THE CHESTER ARTHUR SCHOOLYARD

REDEFINING OUTDOOR LEARNING AND PLAY AT URBAN SCHOOLS

Prepared for the Friends of Chester A. Arthur by PennPraxis, August 2019. Project made possible by the William Penn Foundation.

preface

Recreational areas for children are a central way of encouraging exercise, interaction and learning. In Philadelphia, as in many other U.S. cities, schoolyards are incorporated into school complexes, across ages and grade levels and in urban and suburban contexts. As many of Philadelphia's schools were constructed in the late nineteenth and early twentieth centuries, the associated outdoor play areas have needed frequent upgrades due to their outdoor exposure, changes in safety regulations, evolution of equipment, and the inclusion of learning-based activities. Similarly, changes in population, neighborhood demographics, and funding affect how existing schoolyards are maintained, programmed, and upgraded. In recent years, as some urban areas that lost population are regaining residents and public funding remains precarious, groups of invested neighbors have started taking action to refurbish their own neighborhood schoolyards, working with a variety of funding sources and partners. Presently, there are dozens of nonprofits and city agencies that offer planning support and funding, specifically for schoolyards, and many examples of schools where projects were successfully realized.

The Friends of Chester A. Arthur (FoCA) has worked over the past decade to build The Chester Arthur schoolyard, which is now a model of great design, community partnerships, and strong funding. As part of its process, FoCA agreed to share its success with a larger audience— to create a resource for other neighborhood groups interested in taking on schoolyard projects, even if the goal is smaller or the funding less. What follows is a starter "how-to" guide for neighborhood groups to tackle similar schoolyard projects. To that end, we review the redesign process, examine schoolyard case studies and the organizations behind those projects, discuss fundraising how-to's, explore outdoor learning at Arthur's schoolyard, and use as well as maintenance best practices.

contents

This guidebook will highlight:

Schoolyard Design and Construction

Outdoor, Inquiry-Driven Learning

Community Support, Use & Maintenance

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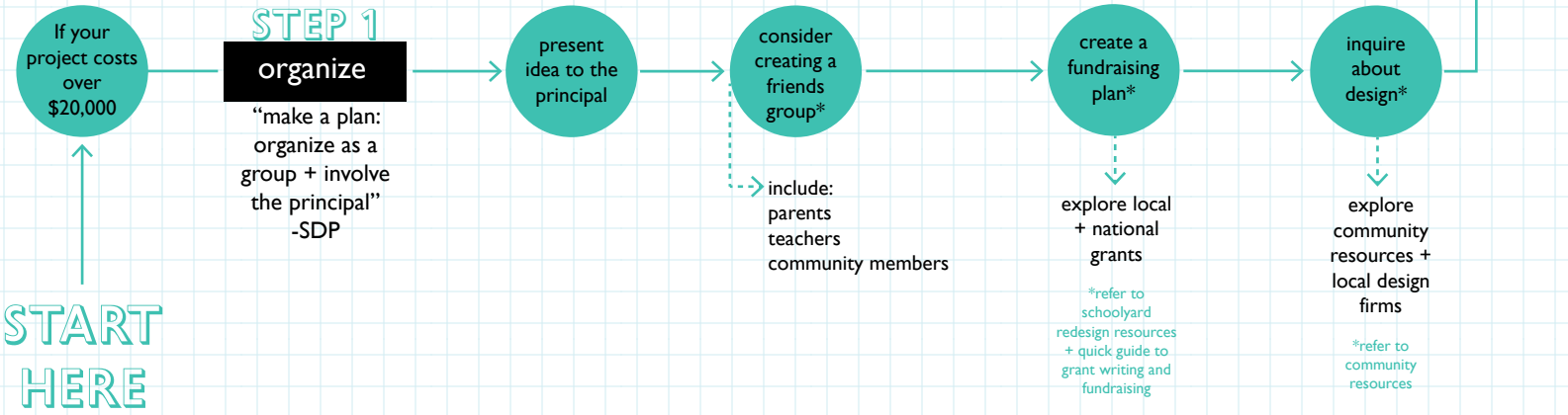
01

how - to - guide

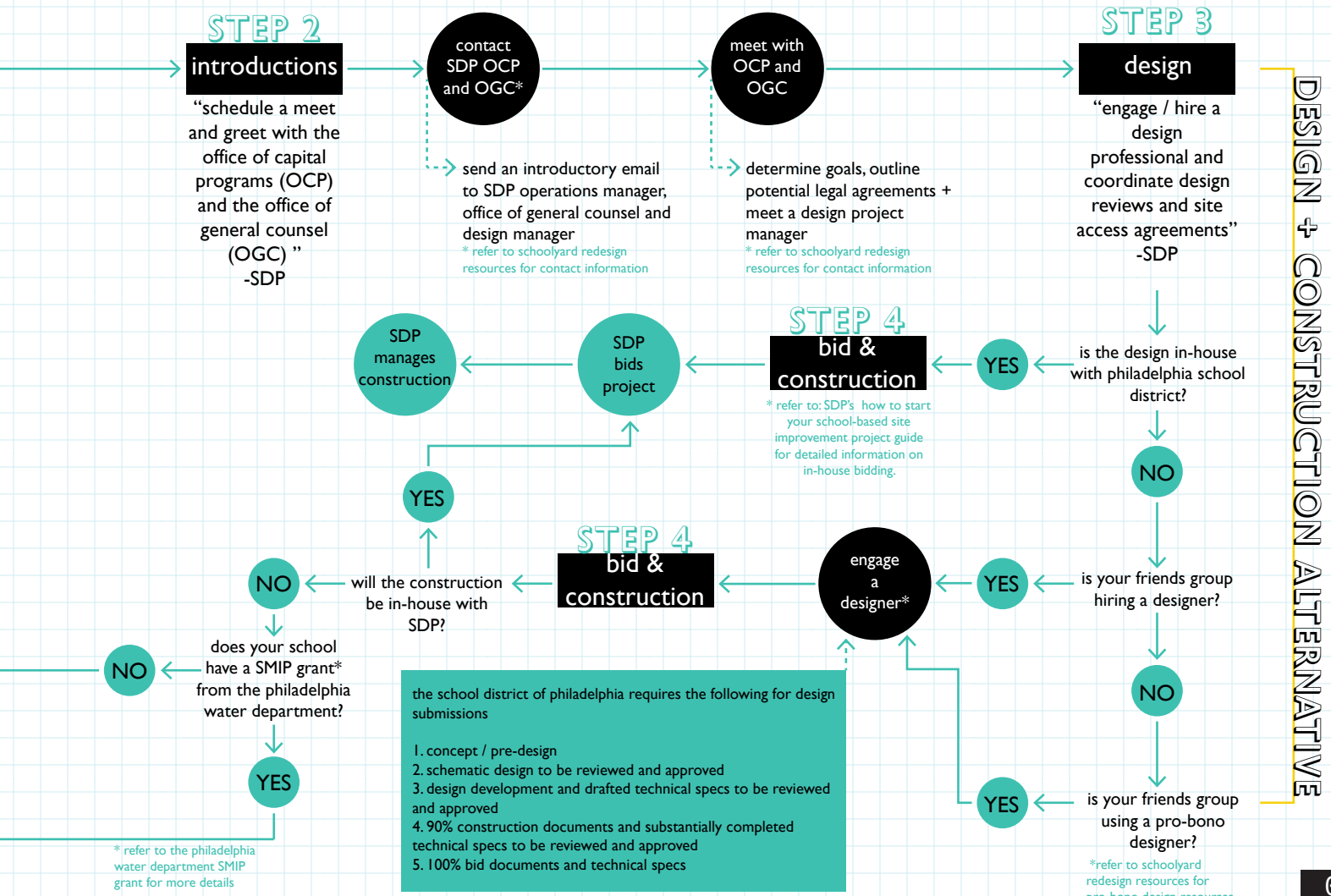
In response to the growing interest in, and trend of community-led schoolyard renovation in Philadelphia, The School District of Philadelphia (SDP) has published a framework for the schoolyard redesign process. This framework allows for alternative processes, particularly in design and construction. Each schoolyard transformation will have its own unique process,partnerships and organizational support. This section of the guidebook reviews the schoolyard redesign process used by FoCA, and presents the School District's schoolyard redesign process. Whether you follow one process or the other, or pursue a combination of both, this chapter provides guidance on where and how to get started!

Schoolyard Redesign Processes



Above *outlines the Schoolyard Redesign Process and alternative approaches recommended by The School District of Philadelphia. The outlined requirements and processes are based on project cost.*

Source: School District of Philadelphia, Office of Capital Programs "How to Start Your Site-Based Site Improvement Project." The School District of Philadelphia, 2018.


STEP 2
introductions
"schedule a meet and greet with the office of capital programs (OCP) and the office of general counsel (OGC) "
-SDP
contact SDP OCP and OGC*
send an introductory email to SDP operations manager, office of general counsel and design manager
* refer to schoolyard redesign resources for contact information
meet with OCP and OGC
determine goals, outline potential legal agreements + meet a design project manager
* refer to schoolyard redesign resources for contact information
STEP 3
design
"engage / hire a design professional and coordinate design reviews and site access agreements"
-SDP
DESIGN + CONSTRUCTION ALTERNATIVE
is the design in-house with philadelphia school district?
YES
NO
STEP 4
bid & construction
* refer to: SDP's how to start your school-based site improvement project guide for detailed information on in-house bidding.
SDP bids project
SDP manages construction
is your friends group hiring a designer?
YES
NO
engage a designer*
STEP 4
bid & construction
will the construction be in-house with SDP?
YES
NO
does your school have a SMIP grant* from the philadelphia water department?
YES
NO
* refer to the philadelphia water department SMIP grant for more details
is your friends group using a pro-bono designer?
YES
NO
*refer to schoolyard redesign resources for pro-bono design resources
the school district of philadelphia requires the following for design submissions
1. concept / pre-design
2. schematic design to be reviewed and approved
3. design development and drafted technical specs to be reviewed and approved
4. 90% construction documents and substantially completed technical specs to be reviewed and approved
5. 100% bid documents and technical specs

FoCA's Redesign Process

DEFINE YOUR IDEA

> What do you want to accomplish and why?

> What is your time frame?

> What kind of resources do you need for this project?

START TALKING ABOUT YOUR IDEA WITH POTENTIAL FUNDERS

5) EXPLORE NATIONAL GRANTS

4) EXPLORE LOCAL GRANTS

3) EXPLORE CORPORATE FUNDING SOURCES

BUILD RELATIONSHIPS WITH THE SCHOOL & THE COMMUNITY

BUILD RELATIONSHIPS WITH THE SCHOOL DISTRICT

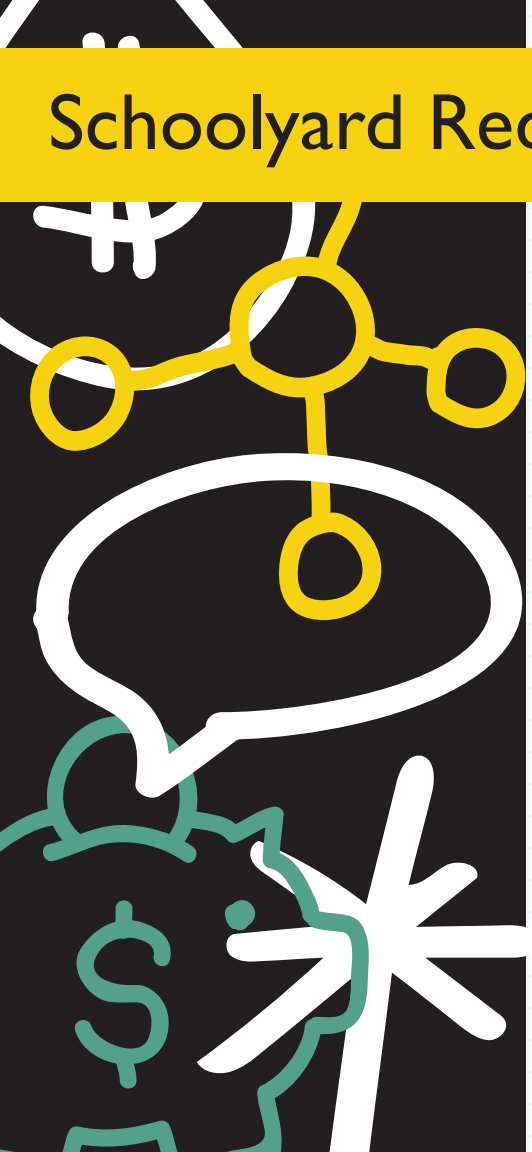
1) REACH OUT TO LOCAL & STATE GOVERNMENT OFFICIALS

2) EXPLORE COMMUNITY RESOURCES

EXPLORE EDUCATIONAL RESOURCES

Above *outlines the Schoolyard Redesign Process utilized and recommended by FoCA. This process can be adapted by other friends groups to implement schoolyard redesign projects.*

Schoolyard Redesign Resources



Community Resources

Citizens Planning Institute

Community Design Collaborative

DIG PHILLY

LandHealth Institute

Philadelphia Crosstown Coalition

Philadelphia Green Schools Alliance

Philadelphia Parks and Recreation

Philadelphia School Partnership

Philadelphia Student Union

The Big Sandbox

The Friends of Neighborhood Public Education

The Trust for Public Land

Urban Roots

Source: Community Design Collaborative-Schoolyard Resources, cdesignc.org/guides/schoolyards/schoolyard-resources.

Local Grants / Donors

Eagles Youth Partnership

KABOOM!

Pennsylvania Department of Environmental Protection Growing Greener Grants

PECO Green Region Grants

Philadelphia Green Schools Alliance

Philadelphia Water Department SMIP

The Fund for the School District of Philadelphia

The Hamels Foundation

Trust for Public Land

National Grants / Donors

Action for Healthy Kids Game On Grants

American Academy of Dermatology Shade Structure Grant Program

Fruit Tree Planting Foundation Fruit Tree 101 Program

GO! GRANTS Playful City USA Let's Play Grant Program

Good Sports Equipment Grants

KABOOM! Creative Play Grants

The Zanvyl and Isabelle Krieger Fund

Corporate Grants

Annie's Grants for Gardens

Cliff Bar Family Foundation Small Grants

Finish Line Youth Foundation Legacy Grants

Lowe's Charitable and Educational Foundation Community Grants

Lowe's Toolbox for Education

The Aetna Foundation Regional Grants Program – GoLocal: Cultivating Healthy Communities

The Home Depot Foundation Community Impact Grants Program Kids in the Game

Wells Fargo Corporate Giving Grants

Whole Foods Foundation Healthy Kids Innovation Grant

Whole Kids (Whole Foods) and FoodCorps US Gardens Grant Program

W.K. Kellogg Foundation Green Schoolyards for Healthy Communities

The School District of Philadelphia Resources

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*current SDP contacts as of 2019

02

schoolyard case studies

School affiliates, parents, students, community members and community organizations have been working throughout Philadelphia to rethink and redesign Philadelphia's public schoolyards. As of 2019, forty-two schoolyards in The School Dsitrict of Philadelphia have been reimagined through conceptual plans and small projects and/ or redesigned and constructed. The following section highlights all Philadelphia public schools as of 2019 that have renovated a schoolyard and / or started the redesign process. This guidebook organizes these interventions into four categories based on physical components of the schoolyard. The four schoolyards highlighted in this chapter represent four "levels" of schoolyard redesign and explain the unique process that led to each schoolyard's transformation.

