

Tools and Strategies to Create a Successful Green Schools Committee

Panelists:

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Co-Chair USGBC Illinois Green Schools Committee

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Stuart Brodsky, AIA, LEED AP BD+C (moderator)

USGBC Illinois Board of Directors

Associate Principal, Cannon Design, Chicago, Illinois

Tools and Strategies to Create a Successful Green Schools Committee

Agenda:

- Introduction - Illinois Green Schools Committee
- River Trails D26 Green School Committee – A Story of Success
 - Step 1 – Tap into Interest, Gain Support from within
 - Step 2 – Green Ribbon Award – Gives Structure
 - Step 3 – Plan Event and Celebration - ‘Green Apple Day of Service’
 - Step 4 – On-going Green Challenge – Community Committee
- Green Apple Day of Service – Sept 2013



ILLINOIS

A photograph showing the silhouettes of several people standing on a balcony or walkway of a modern building. They are looking out over a cityscape with various buildings and greenery. The scene is brightly lit, suggesting daytime.

OUR MISSION: GREEN SCHOOLS WITHIN THIS GENERATION

25% of the population goes to school every day

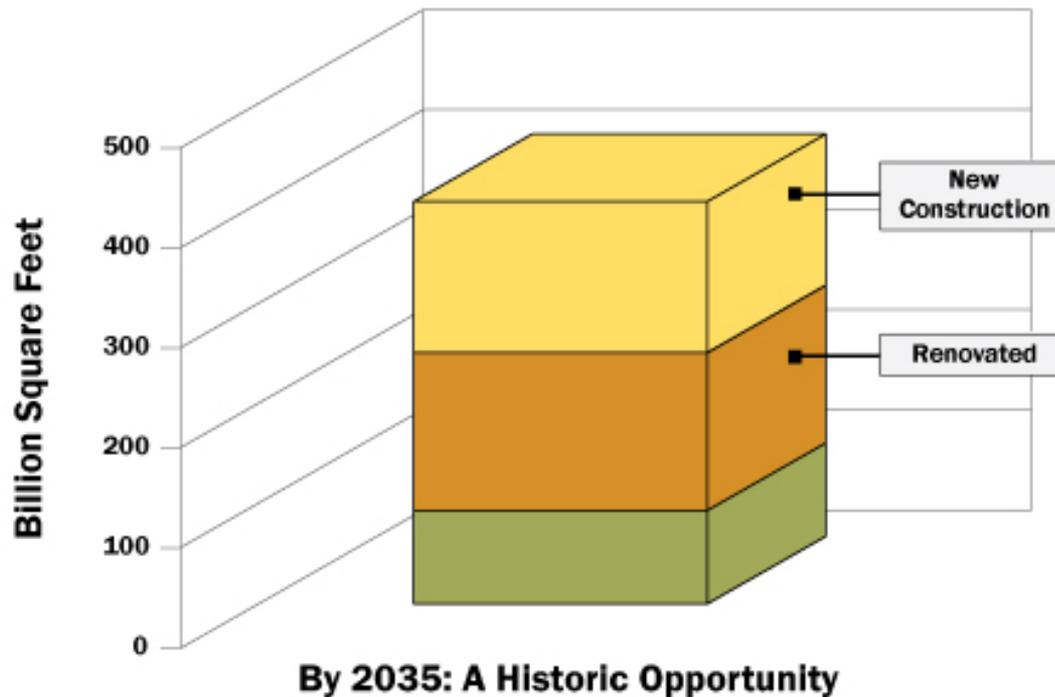
There are **133,000** K-12 schools and

4,300 colleges and universities

Green Schools in Illinois - The BIG Picture - Why?

By promoting the design and construction of new green schools and by greening existing schools, we can make a tremendous impact on student health, school operational costs, and the environment.

Existing Buildings



Source: ©2010 2030, Inc. / Architecture 2030. All Rights Reserved.
Data Source: U.S. Energy Information Administration.

By the year 2035, approximately **three-quarters** (75%) of the built environment will be either new or renovated

River Trails SD26 Goes Green

**Euclid School
and
Indian Grove School**

**Illinois Green Ribbon
Schools**

1st and 2nd in State



U.S. DEPARTMENT OF EDUCATION

GreenRibbonSchools



3 Pillars:

Environmental
Impact and
Energy
Efficiency

Healthy
Environments

Environmental
Literacy

www2.ed.gov/programs/green-ribbon-schools

TIMELINE

Summer 2012: States indicate to U.S. Dept of Ed (ED) their intent to nominate schools

September 2012: States launch selection processes

Fall/Winter 2012: Schools submit completed applications to their state education agencies – check with your state for its deadline!

