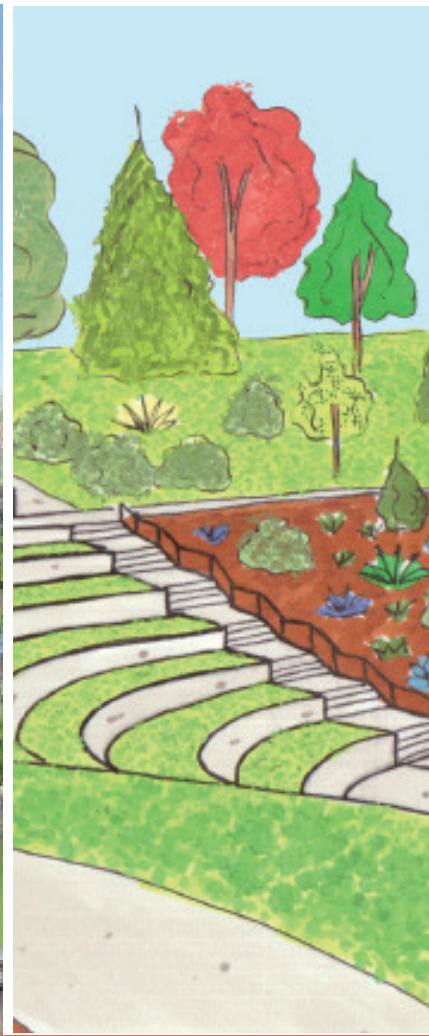
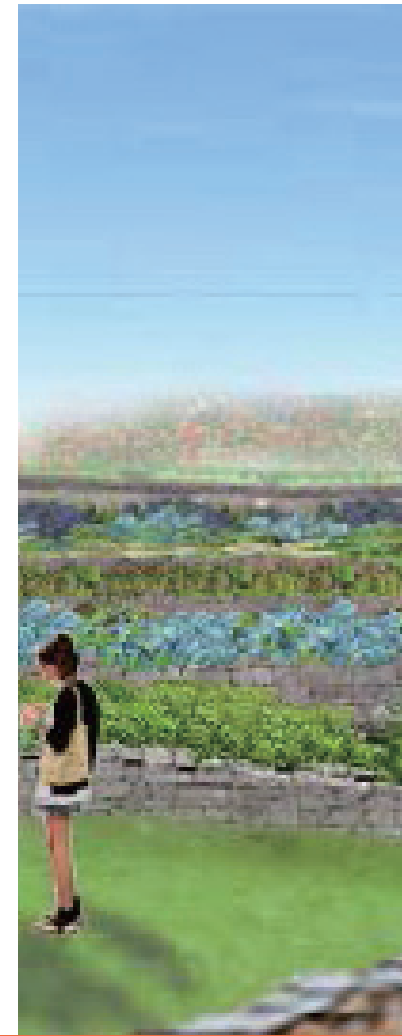
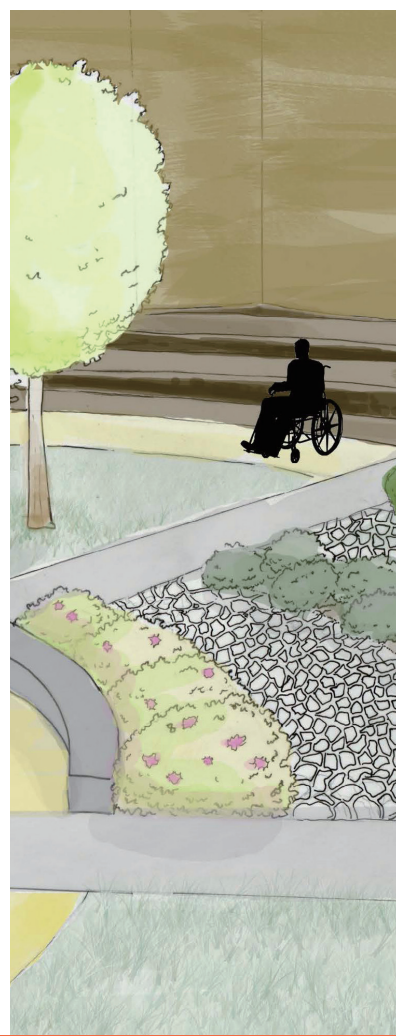
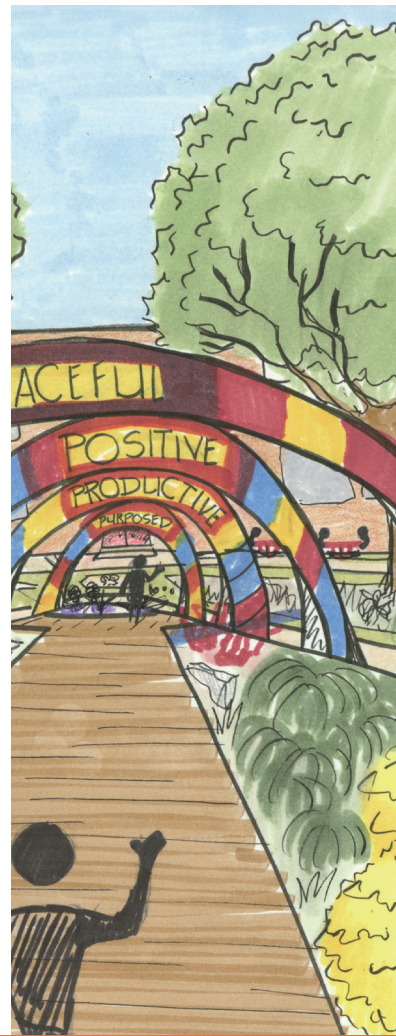


Prince George County Public Schools



Suitland High School & William Wirt Middle School

Prince George County Public Schools

Suitland High School & William Wirt Middle School

LARC240 Graphic Communication and Design Studio, Spring 2018

Design By: Marquis Barnes, Olivia Duley, Samuel Ehrlich, Allison Fields, Catherine Garcia, Rachel Greenhawk, Maria Harrington, Jovon Jackson, Evan Lipka, Mia Manning, Linda MacSorley, Jessica Meilman, Heyner Pajaro, Gregory Remesch, Abigail Smith, Evan-Claire Schaum, Audrey Wilke, Ryan Young

Instructed By: Professor Byoung-Suk Kweon, Ph.D., PLA, ASLA



Landscape Architecture

DEPARTMENT OF PLANT SCIENCE AND LANDSCAPE ARCHITECTURE

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Suitland High School

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George McClure, Coordinator
John McDaniel, Classroom Teacher

William Wirt Middle School

Rhonda Simely, Principal
Gladys Rosario, Secretary

University of Maryland - College Park

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Suitland High School

Site Analysis



History and Demographics

Introduction

Suitland High School, founded in 1951 as part the Prince George's County Public School system, currently enrolls 2,157 students from all of Prince George's County.

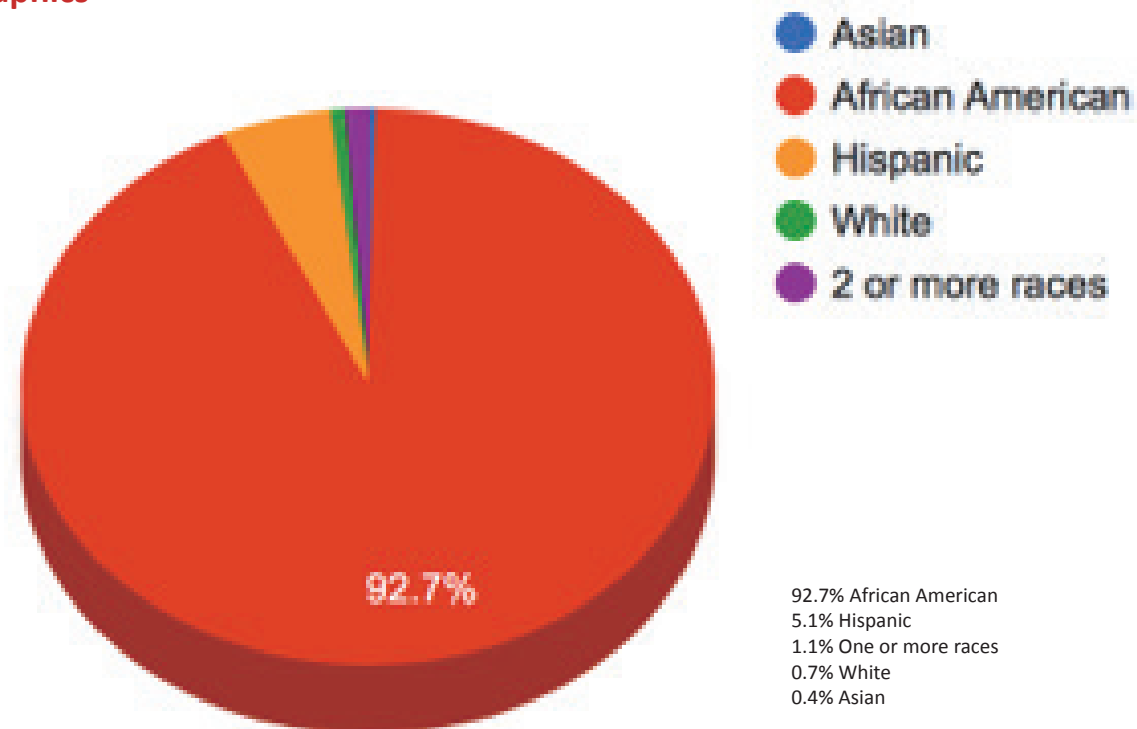
Notable Alumni

- Andrew Bayes - American football player
- NaVorro Bowman - Penn State and NFL football player
- George O. Gore II - actor, New York Undercover, My Wife and Kids
- Steny Hoyer - House Minority Whip, U.S. House of Representatives
- Lamont Jordan - University of Maryland and NFL football player
- Chad Scott - NFL football player
- Devin Tyler - Temple

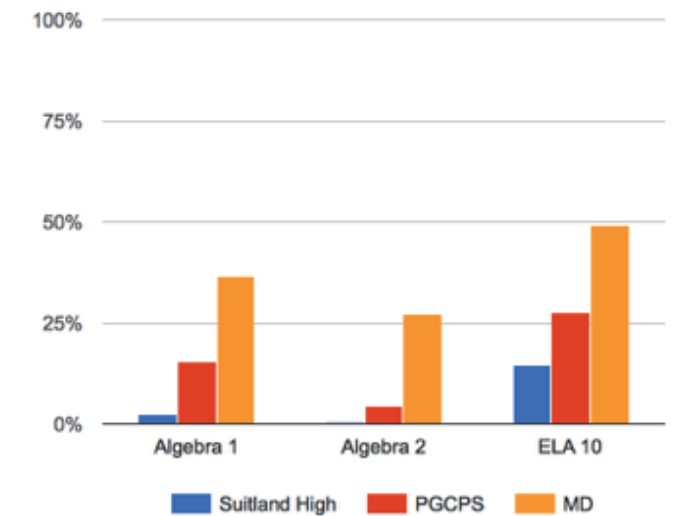
Programs offered

- Electrical
- Carpentry
- Heating, Ventilation, and Air Conditioning (HVAC)
- Masonry
- Plumbing
- Business Management
- NAF Finance
- Barbering
- Cosmetology
- ProStart Cooking/ Culinary Arts
- Health Professions in Nursing
- Homeland Security Sciences
- CISCO Networking Academy
- Military Science
- Automotive Body Repair
- Automotive Technician

