Sustainability, functionality converge in new design

The industry’s first “green” elevated water storage tank not only sets new standards for appearance and integration with the surrounding community—it breaks new ground in efficiency as well. Completed mid-2010 by Landmark for Austin Water Utilities (AWU), the 2.0 million gallon 51st Street elevated tank expands the capacity of the Texas capitol’s innovative reclaimed water system, and reflects the city’s progressive approach to environmental issues. The dramatic curves of the welded steel tank reach up to an expansive flat roof, with rainwater collection drains around the perimeter, and a circular accent ring supporting an array of 48 photovoltaic panels for solar power generation. Below, the reinforced concrete pedestal houses a chlorination room and equipment storage in dry, protected space on the second floor, with valves and other controls, as well as room for future pumping equipment on the base level.

The 175-watt photovoltaic panels generate more than 16,500 kWh of electricity annually to power the site, returning the balance to the grid. Rain water collection drains are projected to capture more than 139,000 gallons per year.
The 170-ft tall tank is positioned on a compact site bound by existing roads and structures. The City and the design and construction team solicited extensive input from community representatives, who endorsed making the structure a unique visual landmark. Landmark continues to innovate and has developed projects incorporating wind turbines and solar panels – another example of integrating sustainability advancements into essential public infrastructure.