February 15, 2013: States submit their nominations to ED

March 2013: ED and EPA review nominations; select honorees

April 22, 2013: ED announces honorees

June 3, 2013: ED hosts national recognition award ceremony

Pillar One

Environmental Impact and Energy Conservation

Starts with basic data gathering:

- University of Illinois SEDAC Facility Audit
- LEED for Schools – Architect Checklist
- EPA – Energy Star School
- LEED EB – Existing Buildings

Follow and Record your own Process
Flexibility

Environmental Responsibility

USGBC LEED for Schools - Created to quantify and standardize what a 'green' school is.

Point System check list with 5 categories. Go for the Gold!



Yes	?	No	Sustainable Sites		16 Points
<input checked="" type="checkbox"/>			Prereq 1	Construction Activity Pollution Prevention	Required
<input checked="" type="checkbox"/>			Prereq 2	Environmental Site Assessment	Required
<input type="checkbox"/>			Credit 1	Site Selection	1
<input type="checkbox"/>			Credit 2	Development Density & Community Connectivity	1
<input type="checkbox"/>			Credit 3	Brownfield Redevelopment	1
<input type="checkbox"/>			Credit 4.1	Alternative Transportation, Public Transportation Access	1
<input type="checkbox"/>			Credit 4.2	Alternative Transportation, Bicycle Use	1
<input type="checkbox"/>			Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles	1
<input type="checkbox"/>			Credit 4.4	Alternative Transportation, Parking Capacity	1
<input type="checkbox"/>			Credit 5.1	Site Development, Protect or Restore Habitat	1
<input type="checkbox"/>			Credit 5.2	Site Development, Maximize Open Space	1
<input type="checkbox"/>			Credit 6.1	Stormwater Design, Quantity Control	1
<input type="checkbox"/>			Credit 6.2	Stormwater Design, Quality Control	1
<input type="checkbox"/>			Credit 7.1	Heat Island Effect, Non-Roof	1
<input type="checkbox"/>			Credit 7.2	Heat Island Effect, Roof	1
<input type="checkbox"/>			Credit 8	Light Pollution Reduction	1
<input type="checkbox"/>			Credit 9	Site Master Plan	1
<input type="checkbox"/>			Credit 10	Joint Use of Facilities	1

Yes	?	No	Water Efficiency		7 Points
<input type="checkbox"/>			Credit 1.1	Water Efficient Landscaping, Reduce by 50%	1
<input type="checkbox"/>			Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1
<input type="checkbox"/>			Credit 2	Innovative Wastewater Technologies	1
<input type="checkbox"/>			Credit 3.1	Water Use Reduction, 20% Reduction	1
<input type="checkbox"/>			Credit 3.2	Water Use Reduction, 30% Reduction	1
<input type="checkbox"/>			Credit 3.3	Water Use Reduction, 40% Reduction	1
<input type="checkbox"/>			Credit 4	Process Water Use Reduction	1

Yes	?	No	Energy & Atmosphere		17 Points
<input checked="" type="checkbox"/>			Prereq 1	Fundamental Commissioning of the Building Energy Systems	Required
<input checked="" type="checkbox"/>			Prereq 2	Minimum Energy Performance	Required
<input checked="" type="checkbox"/>			Prereq 3	Fundamental Refrigerant Management	Required
<input type="checkbox"/>			Credit 1	Optimize Energy Performance (2 pt minimum)	1 to 10
<input type="checkbox"/>				10.5% New Buildings or 3.5% Existing Building Renovations	1
<input type="checkbox"/>				14% New Buildings or 7% Existing Building Renovations	2
<input type="checkbox"/>				17.5% New Buildings or 10.5% Existing Building Renovations	3
<input type="checkbox"/>				21% New Buildings or 14% Existing Building Renovations	4
<input type="checkbox"/>				24.5% New Buildings or 17.5% Existing Building Renovations	5
<input type="checkbox"/>				28% New Buildings or 21% Existing Building Renovations	6
<input type="checkbox"/>				31.5% New Buildings or 24.5% Existing Building Renovations	7
<input type="checkbox"/>				35% New Buildings or 28% Existing Building Renovations	8
<input type="checkbox"/>				38.5% New Buildings or 31.5% Existing Building Renovations	9
<input type="checkbox"/>				42% New Buildings or 35% Existing Building Renovations	10
<input type="checkbox"/>			Credit 2	On-Site Renewable Energy	1 to 3
<input type="checkbox"/>				2.5% Renewable Energy	1
<input type="checkbox"/>				7.5% Renewable Energy	2
<input type="checkbox"/>				12.5% Renewable Energy	3
<input type="checkbox"/>			Credit 3	Enhanced Commissioning	1
<input type="checkbox"/>			Credit 4	Enhanced Refrigerant Management	1
<input type="checkbox"/>			Credit 5	Measurement & Verification	1
<input type="checkbox"/>			Credit 6	Green Power	1