Philadelphia Schoolyard Interventions

The following list (as of 2019) represents Philadelphia public schools that have implemented a small to large intervention, designed a conceptual schoolyard transformation plan and / or have started the schoolyard redesign process.

Adaire Elementary School, Fishtown

Add B. Anderson School, Cobbs Creek

Albert M. Greenfield Elementary School, Center City

AMY Northwest, Roxborough

Bache-Martin School, Fairmount

Benjamin Franklin Academics Plus School, Lawncrest

Cook-Wissahickon Elementary School, Roxborough

Discovery Charter School, Parkside

Edwin M. Stanton Elementary School, South Philadelphia

Eliza B Kirkbride, South Philadelphia

Gen. George A. McCall Elementary and Middle School, Center City

George W. Nebinger School, Bella Vista

GW Childs Elementary, South Philadelphia

Henry C. Lea Elementary School, West Philadelphia

Horatio B. Hackett Elementary School, Kensington

James G. Blaine School, Strawberry Mansion

James Dobson Elementary School, Manayunk

John B. Kelly Elementary School, Germantown

John H. Taggart Elementary School, South Philadelphia

John M. Patterson School, Elmwood

J.R. Masterman Laboratory & Demonstration School, Fairmount

Martin Luther King High School, East Germantown

Mayfair Elementary School, Mayfair

Morton McMichael School, Mantua

Olney Charter High School, Olney

Penn Alexander, West Philadelphia

Philadelphia High School for Creative & Performing Arts (CAPA), South Philadelphia

Richard R Wright Elementary Schoolyard, Strawberry Mansion

Samuel Powel School, Powelton Village

Southwark Elementary School, South Philadelphia

Stephen Girard Elementary, South Philadelphia

S. Weir Mitchell Elementary School, Kingsessing

Tanner G. Duckrey School, North Central

Thomas Mifflin School, East Falls

Vare-Washington Elementary School, South Philadelphia

Warren G. Harding Middle School, Frankford

W. B. Saul High School, Roxborough

William Cramp School, North Philadelphia

William Dick Elementary, North Philadelphia

William D. Kelley School, Brewerytown

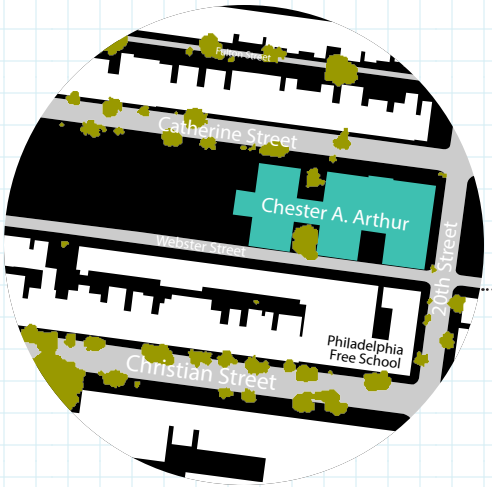
William McKinley Elementary School, Norris Square

William M. Meredith Elementary School, Queen Village

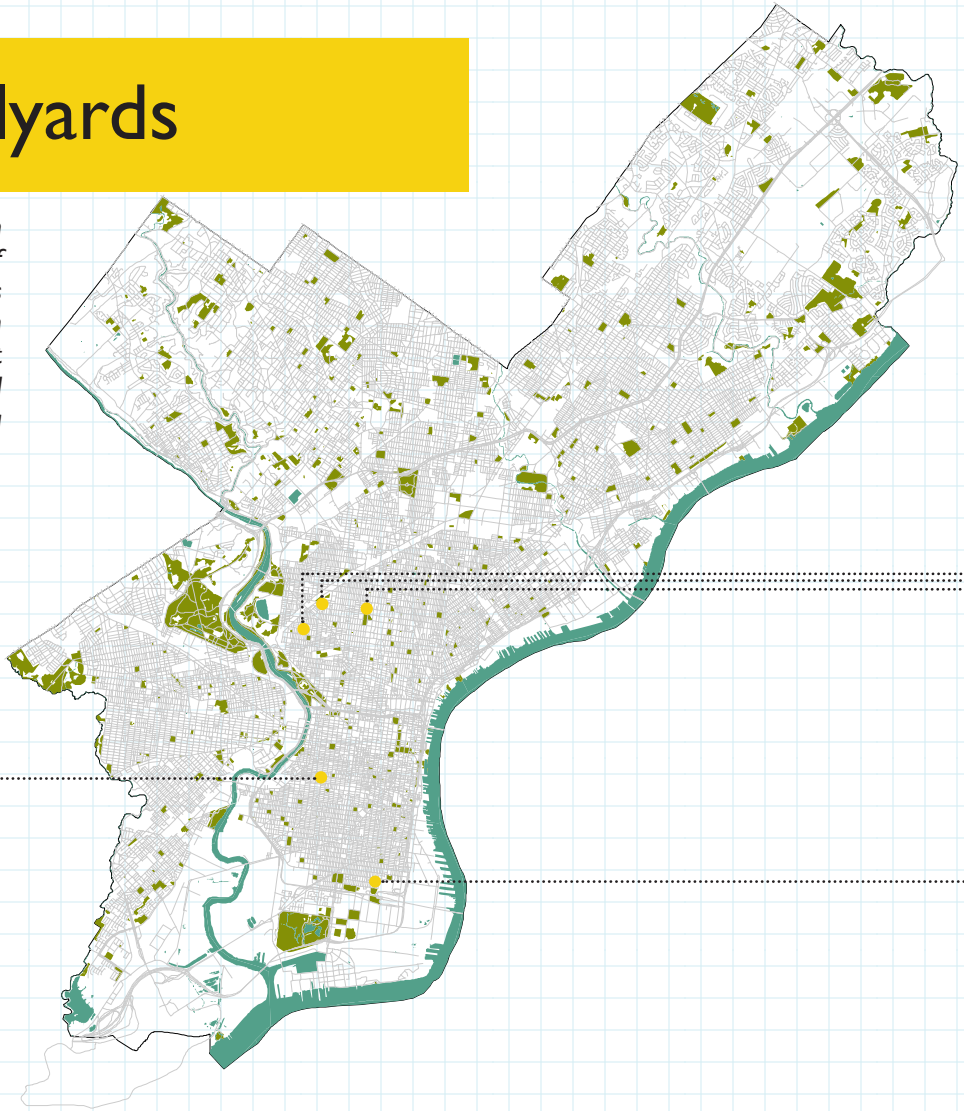
Source: School District of Philadelphia, Office of Capital Programs

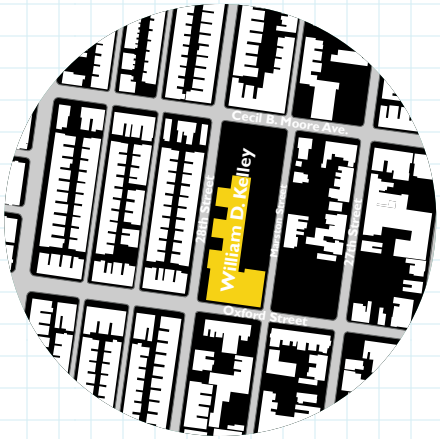
Featured Schoolyards

The following schoolyard renovations are featured in this chapter because they represent a wide range of approaches, partners, budgets, and neighborhoods in Philadelphia. The $ symbol assigned to each schoolyard case study represents the budget and complexity of that particular project and demonstrates an array of redesign solutions for a range of resources and budgets

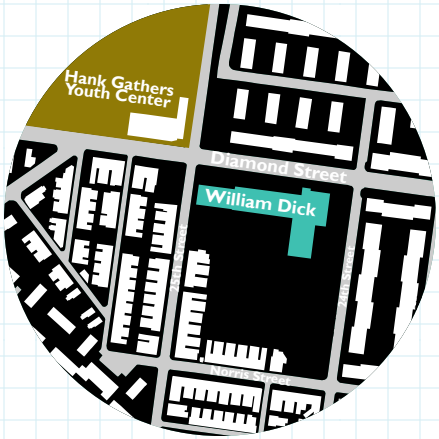


CHESTER A. ARTHUR



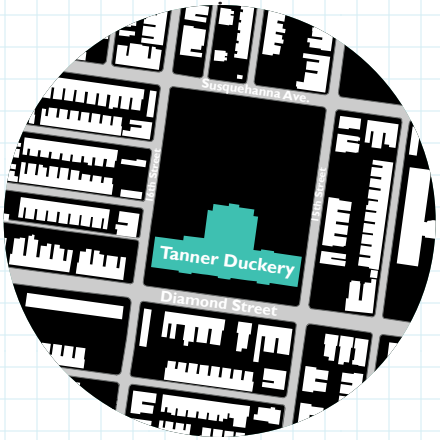


WILLIAM D. KELLEY



WILLIAM DICK

JOHN H. TAGGART



TANNER DUCKERY

Case Study | $

TANNER G. DUCKERY

1501 Diamond Street | Philadelphia

SCHOOL PROFILE

Neighborhood: North Central Philadelphia

Grades:K-8

Number of Students*:585

Demographics:

American Indian: 0%

Asian: 0.17%

African American: 93.50%

Hispanic (any race): 1.88%

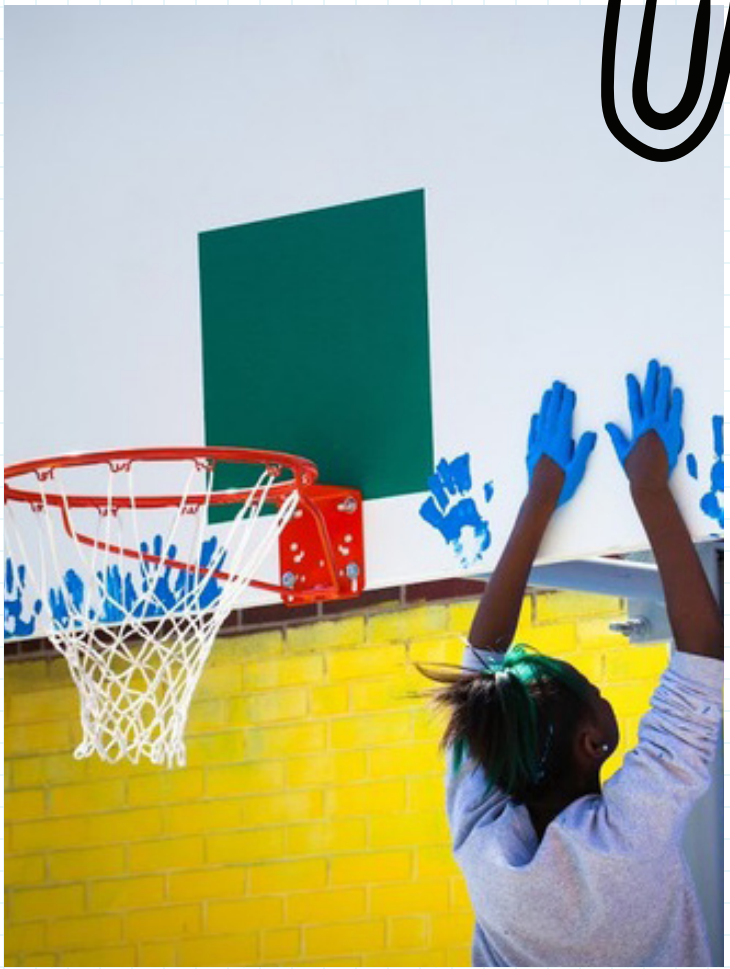
Native Hawaiian or Pacific Islander: 0.34%

White (not Hispanic): 2.05%

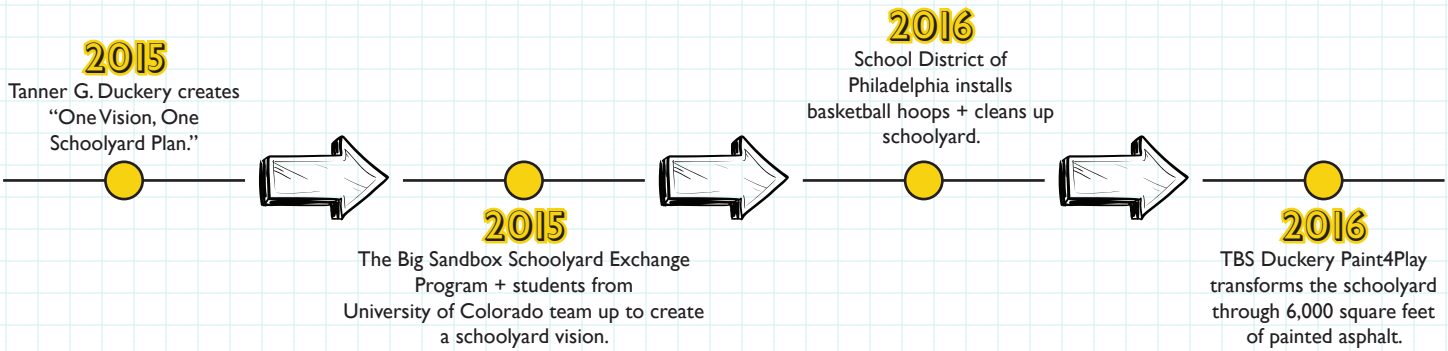
Source: The School District of Philadelphia (*2018-2019 enrollment)

PROJECT PARTNERS

- ☑ The Big Sandbox
- ☑ Community Design Collaborative
- ☑ Councilman Daryl Clarke
- ☑ #DIGPhilly Campaign
- ☑ John S and James L Knight Foundation
- ☑ TBS Schoolyard Exchange – Paint4Play



A student paints the basketball backboard during the Paint4Play event at Tanner Duckery. Image Credit: The SBNB



SCHOOLYARD STORY

In 2015, Tanner G. Duckery, an elementary school in North Philadelphia, created its "One Vision, One Schoolyard Plan." Partnering with the non-profit The Big Sandbox, and recruiting the help of Principal David Cohen and fifty other advocates, the school successfully accomplished a small schoolyard intervention with a big impact.

In the fall of 2015, the TBS Schoolyard Exchange Program partnered with students from the University of Colorado who worked to create a vision for and layout of the schoolyard. In the spring of 2016, the Philadelphia School District installed four basketball hoops and cleaned up / repaired schoolyard hazards. Following the SDP's efforts, and with further support from The Big Sandbox and The John S. and James L. Knight Foundation, Duckery's asphalt was transformed through the TBS Duckery Paint4Play event where over one hundred volunteers painted nearly 6,000 square feet of asphalt with colorful games, mazes and play areas.

