



Lunenburg Middle-High School

Lunenburg, Massachusetts

GENERAL INFORMATION

Location: 1079 Massachusetts Ave
Lunenburg, MA 01462

Project Cost: \$59,182,743

Scope: 168,018 ft²

Cost Per Square Foot: \$352.24/ft²

Completion: December 2016

Enrollment: 820

Architect: Tappé Architects

Engineers: Architectural Engineers; TMP
Consulting Engineers

Certification: MA-CHPS Verified Leader

PROJECT OVERVIEW

The new Lunenburg Middle-High School is a 168,018 ft² new construction building. Breaking ground on October 18, 2015 and finished for grand opening on October 22, 2016, the joint middle and high school houses 820 students in grades 6-12. The building includes STEM and collaborative spaces, including a greenhouse to support its horticultural program. The architects and builders on the project utilized innovative practices and high performance features throughout the physical building resulting in a healthy, energy-efficient school. Management of materials was fully considered during all stages of the building process, allowing for the project to divert 97 percent of construction waste away from landfills.

In addition to the numerous energy efficiency features of the school, a rooftop PV array became operational in 2017 that contributes towards

approximately 40 percent of the school's electricity needs. Additionally, the school's design is fit for controllability and functionality ensuring that all occupants can adjust their environment per their needs using individual thermostats and lighting controls with dimming capabilities.

Through the inclusion of educational signage, an outdoor classroom, and a greenhouse, students and the greater community benefit by using the physical building as a teaching tool. The school also adheres to a green cleaning policy where cleaning materials that are not harmful to the occupants or the environment are used, thus helping keep the indoor air quality free of harmful gases and pollutants. With comfort and efficiency in mind, this new school is exemplary in its function for occupants and the community at large.



All photos credit Tappé Architects

SUSTAINABLE DESIGN ELEMENTS

Indoor Air Quality

- All entrance doorways designed using two-phase cleaning system
- Interior materials certified to have low VOC emissions
- Policy for green cleaning

Landscaping

- Drought tolerant and native plants that don't require irrigation beyond initial two-year period
- Shaded outdoor classroom, enveloped in greenery and vegetation where learning can happen

Daylighting

- Skylights bring natural light to main circulation spaces
- Glazing to give maximum views and provide optimum daylighting while minimizing glare

Energy Efficiency

- Exterior walls have an average value of R-24
- Roof has an average value of R-30
- ENERGY STAR equipment
- Daylight sensors

This case study was prepared by NEEP with information provided by **Tappé Architects**.

To learn more about this project, please contact:

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