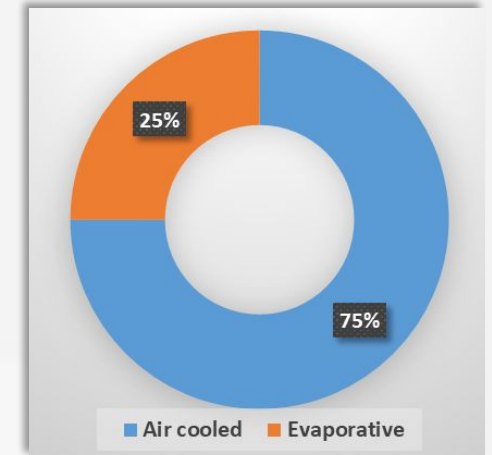


Water Use

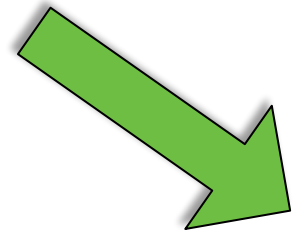
Design to Conserve and Protect Local Resources

Design Principles:

- Closed-loop, air-cooled chillers
- High efficiency plumbing fixtures
- Drought tolerant landscaping
- Where available, recycled water



**Digital Realty
has achieved
~30%
reduction in
water-use
intensity since
2016**



Noise Management

Complying with Regulations Using Site-Specific Strategies

- **Landscaped Berms:** Provide acoustic shielding and visual buffering.
- **Site Barriers:** About 4–10 feet high. Typical reduction is about 5–10 dBA.
- **Rooftop Acoustic Barriers:** Typical reduction is about 6–12 dBA.
- **Generator Enclosures:** reduction from enclosure treatment is about 15-20 dBA
- **Vibration Isolators:** Prevent the transmission of low frequency sound



Air Quality

Emergency Generator Management

FOR EMERGENCY USE ONLY

- **Regulated by the Environmental Protection Agency**
 - ✓ Strict limits on operational time
 - ✓ Emission control devices
 - ✓ Limited testing – 10 hours per year
- **Design and Siting:** Strategic placement, setbacks, and enclosures
- **Monitoring and Compliance:** operate efficiently and comply with permit requirements



Mitigating Visual Impact

Thoughtful Design & Screening

Curtain wall and pre-cast concrete panels façade.
Building CH2, Elk Grove, IL



Façade vertical rhythm
modulates building length
Building E, Ashburn, VA



Alternating wall panel patterns to
articulate building length
Digital Loudoun III, Ashburn, VA



Buffer vegetation and landforms to screen views
ACC7, Ashburn, VA



Digital Loudoun III, Ashburn, VA

Lighting

Responsible Exterior Lighting Design

- **Safety first**
 - ✓ Meets local zoning regulations
 - ✓ State building codes
- **Minimize light effects**
 - ✓ Meet LEED standards to avoid light pollution
 - ✓ Cut-off fixtures avoid light trespass and glare
- **Respect Property Boundaries**
 - ✓ Compliant photometric distribution site plan
 - ✓ Automatic dimming with motion sensors



Local Economic Benefits

- **Construction Employment: 4-5 year build, thousands of jobs in trades.**
- **Permanent Employment**
 - ✓ 100-MW data center employs **50-100 people.**
 - ✓ Each data center job supports approx. **6-7 additional jobs** elsewhere in the economy.
 - ✓ In 2023, data centers created more than **600,000 direct jobs and over 4 million jobs elsewhere** in the US economy.
- **Local capacity building:** scholarships for IT, engineering, and STEM fields.
- **Education Partnerships:** with tech high schools, community colleges and universities.
- **Early-Career Pathways:** paid internships, co-ops, and pathways to long-term employment.



Sustainable Development Strategy

We Design Data Centers Using Best Practices for Green Buildings

- ▶ **Developed:** more than 18.7 million square feet in accordance with recognized green building standards.
- ▶ **Leader in Renewable Energy:** 93% of the electricity we use globally is matched with renewable energy.
- ▶ **ENERGY STAR:** more ENERGY STAR certified data centers (by IT capacity) than any other data center operator.
- ▶ **Greenhouse Gas Reductions:** Joined the Science-Based Targets initiative (SBTi) in 2020 and committed to reduce carbon emissions by 68% by 2030.
- ▶ **Influence:** We hold our contractors and their subcontractors to the same standards.



Avoid Construction Disruption

Safety-Focused & Respectful of Neighbors

- **Dust Control**
 - ✓ Water trucks,
 - ✓ Wheel wash stations
 - ✓ Street sweeping
- **Traffic Coordination, Loading & Deliveries:**
 - ✓ Temporary signage and signaling
 - ✓ Non-rush hour deliveries
 - ✓ Designated truck routes & entry gates
- **Construction Worker Parking**
 - ✓ Centralize parking in South Parcel
 - ✓ Secure storage trailers in South Parcel
 - ✓ Shuttle service for Sub-Contractors
- **Utilities Tie-Ins & Temporary Disruptions**
 - ✓ Off peak hours
 - ✓ Coordinate with neighbors
 - ✓ Minimize disruption