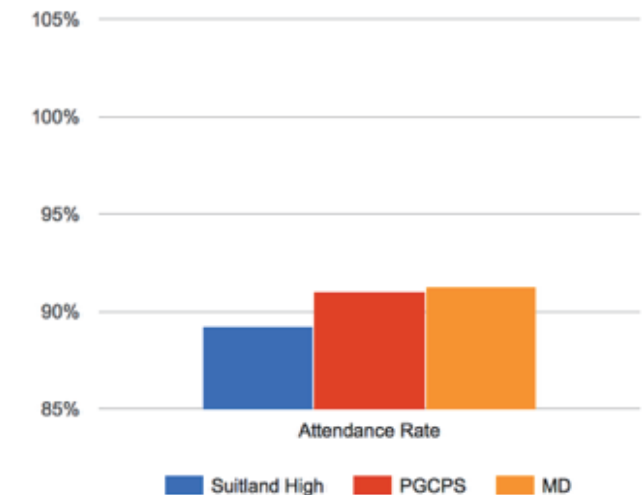
Demographics



PARCC: Students who met or exceeded expectations in Math and English

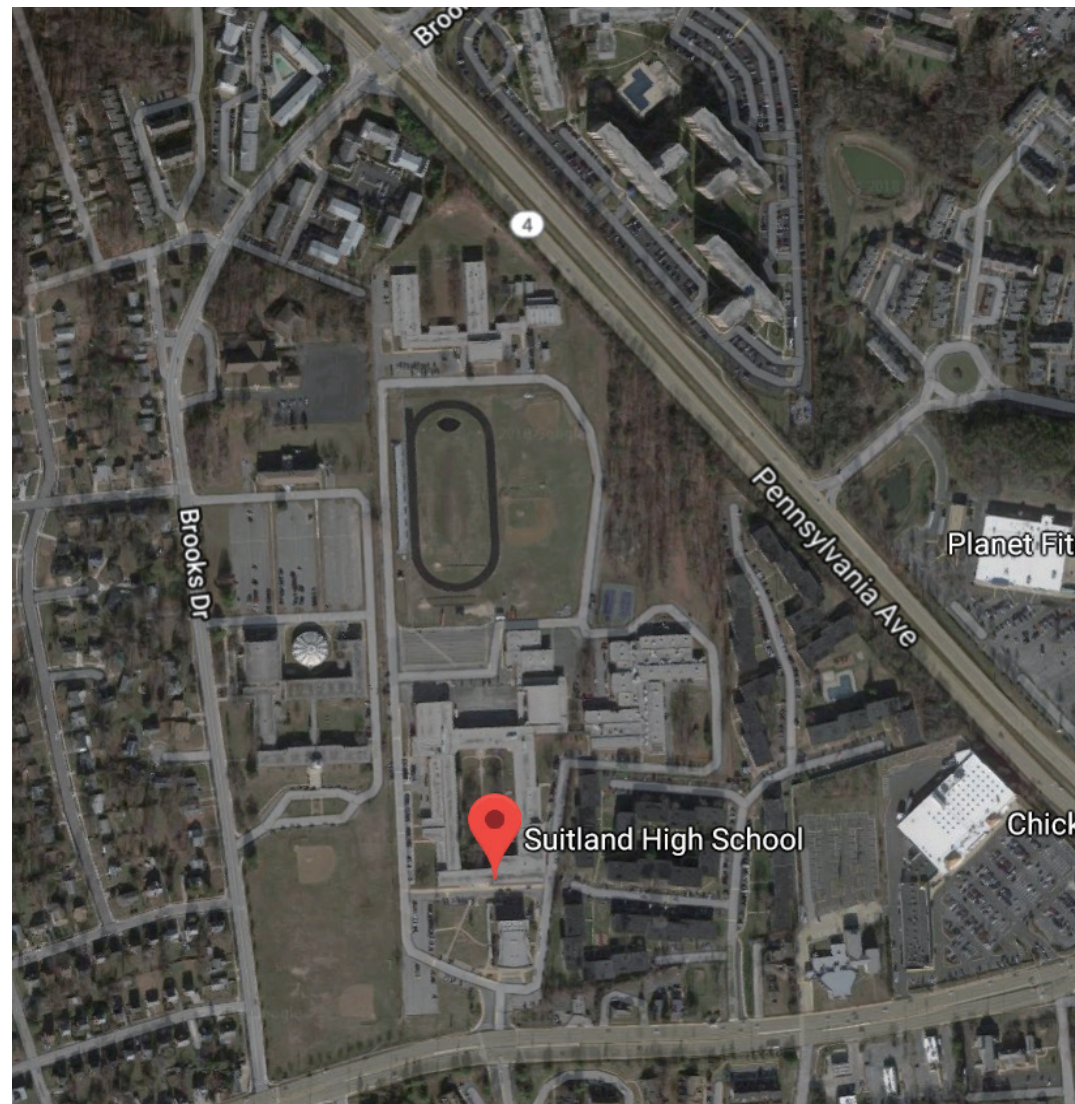


Attendance

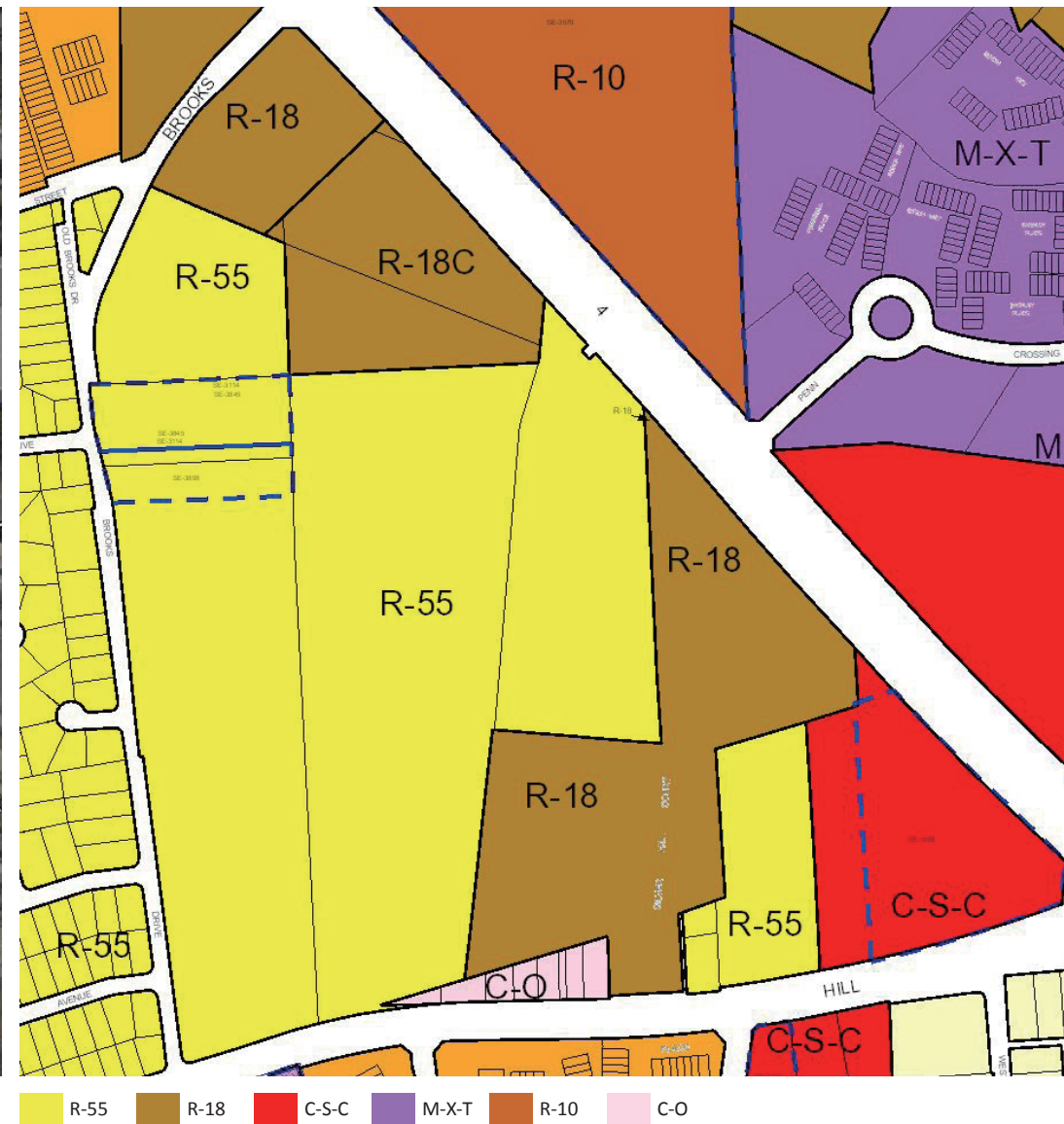


Zoning

Site Map



Zoning Map



Permitted Uses

R-55: One-Family Detached Residential
Usually subdivided into smaller lots
High-density single-family residences

On site: Majority of campus in this zone: The main school, the middle school, the technical academy, and the athletic facilities

R-18: Multifamily Medium Density Residential
Apartment
Single-family attached or detached

On site: No part of campus is located in this zone. The two neighboring residential developments are R-18

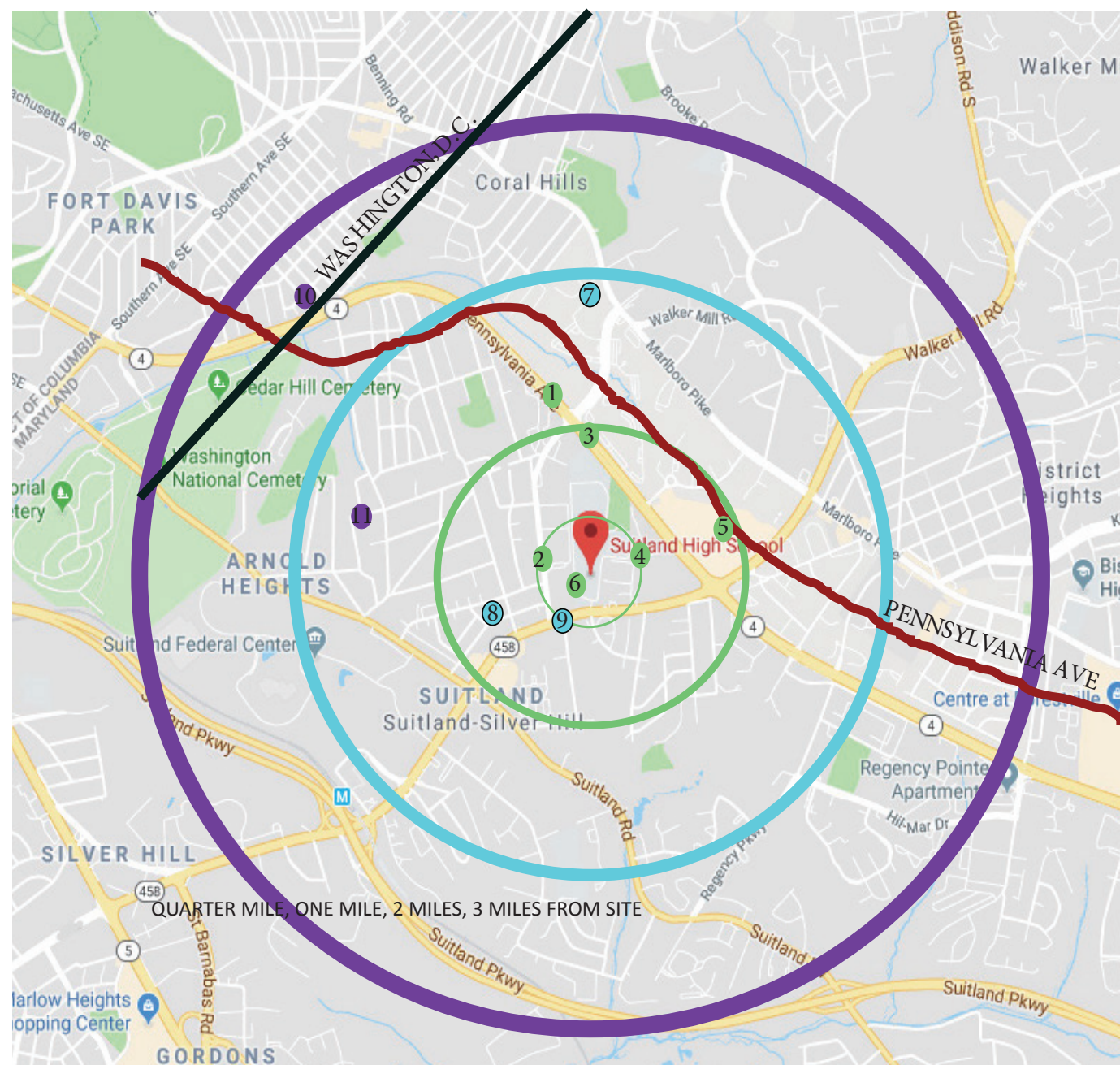
R-18C: Multifamily Medium Density Residential
Apartment
Single-family attached or detached
Must have condominium

On site: The center for creating and performance arts is in this zone

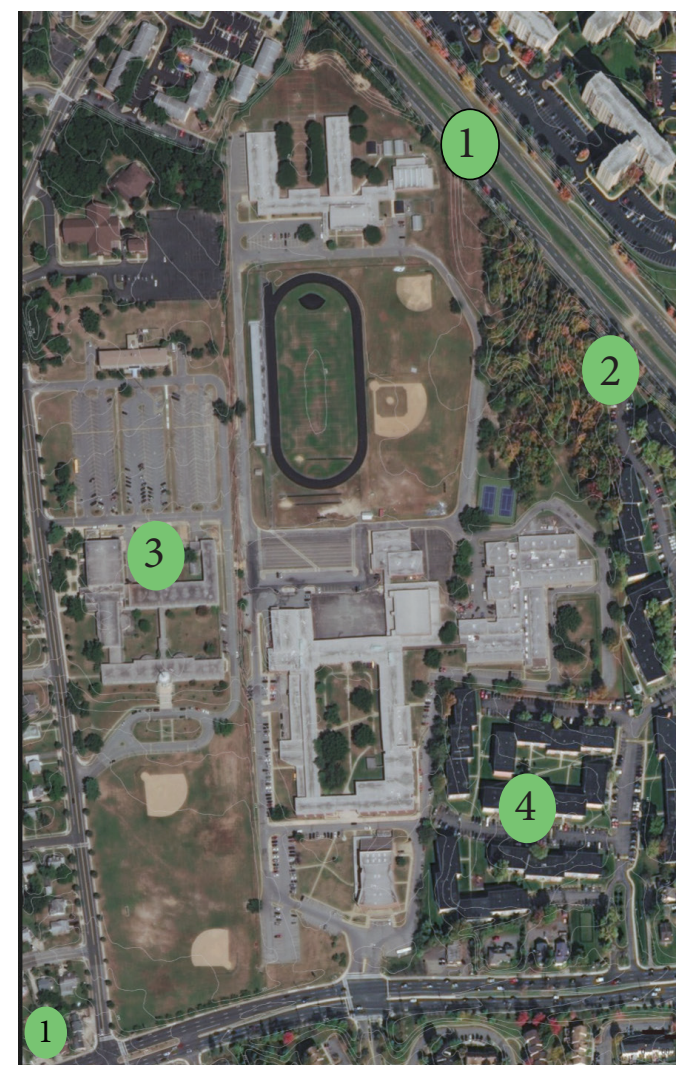
C-O: Commercial Office (to south of site)

Context

Having D.C. within the three-mile radius allows easy access to museums, facilities, and organizations.



Within One Quarter Mile



- 1 Pennsylvania Avenue
- 2 Aqueduct
- 3 Drew Freeman Middle School
- 4 Apartment Complex

Within One Mile

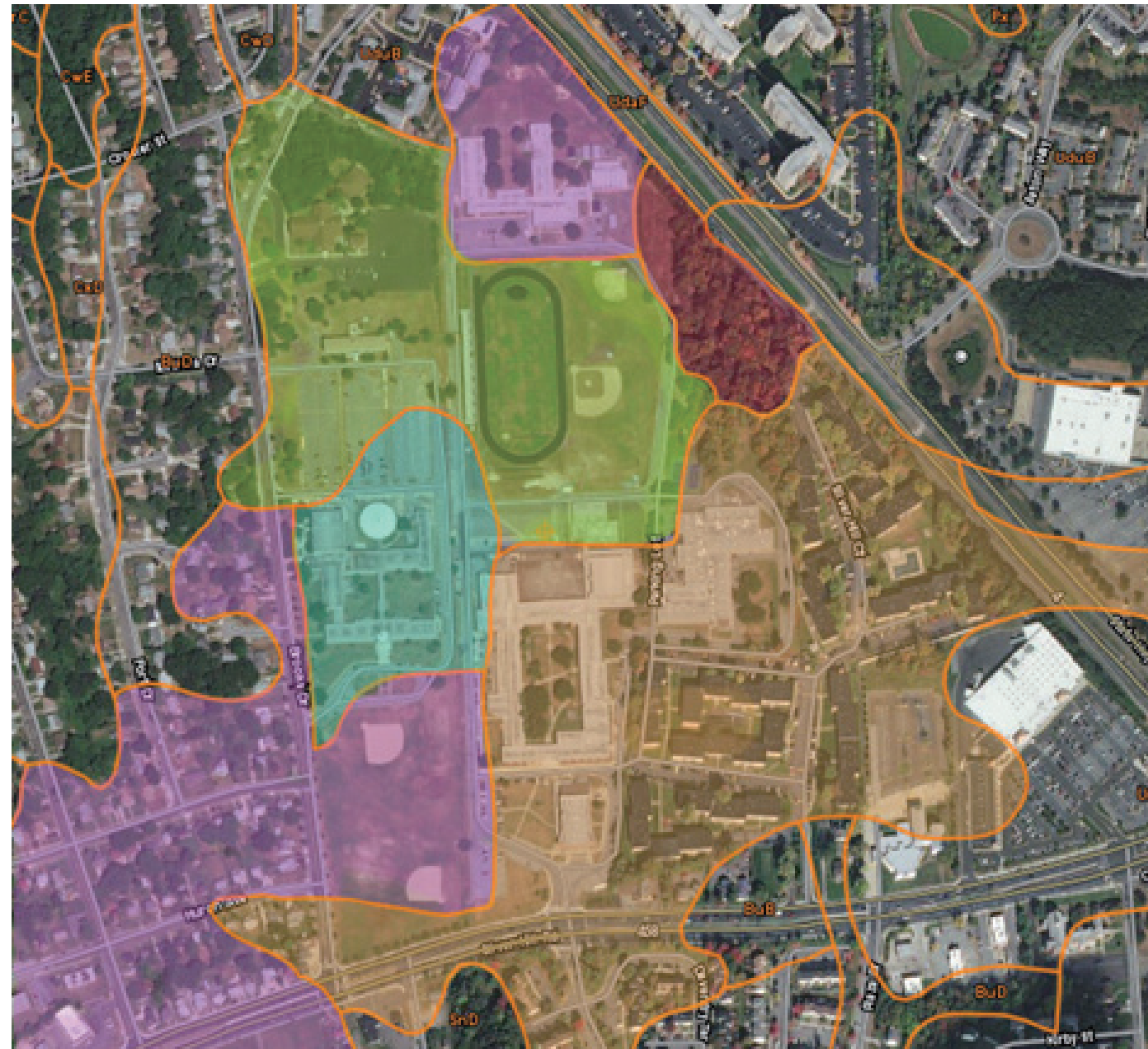
- 1 Dupont Heights Park: can be used for recreation by students
- 2 Suitland Elementary School: can be used for high schoolers to tutor younger children
- 3 Georgetown Emergency Room: possible internship/job opportunities
- 4 Health Center: possible internship/job opportunities
- 5 RAI Dialysis Care Center: possible internship/job opportunities
- 6 Barber Services: students studying to be barbers can go here to learn/get jobs
- 7 Gas station/Repair shop: students dealing with mechanics can work here
- 8 U.S. Census Bureau: educational opportunity to learn about census
- 9 Plumbing services: students studying plumbing can learn more about job/gain experience
- 10 NOAA Satellite Operations Facility: educational opportunities for students to tour facility to learn about satellite functionality
- 11 Department of Human Services: potential job shadows/internship opportunities

Maria Harrington



Soil Classification

Soil Map



The main site design area for this project lies within the Urban land-Sassafras complex soil zone. The composition of this soil is 80 percent Urban land, 15 percent Sassafras and similar soils, and 5 percent minor components.

