

Joy GARDEN

Project Title: The Joy Garden

Client: Northside College Preparatory High School (NCPHS)

Location: 5501 N. Kedzie Ave. Chicago, IL 60625

WHO

Lead Designers: Nicholas Petty (Master of Landscape Architecture, University of Georgia '08) and Michael Repkin, Urban Habitat Chicago (UHC)

Construction Team: Nicholas Petty and Mike Repkin, UHC

Student Project Coordinator: Brianna Birman (NCPHS '09)

Project Facilitators: NCPHS, UHC, Community for Alternative Sources of Energy (CASE, student organization headed by Mr. Mike Coy), Brianna and Bathsheba Birman

Labor Resources: Students, staff, and volunteers from NCPHS, UHC, and elsewhere

Donated Material Resources: Ozinga Green Building (pervious concrete and recycled aggregate), Flood Testing Laboratories (concrete test cylinders), Procreate (concrete densifier), Green Cross Building (recycled concrete chunks), Repkin Biosystems (soil amendments, tools, greenroof media), Silbrico (perlite), Chicago Park District, Department of Streets and Sanitation (woodchips), Larry Azimov (compostable waste), Lurvey Garden Center, Chicago Greencorps, Urban Wildlife Coalition, Conservation International, Morton Arboretum, Ed Koehler, Leva Gershgorn, Craig Williams (plants)

WHEN

- **Conception Phase, 2007-2008** (Logistics, definitions, basic project scope, etc.)
- **Preliminary Design Phase, 2008** (Gauging viability of project, informal design charette, refinement of project scope, grant application)
- **Primary Design Phase, January-March 2009** (Determination of physical layout, preliminary organization of materials and labor sources)
- **Construction Phase, March 2009-Present** (Physical actualization of plan)
 - Student workforce a.k.a. "D.A. Beastz" begins operation, June 2009-Present

WHERE

- Chicago Public-Selective Enrollment School, founded in 1999 (Rated #14 nationwide among public schools by Newsweek magazine in 2008)
- Property located in Chicago's multi-ethnic North Park community accessible from most points in the City via public bus or private automobile

- Former industrial site, or “brownfield” (U.S. Army Reserve post, Streets and Sanitation salt facility [Definitely], limestone quarry [Maybe. This has yet to be determined])
- Salt contamination and extreme compaction due to previous uses (and construction of the school itself) led to the conclusion, supported by on-site observation and testing, that nothing of substance would grow under pre-existing soil conditions



- Campus situated directly adjacent to pedestrian-friendly corridor (featuring solar-powered light fixtures) of North Shore Channel (NSC) along eastern edge of property
- The Joy Garden occupies a semi-private 12,000 sf site facing east towards the waterway. Prior to project, stormwater drained directly into NSC via storm sewer.
- Prominently located at the physical and symbolic nexus of academic and social spheres of interaction. The plot is bordered on three sides by (in no specific order) indoor athletic facilities, a cafeteria, an outdoor seating plaza, the library, teacher’s lounge, special needs classroom, a workout atrium, and elevated classroom space.

WHY

- To demonstrate the viability of a fully-sustainable approach to landscape design, construction, and the utilization of material-based technologies - recycled or otherwise.
- To bring the sights, sounds, smells, and – above all else – joy of the outdoors to students who may be otherwise deprived by physical handicap and/or inadequate access to (quasi-) vegetated sites. Educational opportunities are limitless in addition to the psycho- and physiological benefits demonstrably afforded.
- To honor the legacy of Samantha Joy Birman, deceased and profoundly disabled aunt of Student Project Coordinator Brianna Birman
- To definitively address site-specific concerns associated with environmental quality and accessibility in a place of juvenile learning.
- To cultivate a sense of campus ownership and identity in students, staff, and faculty via the reinforcement and creation of “place” that will ideally resonate through considerably broader realms as the project matures.
- To provide a successful example of the seamless confluence between the three-fold qualities of good design in the 21st Century: ecology, community, and aesthetic delight.
- To illustrate what is ultimately possible by virtue of will and teamwork in the absence of adequate financial and material resources (noticeably lacking during this period).
- To establish a war era-like public footing towards the preservation of public health and national security via environmental stewardship and innovation.



- To educate and empower past, present, and – in particular – future generations with the power of grassroots activism, volunteerism, and the will to generate positive change through sustainable projects and environmental stewardship.

