DATA CENTER

QUALIFICATIONS

bennett & pless

60 YEARS OF STRUCTURAL EXPERTISE

FIRM OVERVIEW

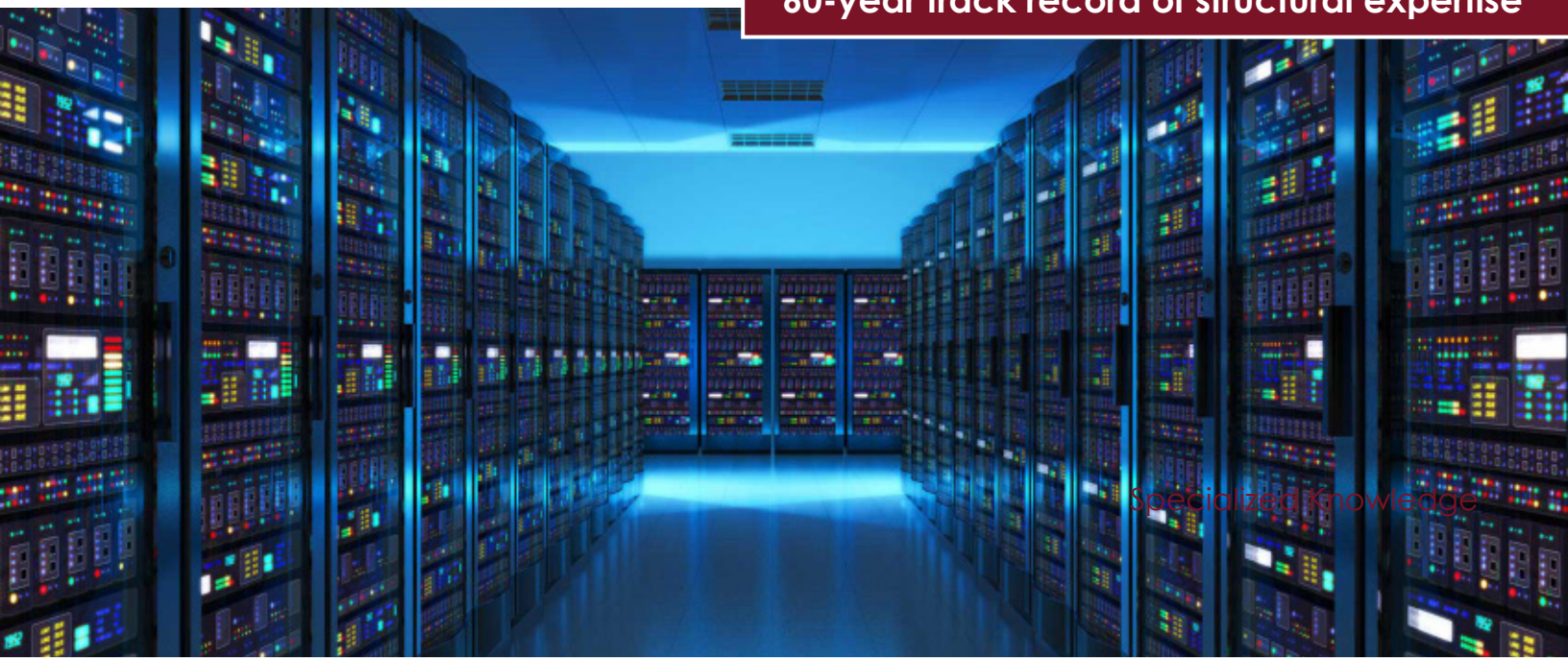
The demands of today's complex engineering environment require a highly skilled staff of specialists with real-world training in the required disciplines. Bennett & Pless incorporates an outstanding staff of qualified engineers/ designers with decades of practical design and construction experience. Each of our projects is produced by a cohesive team that pairs technical skills and practical application within the framework of present day scheduling demands. Our track record of successful projects completed on-time and on- budget demonstrates a commitment to overcoming structural engineering challenges and providing quality client deliverables.

founded in
1964

9
offices

150+ team members

60-year track record of structural expertise



Specialized Knowledge

We pride ourselves in our ability to deliver complex projects. Although not always high-profile, these projects challenge our capabilities and keep us on the leading edge of design.

