

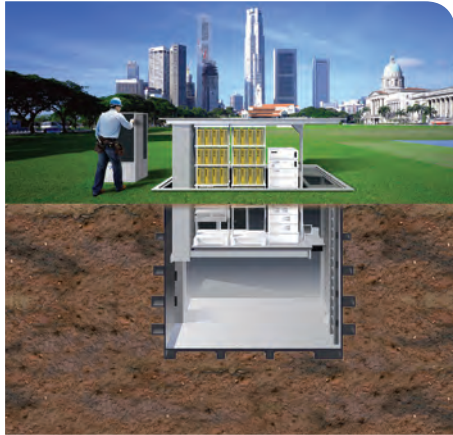
Powerwave

SubTerra™ Controlled Environment Vault

Unparalleled engineering for ultimate critical infrastructure protection.



Powerwave's SubTerra CEV delivers unparalleled engineering



For use in underground critical infrastructure deployments, Powerwave's SubTerra Controlled Environment Vault (CEV) offers the ultimate in reliability, low total cost of ownership, and ease-of-access for convenient maintenance.

Compact and ultra low-profile, SubTerra provides a fail-safe controlled environment that is ideal for situations requiring low-impact installations.



■ Convenient and Easy Access for Maintenance

SubTerra provides above-ground access to equipment when service is necessary, keeping personnel safe and sound. A hydraulic lifting mechanism raises the platform to the surface, and leverages a biodegradable vegetable oil hydraulic fluid for environmental safety.

■ The End of Costly Lease Agreements

SubTerra makes costly long-term lease agreements with site owners a thing of the past. By placing critical infrastructure underground, you reap savings by taking advantage of no-rent public easements.



■ Fast Deployment Plus Low Total Cost of Ownership

SubTerra boasts significant bottom-line benefits – installation that's 50% faster and 50% less costly than standard pre-cast concrete solutions.

■ The Ultimate in High Reliability

The SubTerra construction is a monolithic fiberglass-reinforced plastic design. This fail-safe engineering eliminates the possibility of water penetration to the main structure and provides peace of mind that critical infrastructure is secure.

■ Designed for Cost-Effective, Streamlined Installation

SubTerra installation is 50% less costly and takes 50% less time than traditional pre-cast concrete CEVs. Its corrosion-resistant, fiberglass exterior casing is designed with surface ribs to simplify installation procedures by making it possible to anchor the CEV in the ground using standard cement backfill slurries or helical anchoring systems. The product is designed to be installed using standard construction methodology, resulting in additional cost and time savings.



■ Built to Withstand the Pressure

With a flexural wall strength of 24,000 PSI, the SubTerra is capable of withstanding lateral soil pressures up to 40 lbs. per cubic foot, and also capable of withstanding full hydrostatic and soil loads on bottom and sides.

■ Smart, Energy-Efficient Thermal Management

The SubTerra delivers high cooling capacity (25,400 BTU) via an advanced thermal management system that is ultra efficient and leverages inverter-based technology for lowest possible energy consumption.

A small, remotely located cooling cabinet pumps environmentally-friendly R410A refrigerant through underground copper tubing, eliminating the need for thermal ventilation, as well as the primary source of water penetration found in traditional compact controlled environment solutions.

Mini-split air conditioners offer the utmost in versatility, automatically adjusting its performance to meet the changing needs of the space consumption.



At a glance SubTerra CEV Features



Delivering unparalleled engineering, the SubTerra corrosion-resistant, watertight fiberglass conventional vault alternative offers cost-effective and stream-lined deployment, the performance that operators demand, plus advanced thermal management capabilities that save money and natural resources.

Ideal for a wide variety of scenarios

Designed for state, city, and local jurisdictions, as well as network operators, SubTerra should be considered when:

Aesthetics are Key

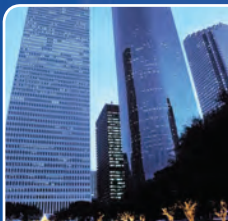
SubTerra is an ideal solution for low impact areas where aesthetics are vital, such as national parks.

Security is an Issue

SubTerra keeps all critical communications equipment secure, underground and out of sight, reducing the potential for theft and vandalism. This is ideal for border regions and vandal-prone areas, as well as areas under Homeland Security mandates such as airports and seaports.

Public Easement Deployments are an Option

If you have the option to leverage public and right-of-way easements to reduce lease expense, you'll want to consider SubTerra.





About Powerwave Technologies

A global leader in end-to-end wireless coverage and capacity solutions, Powerwave Technologies, Inc. offers cutting edge wireless infrastructure to address the demands of enterprise and commercial customers. Powerwave offers a comprehensive suite of solutions, including Antennas, Base Station Solutions and Coverage Solutions. Powerwave's product line supports all wireless network protocols and frequencies including Next Generation Networks in 4G technology such as WiMAX™ and LTE®. Powerwave solutions, products and services also help wireless operators and OEMs reduce capital and operating expenses, speed rollout of services, improve coverage and capacity, and reduce environmental impact. For more information, visit us at www.powerwave.com.

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