SCHOOLYARD COMPONENTS

- ☑ 6,000 square feet of asphalt painted with mazes and play areas.
- ☑ play structure

Case Study | $$

WILLIAM D. KELLEY

1601 N. 28th Street | Philadelphia

SCHOOL PROFILE

Neighborhood: Brewerytown

Grades:Pre-K-8

Number of Students*:373

Demographics:

American Indian: 0%

Asian: 0.54%

African American: 93.19%

Hispanic (any race): 2.18%

Native Hawaiian or Pacific Islander: 0%

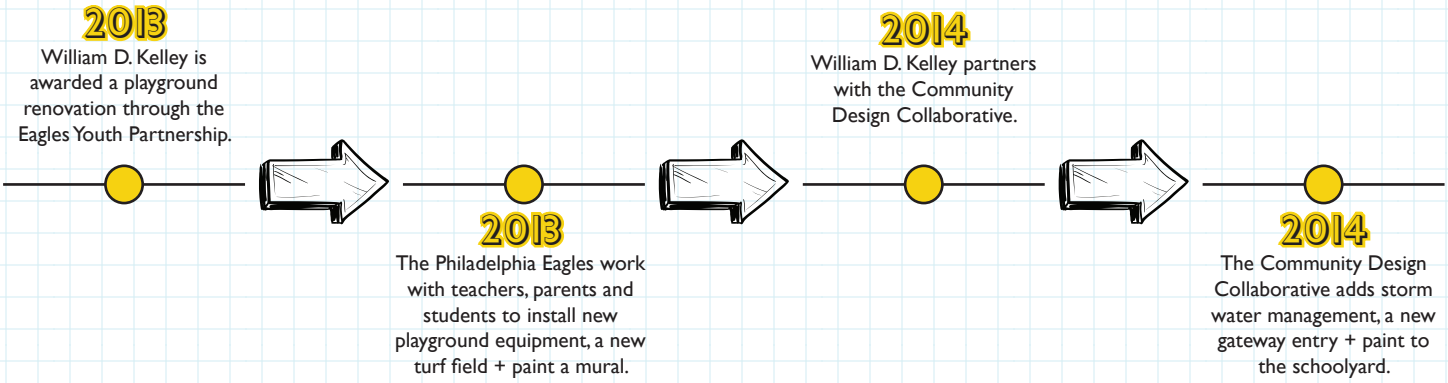
White (not Hispanic): 1.09%

Source: The School District of Philadelphia (*2018-2019 enrollment)

PROJECT PARTNERS

- ☑ The Big Sandbox
- ☑ Community Design Collaborative
- ☑ #DIGPhilly Campaign
- ☑ Eagles Youth Partnership
- ☑ John S and James L Knight Foundation
- ☑ Philadelphia Water Department

The Philadelphia Eagles join the community for its annual playground build day, sponsored by the Eagles Youth Partnership. Image Credit: DeSean Jackson Foundation



SCHOOLYARD STORY

In 2013, William D. Kelley, a Pre-K through 8th grade school in North Philadelphia, became the 17th schoolyard renovation by the Philadelphia Eagles through the Eagles Youth Partnership.

Schoolyard improvements included a playground installation and an Eagles turf field. Players, coach Chip Kelly, parents and students also worked together to paint murals on the outside of the school.

Additional support came in 2014 from the Community Design Collaborative, whose design and effort were also sponsored by the Eagles Youth Partnership. Through $35,475 of pro-bono services and 440 volunteer hours, the Community Design Collaborate added a storm infiltration bed and rain gardens adorned with a new gateway, creating a new entryway to the school. Smaller scale interventions included painting the asphalt with collegiate banners, fun graphics and a diagram of the solar system.

SCHOOLYARD COMPONENTS

- ☑ play structure
- ☑ soft play surface
- ☑ turf field
- ☑ green storm water management

Case Study | $$$

WILLIAM DICK

2498 West Diamond Street | Philadelphia

SCHOOL PROFILE

Neighborhood: North Philadelphia

Grades:K-8

Number of Students*: 498

Demographics:

American Indian: 0%

Asian: 0%

African American: 93.57%

Hispanic (any race): 2.41%

Native Hawaiian or Pacific Islander: 0%

White (not Hispanic): 1.20%

Source: The School District of Philadelphia (*2018-2019 enrollment)

PROJECT PARTNERS

- ☑ Philadelphia Water Department
- ☑ The Trust for Public Land
- ☑ Sikora Wells Appel

Students play on the new play equipment during the ribbon cutting event for the new schoolyard.
Image Credit: Sikora Wells Appel

2012
William Dick partners with The Trust for Public Land to reinvision the schoolyard through a ten week participatory design process

2014
William Dick partners with The Trust for Public Land to design and build the schoolyard.

2014
The renovated schoolyard opens with new play equipment, an artificial turf field and a running track.

2015
With support from Philadelphia's Green 2015 Program + The Trust for Public Land, the schoolyard gets the largest rain garden in SDP.

SCHOOLYARD STORY

In 2012, William Dick, an elementary school in North Philadelphia, partnered with The Trust for Public Land to start rethinking its schoolyard. Students in grades 6 - 8 participated in a ten week design process to recreate the schoolyard.

Two years later, in 2014, with support and funding from The Trust for Public Land, the new schoolyard opened. The renovated schoolyard was based on the results of the ten week participatory design process and includes play equipment, an artificial turf field and a running track.

In 2015, through Philadelphia's Green 2015 Program and with continued support from The Trust for Public Land and The Philadelphia Water Department, William Dick's schoolyard became home to the largest rain garden in any school in the city.

Unlike a majority of schools, the Willaim Dick School Yard stays open after school hours for public use.

SCHOOLYARD COMPONENTS

- ☑ play structure
- ☑ running track
- ☑ turf field
- ☑ largest rain garden in any psd schoolyard
- the schoolyard / components stay open to the public after school

Case Study | $$$$

JOHN H. TAGGART

400 W Porter Street | Philadelphia

SCHOOL PROFILE

Neighborhood: Whitman

Grades:K-8

Number of Students*: 457

Demographics:

American Indian: 0%
Asian: 50.33%
African American: 14.19%
Hispanic (any race): 21.95%
Native Hawaiian or Pacific Islander: 0%
White (not Hispanic): 5.76%

Source: The School District of Philadelphia (*2018-2019 enrollment)

PROJECT PARTNERS

- ☑ Community Design Collaborative
- ☑ Philadelphia Water Department
- ☑ The Trust for Public Land

Students play on the new climbing structure during the opening event for the new schoolyard.
Image Credit: TEND Landssape

2011
John H. Taggart partners with The Community Design Collaborative to create a vision for the schoolyard redesign.

2014
The school partners with The Trust for Public Land and The Philadelphia Water Department to redesign the schoolyard.

2016
The school partners with The Trust for Pubic Land for a twelve week participatory design process.

2016
The redesigned schoolyard opens with new play equipment, rain gardens, track, turf field and more.

SCHOOLYARD STORY

In 2016, John H. Taggart, a K-8 school in South Philadelphia, partnered with The Community Design Collaborative, The Philadelphia Water Department and The Trust for Public Land to renovate its schoolyard. Nearly four hundred students in grades 4 - 6 participated in a twelve week participatory design process to develop a vision and plan for the schoolyard.

The Trust for Public Land and The Philadelphia Water Department funded the renovation. The schoolyard, once asphalt with only basketball hoops, now has gardens, a half basketball court, painted asphalt, a performance stage, a turf field, a track, a play structure and a school mascot statue. The

the schoolyard / components stay open to the public after school

Philadelphia Water Department designed rain gardens and green infrastructure that captures 25,000 square feet of water.

John H. Taggart is located in a culturally diverse section of Philadelphia. There are large numbers of students from immigrant families from Southeast Asia, Mexico, Latin America and Puerto Rico. Over twenty countries of origin are represented. The schoolyard and garden remain open to the public after school hours, and garden plots in the schoolyard are offered to refugee and immigrant families in the community so that they may plant crops native to their countries of origin.

SCHOOLYARD COMPONENTS

- ☑ garden
- ☑ half basketball court
- ☑ track
- ☑ rain garden
- ☑ performance stage
- ☑ play structure
- ☑ school mascot statue
- ☑ turf field

Case Study | $$$$$

CHESTER A. ARTHUR

2000 Catherine Street | Philadelphia

SCHOOL PROFILE

Neighborhood: Graduate Hospital

Grades:K-8

Number of Students*: 272

Demographics:

American Indian: 0%

Asian: 5.15%

African American: 54.78%

Hispanic (any race): 4.78%

Native Hawaiian or Pacific Islander: 0%

White (not Hispanic): 26.10%

Source: The School District of Philadelphia (*2018-2019 enrollment)

PROJECT PARTNERS

- ☑ Amerihealth
- ☑ Councilman Kanyatta Johnson
- ☑ OLIN
- ☑ Philadelphia VIP and Dechert
- ☑ Philadelphia Water Department
- ☑ SALT Design Studio
- ☑ The College of New Jersey (TCNJ School of
- ☑ The School District of Philadelphia (SDP)
- ☑ William Penn Foundation

Students celebrate their new outdoor learning and play space near the Schoolyard's artificial berm.
Image Credit: Friends of Chester Arthur

SEE PAGE 35 TO LEARN MORE ABOUT CHESTER A. ARTHUR'S DESIGN PROCESS

the schoolyard & components stay open to the public after school

SCHOOLYARD STORY

Completed in 2017, the Chester Arthur Schoolyard was envisioned to be an interactive play and learning lab that would transform what was an asphalt schoolyard into a vibrant, interactive educational and recreational hub for the school and community. As the project lead, FoCA aimed to create a schoolyard that was more than just a a playground, but also an integral part of the school's educational and extracurricular landscape, as well as an outdoor gathering space for all members of the community.

FoCA worked with a number of partners to realize the vision for the schoolyard. A key partner was The College of New Jersey (TCNJ School of Engineering), whose STEM educators would develop a detailed curriculum , implementation plan, and rubric for measuring success focused on evidence-based outcomes and next-generation standards. Through this, the schoolyard would be both a setting and generator of curriculum, maximizing the teaching and learning potential of the school. Educational components allow students to experience hands-on outdoor learning and play that ties into the core curriculum of the school. the space therefore not only facilitates learning, it inspires it." Chapter 4 of this guidebook provides further detail on the Chester A. Arthur Schoolyard.

SCHOOLYARD COMPONENTS

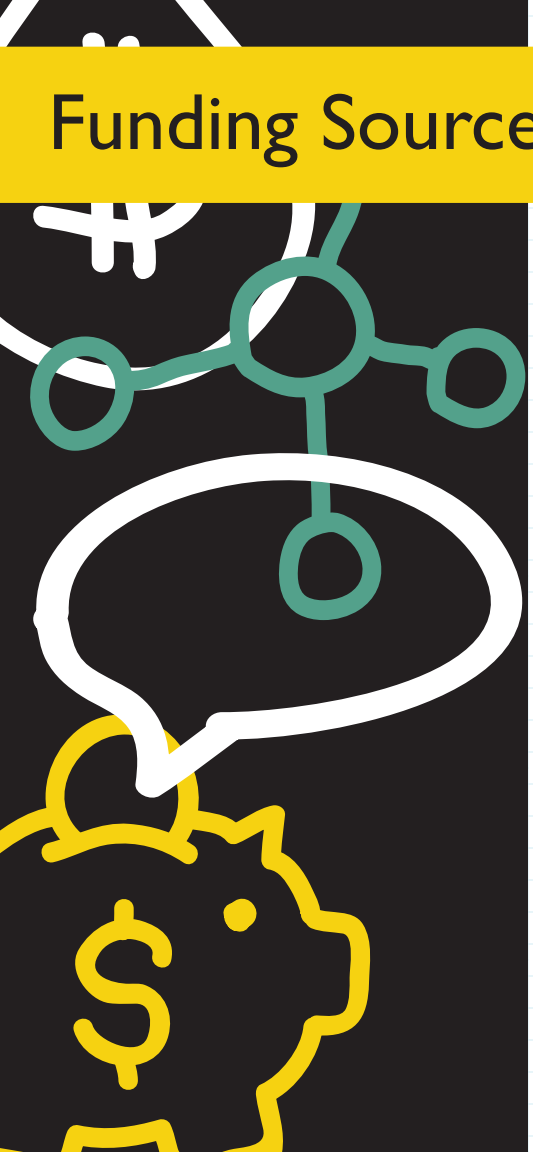
- ☑ art panels
- ☑ berm
- ☑ climbing dome
- ☑ decorative garden
- ☑ edible garden
- ☑ large outdoor classroom / amphitheater
- ☑ multi-use court
- ☑ rain garden
- ☑ raised garden beds
- ☑ sensory green wall
- ☑ sundial
- ☑ water pump
- ☑ water wall / rain capture canopy
- ☑ sundial
- ☑ 50 meter track

03

quick guide to fundraising + grant writing

There are numerous ways to raise funds for a schoolyard redesign process. The following section reviews the differences between fundraising, grant writing and donations to assist you in making the appropriate funding decisions for your schoolyard project.

Funding Source Guide



Community Resources

Not sure what funding source is best for your schoolyard project? Explore the differences between grants, fundraising and in-kind donations as well as references and resources provided by The School District of Philadelphia.

For more specific information on funding sources and policies, please reference The School District of Philadelphia Office of Grant Development Guide to Fundraising and Grant Writing for Schools.

Grants

What is a grant?

- A **grant** is an amount of money given for a specific project

- A **grant** can be given by a private or public entity

- A **grant** typically requires an application process to applying for funding

- A **grant** application typically specifies rules as to who can apply and how the money can be spent, and includes reporting requirements during the grant term.

Fundraising

What defines fundraising?

- **Fundraising** consists of raising money for a specific project that does not require an application process

- The **fundraising** process includes asking donors for funds

- **Fundraising** can be conducted on online platforms (such as gofundme.com) or through older traditional methods (such as bake sales)

In - Kind Donations

What are in-kind donations?

- Rather than monetary donations, **in-kind donations** are goods or services that are donated such as volunteer assistance, school equipment or programming

Recommendations

Not sure which funding source is best for your schoolyard renovation? Below are The SDP's recommendations for specific schoolyard projects.

Beautification

Preferred Funding: Fundraising
School + District Staff Needed: Principal

Playground Equipment / New Surface

Preferred Funding: Fundraising + In-Kind Donations
School + District Staff Needed: Principal, The Office of Capital Programs, The Office of Grant Development

Gardens

Preferred Funding: Grants, Fundraising + In- Kind Donations
School + District Staff Needed: Principal, Teachers, The Office of Grant Development

Storm Water Management

Preferred Funding: Grants + Fundraising
School + District Staff Needed: Principal, The Office of Capital Programs, The Office of Grant Development

Grant Writing Steps

The School District of Philadelphia recommends the following process for determining your school's needs.

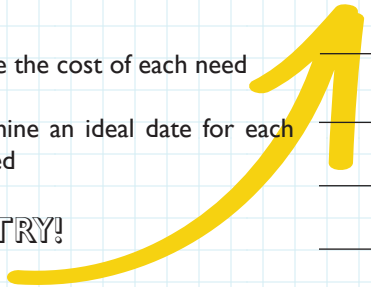
Step 1: Write down needs of your school

Step 2: Organize needs by prioritizing 1 -10 (consider feasibility, importance, urgency, etc.)

Step 3: Estimate the cost of each need

Step 4: Determine an ideal date for each need to be fulfilled

GIVE IT A TRY!



