



BEST PRACTICES

Data Center Campus Design



As artificial intelligence, cloud platforms, machine learning workloads, and high-density compute continue to accelerate, the way data centers are planned and built has fundamentally changed. Today's developers are building scalable campuses designed for phased deployment, long-term growth, and operational continuity. This evolution has made multi-phase construction one of the most critical strategies in the mission critical industry.

Developers, owners, and operators must move quickly to secure viable sites, establish reliable power sources, streamline approvals, and integrate cooling and critical infrastructure — **all while maintaining aggressive timelines and controlling costs.** Ready to ship modular solutions, turnkey solutions, and experienced project teams have become essential tools for accelerating deployment and reducing risk across complex campus builds.

Our experts understand the unique complexities involved in building large-scale data center campuses. By utilizing Mobile Modular preferred vendors and experienced partners, developers benefit from teams that understand site logistics, commissioning requirements, scheduling coordination, safety protocols, and quality expectations. This integrated approach helps **minimize delays, improve job site coordination, and support faster delivery** from one phase to the next.



The following best practices are designed to help developers, owners, and operators optimize their data center campus build strategy while balancing speed, scalability, sustainability, and long-term operational success.



DESIGN & PLANNING

Many data center projects run on highly compressed schedules. We understand good project management isn't just administrative overhead; it directly affects schedule, budget, safety, quality, and ultimately whether the facility can go live on time.

Mobile Modular offers a project manager to anticipate future needs, understand the schedule, and solve problems quickly. This allows the datacenter project team to focus on the key components of the center itself.

Asses your project requirements in the initial planning states such as:



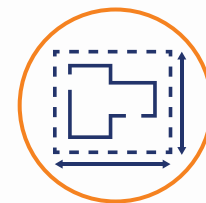
TEAM SIZE



TIMELINE
COORDINATION



CUSTOMIZATION
NEEDS



PROPERTY
SIZE NEEDED



SITE CONDITIONS
(site access, terrain)



Site survey and grading

Leveling and clearing the area where the building will be placed



Utility connections

Temporary and permanent power needed for complete site



Foundation work

Installing footings, piers, or a slab depending on your building type and local codes



Access route preparation

Ensuring delivery vehicles can safely reach the placement area

SITE PREPAREDNESS

Site preparation is one of the most critical early phases of any data center campus build. Before construction begins or mission critical equipment is deployed, the land must be carefully evaluated, engineered, and prepared to support high-density computing environments, complex power distribution networks, advanced cooling infrastructure, and future campus expansion. Proper site readiness establishes the foundation for long-term operational continuity, efficient phased deployment, and reliable performance at scale.



SPEED OF DEPLOYMENT

Building a data center campus has become a race against accelerating AI demand, making traditional 24–36 month construction timelines increasingly uncompetitive. Today's developers are turning to prefabricated modular solutions and phased construction strategies to deliver gigawatt-scale campuses in as little as 1–3.6 years. This approach enables rapid initial deployment while maintaining the flexibility to expand capacity as demand grows.



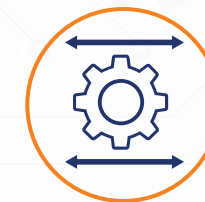
MODULAR AND PREFABRICATED BUILDINGS

Using factory-built components can accelerate deployment.



STRATEGIC SITE SELECTION

Choosing locations with existing high-voltage infrastructure is now paramount.



PARALLEL WORKFLOWS

Shifting from sequential construction to modular, off-site manufacturing allows for concurrent site preparation and structural fabrication.



TURNKEY SOLUTIONS

Partner with an experienced vendor such as Mobile Modular that can provide multi-use structures, furnishings, restrooms, utilities and so on.

SAFETY

Building a data center campus requires a specialized, proactive approach to worker safety that goes beyond standard construction practices, focusing on high-voltage electricity, structural hazards, and, for live environments, strict separation of construction teams from operational areas.

Proper training and risk mitigation are dire in this demanding construction environment. Mobile Modular requires all crew members and personnel to attend site-specific orientation prior to beginning work. We are committed to maintaining a safe and compliant work environment and ensure that everyone on site is fully informed of protocols, expectations, and safety procedures before work begins.



Modular Architecture

Break down infrastructure into standardized, repeatable components. Mobile Modular's portfolio of modular solutions. www.mobilemodular.com/data-center



Prefabricated Modular Solutions

Utilize pre-engineered modules such as Mobile Modular's portfolio of modular buildings accelerates construction timelines, improves reliability through factory testing, and enables fast expansion.



