

# GREEN STREET ACADEMY

125 N. Hilton St. Baltimore, Maryland

## PROJECT CATEGORIES

- K-12 Education Architecture
- Excellence in Sustainable + Resilient Design
- Existing Building Renovation | Adaptive Reuse

Green Street Academy (GSA) is an innovative public charter middle high-school inspiring scholars with **SUSTAINABILITY** and preparing them for college and career through project based learning. This redevelopment project transformed the former Gwynns Falls Park High School from near abandonment to a community anchor, and it is now a state-of-the-art, sustainable building shaping a generation of citizens prepared to create a greener and more sustainable world.

The school achieved a **LEED PLATINUM** certification from the U.S.G.B.C. under the Schools 2009 rating system. This is the highest rating achievable and ranks GSA in the **TOP 4%** of all schools. In fact, as of the date of certification, May 2016, it is the **second largest certified platinum project in the world** and the only one in Maryland and Baltimore.

What is also impressive to note, is that the project was completed within an eight month construction schedule and on a budget of \$132 per square foot - a much lower cost than typical schools.



Transforming a place, Inspiring students, Engaging the community





**“The greenest building is the one you don’t have to build.”**

The former Gwynns Falls Park High School, originally constructed in 1925, had sat nearly vacant for over 20 years in an urban site in West Baltimore at the start of construction. This redevelopment project understood the **DURABILITY**, value and **BEAUTY** of the existing building and elements, adapted them to the present needs of the school, and also promoted **FLEXIBILITY** and **ADAPTABILITY** for the future. Reusing and restoring this forgotten but beautiful building to its original function is a testament to the Green Street Academy’s mission and centerpiece around sustainability.

PRE-CONSTRUCTION - EXTERIOR AND INTERIOR







TYPICAL CLASSROOM (ABOVE)  
(PRE-CONSTRUCTION BELOW)





MIDDLE SCHOOL SCIENCE LAB (ABOVE)  
(PRE-CONSTRUCTION BELOW)





## **SUSTAINABILITY and RESILIENCY**

strategies were integrated into the process and project.

### **Site (Regional & Community Design)**

- Connections to community and neighborhoods
- Shares building & site with Kingdom Life Church
- Allows school to grow in future with master plan
- Supports public transportation, bikes, & pedestrians
- Reduces total amount of parking & shares with church
- Preferred parking for fuel efficient vehicles & carpools
- Maximizes open space & outdoor learning areas
- Reduces “heat island effect” with reflective roofs

### **Water (Water Cycle)**

- Uses water efficient landscaping
- **30% modeled water use reduction**
- Reduces kitchen process water use

### **Energy (Energy Flows & Energy Future)**

- **38% modeled energy reduction**
- Enhanced commissioning system verification
- **7.5% on-site renewable energy** with photovoltaic parking canopies

### **Materials (Materials & Construction)**

- **Reuses 100%** of existing building's walls, floors, roofs
- **Reuses 66%** of existing interior non-structural elements
- **84% of construction waste** diverted from landfills
- **41% recycled** materials installed
- **20% regional** materials installed

### **Indoor Environment (Light & Air)**

- Indoor air quality during construction & occupancy
- Provides acoustical performance for all learning areas
- Installs low emitting (no-to-low VOC) materials
- Group & individual control - thermal comfort & lighting
- Provides daylight and views to exterior



**LAND USE and SITE ECOLOGY** strategies and goals were further developed in an overall master plan to use for fund-raising and grant opportunities. The plan is described in four “landscapes” and includes transforming the site into a living laboratory with educational signage and opportunities for gathering, demonstrating, producing, experimenting and learning.

**The Landscape of Demonstration**

- 1. Habitat Conservation Meadows
- 2. Water Resource Exhibit (with Cistern Fed Gardens)
- 3. Entrance Canopy with Green Roof

**The Landscape of Production**

- 4. Community Fruit Orchard
- 5. Farms--Hoop Houses & Raised Garden beds (Chickens & tilapia fish farm not shown)
- 6. Renewable Energy Array (PV parking canopies, sunflowers fields & Renewable energy research zone)

**The Landscape of Learning**

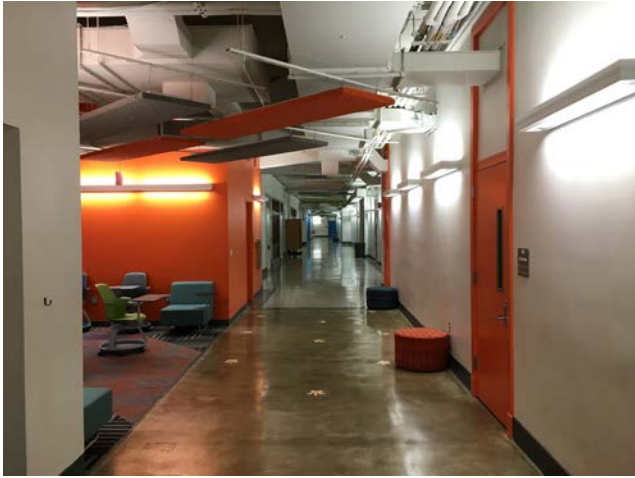
- 7. Global Outdoor Classroom (with Bio-retention & Wetland Habitat)
- 8. Flexible Recreation Fields / Space

**The Landscape of Experimentation**

- 9. Interactive Aquaponics Center (enclosed courtyard with media beds, raft beds, aquaculture tanks, & vertical gardens)
- 10. Forestry Laboratory







To assist the **875 STUDENTS** with wayfinding and navigating the **111,000 SQUARE FEET** in a symmetric floor plan - a color scheme highlights classroom doors, ceilings and stairways, separating the north and south loop on each floor.







MEDIA LAB READING ROOM (ABOVE)  
(PRE-CONSTRUCTION BELOW)







GYM / CAFETERIA (ABOVE)  
(PRE-CONSTRUCTION BELOW)





**DESIGN and INNOVATION**  
**REGIONAL and COMMUNITY DESIGN**  
**COLLECTIVE WISDOM and FEEDBACK**

This project enables Green Street Academy to realize its **VISION** of integrating student learning and community impact by providing state-of-the-art technology, science labs, expanded academic and health services, green space for environmental studies, athletics, and adult workforce training.

GSA **FARMS** teaches science, math and entrepreneurship, with students selling vegetables to local businesses like Woodberry Kitchen and Classic Catering. With additional greenhouses, students could include additional restaurant sales, a farmer's market, community supported agriculture for the neighborhood, as well as the ability to reinvest the proceeds into school programming.

GSA is now also able to fulfill a goal the founders had at its inception: creating a **COMMUNITY CENTER** open to families and the surrounding community. While the focus is on career education for students during the day, the same can happen off-hours for the students families and the neighborhood – eventually offering a full adult training site, directly connected with local employers.

From near abandonment to a community anchor, the school is now a state-of-the-art, sustainable building showcasing the best of education in Baltimore City and is filled with students and families who believe in the promise and potential of Green Street Academy.



FUTURE AQUAPONICS CENTER (TOP and LEFT)  
PHOTOVOLTAIC PARKING CANOPIES (BELOW)

