New Central Library

City of Austin

Dubbed the "library of the future," Austin's New Central Library features modern technology that is green and cost-effective, creating a framework for lifelong learning that bolsters a more resilient community. The building respects the library system's desire to be good stewards of water resources in an area of Texas that regularly experiences drought and is subjected to water restrictions. A 373,000-gallon cistern captures roof rainwater and HVAC condensate, which provides water in the restrooms as well as irrigation for the landscape and vegetated roof. This on-site supply is backed up by the city's reclaimed "purple pipe" system.

Electronic shades for the main central windows automatically raise and lower depending on the brightness and heat, and solar panels located on top of the main building and over the rooftop garden power about a third of the building. The solar system is comprised of three arrays with a total of 567 solar panels which total 182 kW-dc (about the same size as the Palmer Events Center array on Barton Springs Road). This is equivalent of 21 Austin residences' annual kWh consumption.

"The new living room for Austin."

Jonathan Smith
Design Architect
Lake Flato Architects

- Comprehensive, integrated use of alternative on-site and reclaimed water sources, featuring a Green Roof, solar power and energy efficiency measures

- 89% of annual water demands met from on-site alternative water sources and reclaimed municipal treated wastewater

- Annual average potable water offset of 1.88 million gallons, a yearly savings of over $28,200 in water/wastewater charges

- One of six libraries nationwide recognized for excellence in architectural design by the American Institute of Architects and the American Library Association

- Selected as one of TIME Magazine's 2018 World's Greatest Places

- On track for LEED Platinum certification

New Central Library

City of Austin

System Design

Rainwater/Condensate from Library

Toilet flushing

Irrigation

Reclaim backup

Meter

Cartridge/Bag filter x2

UV disinfection x2

Intake pump

Distribution pump x2

Meter   Meter

Day use tank 1200 gallons

Treatment system

Off-site cistern 700k gallons
350k water storage
350k water quality volume