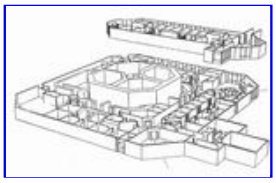
Proton Cancer Treatment Center

Proton energy is considered the most advanced of the oncology energy sources for cancer treatment. There is a two-fold benefit: One, the energy can be fine-tuned like a laser, and two, the energy source can be terminated per the Bragg principle, thus avoiding uncontrolled contaminations of standard Photon radiation.

Proton energy, to be effective, requires high energy of 250 megavolts achieved by a massive 20-foot generator consisting of 8 huge magnets for bending the rays as it is energized. This source is transported through immense magnets to the treatment rooms. At the treatment room it is directed at the patient by the means of a 38-foot rotating gantry.

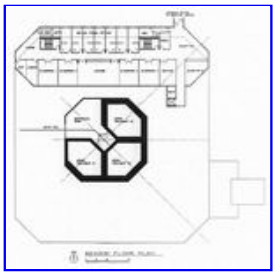
David Zeunert & Associates' design concept consisted of a “Y” shaped configuration that minimized the magnetic transport system, which reduces energy loss and optimizes the amount of high density concrete walls required for radiation confinement.

The prototype design was created so the building's footprint could be placed between two standard city blocks at site locations throughout the United States, thus a valuable cost reduction feature.



Axonometric drawing

First level floor plan



Second level floor plan

Printable Format (Adobe Reader required)