School Needs

Prioritized Needs

1

2

3

4

5

6

7

8

9

10

Cost Estimate	Date of Goal
$ _____	____/____/____
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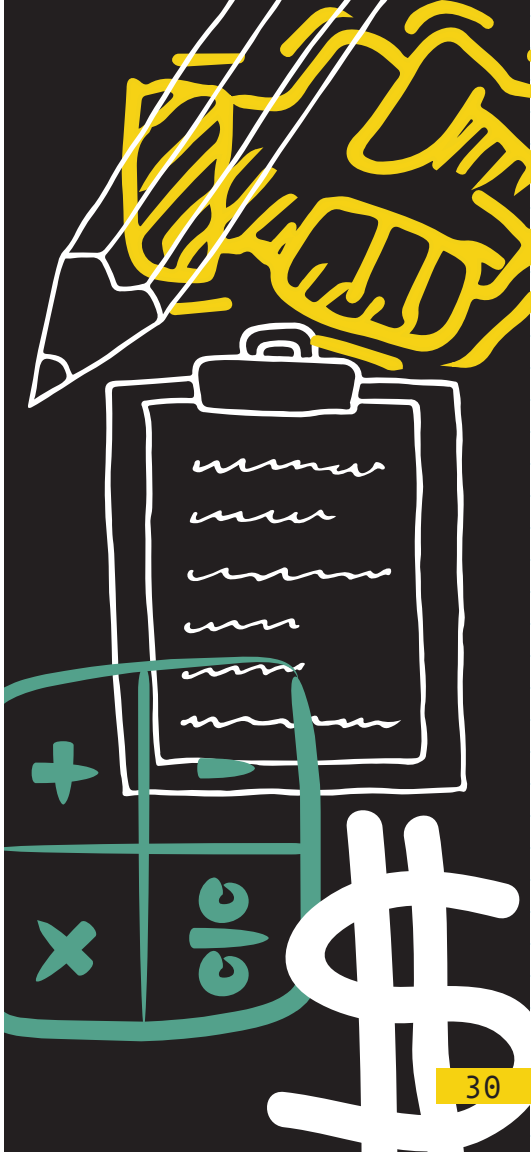


04

chester arthur schoolyard

The Arthur Schoolyard is more than just a playground - it's an outdoor classroom. Designed to optimize and enhance Arthur students' social, emotional, physical and cognitive development, the Schoolyard engages students in both play and learning. Paired with a three-year program of professional and curriculum development, the Schoolyard bridges the gap between theory and practice. The dynamic space encourages interdisciplinary exploration and a multi-sensory experience while fostering the concept of systems thinking and creating a better school environment, inside and out.

This chapter of the guidebook introduces Chester A. Arthur School, tells the story of The Friends of Chester Arthur and highlights the process and partners of The Chester Arthur Schoolyard Redesign.

Before and After

The Schoolyard was once entirely asphalt. Credit: Friends of Chester Arthur

The Chester Arthur Schoolyard post redesign. Credit: Friends of Chester Arthur

FoCA Overview

FoCA is a 501(c)(3) non-profit formed by parents and community members to support the current and future staff, teachers, students and parents in their effort to create and maintain a successful and safe environment for all children who attend Chester A. Arthur.

We are committed to partnering with all of Arthur's stakeholders to foster a robust learning environment for our neighborhood children. We help the school to fundraise, form strategic partnerships, innovate, and market its successes.

FoCA'S Vision is to:

Support Arthur as an anchor for our diverse community and a top choice for all families; and

Serve as a model for how to engage the community in supporting neighborhood public education across Philadelphia

FoCA's Mission

Friends of Chester Arthur (FoCA) is a volunteer-led 501(c)(3) nonprofit organization that is committed to engaging our neighborhood public school—Chester A. Arthur, community partners and families to:

Facilitate involvement and engagement with the school;

Promote and celebrate the successes at Arthur;

Provide tools and resources for the school to improve educational opportunities for Arthur's students and neighborhood children; and

Foster an engaging, safe and robust learning environment for Arthur's students.

Core Values

Transparency and inclusion;

Responsibility in stewardship of funds;

Responsive support to school leadership, staff, students, and home/school needs;

Adaptability in our role as the needs of Arthur change; and

Mutual engagement between the community and school.

Project Process

2012 FoCA raises $15,000 for Phase 1 of the schoolyard - planters, trees and benches

FoCA, the community and Arthur's principal, teachers, students and families work with OLIN to create a master plan for the schoolyard

The OLIN master plan is used to apply for the Philadelphia Water Department's SMIP grant

June 11, 2012- Ribbon cutting for play structure

2011 May 2011 - FoCA begins to work on redesigning the Chester Arthur schoolyard - meets with Arthur principal, staff and school district

Late 2011 - Early 2012 - FoCA receives donations from AmeriHealth Mercy Foundation and Wells Fargo ($100,000) to build Phase 1 of the schoolyard - play structure

2015

2015 - The OLIN masterplan is used to request NTI grant funding - FoCA receives $110,000 from Councilman's office

March 2015- FoCA issues an RFP for the schoolyard

Mid 2015 - SALT wins RFP

October 2015 - SALT presents three designs

Late 2015- SALT releases final plan for schoolyard

2013

FoCA is awarded $232,000 from the Stormwater Management Incentive Program Grant for storm water management improvements in the schoolyard

2013- FoCA begins working with TCNJ to create STEM curriculum to be used with the components of the schoolyard

December 2013- Phase 1a - greening, shading and seating

Project Process

2017

June 16, 2017 - Chester Arthur Schoolyard Ribbon Cutting

August 21, 2017 - Chester Arthur Schoolyard is officially open

The first annual School Yard Jam is launched

2016

June 2016 - Schoolyard Groundbreaking / Construction begins

September 2016 - FoCA finalizes the maintenance agreement with SDP

September 2016 - June 2017 - FoCA sends surveys to teachers, family members and community members

September 2016 - TCNJ begins to develop curriculum units

December 2016 - Construction is finished

2019

In addition to annual programs and maintenacne, FoCA identified projects and areas of the schoolyard to redefine based on experience and observation including installing a fence for plant protection, updating rule sign and maintaining the berm

FoCA develops long term maintenance stratedgies and prioritize upcoming projects

2018

Chester Arthur teachers begin to incorporate cirriculium units in the schoolyard

FoCA performs routine maintenance based on observsation including replacing planting, planting additional trees, volunteer watering schedules and Saturday Spruce Up Days

FoCA adds programming including Game Night,3 on 3 basketball tournament and “Fun Day”

Spring 2018 - FoCA holds the annual Spring Clean Up Day and Spring Planting Day

Fall 2018 - FoCA holds the annual Schoolyard Jam, STEM Fair and Art Fair

05

chester arthur design + curriculum

The Chester Arthur Schoolyard incorporates design-centric, project-based teaching to benefit Arthur students. The College of New Jersey's Center for Excellence in STEM Education offers Arthur teachers the oppertunity to work with TCNJ School of Engineering educators to develop project-based, STEM curriculum that utilizes the many inquiry-driven components of the Schoolyard.The following chapter details the interactive components of the Arthur Schoolyard; reviews examples of curriculum being developed at Arthur for use in the Schoolyard; and provides sample curricular units developed by TCNJ School of Engineering that correspond to components in our case study schoolyards, and that can be utilized in schoolyards throughout the city.

Renovated Schoolyard

With the balance of the funding coming from community donations, FoCA was able to create a Request for Proposal for design services, awarding a contract to design the Schoolyard to SALT Design Studio in Summer 2015.

In the fall of 2015, Chester Arthur staff and community members vetted various design schematics prepared by SALT, which then refined a final design for the Schoolyard. FoCA worked closely with the School District throughout the process, partnering with the Office of Capital Programs to manage the construction and with the Fund for the School District of Philadelphia to manage funding administration.

Construction on the Schoolyard started in June 2016. The SDP managed the construction process day-to-day, and FoCA monitoried the progress of the project to ensure that SALT's design was successfully executed.

Working with the Fund for the SDP, FoCA helped oversee the disbursement of funds, acting as a custodian for the funds generously given by our donors, large and small.

Construction on the Arthur Schoolyard was substantially complete by June of 2017 and was celebrated by a ribbon cutting ceremony that same month.

June 2016 - Construction at the Arthur Schoolyard begins.
Image Credit: FoCA

June 2016 - Mayor Jim Kenney and Arthur students at the opening of the Arthur Schoolyard
Image Credit: FoCA

ARTHUR SCHOOLYARD FINAL DESIGN

KEY

A - MAIN ENTRY
B - YOUNG WOODLAND PATH
C - OUTDOOR CLASSROOM
D - RAIN CANOPY & INTERACTIVE WATER WALL
E - PARKING LOT
F - POROUS ASPHALT
G - RAIN GARDEN WITH WATER WHEEL
H - ARTIFICIAL TURF BERM
I - AMPHITHEATER SEATING
J - CLIMBING DOME
K - RAISED GARDEN BED
L - GREEN WALL
M - EXISTING PLAY AREA
N - 50 METER TRACK & ANALEMMATIC SUNDIAL
O - MULTI-USE COURT
P - ART PANELS
Q - STORAGE SHED

Credit: SALT Design Studio

Schoolyard Components

Below are the interactive components of the Chester Arthur Schoolyard designed by SALT Design Studio.

Woodland Path

Outdoor Classroom

Rain Capture Canopy + Interactive Water Wall

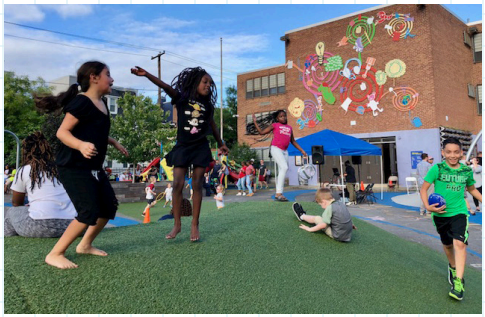
Amphitheater Seating

Climbing Dome

Play Area

Raised Garden Bed

Green Wall



Artificial Turf Berm

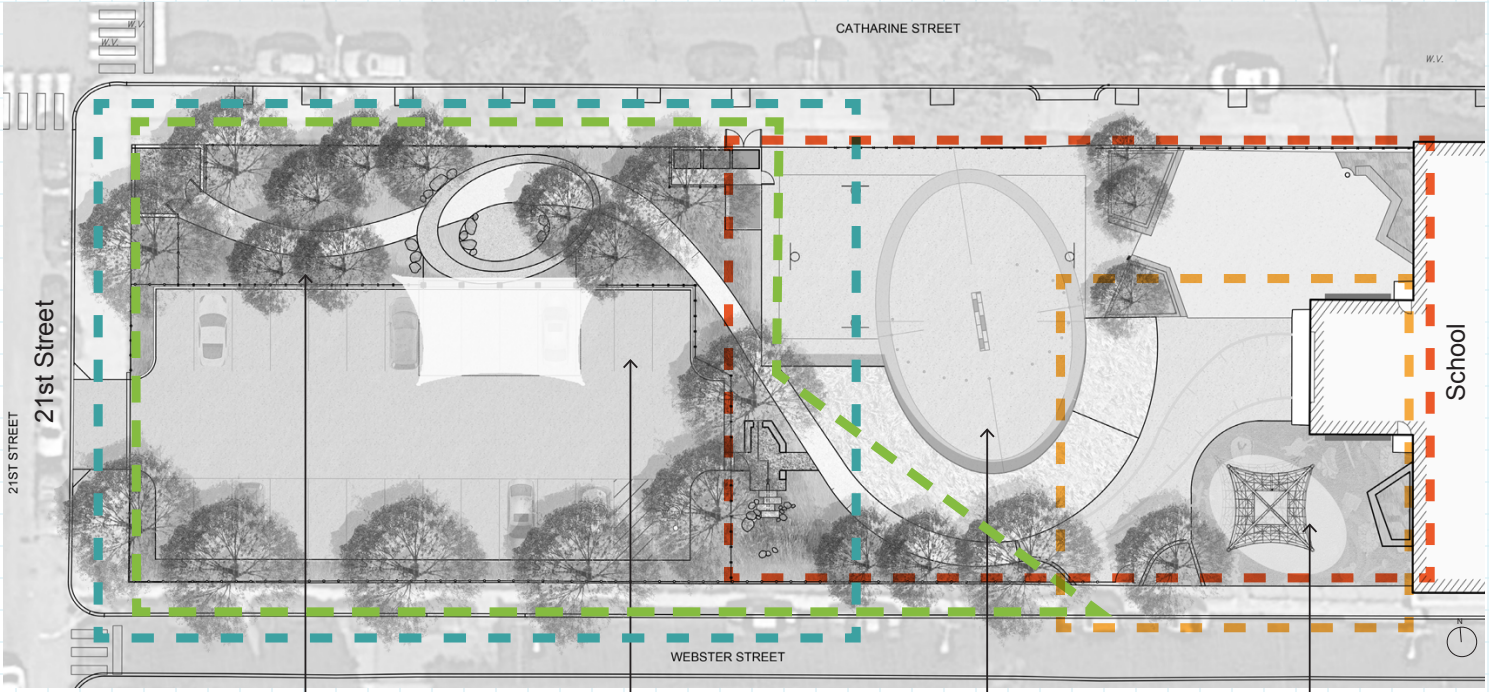
50 Meter Track + Sundial

Water Pump + Rain Garden

Multi-Use Courts

Educational Components

The Schoolyard comprises four labs - Systems, Energy, Motion and Habitat - which maximize the teaching and learning potential of the school and its students.
For example, Arthur students will not only learn math in class, but their teachers can use the same basketball court where students engage in gross-motor play to demonstrate the x and y axes. Or an Arthur teacher can augment a conversation in class about the earth's rotation and changing seasons with an opportunity for students to use the sundial in the Schoolyard. The Schoolyard thereby not only reinforces classroom learning, it inspires it.



HABITAT LAB

Teaches about plant and animal communities, the food web and the story of pollinators through the creation of a native, multi-layered habitat.

SYSTEMS LAB

Demonstrates systems of hydrology, ecology and waste through topography, stormwater management, and site features, such as levers, pipes and sensors.

MOTION LAB

Utilizes proportions, mechanics and movement of human and celestial bodies as teaching tools for understanding basic laws of the universe.

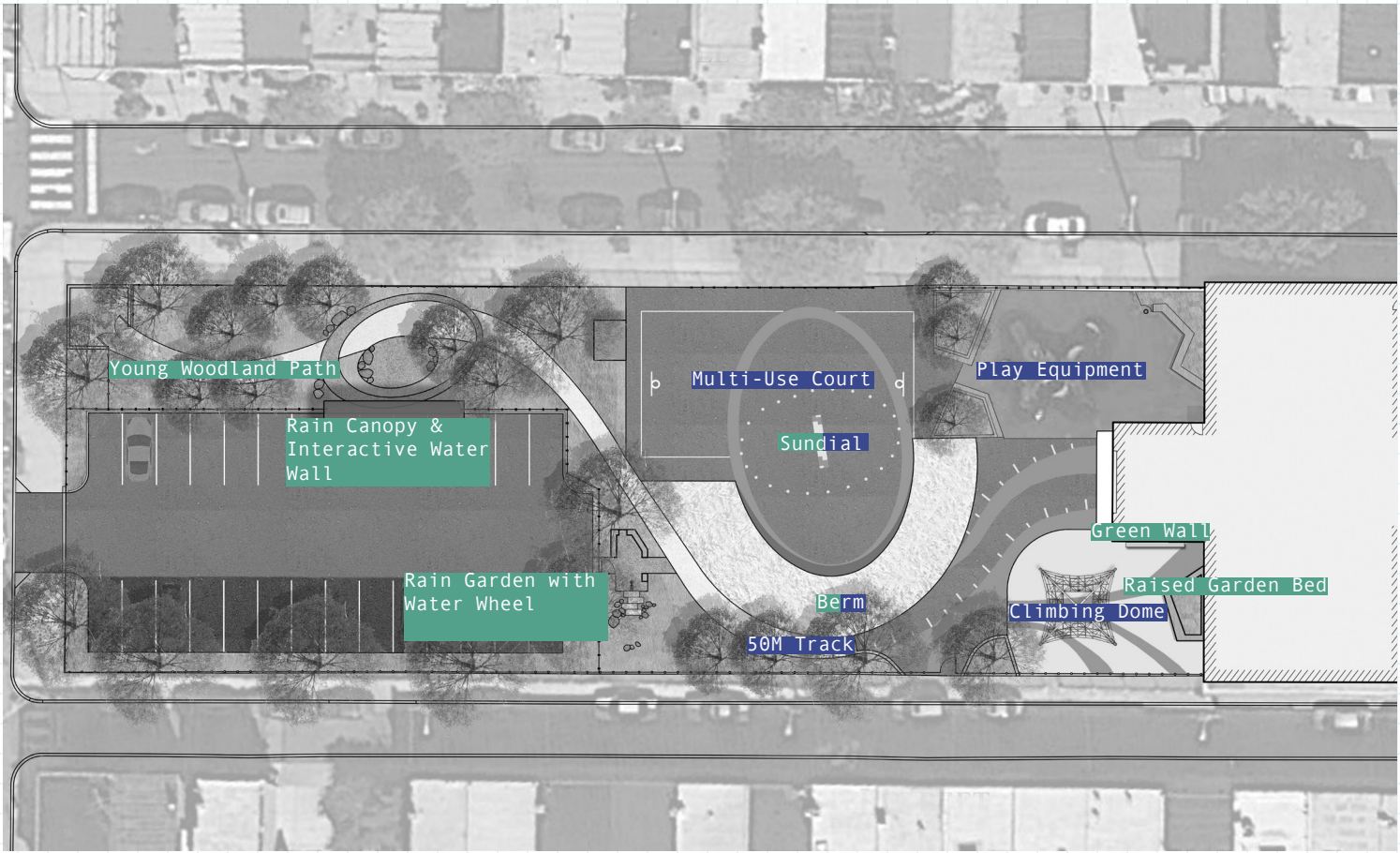
ENERGY LAB

Fosters understanding of food and waste cycles with areas for seed sprouting, growing and harvesting edibles, soil building and composting from school waste streams.