Excellent Relationships

Our responsiveness, technical excellence, and "can-do" attitudes set a solid foundation for longstanding relationships and designing successful projects together.

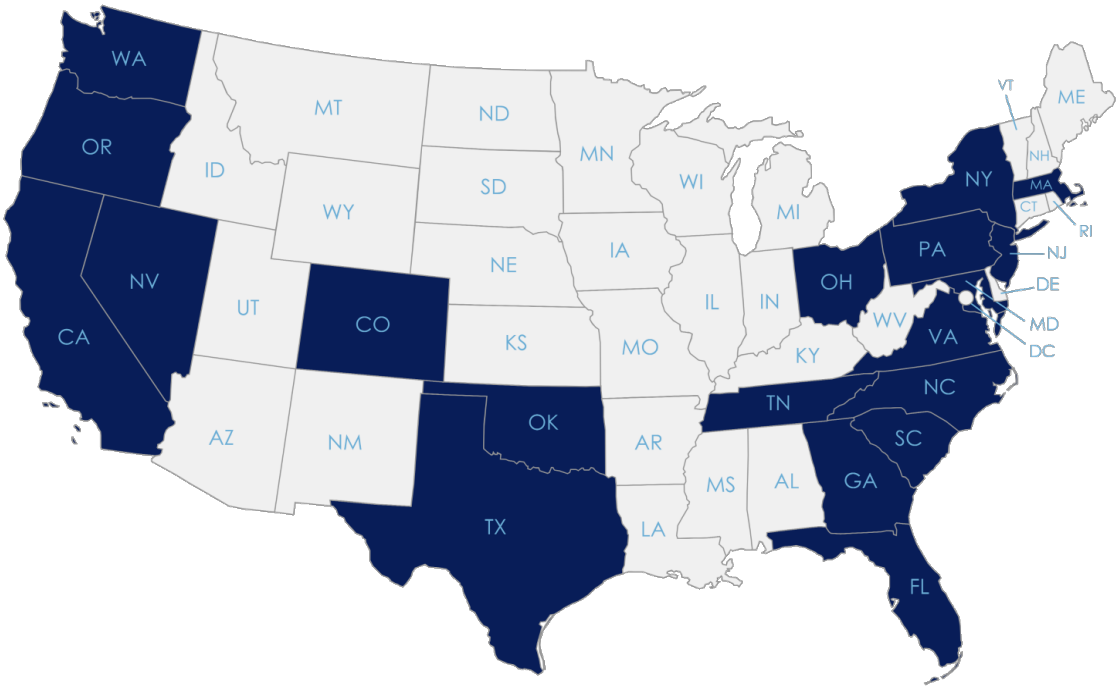
A Specialist Partner

To understand limitations, maintain budgets, and create implementable usage plans, upfront coordination with the design team is paramount. Thorough and thoughtful planning and investigation can help to mitigate these complications before your schedule and budget are impacted.

