



PROJECT PROFILE



POWER LOFT DATA CENTER - MANASSAS, VIRGINIA

Project Information

End Client: Power Loft, LLC
Shallbetter Client: Rubicon Professional Services,
A Fortress International Group Company
Contact: Eric Holzworth, Rubicon Professional Services
Site Location: Prince William County, Manassas, Virginia

General Description

Power Loft is a privately held company headquartered in McLean, Virginia specializing in the development and ownership of high-density, high-security data centers. The first of which is located in Innovation Park, Prince William County, Virginia - Power Loft @ Innovation.

The Power Loft design redefines high-density data center standards – allowing users to scale to 300 watts per square foot with industry leading efficiencies of power and raised floor space. The design incorporates separate power and chiller plants in pre-engineered structures on-site, and a unique power backbone that can provide either AC power, DC power, or both to the data floor to accommodate the latest advances in IT equipment. Power Loft @ Innovation accommodates three times the computing power of a typical data center with the ability to use 30% less power.

Project Challenges

Shallbetter faced two major challenges in meeting the completion specs of this project. The first was the large physical size. The completed sheltered-aisle's dimensions were 96' L x 20' W x 11' H. The second challenge was meeting the aggressive shipping schedule. The order was placed in spring of 2008 and delivered by fall of 2008. The project's overall life cycle was just over 20 weeks.

Shallbetter Inc.

Shallbetter Inc. designed and constructed the 35kV outdoor metal-clad switchgear line-up along with the walk-in, sheltered-aisle for Rubicon. The equipment sourced power from dual grids, with 50mW of dedicated power the 34.5kV with an optional second 50kW the 34.5kV redundant utility feed.

The 35kV metal-clad switchgear is directly connected to the Dominion Virginia Power Company utility incoming service providing distribution electrical power to the Data Center.



Sheltered-Aisle / Switchgear Features:

The walk-in aisle / switchgear features provide comfort for the operator and improves overall performance.

These features include:

- NEMA 3R construction w/11-gauge galvaneal steel.
- Heavy duty 6" channel base for added support.
- Base undercoating for added protection.
- Interior / exterior paint finish meets or exceeds ANSI-C57.12.28 paint specifications.
- 120/240V CPT & panel board for aisle power.
- Interior lighting.
- Ventilation louvers and fans for cooling.
- Siemens 35kV, 1200A vacuum circuit breakers.
- 2 utility main breakers and 14 feeder breakers.
- Basler protective relaying for each feeder and the main.
- Square D Digital AC metering of main bus parameters.