Project Objective (as stated in March 2009):

To transform a visually-prominent 12,000 sf former brownfield situated adjacent to NCPHS along the North Shore Channel into a multi-functional microenvironment with particular emphasis upon providing for the requirements of special needs students. The plan will expand and improve upon a modest extant agricultural function via enhanced accessibility features and a design strategy that seeks to sate the sensory proclivities of individuals all too often excluded from the joys of immersion within a traditional garden environment. In this regard, the Joy Garden represents an important step towards creating the ideal educational setting envisioned upon the founding of the school in 1999.

Through the interplay of the myriad textures, colors, sights, and smells indigenous to the Northern Illinois landscape, the Joy Garden will allow for an improved degree of hands-on interaction between students and the natural world that surrounds them daily. The inclusion of innovative, ecologically-focused approaches such as pervious pavements, building material reuse, and stormwater management techniques will also provide valuable examples of responsible design for students, faculty, and parents who may choose to pursue or advocate the sustainable goals of the 21st Century. Furthermore, the enhanced integration of vegetation within an urban site otherwise devoid of acceptable habitat will provide refuge for local wildlife (beyond the ubiquitous gaggles which currently loiter about the campus on a daily basis) and potentially provide a template for future development on CPS property and elsewhere.

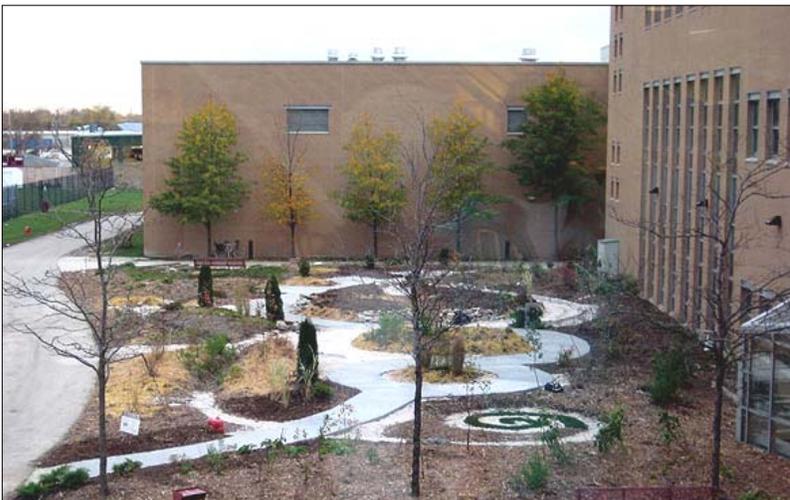
WHAT

- The Joy Garden provides universal accessibility to the garden and its resources via pervious concrete pathways and specially-engineered planting scenarios that bring plant materials to wheelchair accessible height.
- The design allows for fully comprehensive, sustainable management of on-site stormwater in a manner previously absent in school gardens and most developed



sites in general. Using pervious concrete pathways, recycled concrete aggregate, pervious rip-rap, and an extensive network of storm swales and biofiltration checkpoints, the garden has become an engineered “living” entity performing ecosystemic services rendered innocuous by previous development. In this sense, it is both a re-creation, and man-made improvement upon, natural processes which would otherwise handle the issues mentioned.

- Through extensive soil remediation and regeneration practices (a calculated response to extreme on-site salt contamination and compaction), the Joy Garden is able to facilitate the growth of limitless varieties of edible foodstuffs to be enjoyed by the community-at-large. Furthermore, by educating students, staff, and faculty in regards to the viability of local, organically-produced agricultural endeavors, it is possible to begin the practice of redefining our urban food structure here in Chicago.
- In the general absence of acceptable wildlife habitat along the NSC and beyond, the garden provides for planting schemes that provide food and shelter for small mammals, birds, and invertebrate species that symbiotically reinforce a connection with the natural ecology of the site.
- The garden has provided education via successful demonstration. This sphere of influence has extended far beyond the immediate confines of NCPHS to include politicians, community leaders, and concerned citizenry. Without question, the germination of ideas fostered through this project will resonate outward into future projects with and without assistance from the primary organizers.
- The design and refinement of on-the-ground details is a testament to artistic vision, ambition, and the ability to create beauty with finite resources. If it were the case that the garden was purely functional and aesthetically dull, the garden would nonetheless retain a certain beauty (in the Classical sense) by virtue of its perfect utility. That the garden is visually striking – before flowering plants and finished appearances have begun to take hold – makes efforts all the more impressive.



- The Joy Garden is a prime example of a true multi-functional space. This definition of functionality hopes to extend beyond the dominant homo-centric model, taking into account the much broader regional ecosystem in which humans are but a single actor. This revised conception serves waterways, plants, and animals because they quietly serve the collective well-being of our species.