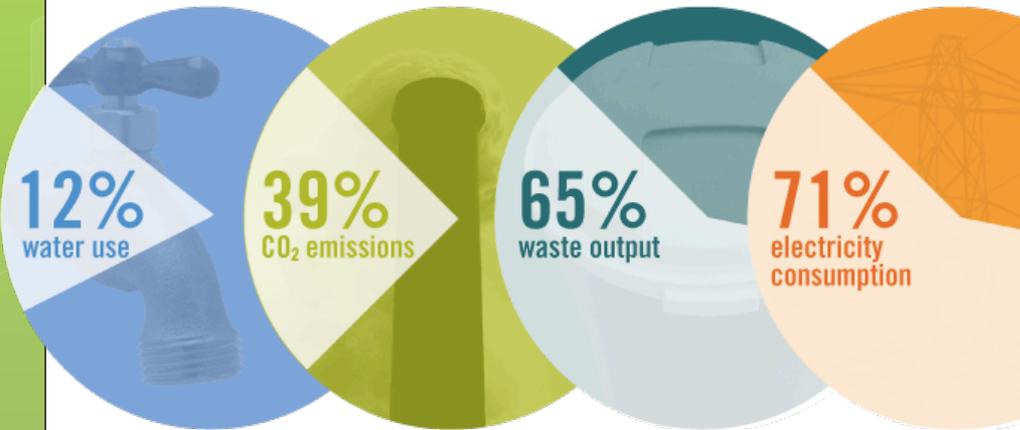
Yes	?	No	Project Totals (pre-certification estimates)		79 Points
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Certified: 29-36 points, Silver: 37-43 points, Gold: 44-57 points, Platinum: 58-79 point		

Environmental Responsibility

Americans consume 25% of the world's energy by only 5% of the earth's population.



U.S. Building Impacts:



Buildings:

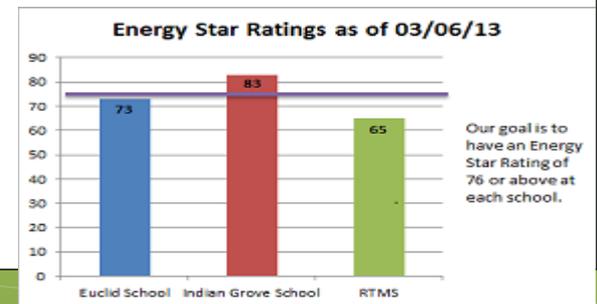
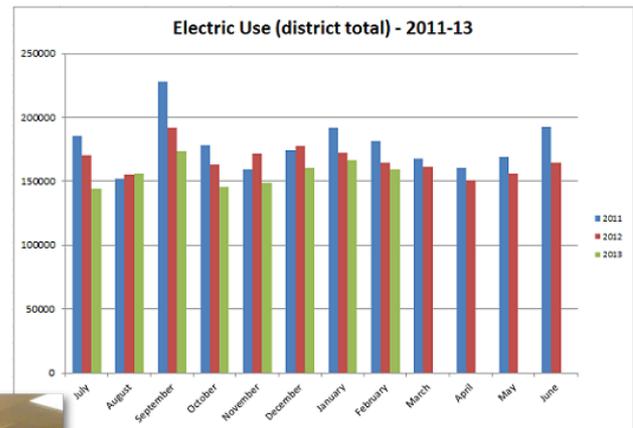
- Consume almost 40% of all energy
- Add 40% to atmospheric emissions
- Use 68% of all electricity
- Use 12% of all freshwater
- Use 88% of all potable water
- Take up to 40% of municipal solid waste stream