Our Office Locations

PROVEN OUTCOMES

Data Center Project Locations



1,500 MW
of Data Center Capacity

19
Project States

25+
End-User Clients

10M SF
of Data Center Space

MISSION CRITICAL KNOW-HOW

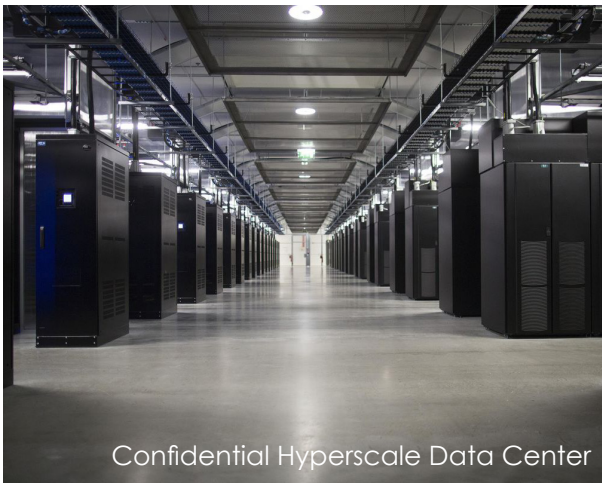
A thorough understanding of the program and site-specific needs is integral to the success of a mission critical data center project. Bennett & Pless has a proven ability to understand the equipment functionality and design to provide effective solutions on a project-specific basis. To adequately plan and appropriately staff a mission critical data center program, Bennett & Pless places critical emphasis on forecasting staffing efforts during the project's kick-off based on the project requirements. As the structural EOR, we perform analysis and create BIM models to provide coordination with the architectural and MEP partners. We offer the project team proper guidance and the tools necessary during the design process to continually execute on schedule. As staunch believers of continuous improvement and innovation, we have leveraged our experience to perform studies that have resulted in concepts related to enhancing designs through value-engineering to reduce costs or decrease schedule—without sacrificing quality. Our internal tools, processes, and guidelines ensure we provide efficient and quality work, always striving to exceed our client's expectations.

DATA CENTER EXPERIENCE

Hyperscale Data Centers

Select Listing

Hyperscale data centers bring their own unique challenges, facilities where precision, efficiency, and adherence to rigorous schedules are most important. Our expertise encompasses all facets of structural engineering tailored to meet the unique demands of hyperscale clients, who require rapid, scalable solutions to support their expansive digital infrastructure. By leveraging our hyperresponsive client engagement style, advanced workload management techniques and innovative engineering practices, we ensure that each hyperscale data center project not only meets expectations, delivering robust and resilient facilities on time and within budget.



Confidential Hyperscale Data Center

Confidential Hyperscale Data Center - SC
Structural design of 80MW, two-story data center. Designed for a high seismic region for wind speeds up to 200 mph.

Confidential Hyperscale Data Center - SC
Structural design of 80MW, two-story data center. Designed for a high seismic region for wind speeds up to 200 mph. (Different project from above, same client)

Confidential Hyperscale Data Center - SC
Structural design of 80MW, single-story data center. Designed prototype elements that were later applied to this project. Designed for a high seismic region for wind speeds up to 200 mph.

Confidential Hyperscale Data Center - VA
Structural design of 80MW, single-story data center. Designed prototype elements that were later applied to this project.

Confidential Hyperscale Data Center

Confidential Hyperscale Data Center - VA
Structural design of 80MW, single-story data center. Designed prototype elements that were later applied to this project. (Different project from above, same client)

Confidential Hyperscale Data Center - VA
Structural design of the fit-out of new data center designed for wind speeds up to 200 mph.

Confidential Hyperscale Data Center - OH
Structural design of 80MW, single-story data center. Designed prototype elements that were later applied to this project.

Confidential Hyperscale Data Center - OH
Structural design of 80MW, single-story data center. Designed prototype elements that were later applied to this project. (Different project from above, same client).

DATA CENTER EXPERIENCE

Enterprise Data Centers and Technical Facilities

Select Listing

Enterprise data centers have distinct requirements, driven by the need for solutions that meet their specific operational demands. Our firm excels in providing structural engineering services that address the unique challenges faced by enterprise clients. We understand the broader design implications of mechanical and electrical decisions and how these impact the structures we design. By offering tailored, scalable, and efficient engineering solutions, we ensure that enterprise facilities are robust, reliable, and optimized for performance. Our approach combines proactive client engagement, advanced workload management techniques, and innovative engineering practices to deliver facilities that meet unique enterprise requirements.

Fluence Energy Storage

Confidential Enterprise Data Center

Verizon Wireless - Various locations
Structural design of over one dozen new single story data centers in support of 5G across the country.

Fluence Energy Battery Energy Storage System - CA
Structural design of a one-story, 100 MW, 43,000 SF enclosed BESS building with 104,000 SF substation.

Time Warner Cable National Data Center East - NC
Structural design of a 178,000 SF data center, including the analysis for load-carrying capacity for the proposed equipment on all floors.