- The project has succeeded at most every level in spite of overwhelming material and financial scarcity. Success itself may even be attributed to this factor. It has greatly-reduced the number of potentially-meddling actors involved and “lowered the stakes,” so to speak, allowing those involved to plow ahead with little interference.
- The project methodology provides a low-cost, exportable model for site development at CPS facilities and the City-at-large and an ideal, homegrown case study that can inform future endeavors through future coordinated monitoring efforts.
- The effort put forth on the part of Nicholas Petty and Michael Repkin must be emphasized. They have spent collectively spent 1000+ hours working on the site, guiding volunteers through the construction process through example. Financial compensation relative to the effort to-date and hypothetical budget for such a project (under normal for-profit circumstances) has been minimal. It has been a full-time *pro bono* position for each and has exerted a considerable physical and financial toll upon both men. However, this is not a sob story. It has been an unqualified triumph of will “financed,” so to speak, by an unwavering commitment to doing things the right way (even if it can appear stupid or redundant at times). In doing so, it is evidenced that anyone **can** effect tremendous positive change, even in the most scant of scenarios.

Project Description (November 2009):

The Joy Garden at Northside College Preparatory High School, slated for completion in Spring 2010, represents an ideal confluence of ecology, community, and aesthetic delight. Utilizing an all-volunteer workforce (student and non-student alike) and relying solely on recycled material donations from local Chicago businesses, the design enlivens a once-featureless former brownfield site adjacent to the North Shore Channel to provide an productive outdoor educational setting catering to special needs students. The project balances simple, innovative stormwater management, soil remediation, and urban agricultural techniques - such as pervious concrete pathways (generously donated by Ozinga Green Building) and biofiltration sequencing - to educate and empower both the community and an incoming generation regarding the innumerable possibilities available through responsible site design and a practical sustainable approach.

HOW

- Labor has been performed on an all-volunteer basis. Special recognition must be granted to the skilled student labor force know as DA (Dirt Actualizer) Beastz (name selected by students) that came aboard as part of a one-month CPS summer work program in July and has continued to put in extensive site hours despite the end of their employment term.
- The formation of a student-based leadership community



has been critical. DA Beastz, and the concurrent formation of a garden club under their guide, have effectively made the project a “crossover” success that has been wholly adopted by the student, staff, and faculty population at NCPHS to the point where garden-related images have appeared on official Class of 2012 t-shirts.

- Reliance upon hand-labor and a corresponding reluctance to use electric or gas-powered tools has created a volunteer workforce intimately connected to the site via hands-on interaction.
- One cannot marginalize the role of the educational environment cultivated at NCPHS. Students display an open willingness to learn and involve themselves in school affairs. Furthermore, the inherent intelligence of the student population has allowed student volunteers to grasp key concepts and work instructions in little or no time. For instance, all DA Beastz members have become fully-certified in the installation of pervious concrete, a skill that few currently possess at the veteran professional level.



- Student involvement and the constant presence of familiar faces on-site has yielded a sense of personal ownership that would not have been present under typical conditions. Historically, planning and construction processes take place independently of student involvement; anonymous workers descend upon the property to complete the project in an impersonal manner that fails to connect with the eventual user to the overall detriment of the project.
- Success is infectious. Not all parties have necessarily understood or valued this effort at certain points during the process. However, through raised awareness and an education-based approach, the project has been able to sway public sentiment and generate an enhanced level of project visibility that continues to attract both volunteers and donations alike.
- Materials have been acquired almost exclusively on a donation basis. From pervious concrete pathways to perennial shrubs, the project has relied upon generous material contributions from local Chicago businesses. Particular emphasis must be placed upon the role of Ozinga Green Building during this process. The designers have long been enamored with the possibilities afforded via pervious concrete. With the assistance of Mr. Brian Lutey, VP of Green Building for Ozinga, the garden prominently showcases this innovative approach – along with many others of the type – for the benefit of students, staff, and practitioners alike so that it may be confidently adopted in future design schemes.
- Continual communication and flexibility between design/construction team, volunteers, material providers, and administration has allowed project to move forward without the common pitfalls characteristic of projects of this scope.
- Administrative and faculty support – particularly from Mr. Barry Rogers (NCPHS Principal) and Mr. Mike Coy (teacher, CASE sponsor) – has solidified relationship with client and spawned a broad consensus on the success of the project to-date.
- The process has been particularly successful through daily on-site assessment and re-assessment that has responded to conditions as they become manifest and allowed for modification of design details.
- A policy of constant improvement – a response to the inherent temporal qualities of outdoor sites (growth and decay) – has been adopted to ensure that project will continue to evolve far past the supposed “completion” stage