Americans spend as much as 90% of their time indoors

Pillar One

Environmental Impact and Energy Conservation

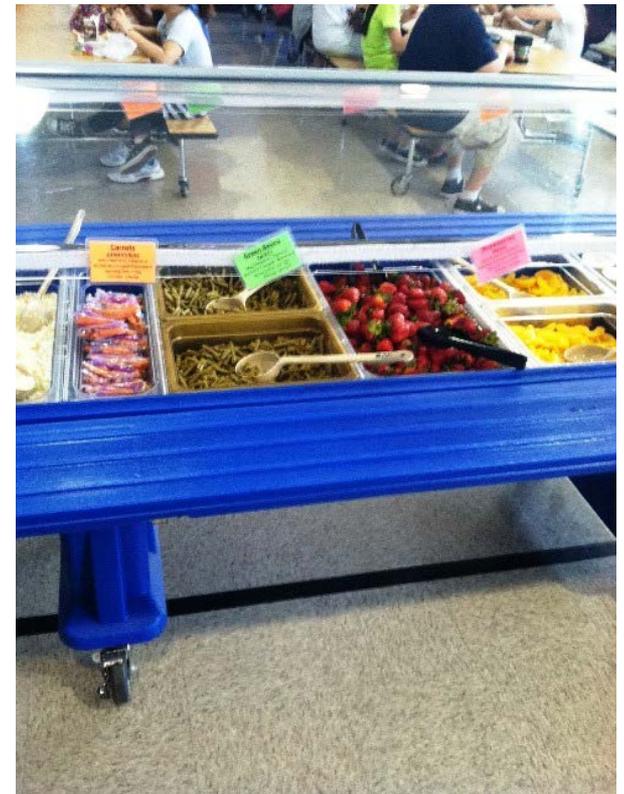
- Lighting retrofit and occupancy sensors
- Limit electrical appliances, timers on computers
- HVAC computer controlled
- White SEBS roofing – high reflectivity
- Reduced paper and printing consumption
- Water conservation – no irrigation, renovated washrooms
- Recycling
- Walking and biking
- Green cleaning products
- Bio-diesel buses



Pillar 2

Healthy Environments

- Green Cleaning Products
- Windows in every classroom – Natural light and ventilation
- Fresh fruit and vegetable salad bar
- USDA Healthier US School Challenge Gold Award at Euclid
- PE Daily and Outdoors whenever possible
- 'Wellness Policy and Committee'



Healthy Environments

VOC's (Volatile organic compounds) Indoors are emitted as gases from a variety of building materials

Natural Light and Ventilation



Green Cleaning

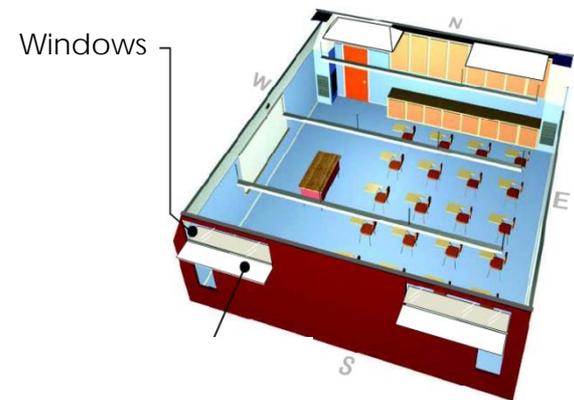
- Mandatory in Illinois
- Reduce contaminants in building with little environmental impact



'Green Classroom Professional Certificate Program'

For teachers to foster best practices in own classroom

Certificate Class at Fall Symposium & online



Pillar 3

Environmental Literacy

- Teaches recycling and sustainability practices



Innovation & Design



School as a Teaching Tool

- LEED credit for developing a curriculum based on the building as a 'teaching tool', specifically "the relationship between human ecology, natural ecology, and the building".
- Have a way to track the building energy/water usage



Stewardship



Green Schools Community Committee

Established:

- Provides Civic Engagement.
- The goal was 10 to 12 people on the committee representing:
 - District Administration
 - School Board
 - Park District
 - Village of Mt Prospect
 - Mt Prospect Chamber of Commerce
 - Legislature
 - Parents
 - Teachers
 - Other Community – Library, Architect, Energy Companies, Custodial Supply Company

Green Schools Community Committee

Mission

River Trails Green Schools will lead the way in promoting environmental sustainability within our community and schools by inspiring our students and staff to protect the environment and be responsible global citizens.

