THE 2025 SAWYER FREE LIBRARY

BUILDING A SUSTAINABLE FUTURE





SUSTAINABILITY COMMITMENT:

Achieve LEED v4 Gold Certification and Mass Save Path 1 Zero Net Energy (ZNE) Readiness

This project integrates three distinct structures with complete renovations of the Library's 1976 and 1913 buildings and an expansion of the footprint with a new 14,000 sq. ft. addition. The 2025 Sawyer Free Library is a next generation building and presents a leading example of sustainability for public buildings on Cape Ann and the North Shore.



ENERGY

The 2025 Sawyer Free Library aims to achieve zero-net energy through a three-pronged approach: reduce and control use through energy-efficient features; generate renewable energy onsite through solar; and purchase additional electricity from a 100% renewable clean energy source.

Energy-efficient features

- All-electric air source VRF (Variable Refrigerant Flow) heat pump with DOAS (Dedicated Outside Air Handling System)
- Air source heat recovery condensing units
- Building automation and energy management system
- Heating and cooling zone scheduling and demand control
- Professional basic and enhanced commissioning
- 450 High-efficiency LED light fixtures
- Smart lighting controls with occupied/non-occupied sensors
- Motorized window shades
- On demand electric domestic hot water heater
- High performance exterior envelope assemblies, fenestration and insulation
- · Systematic energy metering and sub-metering



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ENERGY (Continued)

Renewable energy generation and storage

- 1,300 sq. ft. rooftop PV solar array
- Phase two expansion for 1,250 sq. ft. parking lot and 1,250 sq. ft. rooftop PV solar array
- Battery storage ready

Energy source

• Purchase additional energy from 100% renewable clean energy source (hydro/solar/wind)

Results: Eliminate fossil fuels for the building's site energy Reduce energy use intensity (EUI) from 85 to below 30 Minimize greenhouse gas emissions



WATER

The 2025 Sawyer Free Library conserves water by increasing the use of rainwater for outside purposes and installing water-efficient features to reduce and control use of drinking water.

Water-efficient features

- Stormwater drains harvesting 150,000 gallons from roof runoff per year
- Drip and sprinkler rainwater irrigation
- Permeable pavers at both entrances to decrease water run off
- Native and drought-resistant trees, shrubs, grasses, groundcovers and perennials
- Low flow plumbing fixtures
- Systematic metering and sub-metering
- Water storage
- 8,000 rainwater collection tank meeting 100% of the watering needs

Results: Reduce potable water consumption by xx% Eliminate domestic water for outdoor use



TRANSPORTATION

The 2025 Sawyer Free Library aims to reduce gas powered vehicles traveling to the Library by providing amenities for low carbon transportation options.

- 2 EV Level 2 charging stations
- Hub for bikes and e-bikes

Results: Reduce greenhouse gas emissions from vehicles

For more information about 2025 Sawyer Free Library: Building a Sustainable Future, visit: www.sawyerfreelibrary/sustainability.org



