

GROWING FORWARD

The St. Louis region is acclaimed as one of the most generous per-capita donor communities in the nation. Thanks to this culture of giving, **THE GREEN HOUSE VENTURE** has been able to make substantial progress in the short time of its existence, attracting nearly \$225,000 to date from a diverse donor base.

Those funds have been used for key initiatives such as the construction of the I-44 Embankment Education Garden, the acquisition of The Green House Education Center site, the Summer Adventure Camp, and marketing communication efforts to raise support for the Venture's mission and awareness of its accomplishments.

Notable contributors include The MySun Foundation, Ameren Corporation Charitable Trust, the Kerr Foundation, the Great Rivers Confluence Foundation, John and Joan Vatterott Family Foundation, the Saigh Foundation, as well as the Venture's board of directors. Additionally, many St. Louis businesses and individuals have contributed significant time and talent on a pro bono basis to the organization's activities.



Donors are a vital part of any creative and dynamic community that appreciates the unique potential of innovative programs like THE GREEN HOUSE VENTURE. We believe this undertaking can set a nationwide standard of excellence for elementary education in bioscience and urban agriculture. Achieving that goal will require considerable support and resources, and we welcome the involvement of individuals and organizations who share our passion for pursuing that vision.



THE GREEN HOUSE VENTURE
IMPROVING SCIENCE
EDUCATION AND
CHILDHOOD NUTRITION

PROGRESS REPORT: MAY 2018



Students working on scientific experiments in an Alliance school laboratory

In 2015, a group of professors from Saint Louis University joined with teachers, biologists, growers, designers and urban developers to work on an innovative STEM learning center focused on bioscience education. That initiative led to the creation of THE GREEN HOUSE VENTURE with its mission to educate, excite and equip elementary students to pursue a sustainable world.

The Venture's work is guided by three main goals:

- 1** Introduce children to a rich, hands-on learning experience that improves bioscience education
- 2** Increase student knowledge of and appreciation for proper nutrition, and encourage children and their families to adopt healthier everyday eating habits
- 3** Lead more students to careers in bioscience to meet the pressing need to fill emerging jobs in science and agriculture

URBAN EDUCATION ALLIANCE



The core of **THE GREEN HOUSE VENTURE** is the Urban Education Alliance, which consists of four independent elementary schools with more than 2,000 racially and socially diverse students, coming together in a collaborative community setting from 58 zip codes throughout the St. Louis region:

- St. Margaret of Scotland (Parochial)
- Mullanphy Investigative Center (Public Magnet)
- Tower Grove Christian Academy (Christian)
- St. Louis Language Immersion (Charter)

THE GREEN HOUSE VENTURE MAJOR AFFILIATIONS

THE GREEN HOUSE VENTURE has attracted enthusiastic interest and involvement from numerous institutions and organizations, all providing vital support and encouragement to further its mission.

Foremost among key collaborators has been Saint Louis University, which has played a major role in the creation and ongoing development of the program. Other notable educational contributors include Washington University, Harris-Stowe State University, and St. Louis Community College.

KEY ACCOMPLISHMENTS

The first three years of the Green House Venture's efforts have produced an impressive list of accomplishments that are providing a strong foundation for the future:

- 1 Executed Memorandums of Agreement for the formation of the Urban Education Alliance, a collaboration of four diverse and separately owned elementary schools in the South Central Corridor of St. Louis City
- 2 Executed Memorandums of Understanding for collaboration with Saint Louis University, Tower Grove Park, and Gateway Greening
- 3 Completed design and preliminary architectural drawings for the main educational facility
- 4 Launched the Ambassadors Program, the Venture's initial educational curriculum
- 5 Initiated the Adventure Summer Camp
- 6 Purchased land for the future construction of **THE GREEN HOUSE VENTURE** Education Center and four other educational garden areas
- 7 Obtained necessary lease and permit from MODOT to develop the I-44 Embankment Education Garden in June of 2018
- 8 Launched **THE GREEN HOUSE VENTURE** web site and attracted notable media coverage
- 9 Selected as a 2018 recipient of the *What's Right with the Region* award, sponsored annually by FOCUS St. Louis



CURRICULUM HIGHLIGHTS: AMBASSADORS PROGRAM

Over the past two years, student representatives from the four Alliance schools have gathered as ambassadors in a common location once a week for a year-long, hands-on exploration of Bio-Science, Soil Science and Weather.



The vibrant curriculum has been developed through an ongoing collaboration with teachers and leaders from elementary, high school and university systems. The program is designed to complement the science education at each school, so Green House instructors collaborate closely with the science teachers in working with the student ambassadors.

The learning continues throughout the week at each of the schools where students care for the plants and collect data from experiments. They also carry out related experiments in their classrooms with the aid of their teachers and our visiting Green House outreach instructor so science education is fully integrated.

In the program, students explore a variety of soil, aquaponic and hydroponic systems. They gain confidence as they learn to communicate about their findings in blogs, skits and presentations, sharing what they have learned with fellow students at their schools. Students also gain an important understanding of the culture of science as they interact closely with faculty and undergraduate mentors from Saint Louis University and Harris Stowe State University.

FUTURE PLANS

Once the overall Venture complex of growing areas is completed, it will feature a unique array of learning methods and resources:

- Food computers that will be used in the Fall 2018 Ambassadors Program
- Growing galleries with fish-breeding tanks and soilless beds
- Floating rafts, wicking troughs and growing towers (all using fish waste to nourish the plants)
- Demonstration kitchen
- Multi-purpose classroom and lab
- Solar arrays and hydrogen cells
- An ozone garden
- A weather station
- Sustainable heating and cooling systems
- Rainwater collection systems for irrigating plants and minimizing runoff

Students will work on a variety of educational gardens, the largest of which is the Embankment Garden that runs alongside Interstate Highway 44. This 3.5 acre area will include a pollinator prairie planting, native fruit tree plantings, a section of raised beds, terraces and demonstration plantings. Designs for this phase are complete, and construction is set to begin in summer of 2018.