The STEM labs at Chester Arthur Schoolyard. Credit: SALT Design Studio

Educational Components

The following inquiry-based curriculum units are examples from extensive curriculum developed for implementation in the Arthur Schoolyard by The College of New Jersey Center for Excellence in STEM Education ("TCNJ"). TCNJ's mission is to promote an understanding of academic STEM content by integrating research-based best practice into curriculum at all grade levels. TCNJ worked with Arthur teachers to develop curriculum units that were studied both by time in the classroom, and time outside the classroom. The units developed by TCNJ are tied to the Schoolyard's four labs and demonstrate how the Schoolyard augments classroom learning for students at Arthur. FoCA is happy to provide more information on the featured curriculum as well as other TCNJ-developed curriculum upon request.



Curriculum provided by TCNJ School of Engineering links STEM education to the schoolyard.

Educational Components

UNIT: Pollution Solutions: Watershed Stewardship

Systems Lab
Used in Grade 4

"A Drop of Water" by Walter Wick is used to engage Arthur students with rich imagery of the unique nature of water. Through studying the water cycle, students explore where water comes from, how humans get water and where water goes once it is used. In the Schoolyard, Arthur students are able to observe the water cycle firsthand. They learn about water runoff and water management by studying the flow of water from the water pump to the rain garden and at the rain capture canopy, and by studying how water interacts with porous paving around the play structure and in the Schoolyard's raised garden beds and green wall.

UNIT: Engineering Cube Satellites

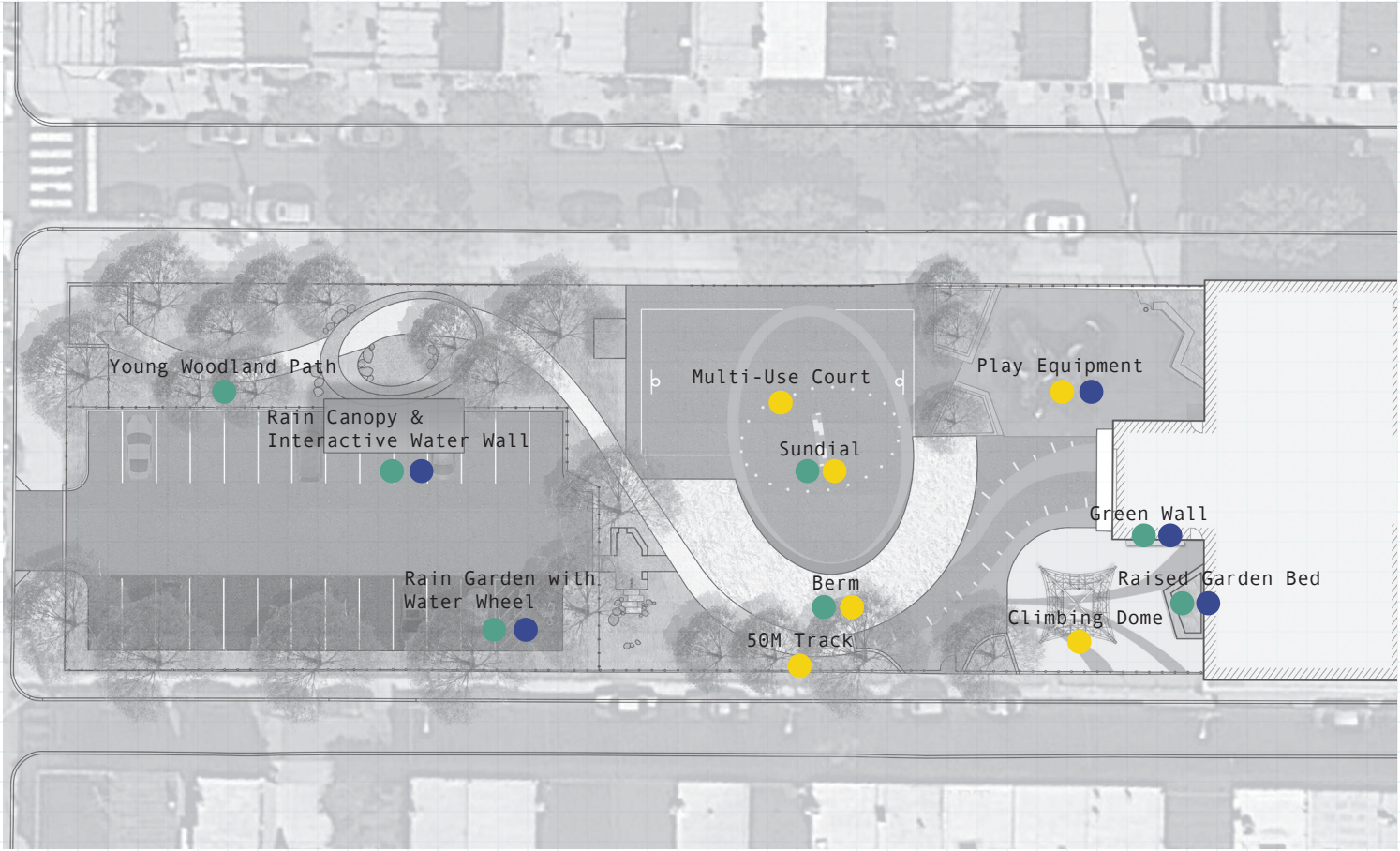
Motion and Energy Labs
Used in Grade 5

Current technology allows satellites to be very small, a few inches per side, enabling new capabilities at a very low cost. These small, cube-shaped satellites are called cube satellites and they allow students to explore physical sciences through energy and motion. Through this unit, students design, build and test prototype cube satellites with the goal of keeping their payloads safe. Students then take the cube satellites to the Schoolyard to run tests. For example, students perform vibration tests to see how the satellites will respond to harsh mechanical jarring. Students also measure the potential and kinetic energy generated by dropping their cube satellites from different heights of the climbing dome or by rolling them down the berm.

UNIT: Think Vertical: Power of Plants

Habitat and Energy Labs
Used in Grade 7

Through this unit, Arthur students engage deeply in life sciences and mathematics by studying the design of vertical farming technologies and their impact on food and waste cycles. Students learn about local and global companies with missions to revolutionize urban farming and consider the pros and cons of vertical farming as they observe firsthand plant growth (or failure to thrive) on Arthur's green wall. After a period of observation, Arthur students are asked to identify a problem specific to their Schoolyard's green wall and propose a solution through the development of their own vertical farming prototypes.



Curriculum provided by TCNJ School of Engineering links STEM education to the schoolyard.

Sample Curriculum Units

Schoolyards with more, and a wider variety of educational components, are capable of implementing curricular activities that are more comprehensive, and likely more authentic. Design-centric teaching and learning in an outdoor space, however, is possible regardless of the number of educational components present. Shown here are examples of Integrative-STEM curricular units applicable at each tier of redesign explored in the case studies featured in chapter two. All of the curriculum involves students designing solutions to authentic problems, providing students with a fundamental understanding of the physical world around them, as well as enabling students to realize they can impact their local, regional and global community.*

Level 1 Curriculum $

Unit: Master Chef: Measurement Edition*

This unit focuses on mathematics, especially measurement. Students are sent on a variety of scavenger hunts to measure key features of the schoolyard components. The unit also focuses on communication skills, culminating in student Master Chef teams making a video, and presenting or instructing fellow students on how to complete a certain recipe.

Unit: A Sticky Situation: Designing Walls

Students investigate concepts required to design a functional wall, which could be an authentic activity to add useful and/or three dimensional features to the schoolyard.

Note: list is not meant to be a strict compartmentalization. For example, when searching for good curricular fits for the school and community, schools are encouraged to investigate curricula listed in all levels because design-centric teaching is possible at all levels.

Level 2 Curriculum $$

Unit: Solid as a Rock: Replicating an Artifact
Available at www.eig.org.

Students are encouraged to act like material engineers, using horizontal playground spaces to help them understand rocks, their history and their properties. Students use their acquired knowledge to become archaeologists to build a petroglyph.

Unit: The Best of Bugs: Designing Hand Pollinators
Available at www.eig.org.

Rain gardens and storm filtration systems make excellent connections to this life science unit on insects and their role in pollination. Students design manual hand pollinators for a variety of flowers, some of which may be growing in their schoolyard gardens.

Unit: Just Passing Through: Designing Model Membranes
Available at www.eig.org.

Through this life science unit, teachers utilize plants and microorganisms in the dirt to engage students in design-centric learning about cell membranes, which play a vital role in organic life of all kinds. Students are motivated by reading about a boy that needs to design a membrane to keep a frog alive and are then asked to find examples of membranes in the schoolyard. The entrances and exits to the fenced in outdoor space provide strong physical analogies to membranes.

**Please contact FoCA for more information regarding i-STEM curriculum designed by TCNJ School of Engineering for Chester Arthur. This curriculum is identified by an asterisk. Publicly available curriculum for direct application or modification can be found at www.eie.org; www.teachengineering.org; www.inventionconvention.org; www.code.org; and www.iteea.org.*

Sample Curriculum Units

Level 3 Curriculum $$$

Unit: Rot, Wriggle and Roll: Composting and Bioreacter Design*

Students acquire an understanding of ecological and biological concepts present at the most basic and observable level: dirt in the schoolyard. Students take a journey into the biological processes, life cycles and relationships between organisms and matter in soils, and become active community contributors by designing a compost bioreactors used for a community composting.

Unit: Water Water Everywhere
Available at www.eie.org.

Motivated by a reading about saving a turtle, students learn about the geologic roll of water and design filters to clean water.

Level 4 Curriculum $$$$

Unit: Solar Sprint Design Challenge*

With access to a variety of horizontal and vertical features in a schoolyard, like a basketball court, a running track, a turf field and/or a play structure, strong connections can be made with physical sciences. This unit guides students through the design, build and testing of solar powered model cars. Students use a variety of horizontal surfaces to investigate forces, energy and friction on the motion of objects. Vertical structures are used to investigate the interplay between potential and kinetic energy. Top performing model car solutions could compete in the Greater Philadelphia Junior Solar Sprint, which is held in the Philadelphia Navy Yard.

Units: Put a Lid on It & Worlds Apart
Available at www.eie.org.

Energy flow in the outdoor space is exhibited through movement of objects and water, including the water cycle. In these units, however, students extend their understanding of energy flow to other contexts. "Put a Lid on It" connects energy directly to humans via an inquiry about safe helmet design, while "Worlds Apart" engages students in a much less "visible" energy flow that occurs in our many communication systems.

Level 5 Curriculum $$$$$

Unit: Engineering Everywhere – Testing the Waters

With access to water management features, including porous surfaces, ports to monitor water flow, gardens, a green wall and a large variety of native plants, a unit on the reuse of water is highly authentic. Through this unit, students design creative ways to reuse water. *Available at www.eie.org.*

Unit: Engineering Everywhere – Growing Up
Available at www.eie.org.

Students inquire about problems with food production related to high growth populations and explore how they can solve for related issues by designing vertical farming prototypes and other alternative edible gardens.

**Please contact FoCA for more information regarding i-STEM curriculum designed by TCNJ School of Engineering for Chester Arthur. This curriculum is identified by an asterisk. Publicly available curriculum for direct application or modification can be found at www.eie.org; www.teachengineering.org; www.inventionconvention.org; www.code.org; and www.iteea.org.*

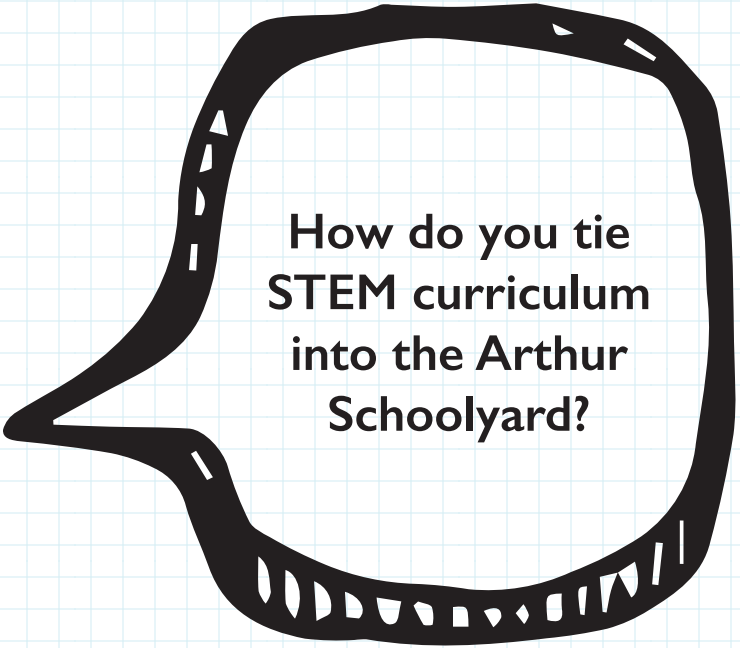
06

best practices

The following chapter reviews Friends of Chester Arthur's experience maintaining the Schoolyard, as well as its efforts to develop and execute programming that reinforces the Schoolyard's role as a nexus between the school and the community. The chapter includes interviews about the Schoolyard with Chester Arthur teachers, students and parents, as well as members of the community, and details a survey of the Schoolyard conducted by PennPraxis where activity levels at the Schoolyard on different days at different times are observed and analyzed.

Interviews with Teachers

PennPraxis interviewed several Arthur teachers and students over the course of the summer 2018 to summer 2019 to hear first-hand how the Schoolyardis being used for both teaching, and play!