Urban land soil is most frequently found in moderate to cool climates, with average annual temperatures ranging from 45 to 64 degrees Fahrenheit. It has a very low water capacity and a highly variable composition, ranging from sandy to loamy, silty to clayey.

Sassafras soil is well-drained and also has a low water capacity. It consists of gravelly loam, a mixture of soil textures and particle sizes with a high level of organic matter.

Source: <http://geologys.hol.es/types-of-soil-in-baltimore-maryland/>

Source: USDA Web Soil Survey

This table shows the hydrologic soil group of the design site. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

This site is in the Group D hydrologic soil group; it has a very slow infiltration rate (high runoff potential) when thoroughly wet. It also means that the soil in this area has a very slow water transmission.

Source: USDA Web Soil Survey

Tables — Hydrologic Soil Group — Summary By Map Unit				
Summary by Map Unit — Prince George's County, Maryland (MD033)				
Summary by Map Unit — Prince George's County, Maryland (MD033)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI

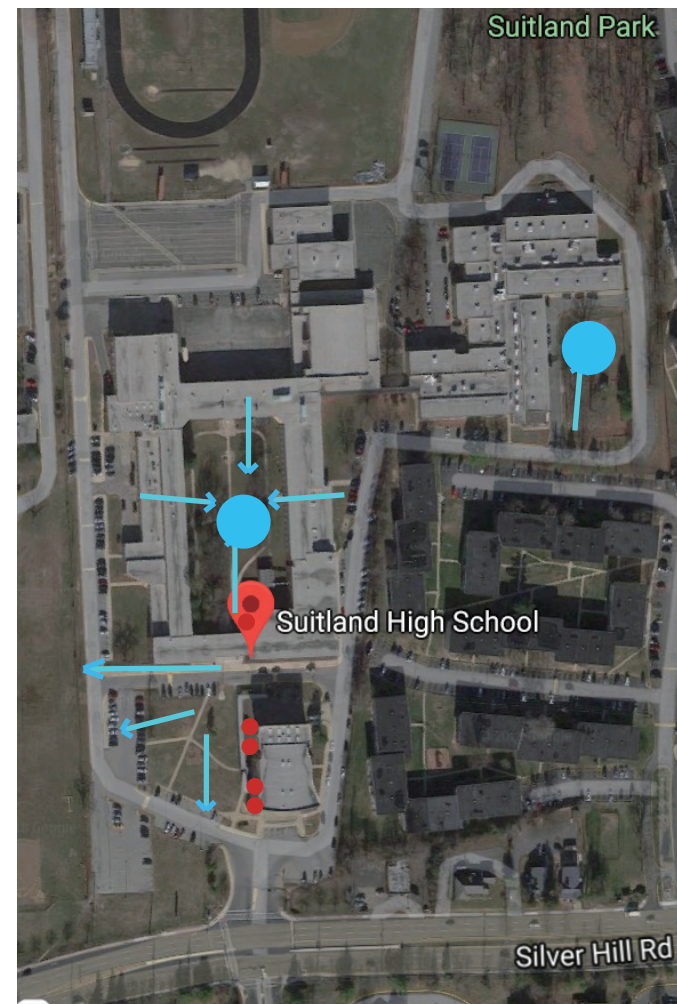
- UrsB (Urban land-Sassafras complex)
- CbB (Chillum Urban land Complex)
- BuB (Beltsville Urban land Complex)
- GkB (Grossland Hoghole Urban land complex)
- SnD (Sassafras Urban land complex)

Hydrology

Introduction

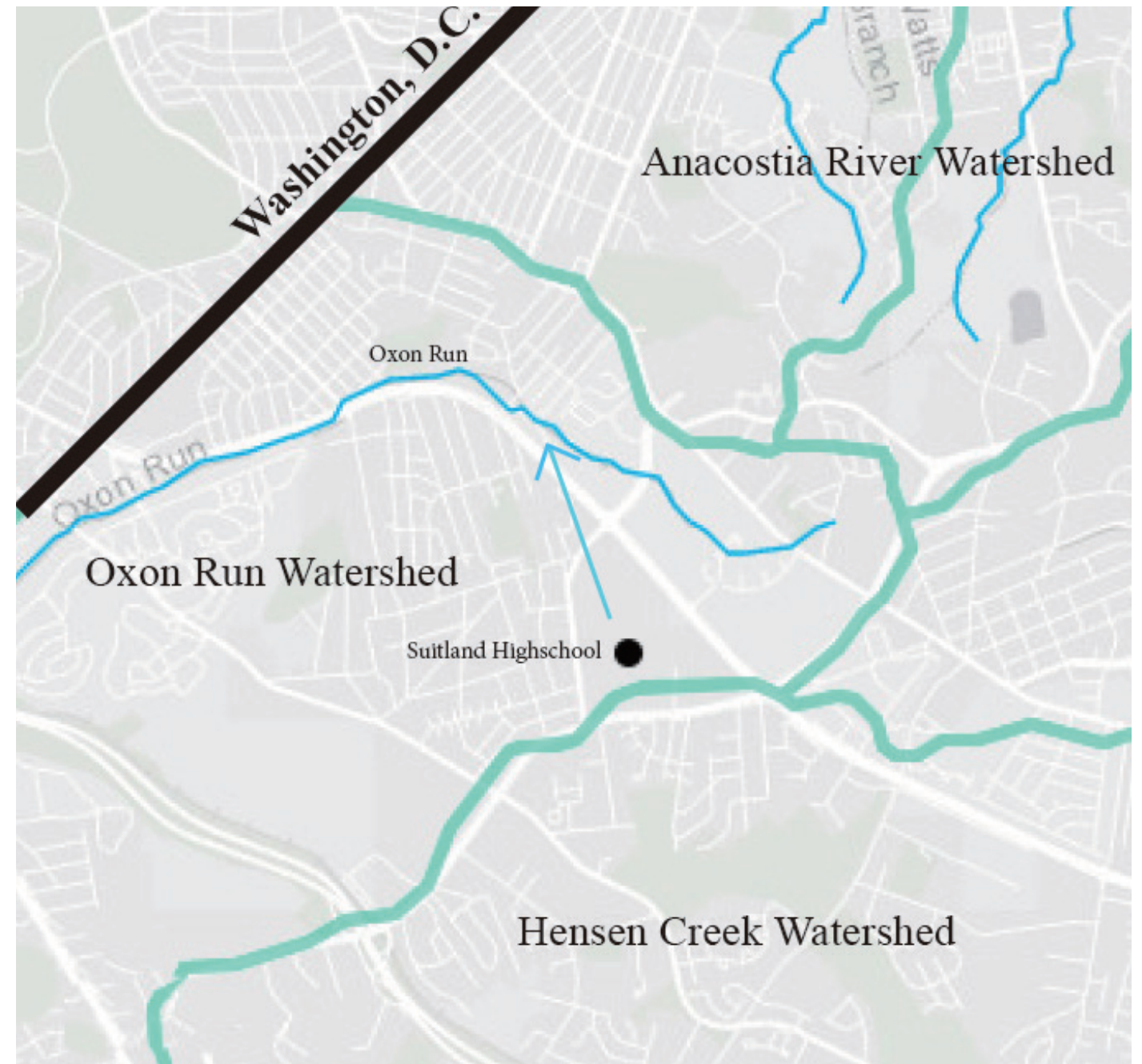
- Suitland High School is in the Oxon Run Watershed, on the border of the Hensen Creek Watershed.
- Oxon Run Watershed flows into the Potomac River Watershed, which flows into the Chesapeake Bay Watershed.
- Water on-site drains generally to the north and northwest.
- The buildings are flat-roofed, with few visible exterior drains and gutters.
- Water pools in the center of the main courtyard when it rains.
- Water also pools in the recessed north side of the lot by the vocational studies building.
- Water from the main entrance and auditorium drain across the parking lot and to the west.

Drainage



- Water Flow
- Pooling Water
- Scupper (Rain)

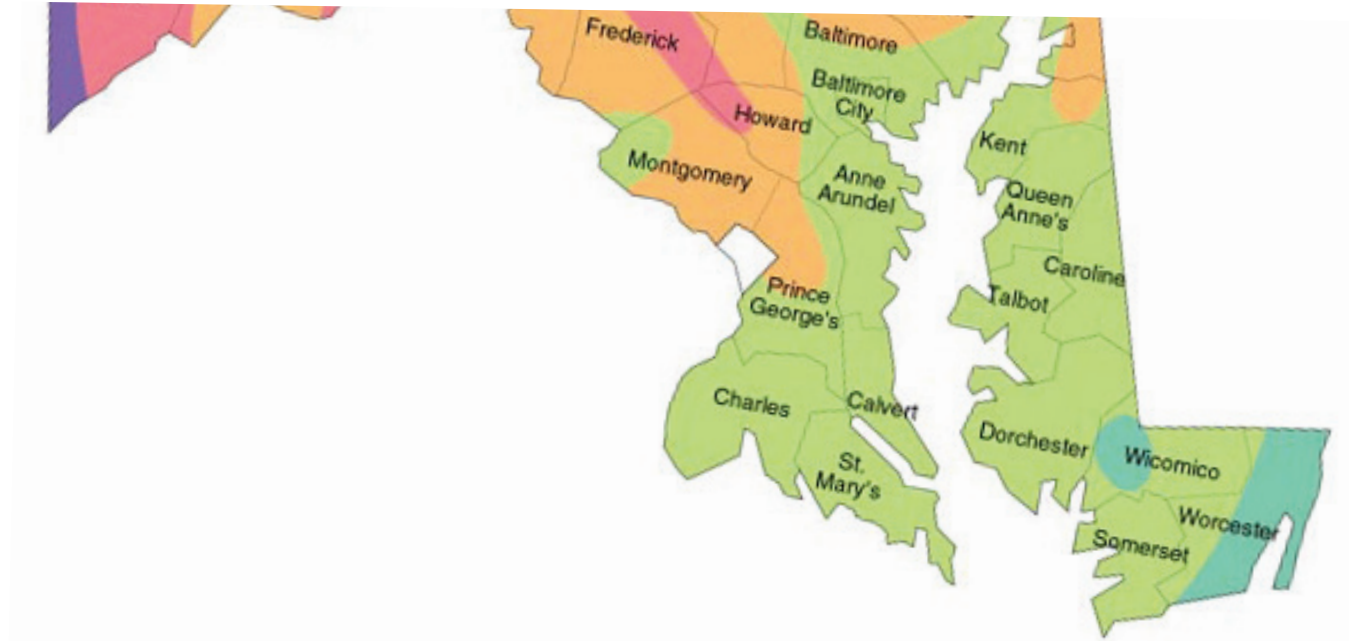
Hydrology



Ryan Young

Climate

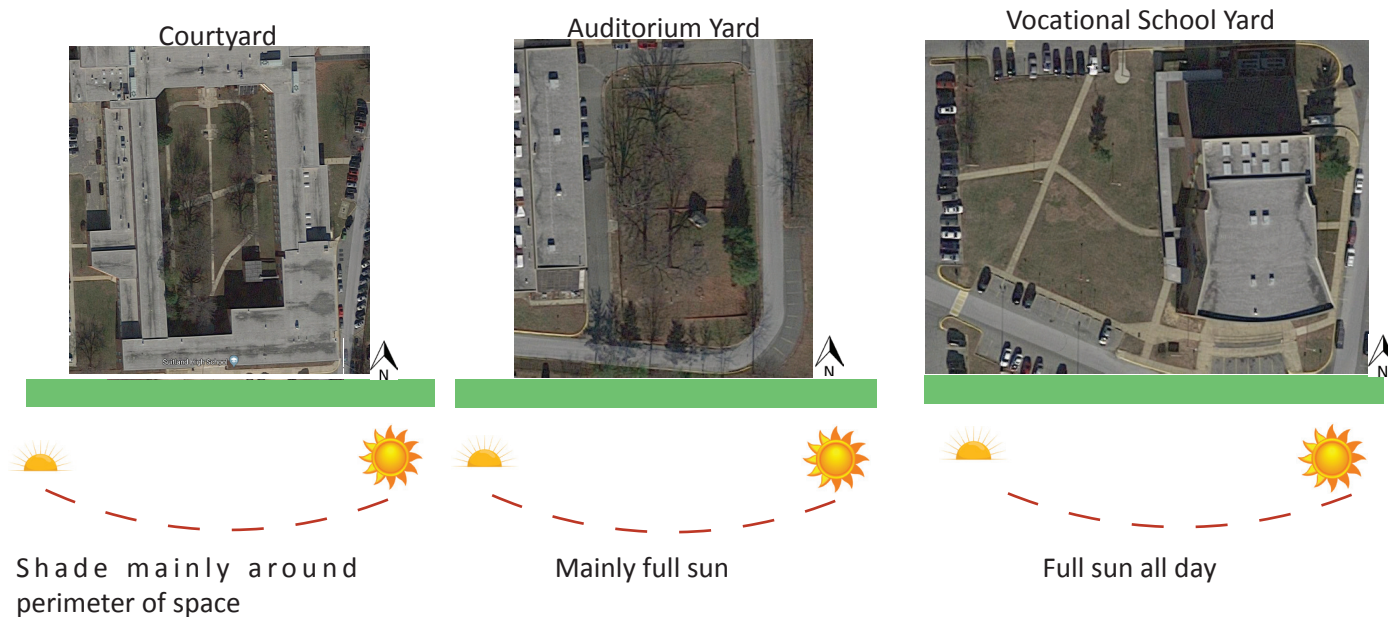
Maryland hardiness zones



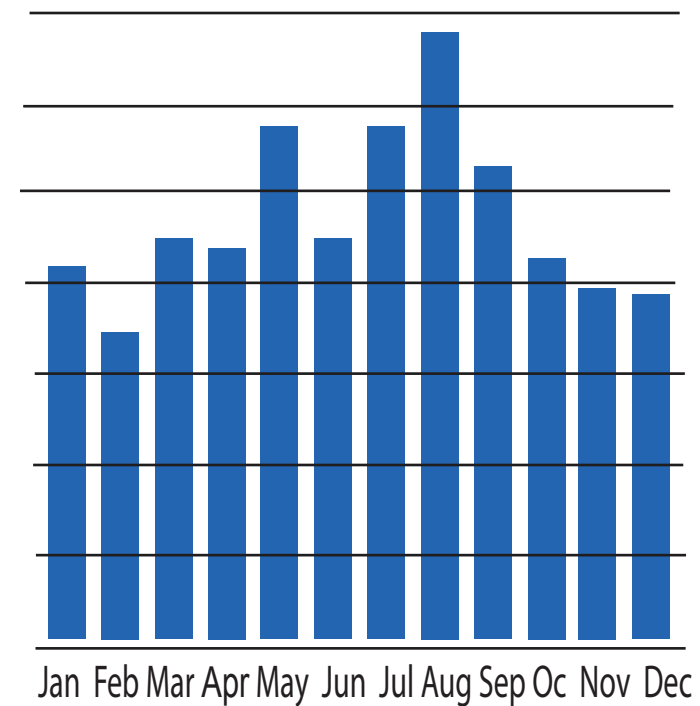
PG County Climate

	Prince George's	United States
Average Rainfall	42 in	39 in
Average Snowfall	14.5 in	25.8 in
Precipitation Days	73	102
Sunny Days	203 in	205 in
Average July High	87.9°F	86°F
Average January Low	25.9°F	22.6°F