Vision

- Empower students and the community to understand their natural world and their impact on it.
- Provide opportunities for students to make connections between the science they learn and the science they experience in their natural environment.
- Create opportunities for the community and school to understand how people, energy, and the environment are dynamically interrelated.
- Promote the health and well-being of students, staff, and community.
- Instill a sense of respect and ownership of one's environment that fosters advocacy and activism.

Green Schools Community Committee

- Subcommittees

- Education

- Garden

- Student Involvement/Civic Engagement

- Public Relations/Collaboration

It Takes a Village

El Jardin De Los Suenos
The Garden of Dreams

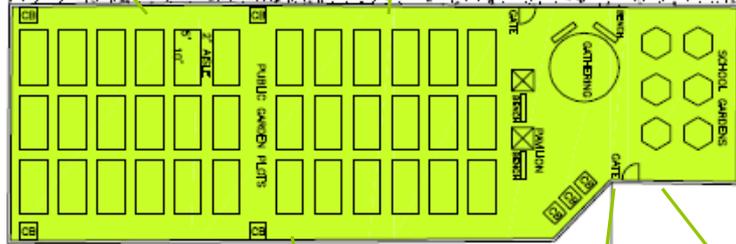


FGM ARCHITECTS



GARDEN PLAN

(1) 68 - COMPACT BINS
(2) 5 FT X 10 FT PLANT - REYNOLDS
(3) 3 FT STRIP HERMONICAL PLOTS



Community Involvement

- Part of Environmental Literacy – Civic Engagement
- Illinois Green Apple Day of Service
 - Tune Up and Pedal
 - Students
 - Parents
 - Architect
 - Legislative Representative
 - High School Students



Tune Up and Pedal Day

Positive Outcomes :

- Civic Engagement by Students
- Parents Plugged-In
- Gained Safety Skills , Easy
- Showcases NO-energy transportation



Tune Up and Pedal Day

- Community at Many Levels and Age Groups.
- Helping Plan, Prep, Participate
- Visibility and Eventful



Program

What is the Green Apple Day of Service?



Website

Tech-savvy participants:
Please follow along 😊

VISIT: www.usgbc-illinois.org/events/green-apple/

SEARCH: "Green Apple Day of Service"

SCAN:



National USGBC's Center for Green Schools



Green Apple Day of Service Challenge:

Schools around the world identify green projects.

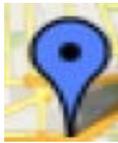


Take action together on **September 28, 2013!**

School & Mentor Partner Program



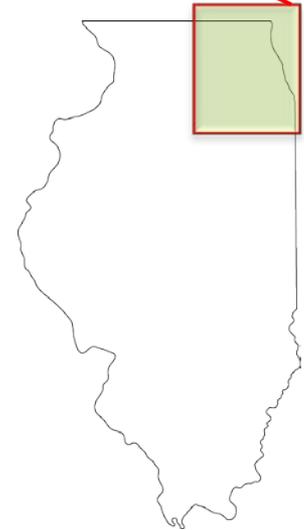
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School

Green
Schools
Mentor



2012 Participants

SCHOOL	MENTOR	PROJECT
Catherine Cook School	Kristin Rosebrough	Dumpster Dive
Diamond Lake School	EcoOptions, Ltd	Waste Reduction
Euclid Elementary	FGM	Alternative Transportation
Geneva Community School District 304	Andersson Architecture + Design	Electronics Recycling Drive
IIT	Local Keynote Speakers	Education Campaign
Jamieson Elementary	CBRE Commercial Real Estate	Garden, Community Event, Energy, Water
Johnson Elementary	The Walsh Group	Garden, Waste Reduction
King Middle Grade School	MFH Associates	Energy Conservation
Niles West Highschool	EPA	Natural area restoration
Perspectives Leadership Academy	Newgrange Development	Clean up, Community Event
Ravenswood Elementary	EPA	Garden
St. Paul of the Cross School	<i>Independent Project</i>	waste reduction, paper drive
Thomas J. Waters Elementary	CBRE	Garden, Bicycle
University of Illinois Urbana Champaign (UIUC)	Joseph Clair	Environmental Luncheon
Young Women's Leadership Charter School	Environmental Design International	Clean up
Academy for Global Citizenship	<i>Center for Green Schools</i>	Feature Event