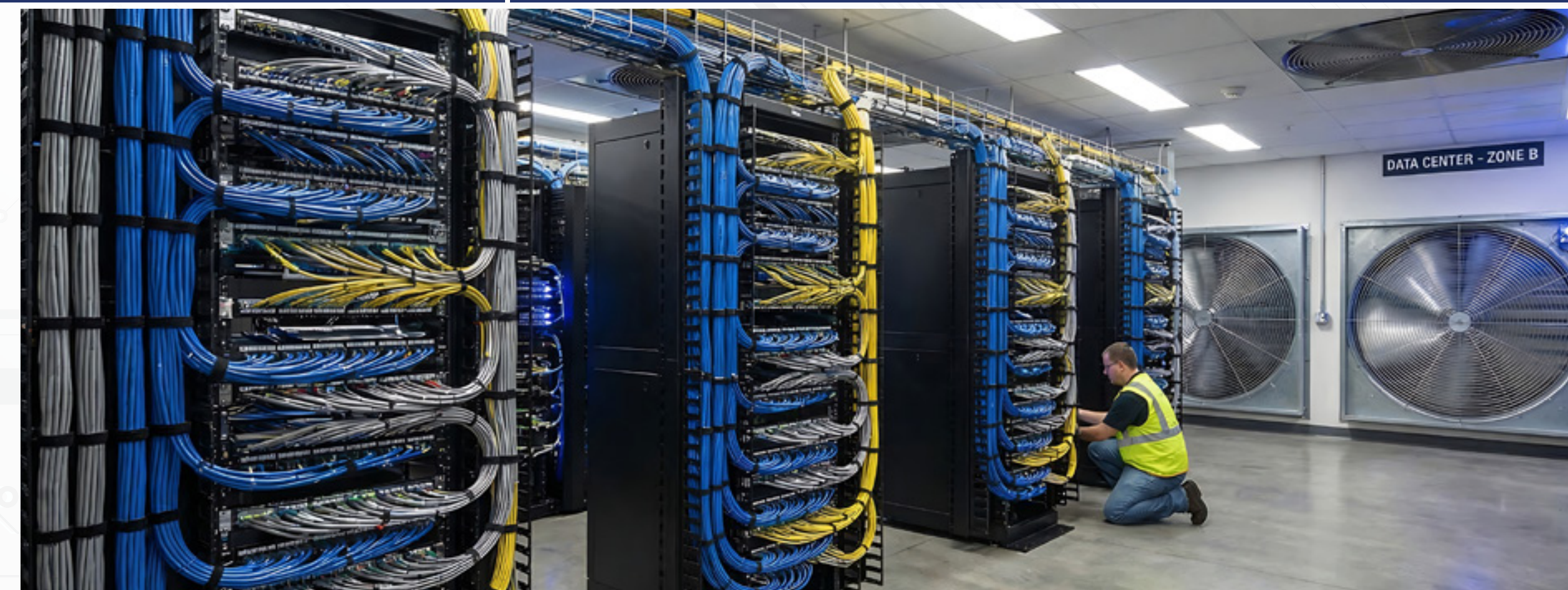
Phased Construction

Employ a phased, multi-building campus plan that permits scaling in increments as customer or company needs grow, ensuring efficient use of resources and minimizing idle investment.

SCALABILITY

Data center portfolios are growing at an unprecedented pace, making scalable operations essential for long-term success. Standardized workflows, centralized asset management, and automation enable operators to expand efficiently while minimizing operational risk. As campus environments become larger and more complex, a scalable operational model helps maintain resilience, consistency, and performance across multiple sites. Key strategies to consider when planning a scalable data center campus include:

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Power and Cooling Scalability