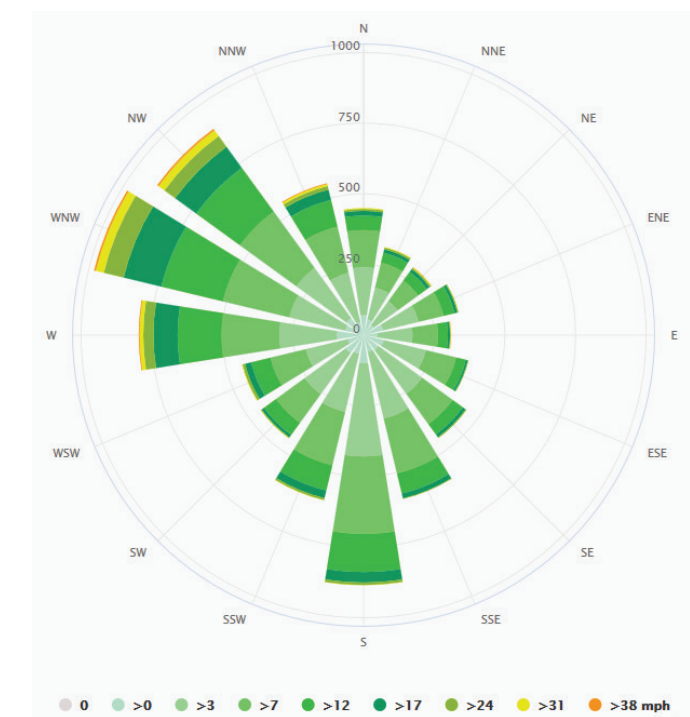
Daily Sun/ Shade



Temperature



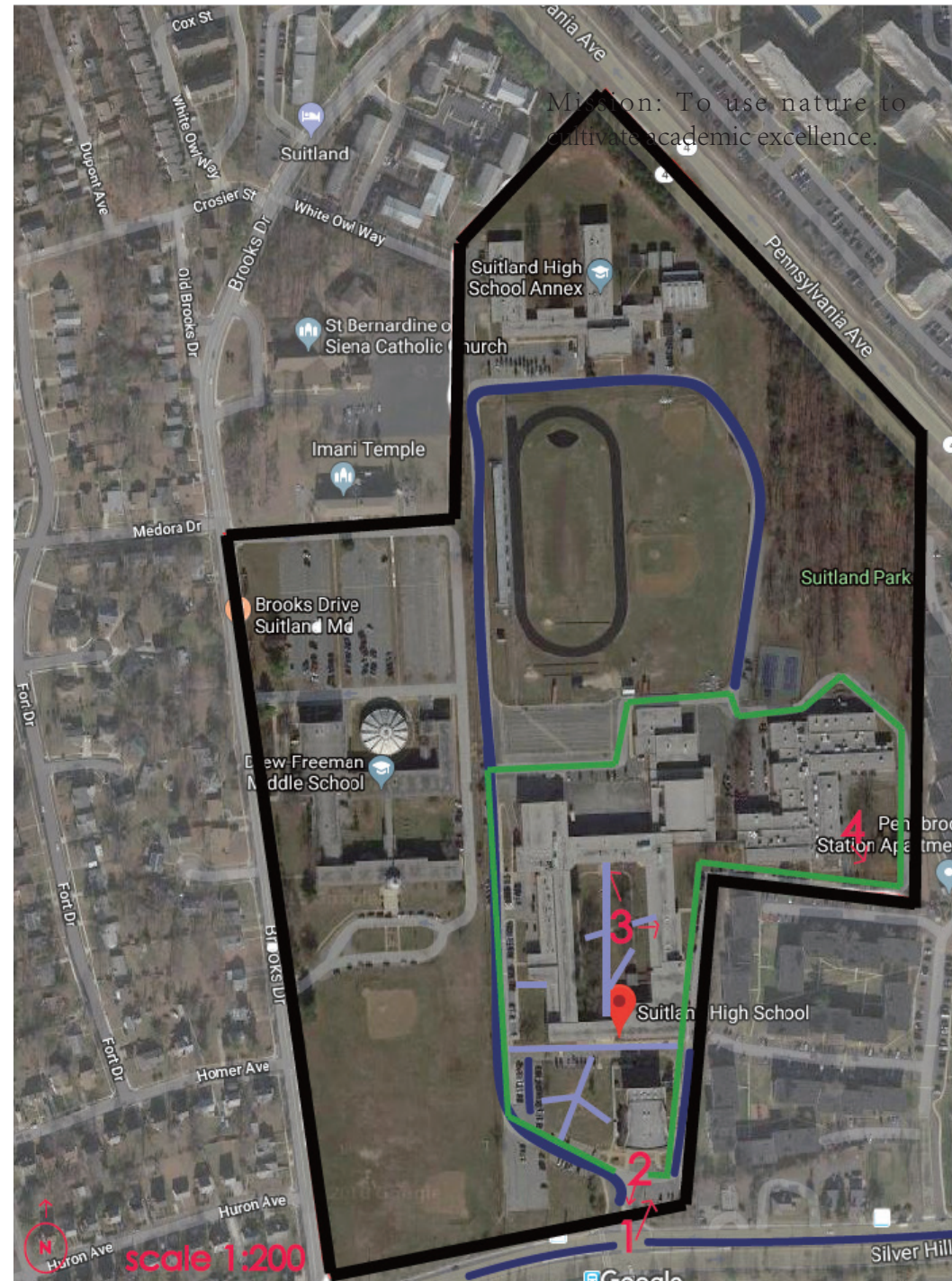
Wind Rose



Catherine Garcia

View and Circulation

Circulation



pedestrian
pedestrian route goes mainly through the courtyard.

bus route
bus route goes from the campus entrance, around the main building and the technical studies building.

car route
cars move around the space on main roads including Silver Hill Avenue and Brooks Drive.

Views

The auditorium is the first building one encounters when entering the site.



Entrance to Suitland HS: view of auditorium



View of road from auditorium



Entrance to courtyard



View to the right



View into children's playground

Evan-Claire Schaum

Proposed Plants

Trees

Sun

Chionanthus virginicus
White Fringetree
Mesic
Sun-Part Shade, 20-35'



Betula nigra
River Birch
Moist-Mesic
Sun-Part Shade, 50-75'



Acer rubrum
Red Maple
Moist-Mesic
Sun-Part Shade, 40-100'



Shade

Ilex opaca
American Holly
Moist-Mesic
Sun-Shade, 15-50'



Amelanchier canadensis
Serviceberry
Moist-Mesic
Part Shade-Shade, 35-50'



Magnolia virginiana
Sweetbay Magnolia
Moist-Mesic
Sun-Shade, 12-30'



Shrubs

Sun

Ilex glabra
Inkberry
Moist-Dry
Sun-Shade, 6-10'



Cornus amomum
Silky Dogwood
Moist-Mesic
Sun-Part Shade, 6-12'



Itea virginica
Virginia Sweetspire
Moist-Dry
Sun-Shade, 6-10'



Shade

Lindera benzoin
Spicebush
Moist-Mesic
Part Shade-Shade
6-16'



Cephalanthus occidentalis
Buttonbush
Moist-Mesic
Sun-Shade, 5-12'



Ilex verticillata
Winterberry
Moist-Mesic
Sun-Shade, 6-12'



Herbaceous

Sun

Monarda didyma
Beebalm
Moist-Mesic
Sun-Part Shade, 2-5'



Lobelia cardinalis
Cardinal Flower
Moist-Mesic
Sun-Part Shade, 2-4'



Chelone glabra
Turtlehead
Moist-Mesic
Sun-Part Shade, 1-3'



Shade

Tiarella cordifolia
Foamflower
Mesic
Part Shade-Shade, 6"-1'



Phlox divaricata
Woodland Phlox
Mesic
Part Shade-Shade, 1.5'



Polygonatum biflorum
Smooth Solomon's Seal
Moist-Dry
Part Shade-Shade, 1-3.5'



Grasses and Ferns

Grasses

Andropogon virginicus
Broomsedge
Moist-Dry
Sun, 1-3'



Panicum Virgatum
Switch Grass
Moist-Dry
Sun-Part Shade, 3-6'



Carex stricta
Tussock Sedge
Moist-Mesic
Sun, 1-3.5'



Ferns

Osmunda cinnamomea
Cinnamon Fern
Moist-Mesic
Sun-Shade, 2-5'



Osmunda regalis
Royal Fern
Moist-Mesic
Sun-Shade, 1.5-6'



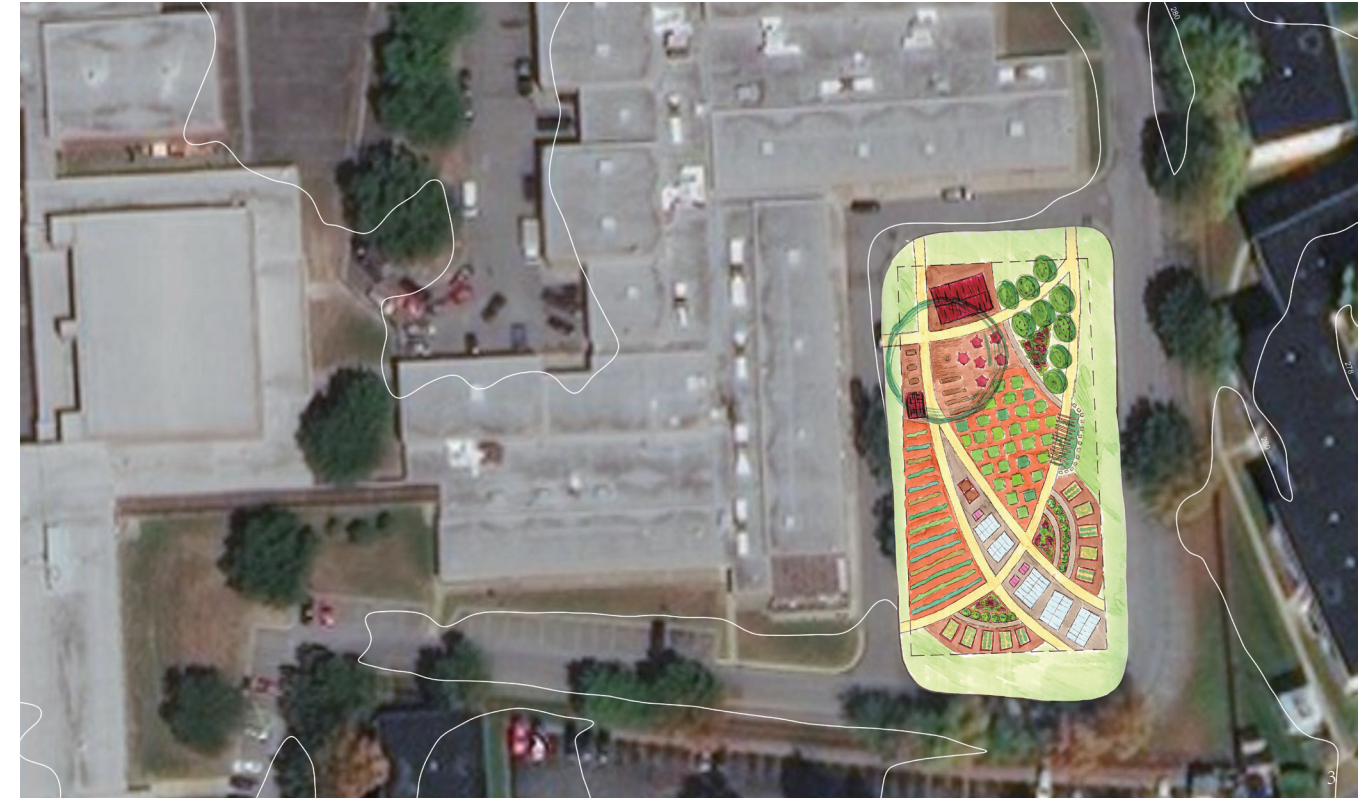
Onoclea sensibilis
Sensitive Fern
Moist-Mesic
Sun-Shade, 1-3.5'



Design Alternative #1

Growing Excellence at Suitland High School

Master Plan



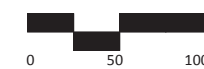
Goal

To use nature to cultivate academic excellence.