2012 Participants

SCHOOL	MENTOR	PROJECT
A.J. Katzenmaier	Leopardo Companies	Garden
Bannockburn School	Eco Options	Waste Reduction
Dr. Bessie Rhodes Magnet School	Everlights	Education Campaign
Durand CUSD #322	USGBC-Illinois Rockford Branch	Shoe Recycling Drive
John C. Burroughs Elementary	Climate Cycle	Waste Reduction
John R. Tibbott Elementary School	Wight & Company	Garden
Mark Sheridan Academy	Green Home Experts	Garden
Meadowdale Elementary	Leopardo Companies	Rain Barrel
Milne Grove School	Schneider-Electric (tentative)	Energy Reduction
Paul Revere Intermediate	Lakota Group	Garden, Rain Barrel
Paul Revere Primary School	Lakota Group	Garden, Rain Barrel
Sullivan High School	CM Silverstein LLC	Clean Up
Tarkinton School of Excellence	Truck Fram Chicago	Waste Reduction
Waukegan High School	US EPA	Hazardous Waste Recycling Drive & Education

Results



Process

*How is the Program organized
& how can you get involved?*



Get Involved

Schools

Identify a service project, submit an application

Mentors

Provide a few hours of planning & support

Volunteers

Help out on the day of service

Sponsors

Provide seed-money for these excellent projects

www.usgbc-illinois.org/events/green-apple/

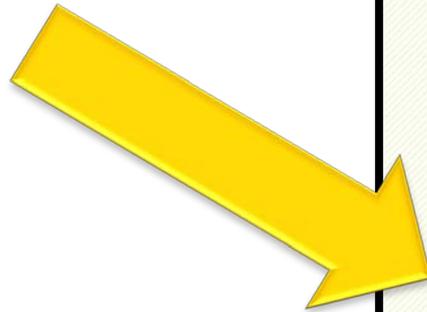
Responsibilities

PROJECT GUIDELINES

- Project falls outside of normal student/teacher responsibilities and fulfills an unmet environmental need
- Event takes place in September-October (option to continue beyond day of service)
- Involves volunteers, students, teachers, and administrators
- Lasts at least two hours
- Receives approval by administration
- Measurable results

Timeline

1: Sign Up Today!



The screenshot shows a web browser window with the URL <http://www.usgbc-illinois.org/events/green-apple/>. The page features the USGBC Illinois Chapter logo and navigation links such as 'About', 'Support Us', 'Membership', 'Education', 'Events', 'Limelight', 'Advocacy', 'Branches', 'Committees', and 'Resources'. A search bar is located in the top right corner. Below the navigation, the event title 'Green Apple Day of Service' is displayed, followed by a row of five small images showing people participating in various activities. The main heading reads 'U.S. Green Building Council – Illinois Chapter Green Apple Day of Service September 28, 2013'. Below this, there are sections for 'ABOUT THE DAY OF SERVICE' and 'PROJECTS & PROCESS'.