Confidential Tennessee South Data Center - TN
Structural design of a one-story Tier III mission-critical data center. The superstructure is a two-way post-tensioned concrete plate designed to withstand lateral and uplift forces induced by 200 mph winds.

Federal Reserve Bank Data Center - PA
Structural design of support structures and building modifications for mechanical equipment replacement program to support an existing data center and building utilities. Phase I and II

Bank of America Data Center - NC
Structural design for a waterside economizer, chiller addition, NOC renovations and SPARC server addition.

Duke Energy Data Center - NC
Structural evaluation of floor to confirm load-carrying capacity for new cooling system. Evaluation of the roof to confirm load-carrying capacity for new condensing units.

AT&T Data Center - NC
Structural design of the cooling tower catwalks and HVAC maintenance platforms.

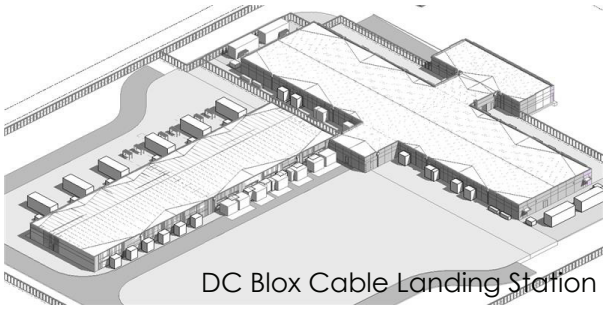
Confidential Data Processing Center - TN
Structural design of a two-story 215,000 SF “hardened building” designed to government regulations and to resist a wind speed of 200 mph.

DATA CENTER EXPERIENCE

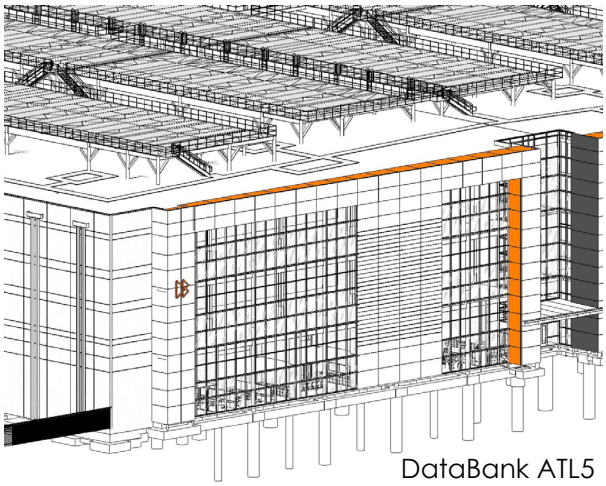
Colocation Data Centers

Select Listing

Managing development costs, while delivering a high-quality facility on time isn't easy. Our firm has a proven track record in addressing these challenges, offering comprehensive structural engineering solutions that cater specifically to the needs of colocation clients. We focus on providing cost-effective and scalable designs that support a diverse range of digital infrastructure. Through proactive client engagement, advanced workload management techniques and innovative engineering practices, we deliver resilient and reliable colocation data centers that adhere to stringent budgetary and performance requirements.



DC Blox Cable Landing Station



DataBank ATL5

CyrusOne Colocation Data Center - GA
Structural design for a 50MW, 440,000 SF facility which includes six 40,000 SF data halls.

DC Blox Cable Landing Station - SC
Structural design of a cable landing station. Unique challenges of this Tier III facility included 170 MPH hurricane wind rating, high water table and IBC Risk Category III.

55 Marietta Street Colocation Data Center - GA
Engineer of Record for over 20 years on this 12-story data center facility servicing the owner directly to assess and adapt the facility to the needs of the various tenants.

Confidential Colocation Data Center - CA
Structural design of a new three-story, 750,000 SF data center, including addressing challenging soils in a high seismic area with an existing basement, below grade.

DataBank ATL5 Colocation Data Center
Structural design of a new 48MW, three-story data center with 150,000 SF of data halls.