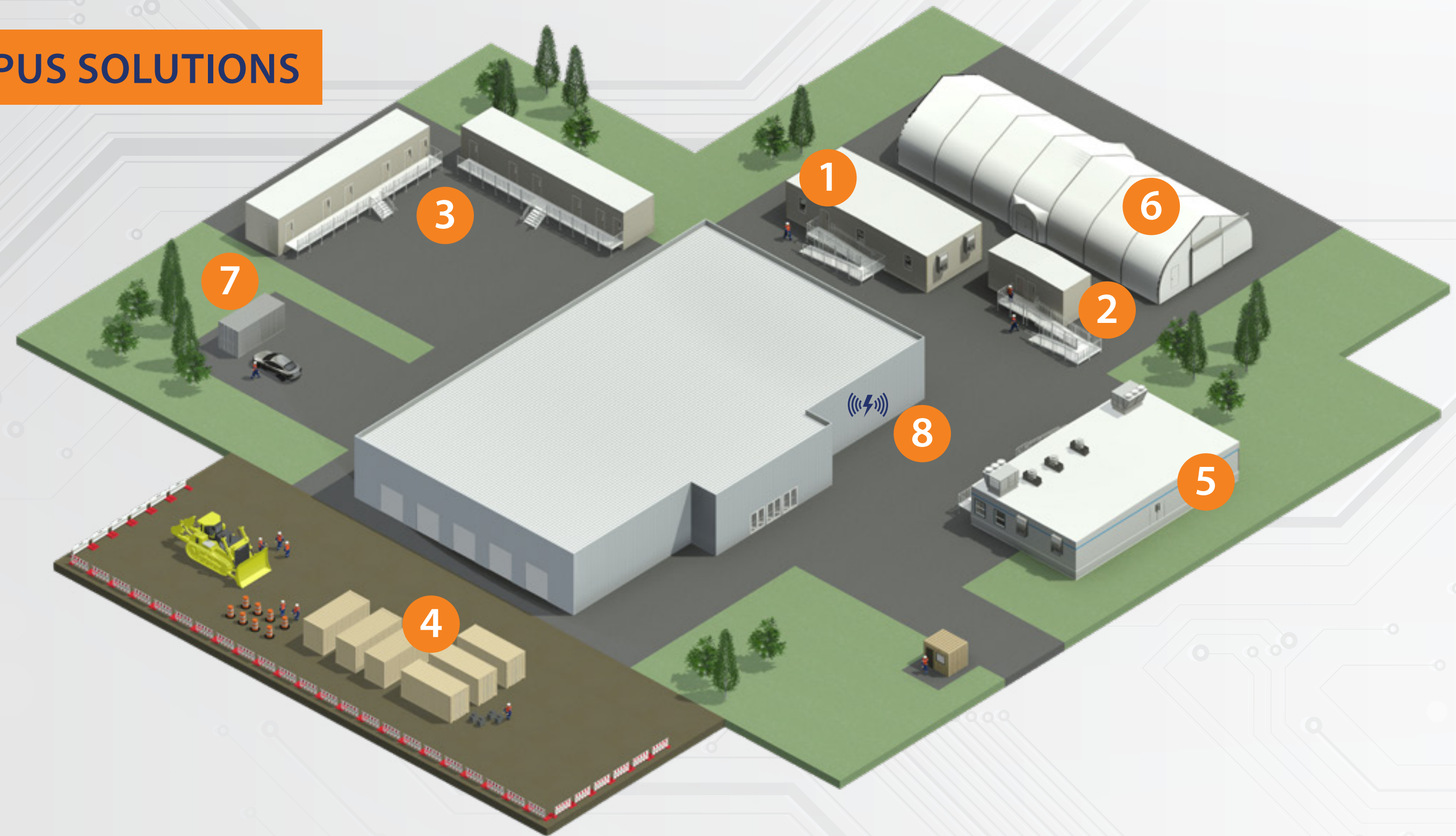
Implement flexible power distribution and flexible cooling systems that can adapt to changing densities, particularly for high-density applications.

SMARTER DATA CENTER CAMPUS CONSTRUCTION WITH MOBILE MODULAR

Resilient data center operations are built on strategic planning, disciplined execution, and scalable processes. As the industry continues to evolve at a rapid pace, staying ahead requires continuous innovation and a proactive approach to infrastructure planning and operational best practices. Today's data center campuses must be designed with flexibility and future growth in mind, enabling operators to meet current performance demands while adapting to emerging technologies and expanding capacity requirements.

Choosing the right modular solutions partner is critical to achieving these goals. With more than 40 years of experience as a nationwide leader in modular building solutions, Mobile Modular delivers the expertise, flexibility, and turnkey support needed for every phase of data center campus planning, development, and expansion.

DATA CAMPUS SOLUTIONS



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|---|--------------------------|---|---------------------|---|---------------------------|
| 1 | MODULAR OFFICE BUILDINGS | 4 | STORAGE CONTAINERS | 7 | EV CHARGING STATION |
| 2 | RESTROOM BUILDINGS | 5 | COMMERCIAL KITCHENS | 8 | ELECTRONIC TEST EQUIPMENT |
| 3 | MODULAR DORMITORIES | 6 | SPRUNG STRUCTURES | | |

CONTACT US TODAY

Click here or call **1.886.836.5765** to learn how Mobile Modular can support your next data center project.