www.usgbc-illinois.org/events/green-apple/

Timeline

2: Contact your partner

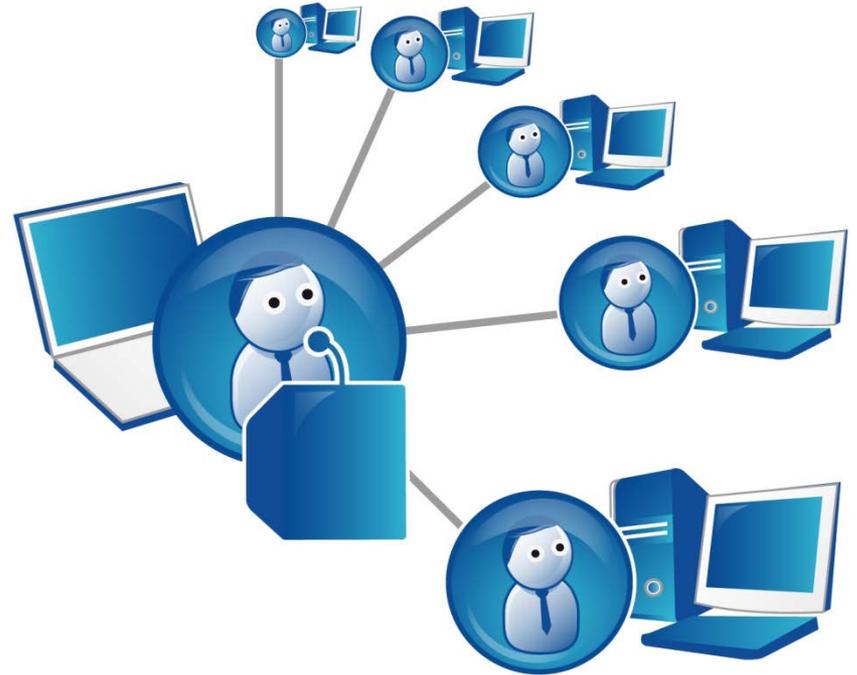
3: Meet



Timeline

4: Attend One
Welcome Webinar

5: Attend One
Planning Webinar



Timeline

8: Submit Evaluation Report or Survey

US GREEN BUILDING COUNCIL
**ILLINOIS GREEN SCHOOLS DAY OF SERVICE
EVALUATION REPORT**


ILLINOIS

GENERAL INFORMATION

Event Title	
Event Coordinators	
Date	September 29, 2012
Time	
Location	
Total Number of Volunteers/Attendees	
Total Volunteer Hours	
Total Project-specific Unit of Measure	
Total Budget	

EVENT ASSESSMENT:

- 1) Was your event successful? Did you meet your project goals?
- 2) What could have been improved?
- 3) Will this project extend beyond the Green Schools Day of Service? Please explain.
- 4) Would you like to participate in the Illinois Green Schools Day of Service next year?

COMPLETION CHECKLIST:

Submit the following to USGBC-Illinois (cschiappa@usgbc-illinois.org)

- Planning Worksheet
- Evaluation Report
- At least 4 event photos
- Volunteer Sign In Sheet & Volunteer Waivers
- 2 PowerPoint Presentation Slide(s)

Timeline

9: Attend the Celebration & Symposium

10: Continue your project
beyond the Day of Service!



2012 Accomplishments

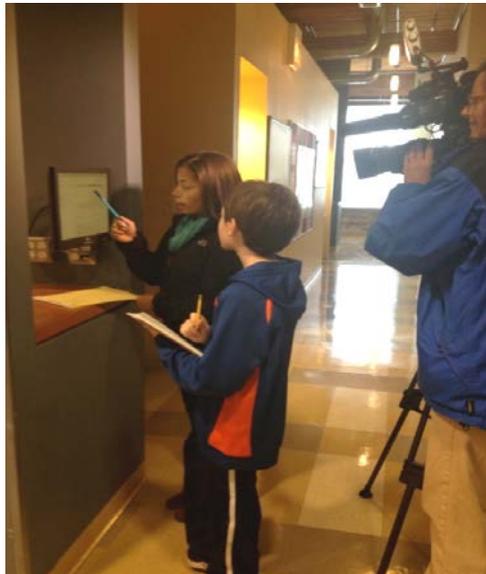
- **28** Participating Schools
- **25** Participating Mentors
- Over **500** Volunteers
- Over **28,000** Volunteer Hours
- **Greener Schools in Illinois!**



