With panoramic views of downtown Boston and the harbor, the transformative facility will have 154 private rooms organized around shared community spaces and surrounded by generous courtyards.
**Net Zero** – The combination of geothermal heating and cooling, a heat recovery system, a high performance building envelope, a 0.7-megawatt rooftop solar array and natural ventilation in all resident spaces yields a building that uses 71% less energy than allowed by code—and eliminates fossil fuels during typical operation.
This forward-looking building not only meets the Commonwealth’s energy reduction goals but also provides a healthy, comfortable environment for residents and staff.
The new Soldiers’ Home is not only a model for dignified long-term care; it will also be a cutting-edge example of resilience and sustainability.

Strategies include geothermal heating and cooling, a heat recovery system, a high performance building envelope, a 0.7 megawatt rooftop-mounted solar array and natural ventilation in all resident spaces.
We look for performance shortcomings and unrecognized opportunities, and we devise ways to address them. We undertake data-driven investigations of building systems, materials, envelopes and operational energy usage. Extensive shoebox modeling guided the development of the typical patient room and Payette’s net zero goal was the driver for key design decisions.

Radiation benefit analysis showing the net benefit of harmful summer radiation and helpful winter radiation.