Legend

- 1 Excellence in education
- 2 Excellence in school pride
- 3 Excellence in productivity

Scale : 1"=100'-0"



Olivia Duley, Allison Fields, Maria Harrington

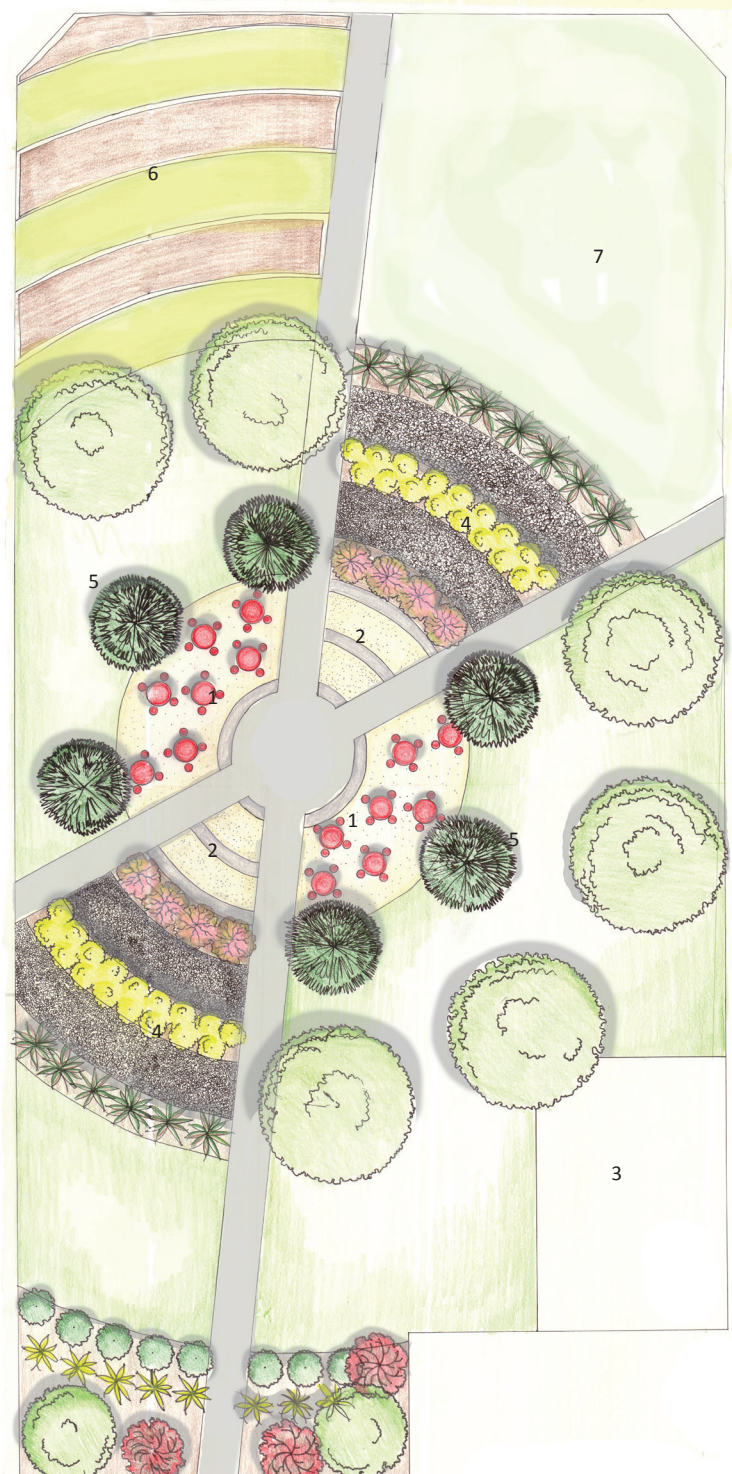


Landscape Architecture
DEPARTMENT OF PLANT SCIENCE AND LANDSCAPE ARCHITECTURE

University of Maryland Department of Landscape Architecture | LARC240 Graphic Communication and Design Studio, Spring 2018 Professor Byoung-Suk Kweon, Ph.D., PLA, ASLA | Design Team: Marquis Barnes, Olivia Duley, Samuel Ehrlich, Allison Fields, Catherine Garcia, Rachel Greenhawk, Maria Harrington, Jovon Jackson, Evan Lipka, Mia Manning, Linda MacSorley, Jessica Meilman, Heyner Pajaro, Gregory Remesch, Abigail Smith, Evan-Claire Schaum, Audrey Wilke, Ryan Young

Courtyard

Site Plan



Goal

To foster interest and excitement for learning through an enriched learning environment.

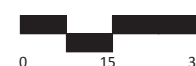
Objectives

- maintain efficient traffic flow
- create an area of interest with a variety of learning opportunities
- create an area for students to gather and study outdoors

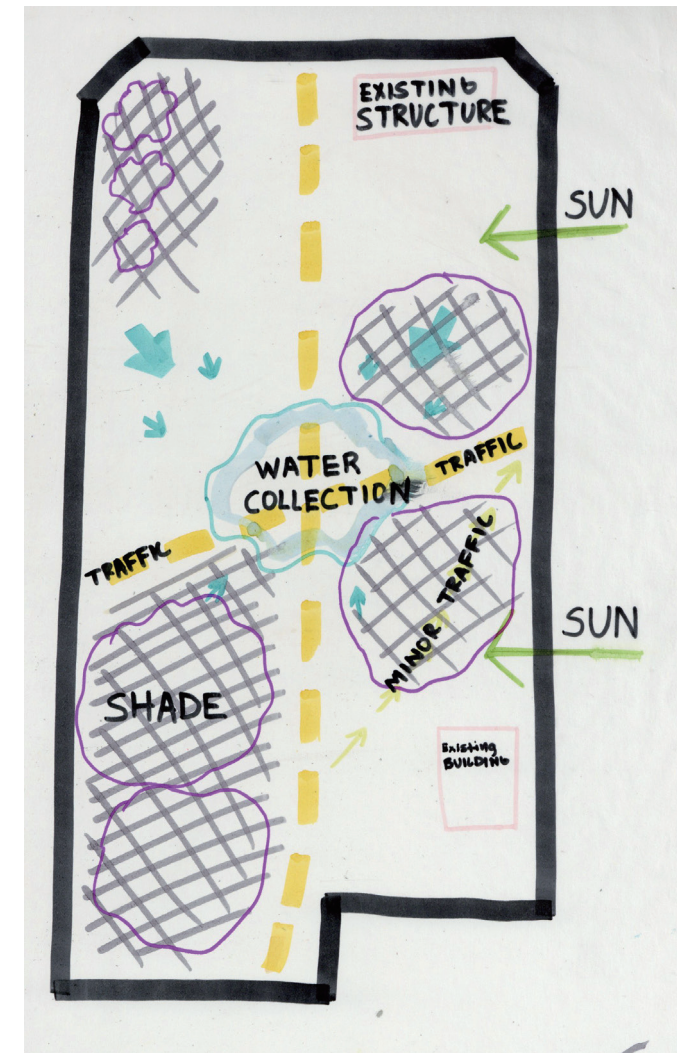
Legend

- 1 Study Area
- 2 Seating Area
- 3 Existing Building
- 4 Planting Area
- 5 Shade Trees
- 6 Garden
- 7 Meadow Area

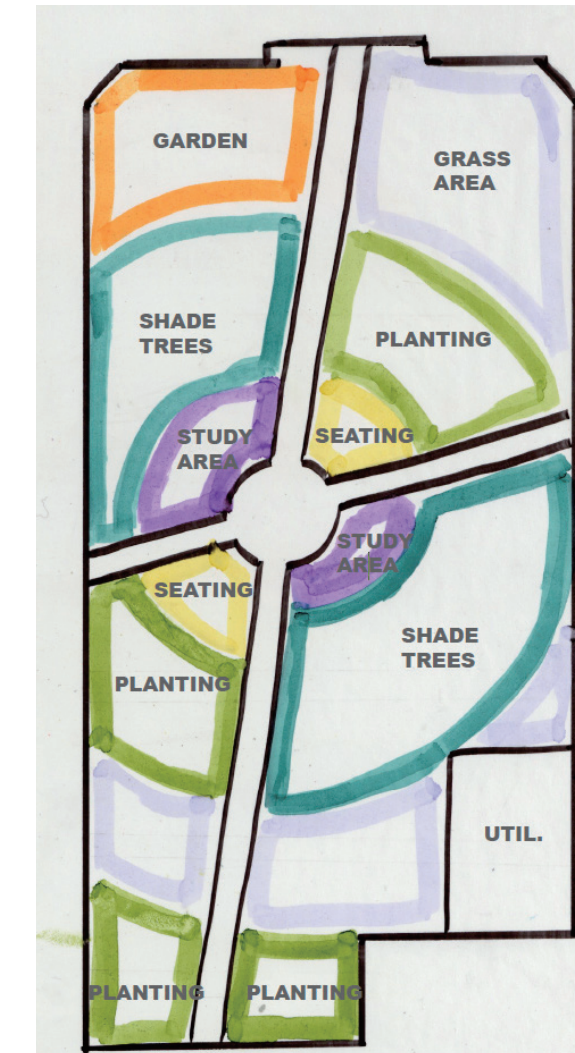
Scale : 1"=30'-0"



Site Analysis



Functional Diagram



Olivia Duley

Perspectives



Inspiration



Plants



Courtyard

Site Plan



Goal

Promote education in horticulture, farming, and nutrition through hands-on and outdoor learning.

Objectives

- engage tech students in farm construction and maintenance
- create an outdoor education area
- provide access to free food for students during summer months
- create space for community activities and volunteer opportunities

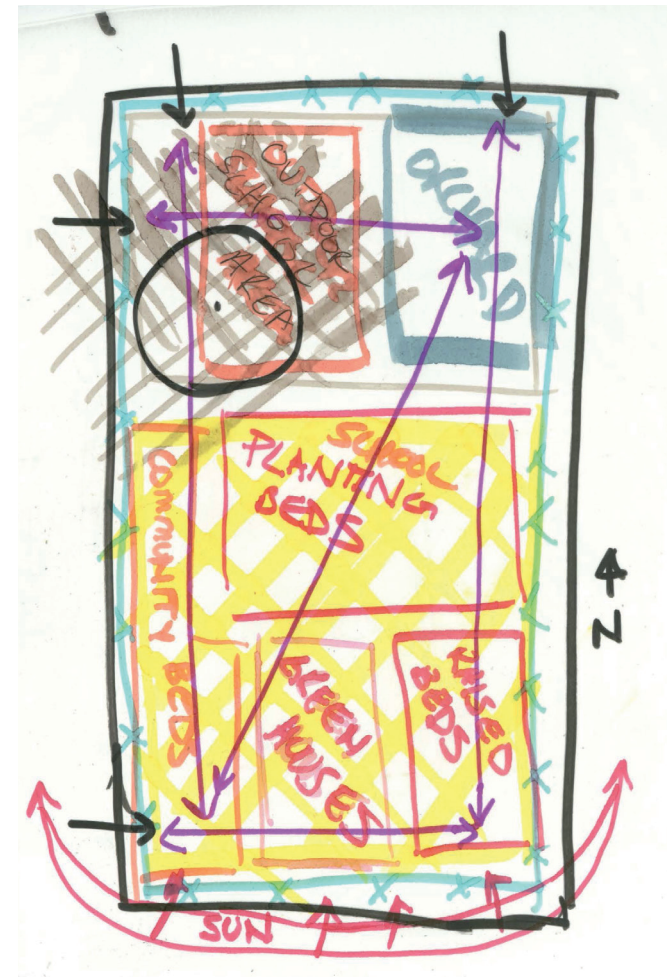
Legend

- 1 Planting Table
- 2 Pavillion
- 3 Outdoor Classroom
- 4 Community Garden
- 5 Compost
- 6 Flower Garden
- 7 Teaching Garden
- 8 Shed
- 9 Cistern
- 10 Fruit Shrubs
- 11 Orchard

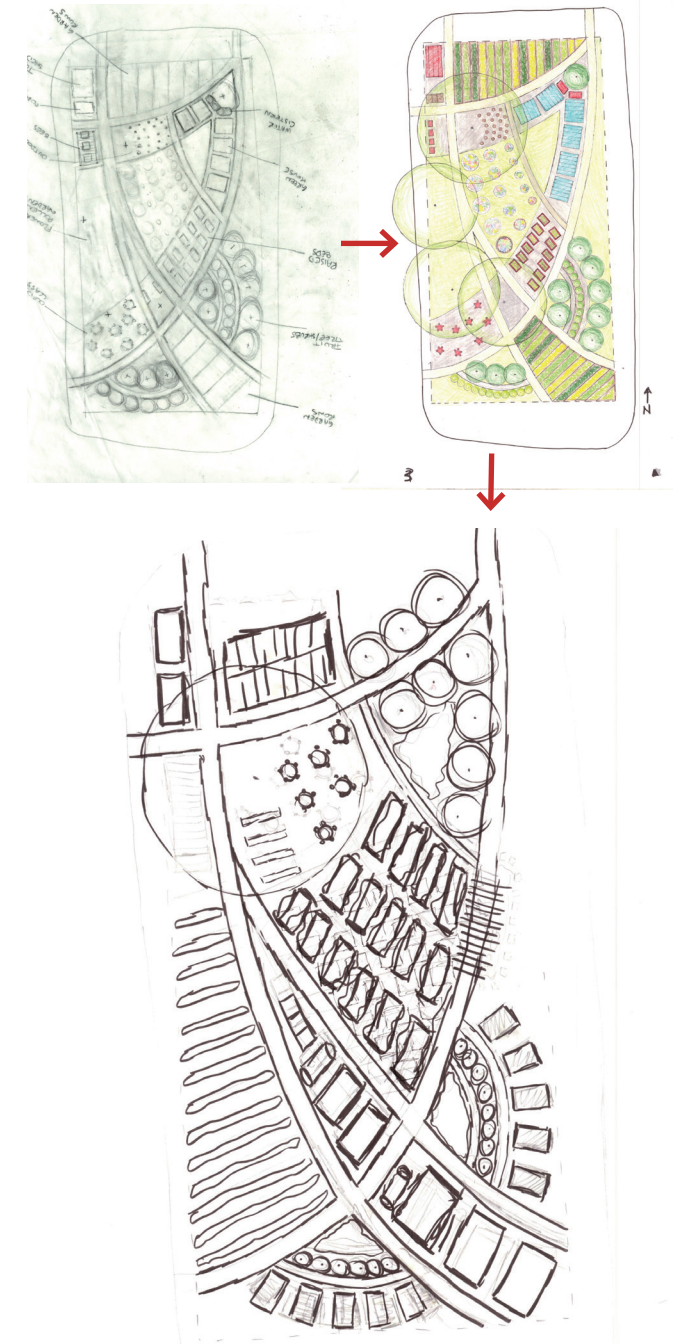
Scale : 1"=40'-0"
0 20 40



Site Analysis



Design Process



Allison Fields

Technical Academy

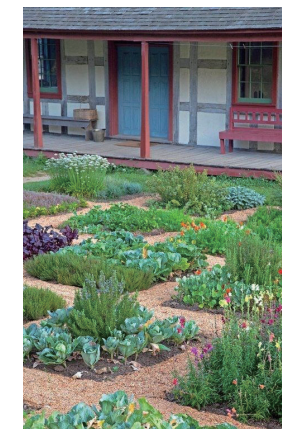
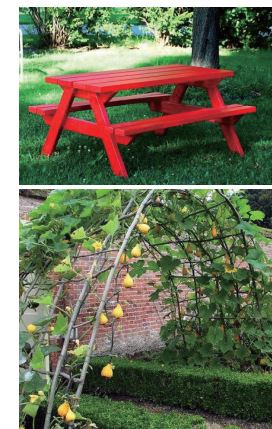
Perspective



