



Hildreth Elementary School

Harvard, Massachusetts

Designed for high performance, well-being, and discovery

Hildreth Elementary School was designed to connect with the historic Town of Harvard through its siting, relationship to the Town Library and walk, and create as much open space as possible along Massachusetts Avenue. The site will feature native plant species, a walking loop, and bioretention area collecting rainwater to filter it naturally back into the ground. All the materials for the ceilings, flooring, paint, and furniture are low emissions. The building uses radiant panels in the ceiling to provide consistent, energy-efficient heat. Fresh air and ventilation are provided through perforated panels in the walls referred to as displaced distribution. This type of system improves air quality and thermal comfort with less noise. The air is conditioned to remove humidity and provide cool air in the warm seasons. All plumbing fixtures are water efficient. The roof will be covered with solar PV panels to generate renewable energy to offset building energy use. The building has a high-performance enclosure with additional insulation, energy-efficient glass with sunshades on larger areas, and dimmable lights that adjust based on the amount of natural daylight available. All comes together to provide a forward-looking town resource for current and future students.

BUILDING FEATURES

- » **Designed for 445 students**
- » **Grades PK-5**
- » **GSF: 85,000 SF**
- » **pEUI: 40**
- » **Lighting Power Density: 0.6**
- » **Energy Use: 1,008 MWh
3,439 MBtu**
- » **PV: 289 MWj**
- » **Energy Reduction (Code): 37%,
67% with PV**





Supporting Harvard student development

The building's unique design uses break-out spaces and different classroom arrangements to provide opportunities for growing independence as students advance in the school. Every grade has at least four classrooms consistent with current district class sizes. These classrooms were designed with natural daylight, acoustic separation, fresh air supply, and furniture with flexibility—all of which affect student learning. In the younger grades, there are learning areas or 'zones' within the classroom and a large clear hallway for additional learning opportunities. As a student advances, there are break-out areas within view of the classrooms to provide growing independence. Technology is integrated throughout the school, with specific innovation spaces to grow additional STEAM curriculum.



Community-based spaces are located at the center of the building providing equitable access and encouraging use while school is in session and as a community resource after hours.

At the heart of the school are the library/media center and the learning stair, two spaces that speak to a community committed to learning and coming together. As you look out from the media center, the Town Library is framed in view. Designed to be a community resource, these spaces were designed to have access both during and outside of school hours. The new gymnasium and performance stage allows for flexibility and multiple functions. The cafeteria is its own independent space which will overlook the playground and fields to be completed in Fall 2021. Additionally, the District offices are located on the first floor with conference rooms available for public use.



Connections to local natural features and the larger world

A building must speak to all ages as a teaching tool. You will find graphics throughout the school that provide opportunities for the students (and adults) to learn more about their town, nature's life cycles, biomes, map projections, and some of the world's most important natural landmarks. At the center of the school, there is an 82' long mural that includes a local map of Harvard at the top of the learning stair, an apple orchard celebrating the prior use of the school land, and a world map spanning both floors at the media center to remind students of their larger place in the world.