"I use the vegetable garden to teach students about photosynthesis and how that allows us to grow vegetables. We cover where the best places to plant certain vegetables are and why, and I look forward to using the vertical green wall in the future to further support my students' work on photosynthesis."

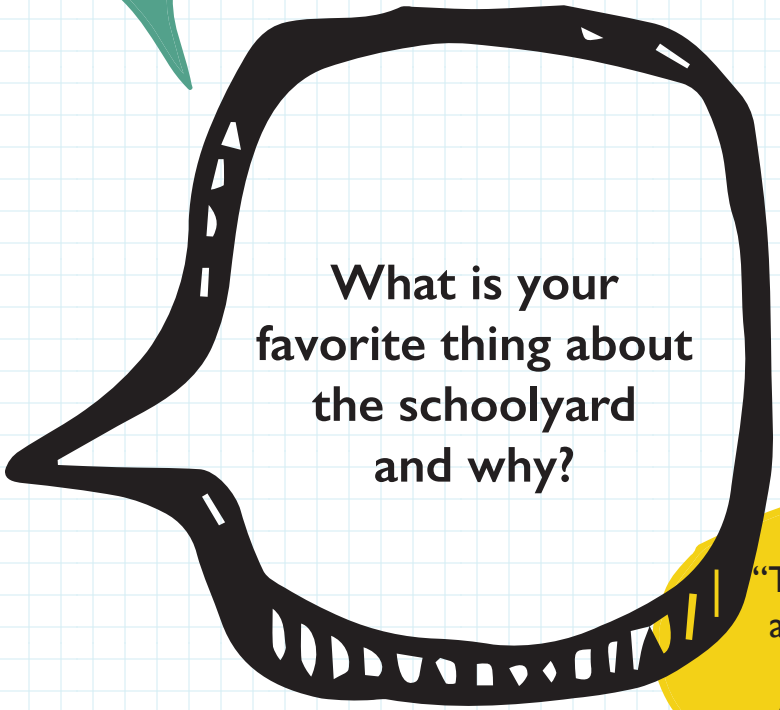
-MS. ZHOU

"With the lower grades, I like to take them outside to the schoolyard to work on their science curriculum by doing a number of observations. We have clipboards that the students can use individually or with partners and they go out and both describe in words, and draw pictures of, what they see. It is particularly powerful to see what the students drew and described at the end of first grade compared to what they drew and observed at the beginning of second grade. To see such growth in their observation skills over such a short period of time is inspiring. We have trees in the schoolyard for the first time in many decades and it's great to just take the younger students outside and see what they notice.

"With my middle school students, we do a bit more work with the permeable pavement. We have sensors that we are working on with the University of New Hampshire that allow us to capture data from observation wells in the rainwater cistern in the schoolyard. We then use that data for graphing and statistical analysis in upper grade math classes, where we learn how to view the data and how to sew data sets."

-MR. FRANKLIN

3rd & 4th Graders

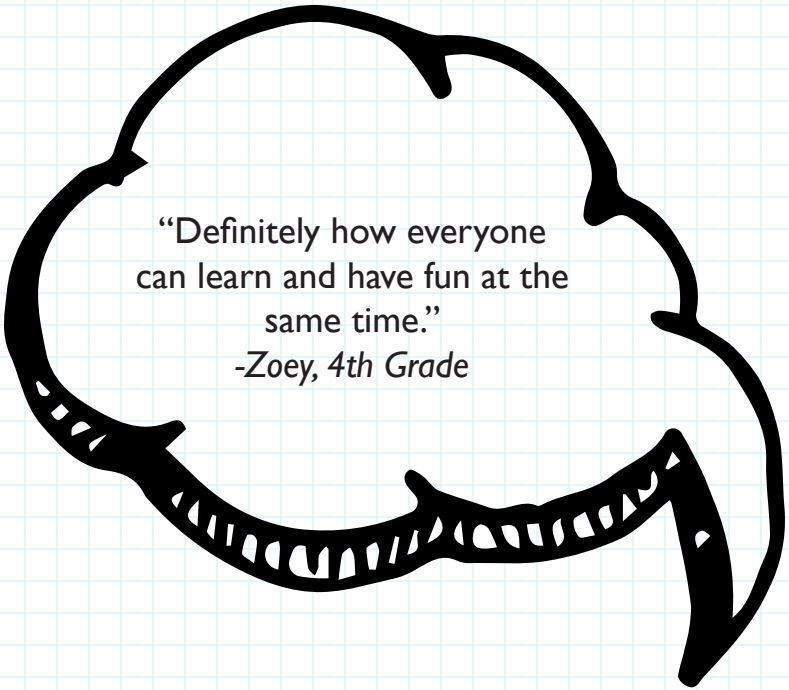


What is your favorite thing about the schoolyard and why?

"The outdoor classroom because it gives us an environmental reason to come to school"
- London, 4th Grade

"...playing dodgeball."
-Micah, 3rd Grade

"There are more activities to do here now."
-Abby, 3rd Grade



"Climbing with my friends."
-Minnie-Lee, 3rd Grade

"The climbing dome because I really like to climb."
- Shahara, 4th Grade

"The climbing tower because it is really fun to climb up and down."
-Micah, 3rd Grade

"The climbing gym. I like climbing a lot."
-Caroline, 3rd Grade

Community Members

Q: How did you become involved with FoCA?

A: "I noticed quickly when I moved here with my wife that the schoolyard was always open and it became a place where I would play basketball and where my friends would bring their kids. I saw an open call for the FoCA Board and I thought I had something to offer with my analysis background. I just saw a lot of value in the community space. I went to public school in Cheltenham and I appreciate good public schools. I wanted to get involved because I connected with and appreciate the schoolyard, and I wanted to contribute before it was about my child or my student"

Q: What do you think of the schoolyard?

A: "This space is awesome. It has really transformed over the years and it is such a nice community too. We all live within a few blocks from here. So it is definitely a good space after school and on the weekends. This is our go-to spot."

Q: How do you use the schoolyard?

A: "We live in the neighborhood. We have a four year old, a two year old and a one month old. The four year old and the two year old love the space. They use their bikes and scooters to roll down the hill and ride in the parking lot… they climb up and down the slides…they play with their cars and trucks on the benches and in the dirt…they use the whole space. They climb on the rope gym."

Parents of Students

"I hear stories of amazing things about the STEM program. The students come out to the schoolyard and learn about plants, ecosystems and storm water. They're also being taught a lot about general care of the earth and recycling. So the students are really aware, which is great."

"I have been involved with FoCA's Building and Grounds Committee for years now. We are tasked with the care of the schoolyard. So since my kids were really small they have been a part of taking care of the schoolyard where they play, which I think is incredible and extremely beneficial for them."

"The great thing about the schoolyard events with FoCA is that we get the kids involved. We give them little shovels, we have them plant, we have them take care and then all summer long they play on the playground and they pick what they planted."

"It has been amazing to see what this has become on the weekend. It has become a community playground and not just the school's playground."

"We have lived in the neighborhood since 2003..this is our backyard…we are out on the playground every night."

"We spend a lot of time here. Both kids have a lot of appreciation for the schoolyard and for the transformation it has undergone. Obviously it took all of us, it took effort, it took money, grant writing and time. Working with some of the brightest and most high achieving people in the neighborhood has been fantastic for me both as a parent and a volunteer. It's been incredible to see the effort that people put forth for not only their own children but for everyone's children and for public education, for what they believe in and for making the school into what it has become."

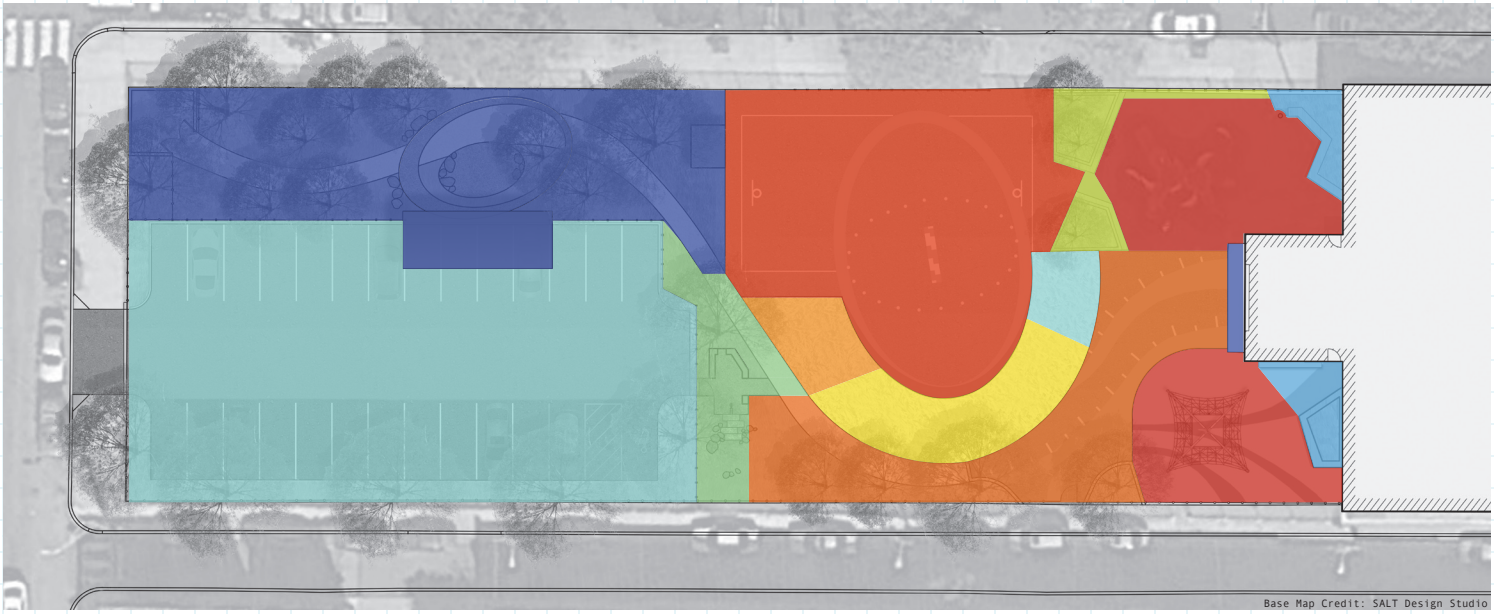
Schoolyard Survey

In May 2018, FoCA began working with PennPraxis to prepare this guidebook. PennPraxis is a 501(c)(3) non-profit that enables faculty and students of the University of Pennsylvania Weitzman School of Design to collaborate on projects that support design action and thought leadership to advance inclusion, innovation and impact in communities that design doesn't typically serve. As part of its efforts, PennPraxis conducted surveys of the Arthur Schoolyard in May and June of 2019. Counts of students and adults were taken during recess, on a Saturday and during an Arthur Home & School Association event. These counts are represented in the three forms of mapping found on the following pages. One map divides the Schoolyard into zones and visualizes the counts by general activity; another map represents specific activities of those counted; and the third form of mapping compares grade level use of the Schoolyard components (Kindergarten & 3rd through 8th grades) against the intended use of those components.

Students playing on the climbing dome. Credit: Friends of Chester Arthur

KINDERGARTEN RECESS

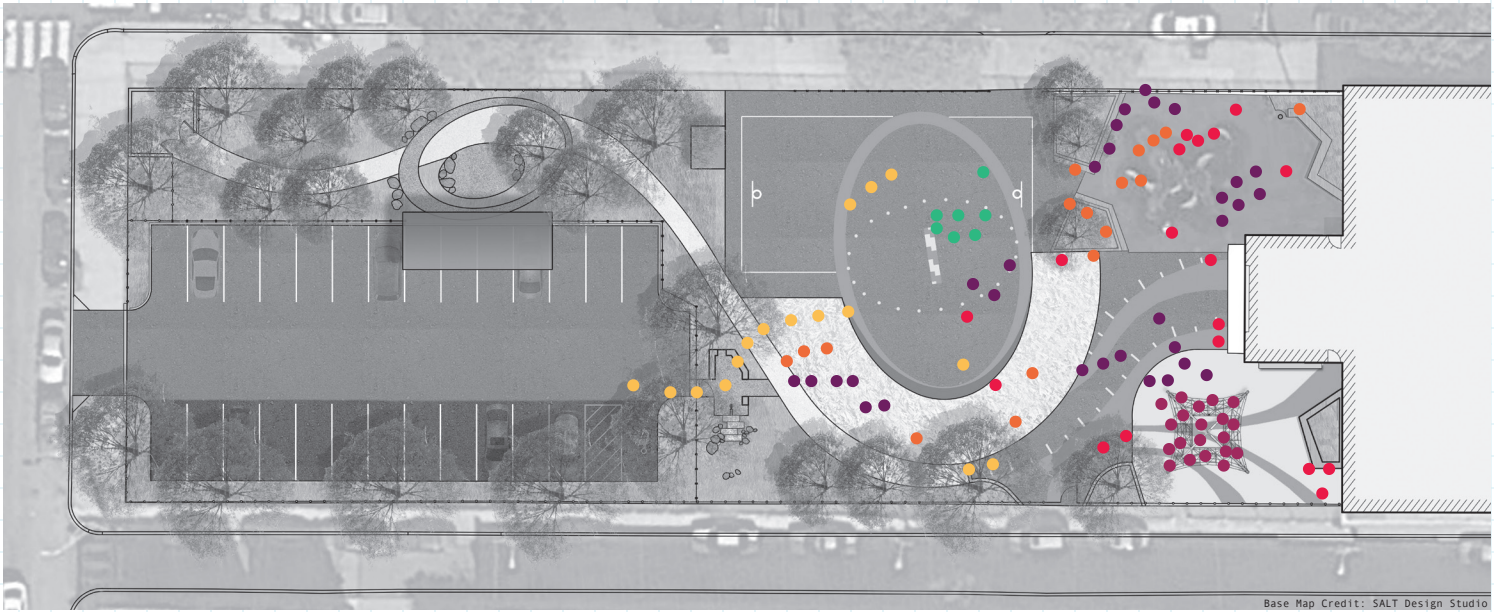
6/3/2019 | 11:50am-12:10pm



Heat Map Indicating Level of Activity by Zone

low high

Survey Summary: It was observed that during kindergarten recess, there was a higher concentration of students playing in the zones containing the climbing dome, the multi-use courts and the play structure. Specifically, a majority of the students spent their recess time climbing on the climbing dome as well as running throughout the track and play structure areas.