Section

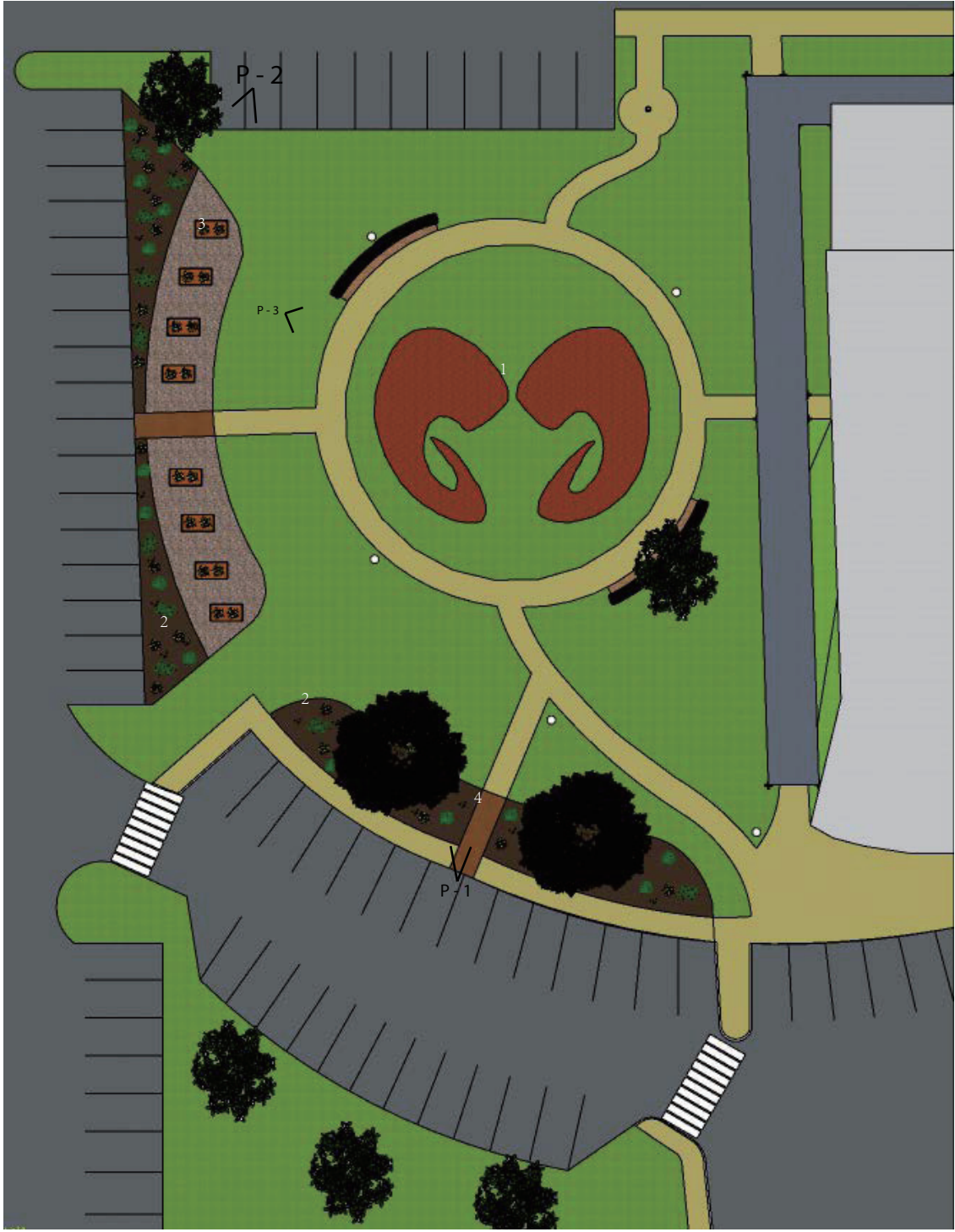


Inspiration



Entrance

Site Plan



Goal

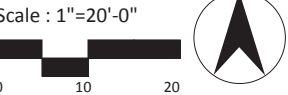
Create a space that represents school pride while showcasing the theme of "Growing Excellence" through the use of planting beds.

Objectives

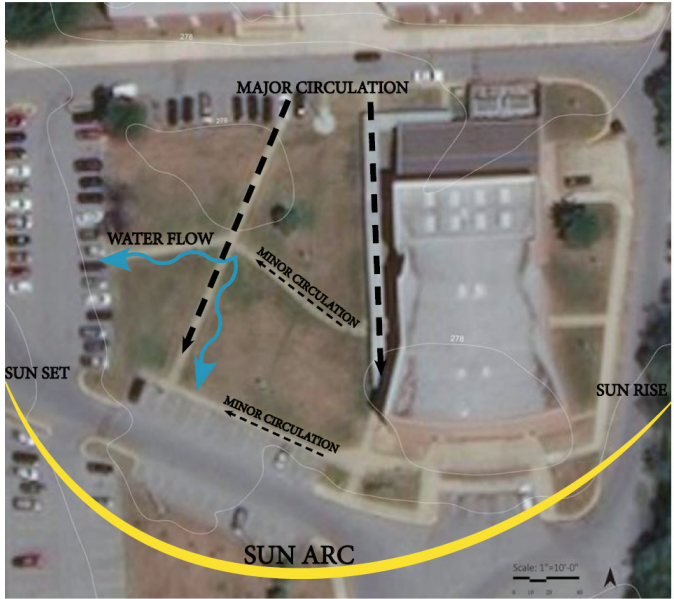
- Demonstrate school pride at the front of the school
- Implement stormwater management
- Bring students outdoors to learn

Legend

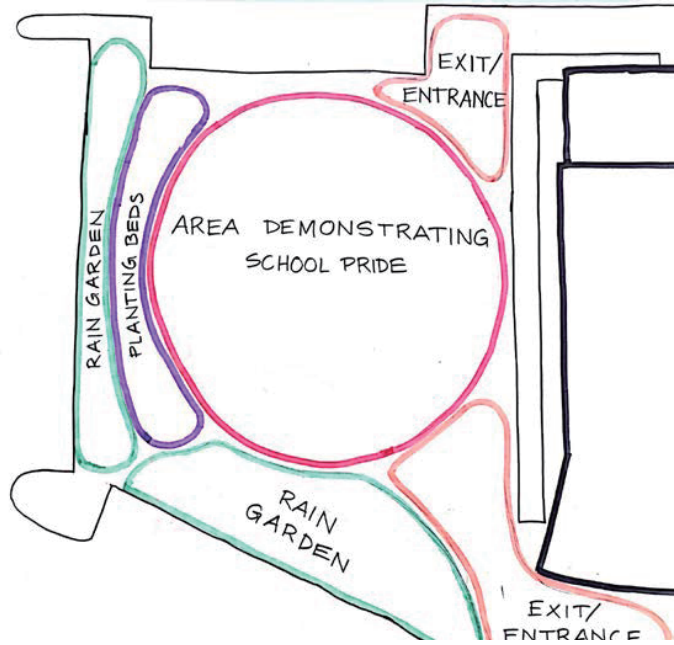
- 1 Ram Horn Plantings
- 2 Rain Gardens
- 3 Planting Beds
- 4 Wood Rain Garden Walkway



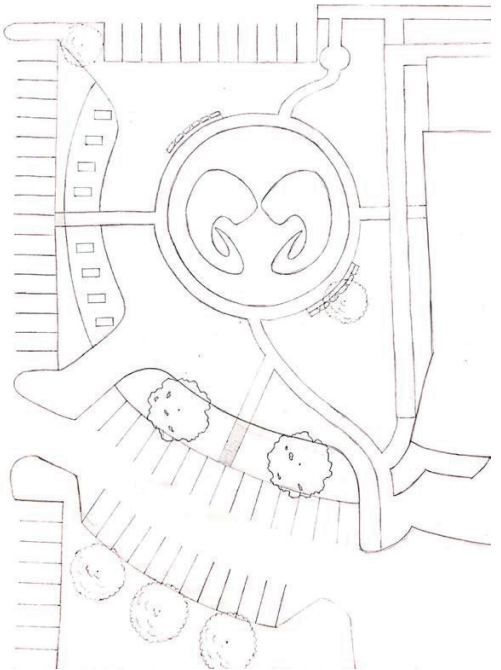
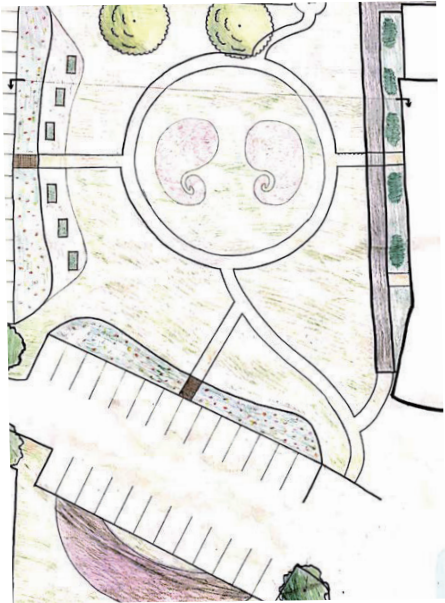
Site Analysis



Functional Diagram

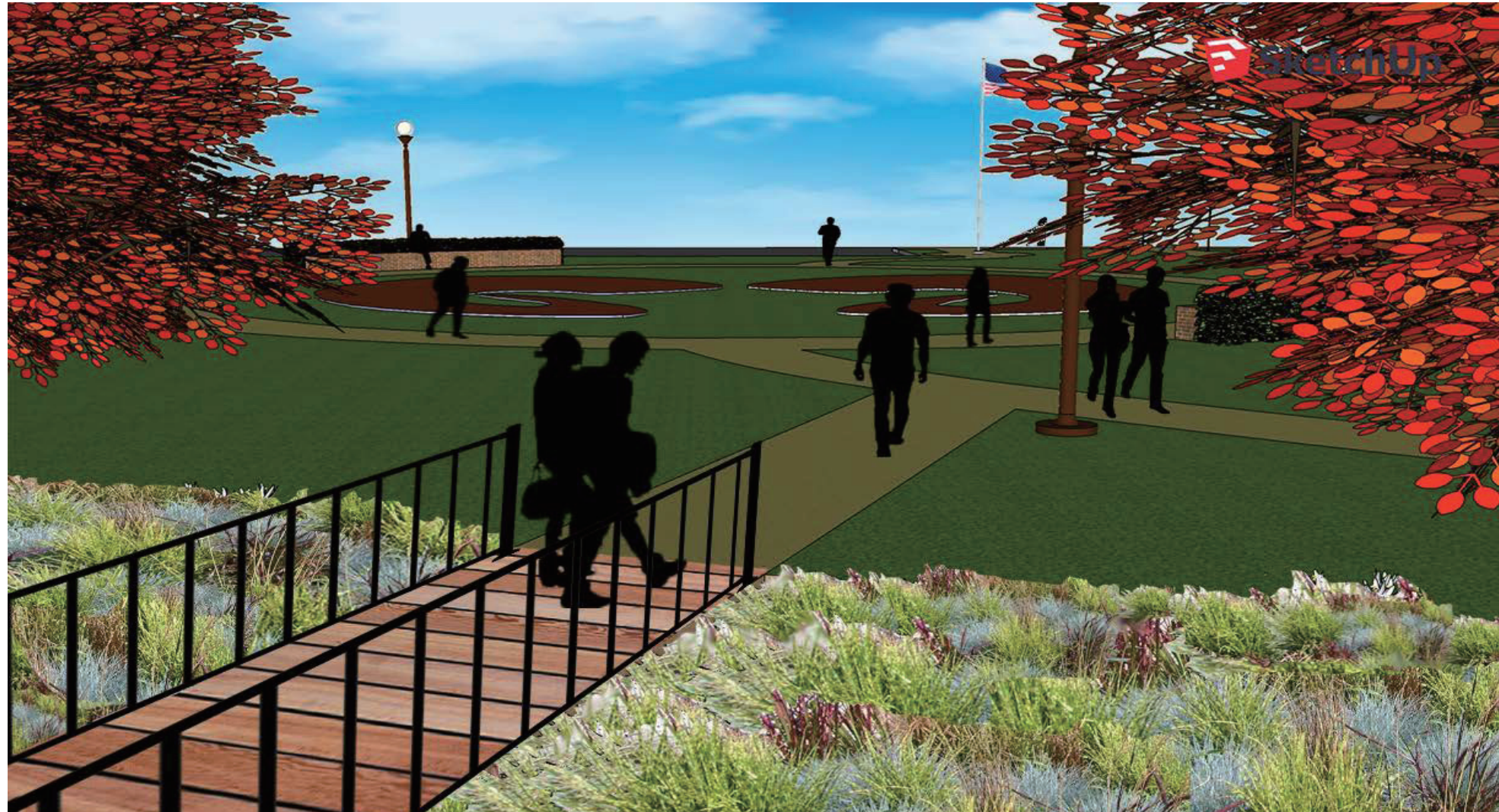


Design Process



Maria Harrington

Perspective 1



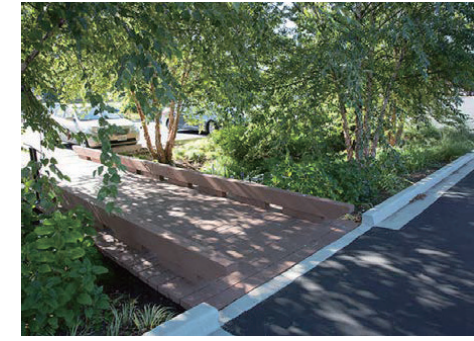
Perspective 2



Perspective 3



Inspiration



Design Alternative #2

Honey: A Green Solution for Different Learning

Master Plan



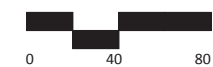
Goal

Use natural systems and their products for education and community engagement.