Award Winner

MOST CREATIVE EVENT

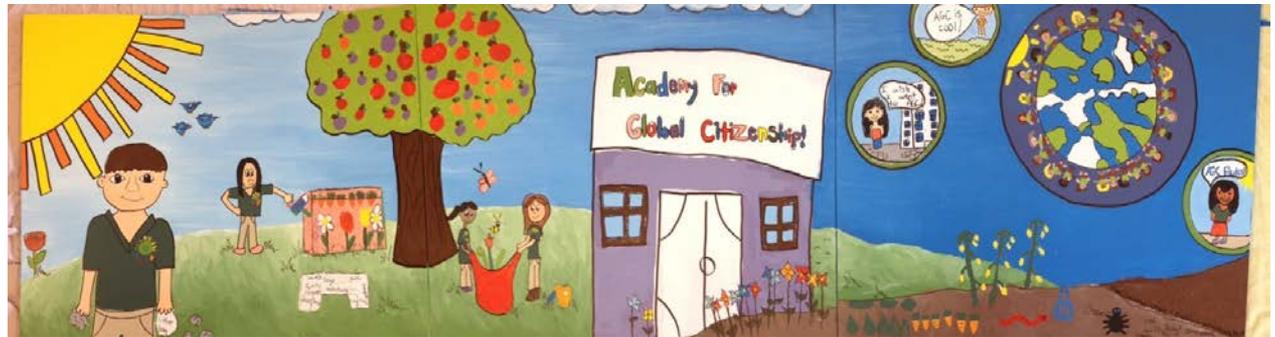
- Catherine Cook School
- Dumpster Dive



Award Winner

MOST LIKELY TO CONTINUE

- Academy for Global Citizenship
- Garden, Greenhouse, & Mural



Award Winner

BEST PARTNER COLLABORATION

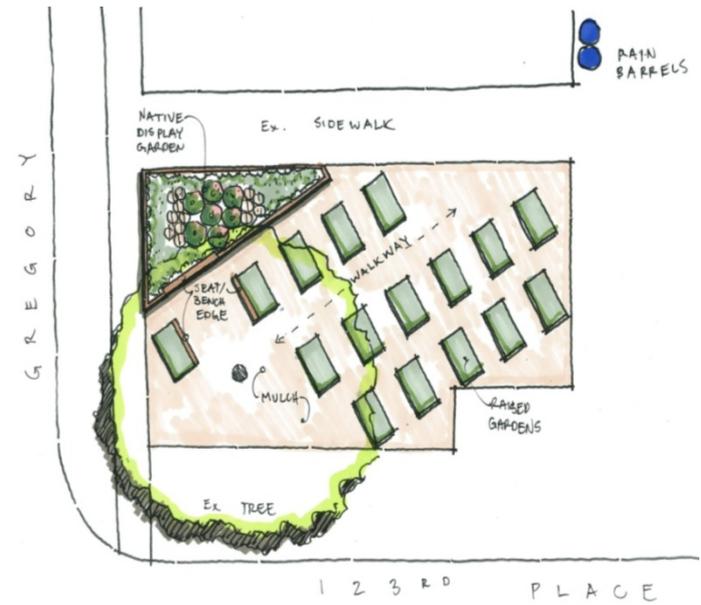
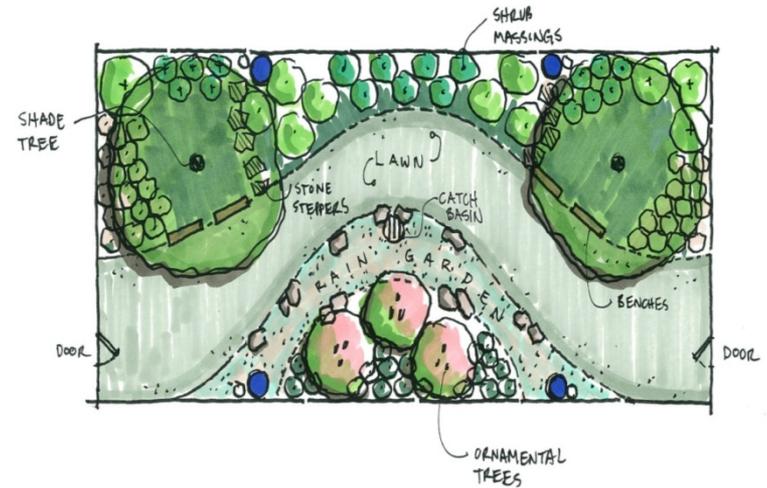
- John R. Tibbott Elementary School
- Mentor: Wight & Co.
- Garden & Rain Barrel Installation



Award Winner

MOST PARTICIPANTS & BEST OVERALL EVENT

- Paul Revere Schools
- Mentor: The Lakota Group
- Garden, Courtyard & Rain Barrels



Motivator

Why are these projects & programs important?

Take Action Today!

1. **Sign up for the Green Apple Day of Service**
9/28/2013
2. **Join the USGBC-Illinois Chapter**
Green Schools Committee
3. **Start your own**
Green Schools Committee



Contact

USGBC-ILLINOIS GREEN SCHOOLS COMMITTEE

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Lyndl Schuster lschuster@rtsd26.org

Stuart Brodsky sbrodsky@cannondesign.com

Cortney Adams cadams@usgbc-illinois.org

www.usgbc-illinois.org/events/green-apple/