Map Indicating Specific Activity

- Standing
- Sitting
- Walking
- Biking
- Active Play / Sports
- Reading
- Eating / Drinking
- Running
- Climbing
- Laying

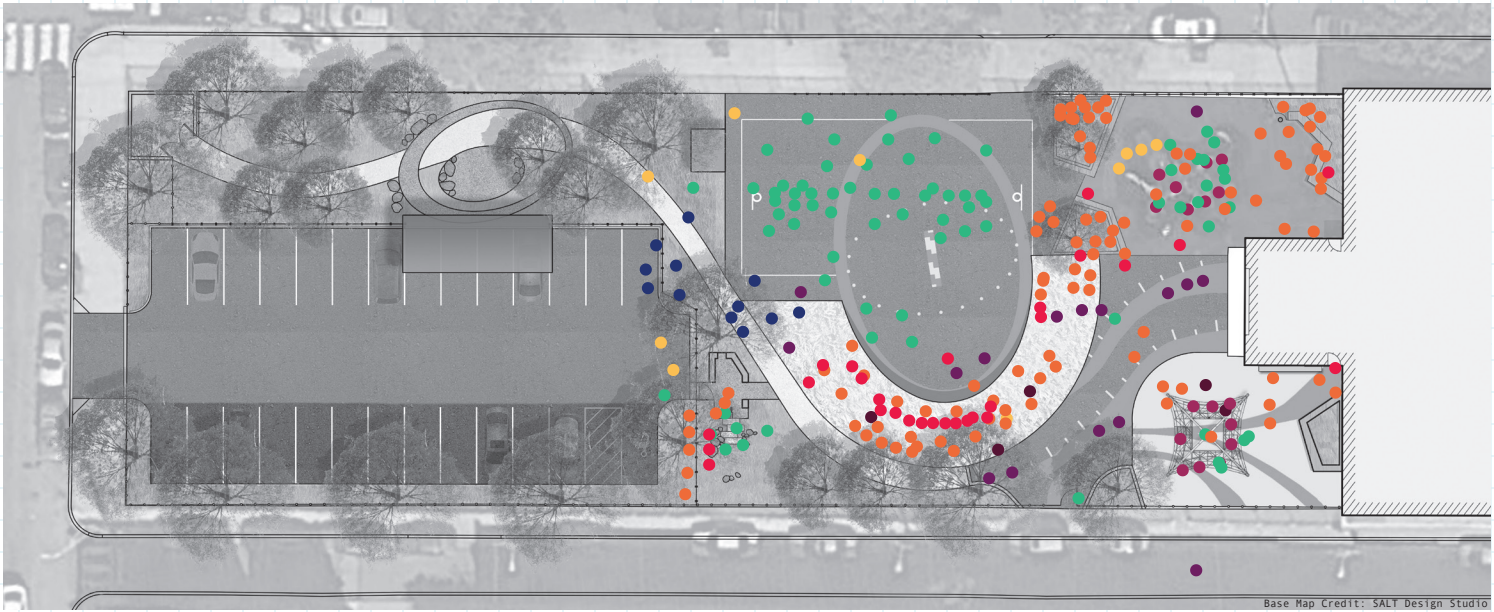
3RD - 5TH GRADE RECESS

5/30/2019 | 12:05pm-1:35pm

Heat Map Indicating Level of Activity by Zone

low high

Survey Summary: It was observed that during third through fifth grade recess, there was a higher concentration of students playing in the zones containing the climbing dome, the multi-use courts, the play structure and the berm. Specifically, a majority of the students spent their recess time sitting on the berm, climbing dome and planters, standing along the berm as well as actively playing in the multi-use courts.



Map Indicating Specific Activity

- Standing
- Sitting
- Walking
- Biking
- Active Play / Sports
- Reading
- Eating / Drinking
- Running
- Climbing
- Laying

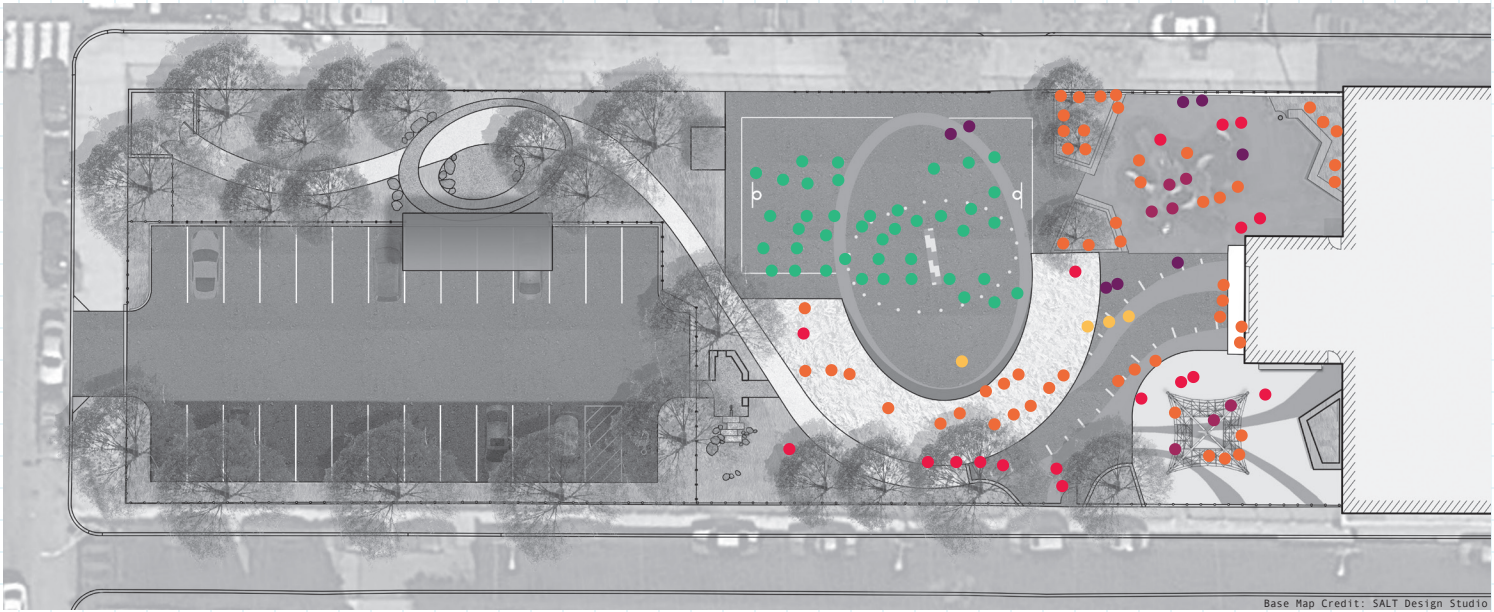
6TH - 8TH GRADE RECESS

5/30/2019 | 12:50pm-1:15pm

Heat Map Indicating Level of Activity by Zone

low high

Survey Summary: It was observed that during sixth through eighth grade recess, there was a higher concentration of students playing in the zones containing the multi-use courts and the play structure. Specifically, a majority of the students spent their recess time sitting along the berm, planters and climbing dome as well as actively playing in the multi-use courts.

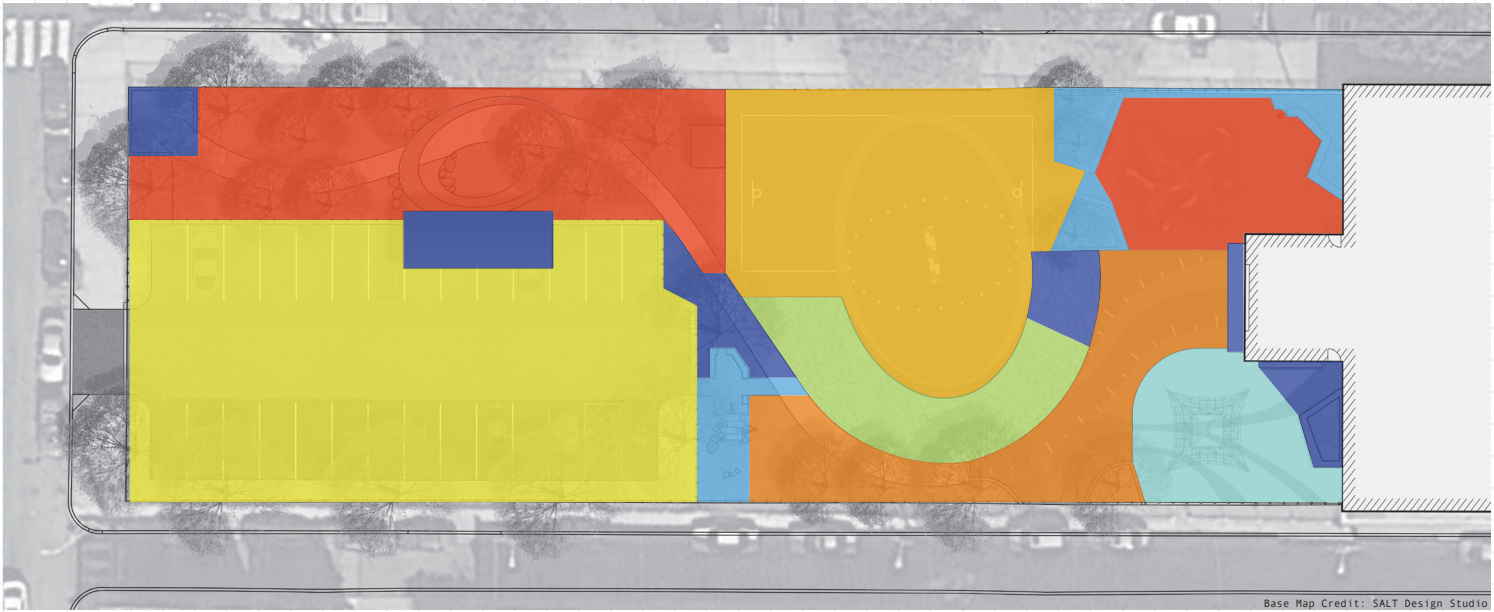


Map Indicating Specific Activity

- Standing
- Sitting
- Walking
- Biking
- Active Play / Sports
- Reading
- Eating / Drinking
- Running
- Climbing
- Laying

SATURDAY

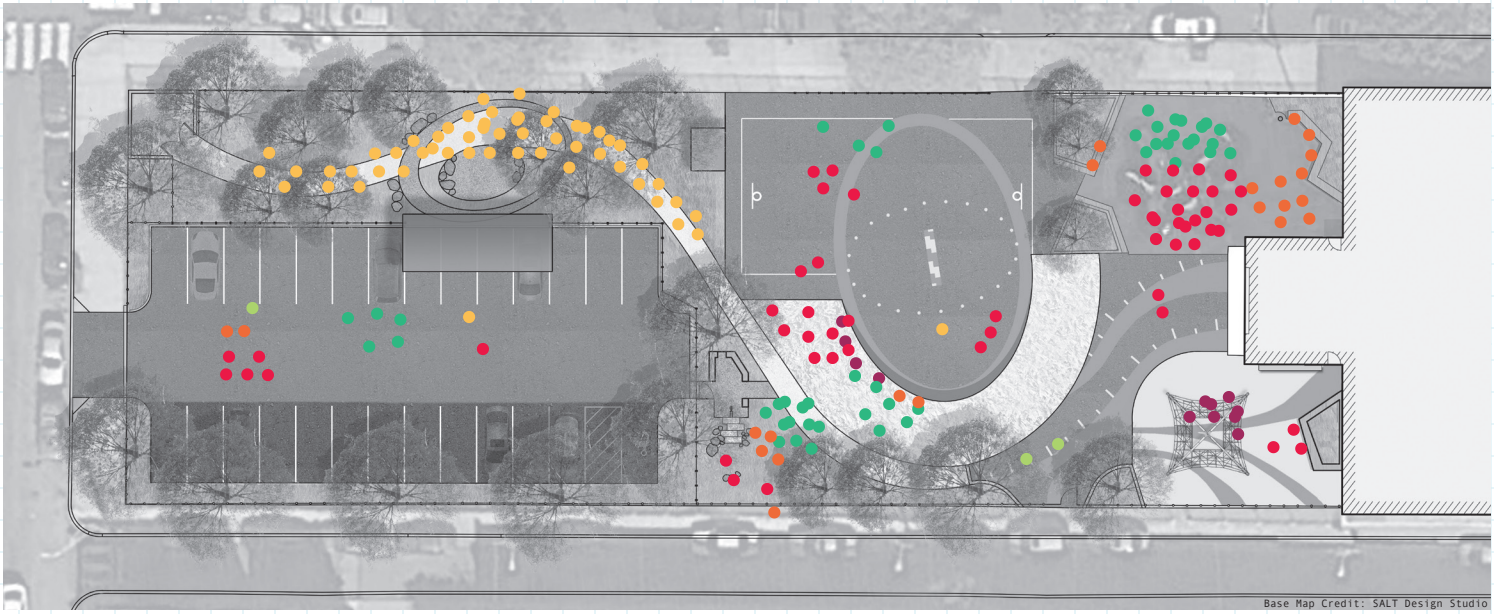
6/1/2019 | 5:10pm-5:40pm, 6:00pm-6:30pm



Heat Map Indicating Level of Activity by Zone

low high

Survey Summary: It was observed that during Saturday evening, there was a higher concentration of students, kids, parents and community members playing in the zones containing the woodland path and the play structure. Specifically, a majority of people spent their time walking through the woodland path and standing throughout the berm and play structure areas.



Map Indicating Specific Activity

- Standing
- Sitting
- Walking
- Biking
- Active Play / Sports
- Reading
- Eating / Drinking
- Running
- Climbing
- Laying