Objectives

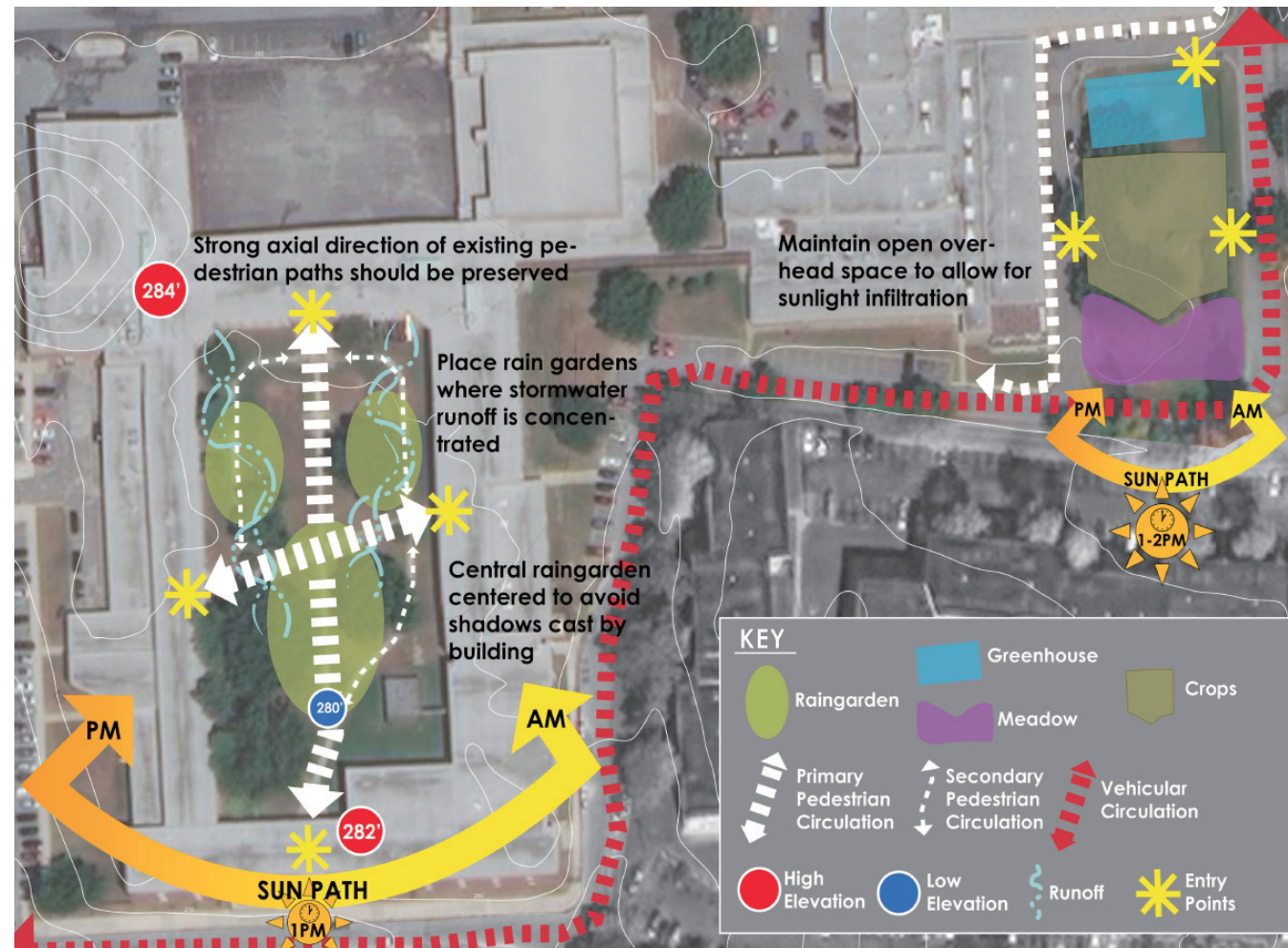
- Provide hands-on experience
- Outreach
- Natural Systems
- Education
- Youth Achievement

Scale : 1"=80'-0"

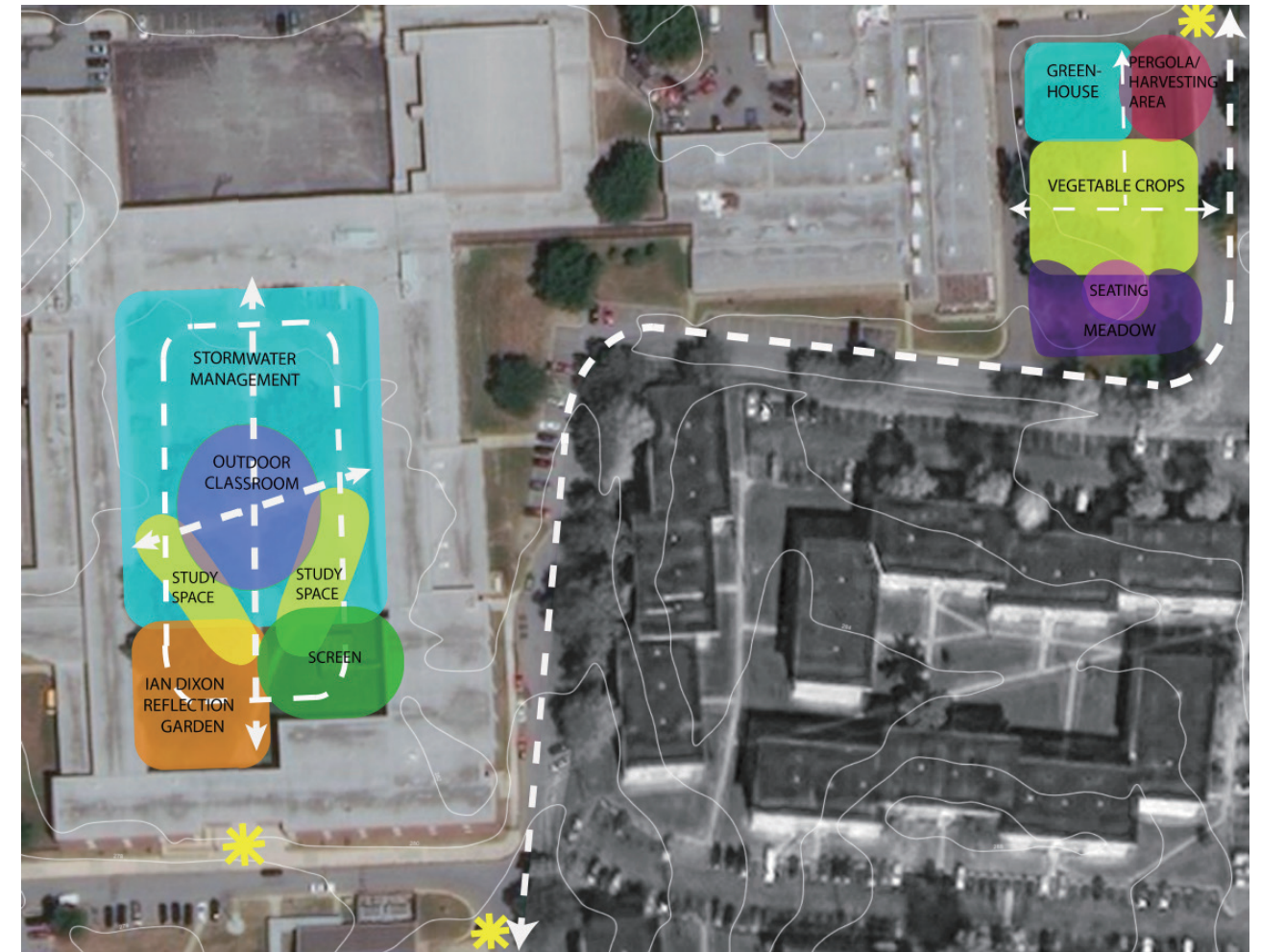


Marquis Barnes, Mia Manning

Site Analysis



Functional Diagram

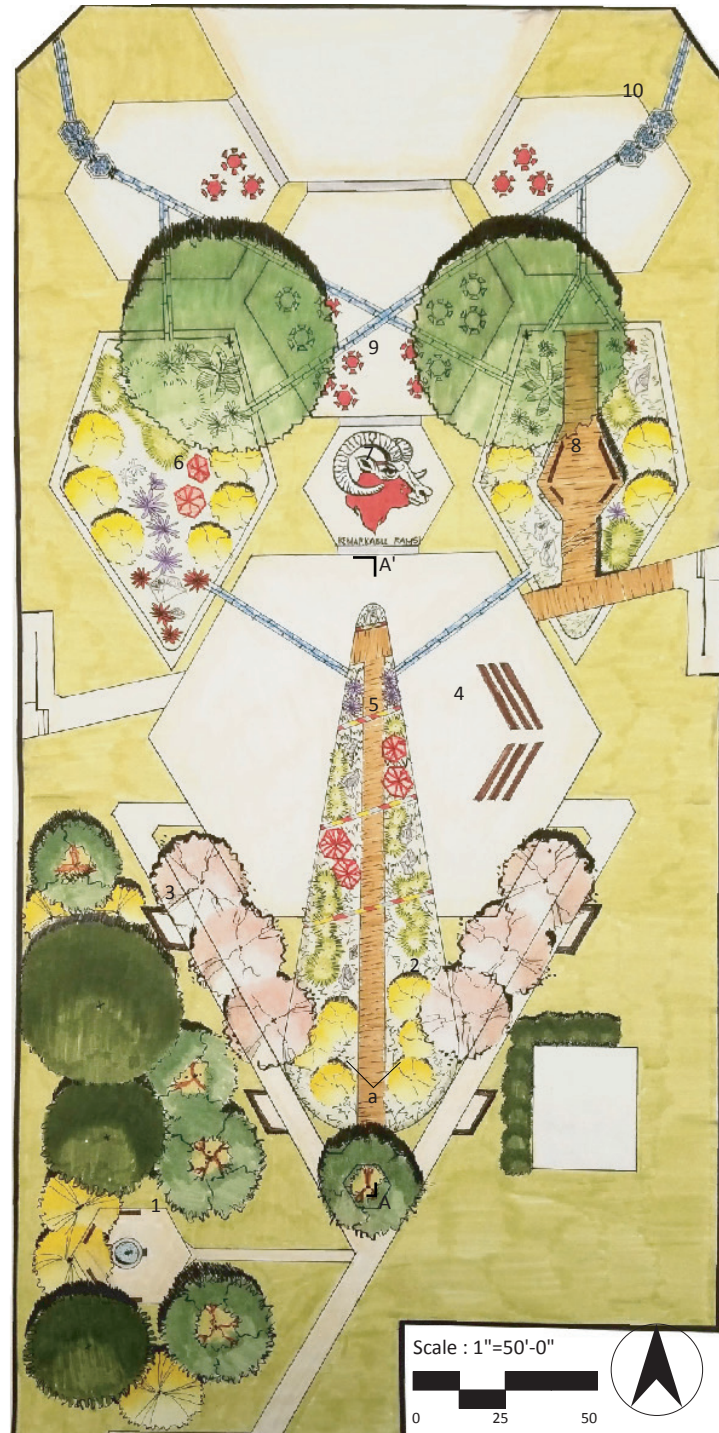


Proposed Plants



Courtyard

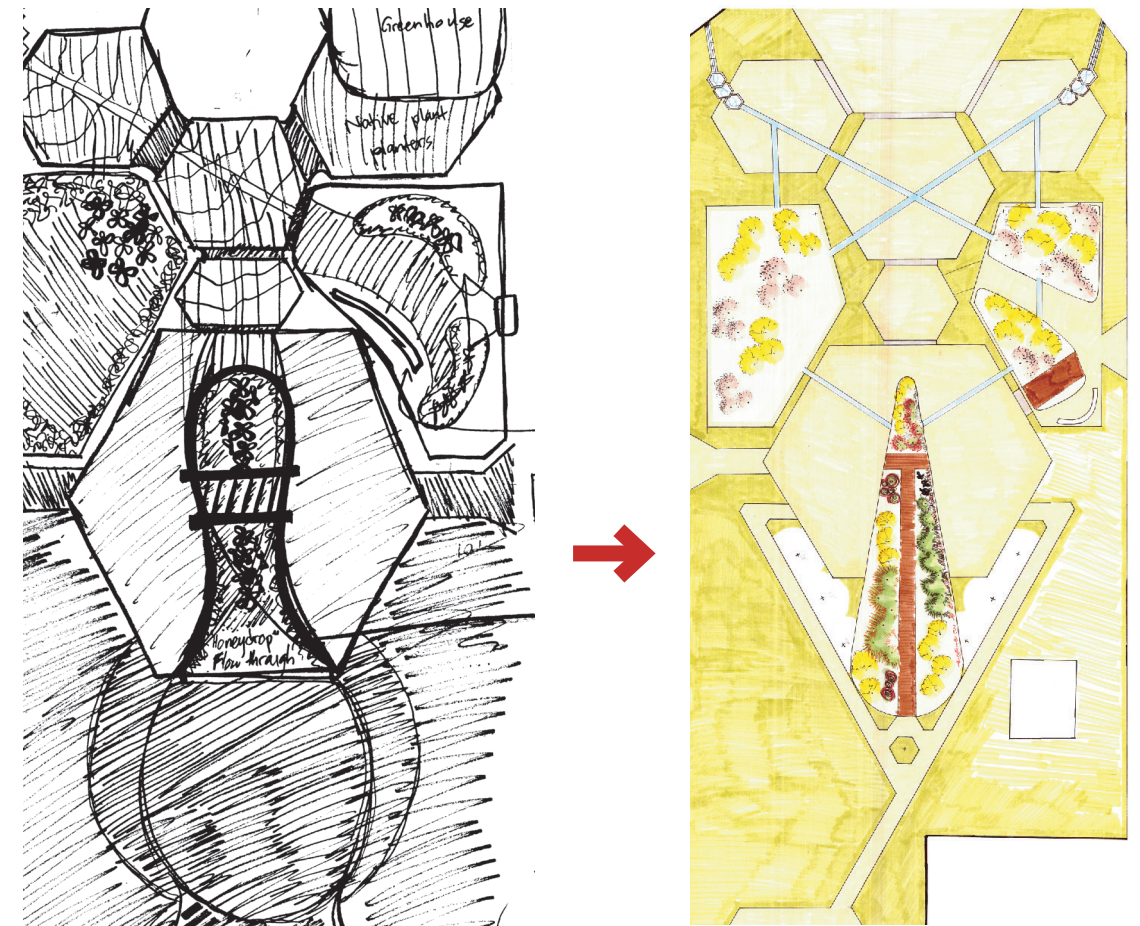
Site Plan



Legend

- 1. Ian Dixon Reflection Plaza
- 2. Honeydrop Rain Garden
- 3. Study Covers
- 4. Outdoor Classroom
- 5. Resin Glass Archways
- 6. Collector Rain Garden
- 7. Remarkable Rams "Bulletin"
- 8. Teaching Garden
- 9. Outdoor Lunch Area
- 10. Rainwater conveyance system

Design Process



Section A-A'

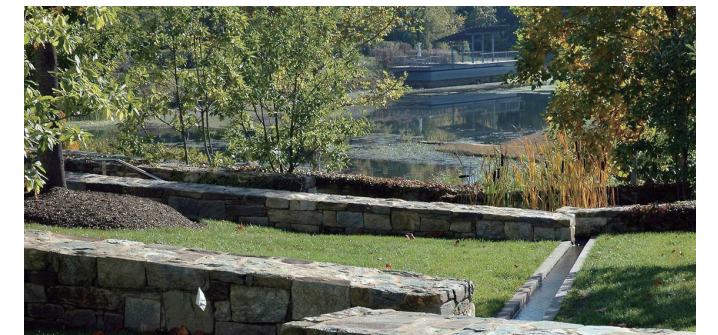
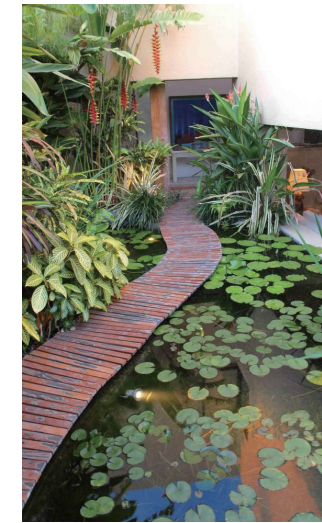