Archer Colocation Data Center - TN
Structural design of a 10 MW, 122,000 SF data center. Initial build on Evoque-Cyxtera campus designed for 100 MW, 900,000 SF over four build phases.

Con idential Colocation Data Center - CA
Structural design for a new 60MW, single-story data center.

DATA CENTER EXPERIENCE

Modifications to Existing Data Centers

As technology changes frequently, there are continual moves, adds, and changes to existing data centers.Working inside live data centers requires unique skills and typically expertise of more senior staff. With over 40% of our staff having 20+ years' experience and decades working inside of existing data center facilities, we have the know-how to make these facility modifications feasible.

For over 20 years, Bennett & Pless has served as Engineer-of-Record for this multi-story colocation data center facility directly servicing the owner to assess and adapt the facility to tenant needs.

55 Marietta Street

QTS Colocation Data Center - GA
Structural analysis and design of modifications to multiple live data centers for associated MEP and equipment modifications.

55 Marietta Street Data Center - GA
Engineer of Record for over 20 years on this 12-story data center facility servicing the owner directly to assess and adapt the facility to the needs of the various tenants.

Federal Reserve Bank Data Center - PA
Structural design of support structures and building modifications for mechanical equipment replacement program to support an existing data center and building utilities. Phase I and II.

Bank of America Hearst Tower Data Center - NC
Structural design for a waterside economizer, chiller addition, NOC renovations and SPARC server addition.

Duke Energy Alternate Data Center - NC
Structural evaluation of floor to confirm load-carrying capacity for new cooling system. Evaluation of the roof to confirm load-carrying capacity for new condensing units.

AT&T King Mountain Data Center - NC
Structural design of the cooling tower catwalks and HVAC maintenance platforms.

Windstream-Hosted Solutions Data Center - NC
Structural evaluation of the existing structure to confirm the load carrying capacity for proposed new equipment. Designed rooftop platform for new generator, chillers & pumps.

Marriott Data Center, Frederick Data Center - MD
Post seismic integrity survey and review for data center.

Visa Data Center Additions - CO
Structural analysis and design of data hall additions and associated modifications for HVAC upgrades.

Spectrum Data Center Renovations - NC
Structural analysis and design of additions and renovations to multiple data centers.

DATA CENTER EXPERIENCE

BPL Enclosure

Select Listing

BPL Enclosure was founded when Bennett & Pless joined forces with LEICHT—a German-based facade engineering firm with international recognition for ETFE and custom facade expertise. The BPL Enclosure senior level staff each has decades of experience providing specialized enclosure design and consulting services for our clients. Our specialists have extensive experience with a wide variety of facade systems, exterior cladding types, roofing, and waterproofing on projects throughout North America as well as internationally.

EdgeCore Data Center - AZ Phase II & III

EdgeCore Data Center - AZ
Phase I, 200,880 SF of enclosed space over two levels. Building Enclosure Assessment, Design Review, and Construction Phase Services of Renovation of an existing data center building.

EdgeCore Data Center - AZ
Phase II, 868,431 SF of enclosed space over three levels. Building Enclosure Design Review and Construction Phase Services of a newly constructed data center building.

EdgeCore Data Center - AZ
Phase III, 606,388 SF of enclosed space over three levels. Building Enclosure Design Review and Construction Phase Services of a newly constructed data center building.

EdgeCore Data Center - CA
Phase I, 255,000 SF of enclosed space over three levels. Building Enclosure Design Review and Construction Phase Services of a newly constructed data center building and substation.

Aligned Data Center - GA

T5 Data Center - NC
40,000 SF addition of enclosed space over two levels. Building Enclosure Assessment, Design Review, and Construction Phase Services of Renovation/Addition to an existing data center building.

Aligned Data Center - GA
312,000 SF of enclosed space over two levels. Building Enclosure Design Review and Construction Phase Services of a newly constructed data center building.

Confidential Data Center - UT
Phase V & VI, 750,000 SF of enclosed space over 2 levels. Building Enclosure Design Review and Construction Phase Services of a newly contructed data center building.

CONTACT US

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