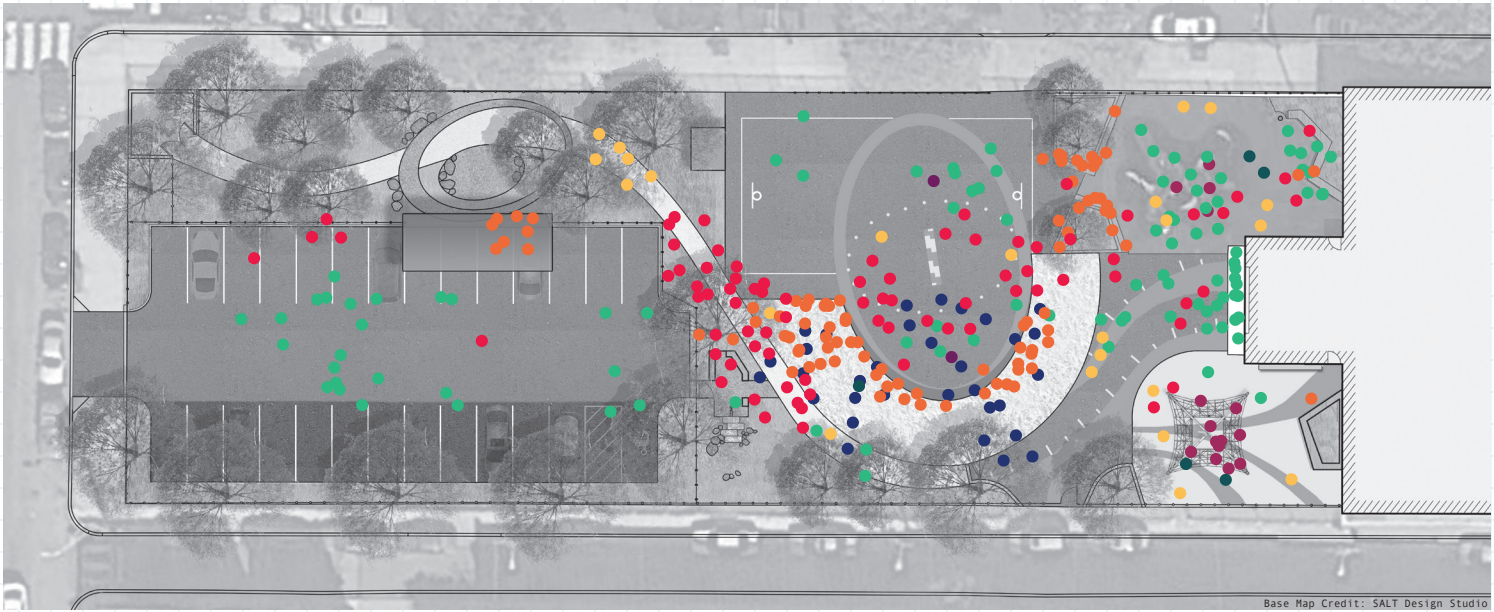
ARTHUR HOME & SCHOOL ASSOCIATION EVENT

6/3/2019 | 5:30pm-6:30pm

Heat Map Indicating Level of Activity by Zone

low high

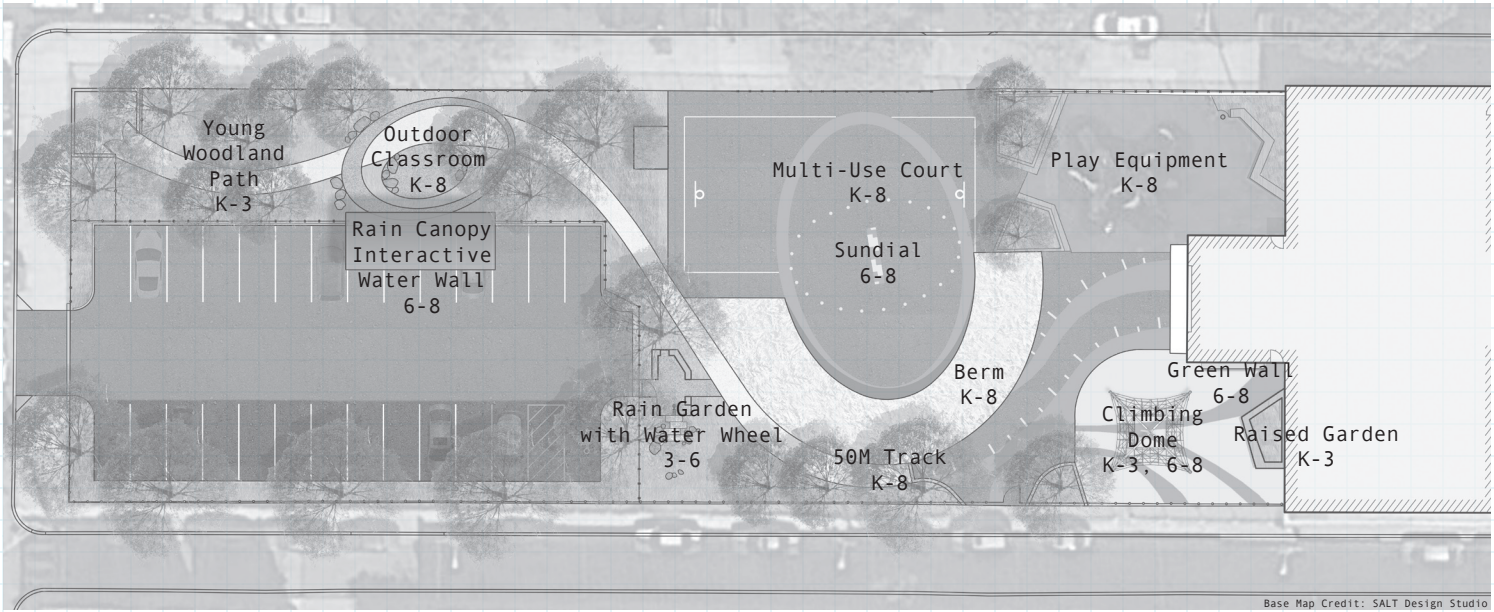
Survey Summary: It was observed that during a Home & School Association Event, there was a higher concentration of students, kids, parents and community members playing in the zones containing the berm, multi-use court and play structure. Specifically, a majority of people spent their time sitting along the berm and actively playing in the parking lot and play structure as well as standing throughout the multi-use court and track.



Map Indicating Specific Activity

- Standing
- Sitting
- Walking
- Biking
- Active Play / Sports
- Reading
- Eating / Drinking
- Running
- Climbing
- Laying

INTENDED USAGE BY GRADE LEVEL

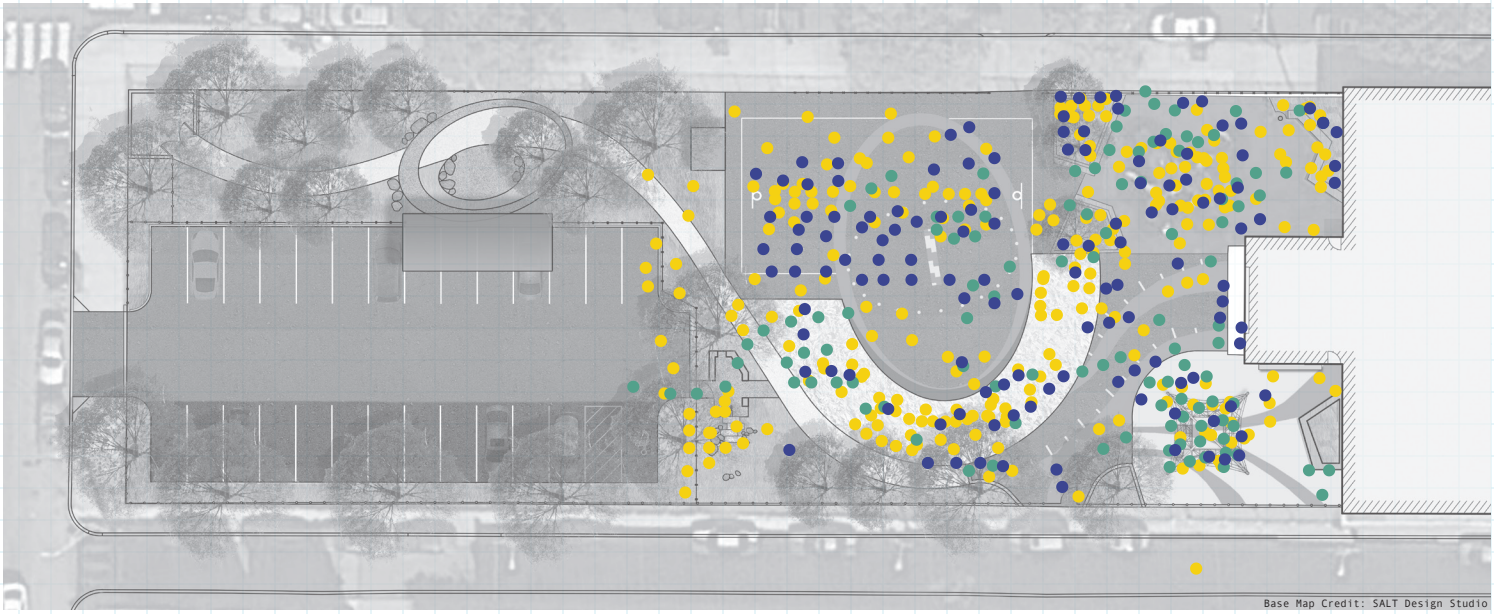


Map Indicating Intended Usage of Schoolyard Per Grade Level Provided by TCNJ School of Engineering School

Survey Summary: The map above illustrates the intended uses of each Schoolyard component per grade as developed by TCNJ School of Engineering School of Engineering. As illustrated in the observation map, there is a fairly even distribution of students across all grades using the Schoolyard components, with the exception of the rain canopy / interactive water wall and the young woodland path, which had no usage during the recess

SCHOOLYARD USAGE PER GRADE LEVEL

Surveys conducted on 5/30/2019, 6/1/2019 and 6/3,2019



Map Indicating Actual Use of Schoolyard Based on PennPraxis Surveys

Kindergarten

Grades 3-5

Grades 6-8

Community Commitment

A maintenance agreement is critical for any new schoolyard. Below are key elements to consider and include in any schoolyard maintenance agreement.

1. Right of entry to the schoolyard for the party responsible for maintaining the space.

2. A term for the agreement, and whether that term can be renewed.

3. When applicable, clearly established responsibilities for maintenance of any stormwater improvements on the schoolyard.

4. Clearly established responsibilities for maintenance of all non-stormwater improvements, including water supply shut off needs and a process for notifying the School District of necessary maintenance of schoolyard components under warranty.

5. Appropriate insurance coverage for responsible parties.

6. Standard contractual terms for breach/termination of the agreement, applicable laws, notice and non-assignment of responsibilities under the agreement

Arthur Schoolyard Maintence Agreement

FoCA negotiated a maintenance agreement with the Philadelphia School District and the Philadelphia Water Department in the fall of 2016. Per the agreement, FoCA became legally responsible for maintaining all non-stormwater improvements to the Arthur Schoolyard for a period of two years. Following the expiration of the agreement, the SDP took over responsibility for the maintenance of the Schoolyard, although FoCA retains responsibility for notifying the District of any issues or necessary repairs. In addition, per the agreement, the Philadelphia Water Department maintained all stormwater improvements to the Schoolyard for a period of two years. If interested, please contact FoCA for a copy of its maintenance agreement with the District.

FoCA tasked its Building & Grounds Committee with maintenance of the Schoolyard, and despite the expiration of the maintenance agreement in February of 2019, FoCA continues in its efforts to maintain the Arthur Schoolyard. FoCA's annual maintenance efforts are detailed on the next page, and are an integral aspect of the Arthur Schoolyard redesign process. Before undertaking a schoolyard redesign, it is therefore important to consider and solve for the question of who will maintain the space once the redesign is complete, how will it be maintained and where the funds for annual maintenance will come from. Ultimately, FoCA's Building & Grounds Committee supports the long-term sustainability of the Schoolyard through its ongoing maintenance and fundraising efforts.

Maintenance Fundraising

With respect to fundraising, FoCA budgets $15,000 annually for Schoolyard maintenance. These funds are then available for maintenance needs that arise throughout the year. If a particularly large or expensive maintenance need arises, FoCA is prepared to use additional funds from its annual budget to address that need at the Schoolyard, or alternatively, work with the District to address the repair.

One of FoCA's initial Schoolyard-specific fundraising efforts was its Paver Project. FoCA offered members of the community the opportunity to support its maintenance efforts by purchasing a paver and inscribing it with a personal message of their choosing. The pavers sit at the northwest corner of the Schoolyard, and serve as a clear point of connection between the school and the community. FoCA's Paver Project raised over $16,000, which was the beginning of FoCA's maintenance fund.

In addition, FoCA undertakes extensive fundraising efforts each year, the proceeds of which support - among many other things - maintenance of the Schoolyard. These efforts include FoCA Night Out (an annual silent auction event); the Southwest Center City 5k (planning and proceeds are shared equally with neighboring public school, Stanton Elementary); a year-end annual appeal; and grants. FoCA also solicits donations from local businesses and community members when possible for gardening tools, supplies and plants, and cleanup efforts always include the assistance of community volunteers.

Snapshot Annual Maintenance

The following is a snapshot of FoCA's annual maintenance efforts and related events at the Arthur Schoolyard. FoCA's Building and Grounds Committee plans, prepares for and hosts these events, and they are critical not only to maintaining the space, but sustaining the community's connection to, and care for, the Schoolyard. This is significant because the Schoolyard - which is open 24 hours a day, 7 days a week - is more than just an outdoor learning and play space for Arthur students, it's a space for the larger Arthur community to gather and connect with both the school and each other. Notably, these events are generally attend by Arthur students and families, Arthur teachers and community

Spring Cleanup Day & Planting

- ☑ planted vegetable garden and verticle green wall
- ☑ replaced plantings in the Schoolyard that did not survive the winter
- ☑ planted additional plants and trees
- ☑ weeded and picked up trash throughout Schoolyard
- ☑ identified areas requiring additional fencing to protect plants
- ☑ posted a sign outlining best practices and rules for Schoolyard usage
- ☑ hung two display cases to advertise both Arthur and FoCA events

Summer Volunteer Routine

- ☑ developed an online volunteer watering sign up
- ☑ added weeding and trash pick up to online volunteer sign up
- ☑ held mid-August weeding and trash pick up event to prepare space for new school year

Fall Cleanup Day

- weeded and picked up trash through Schoolyard
- minimal planting
- weeding
- painted exterior doors to school indigo (previously brown)

Saturday Spruce Ups

- two FoCA Building & Grounds Committee volunteers spend an hour on the Schoolyard every other Saturday from mid-September through early November to do any weeding or trash pick up necessary; community volunteers are also invited to attend.
- the two FoCA volunteers also identify any maintenance issues requiring attention

Overall Maintenance Responsibilities

The following highlights all of the FoCA Building and Grounds Committee Maintenance Responsibilities for 2018 and 2019.

2018

- ☑ developed and tested a long-term maintenance plan that included programming and events
- ☑ maintenance focused on replacing plants and adding planting, trash pick up and summer watering
- ☑ stocking on-site shed with items needed for maintenance
- ☑ added trash bags, trash pickers and a lock box for keys
- ☑ developed a “how to water the schoolyard” instruction manual for volunteers
- ☑ set up a system of turning off water in November and on in May
- ☑ developed schoolyard use rule signage and posted it in the schoolyard
- ☑ sought feedback from community members and Chester Arthur administration and teachers regarding usage/areas of improvement’ maintenance needs

2019

- ☑ identified projects and areas of the schoolyard to refine based on experience and observation
- ☑ installed a fence next to the shed and behind the basketball net to protect the plants and garden beds
- ☑ added additional trash cans with lids to prevent trash from blowing
- ☑ identify wear and tear of schoolyard components
- ☑ identify maintenance needs and categorize as easy fixes and more complicated and / or expensive fixes.

Easy Fix Solutions

1. FoCA budget can cover maintenance cost
2. Review list of maintenance needs and current available funds
3. Identify if maintenance solution needs specific fundraising fundraising

Complicated Fix Solutions

1. FoCA budget cannot cover maintenance cost or fundraising
2. FoCA follows a review process with the School District of Philadelphia
3. A request is submitted to the School Facilities Area Coordinator
4. A request is submitted to the School Facilities Area Coordinator
5. A timeline is established on maintenance request as well as a funding process

Programs & Events 2018

The following highlights the programming and events added to the schoolyard and hosted by the FoCA Community Outreach Committee. These annual events are crucial to tie into the overall fundraising goals and community commitment needed to maintain the schoolyard.

Spring Game Night

April 2018 - FoCA hosted Game Night for the school and community to enjoy the space.

The event included sidewalk chalk, games, pizza and drinks.

STEM Partnership Fair

May 2018 - Chester Arthur School and FoCA hosted a partnership fair with partners including TCNJ School of Engineering, the Free Library of Philadelphia and the Delphi Program through the Pennsylvania Ballet.

The Delphi Program helped the students prepare and put on a dance performance in the schoolyard using the Berm as amphitheater seating.

Arthur Fun Day

June 2018 - The Home and School Association hosts a Fun Day to celebrate the end of the school year.

Back to School Jam

September 2018 - FoCA hosted a Back to School Jam (for approximately 300 school and community members) to celebrate the start of the school year. A party is held in the schoolyard with food trucks, Rita's Water Ice and DJ. Playworks organizes activities for the kids including obstacle courses, basketball drills and a 3 on 3 basketball tournament for adults.

Students are given wrist bands to get one free hot dog or pretzel and one free water ice.

Science and Art Fair

October 2018 - Chester Arthur School hosted a Science and Art Fair in the schoolyard that showcased the student's science and art projects .

Image Credit: SALT Design Studio

ACKNOWLEDGMENTS

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Images | All images are credited to Friends of Chester Arthur except otherwise noted.

Mapping | Basemap of Chester Arthur Schoolyard credited to SALT Design Studio.

Data Collection / Surveying | All surveying conducted and visualized by PennPraxis

Curriculum Units | All curriculum units are credited to The College of New Jersey.

Icons | All icons credited and sourced to The Noun Project

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