Mia Manning

Perspective

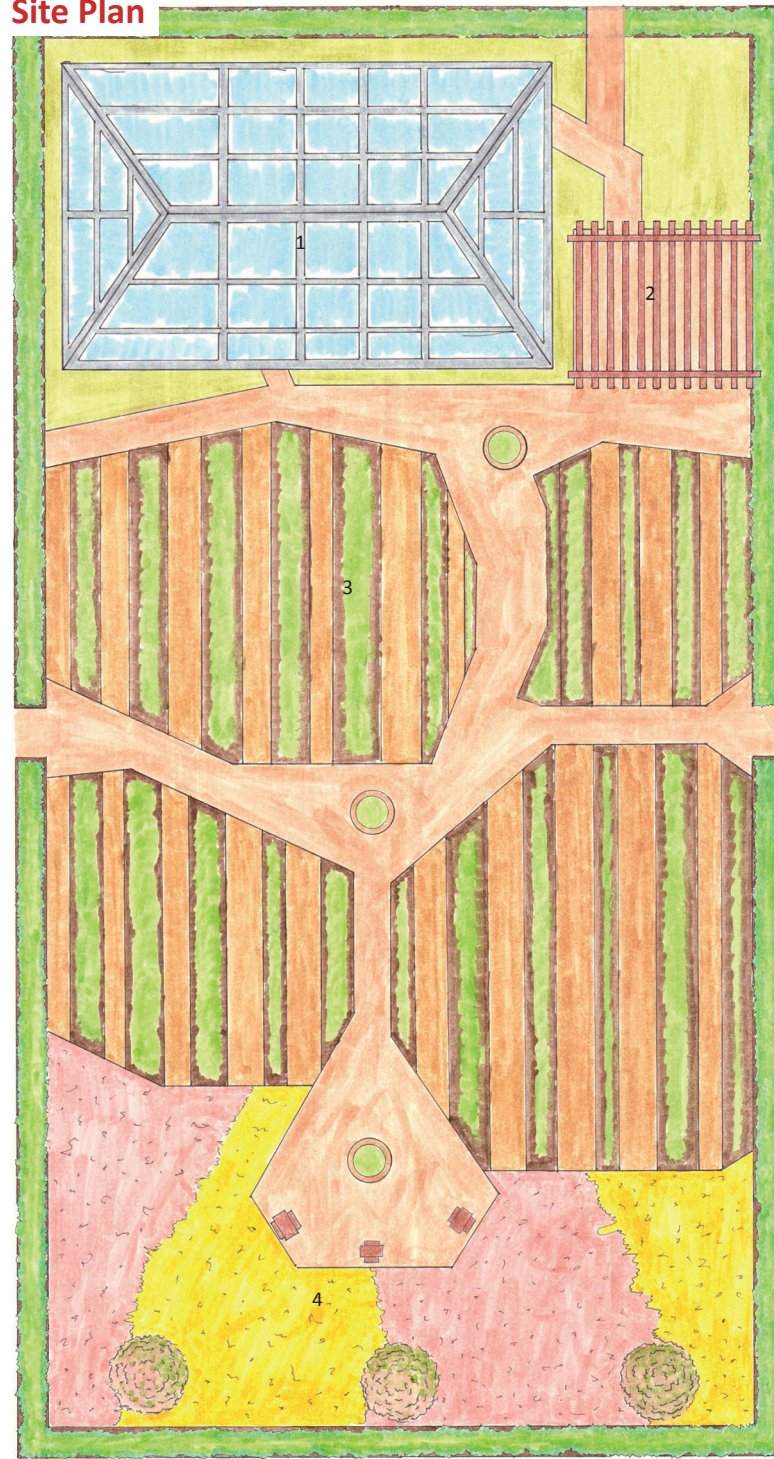


Inspiration



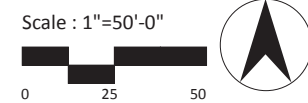
Technical Academy

Site Plan

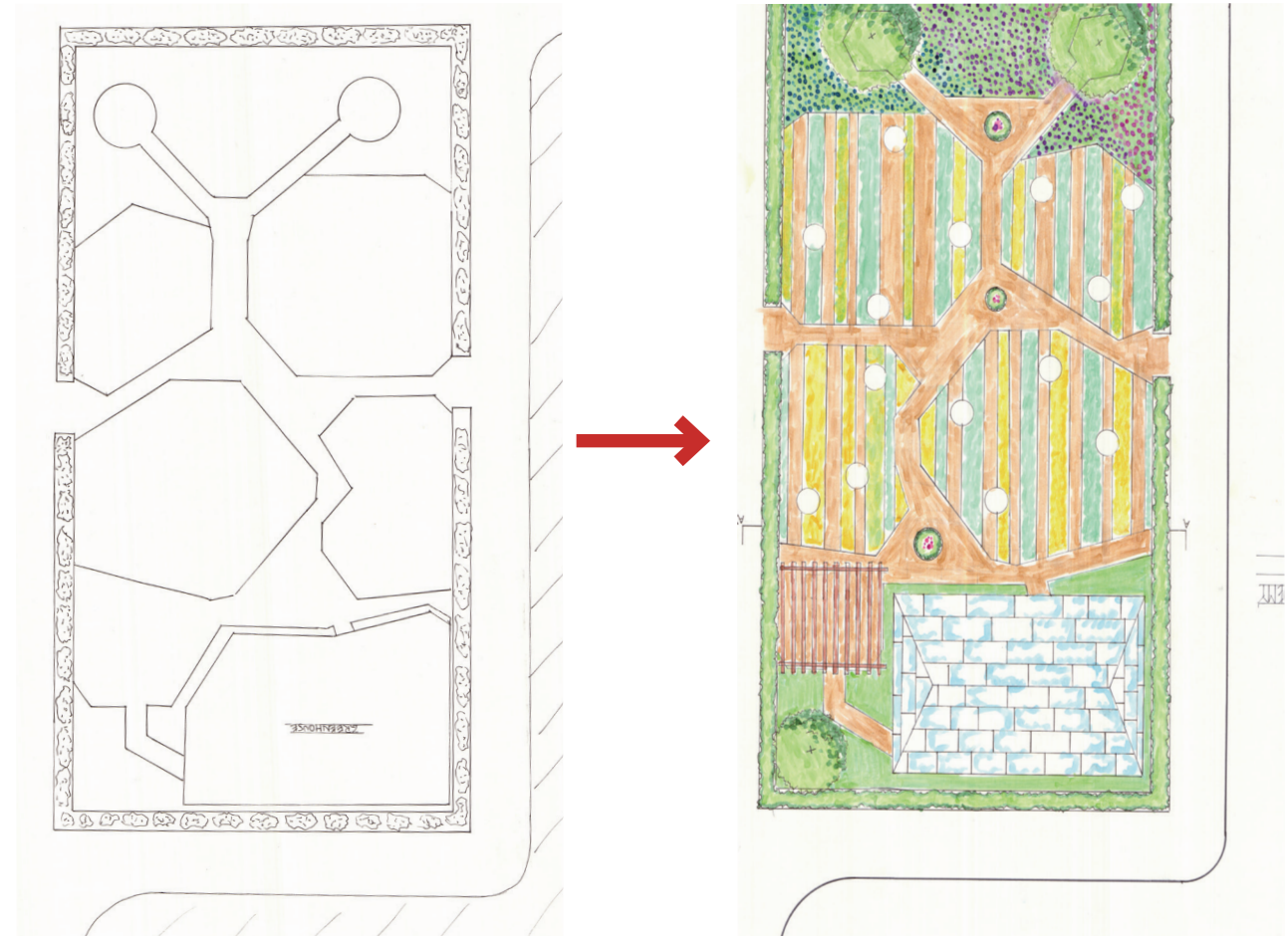


Legend

- 1. Greenhouse
- 2. Pergola/Production & Packaging
- 3. Vegetable Crops
- 4. Meadow



Design Process

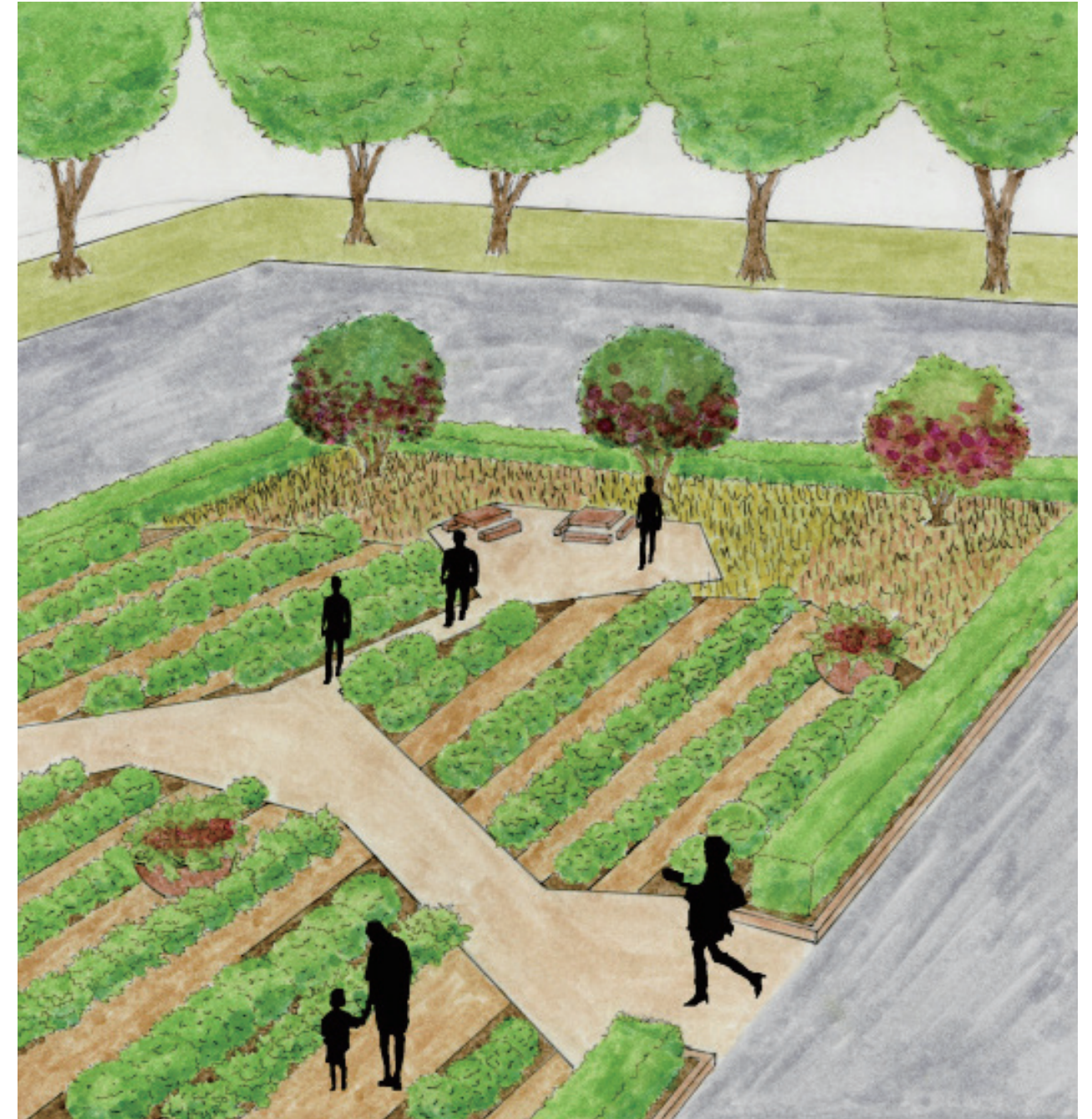
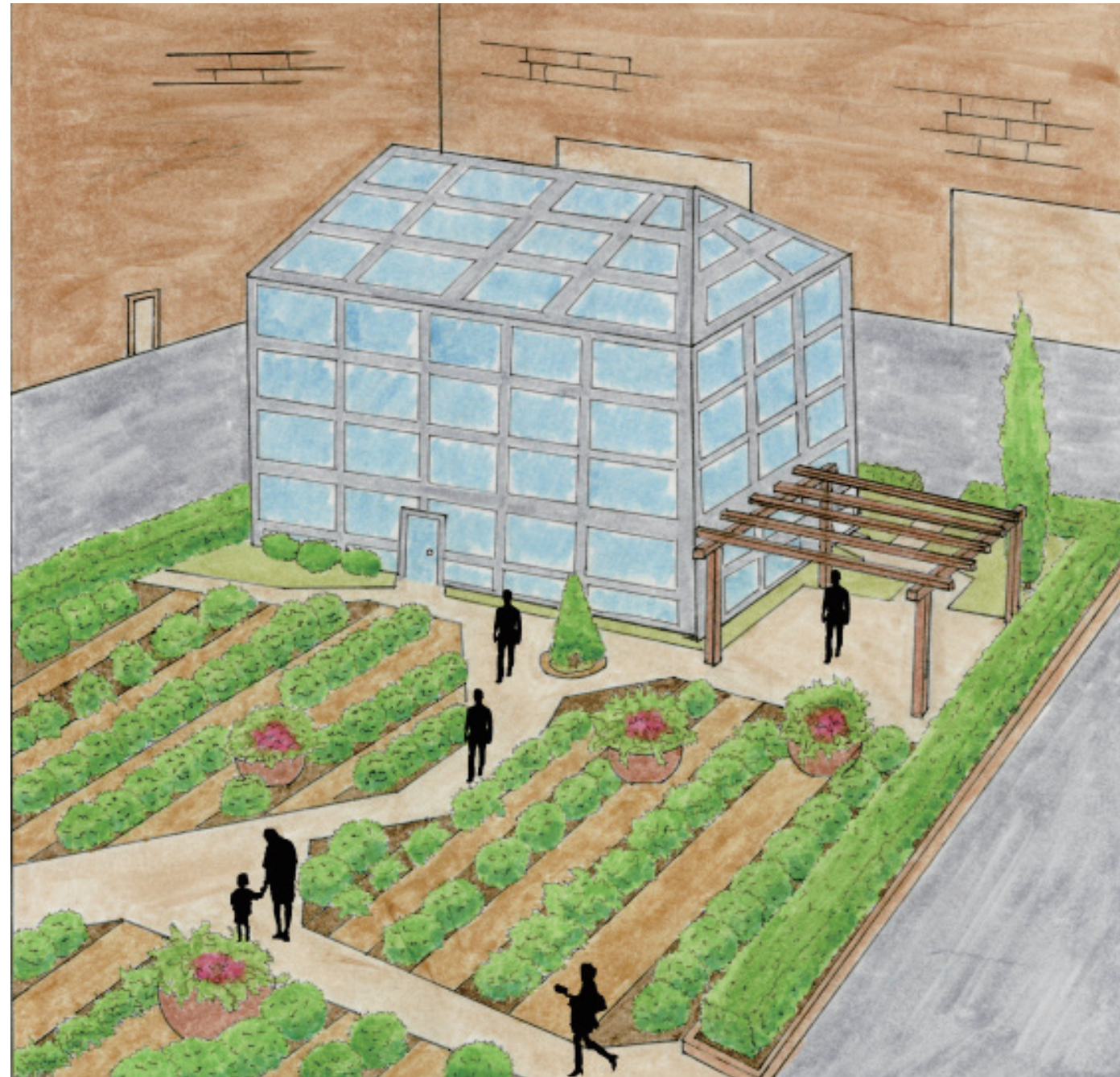


Inspiration



Marquis Barnes

Perspective



Design Alternative #3

Promoting Positivity

Master Plan



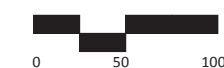
Concepts

Inspired by Suitland's 4P's motto, each of the three areas embody one of the 'P' words (Purposed, Productive, and Peaceful), with the overall goal of creating a positive learning environment.

Legend

- 1. Productive Courtyard
- 2. Purposed Plaza
- 3. Peaceful Park

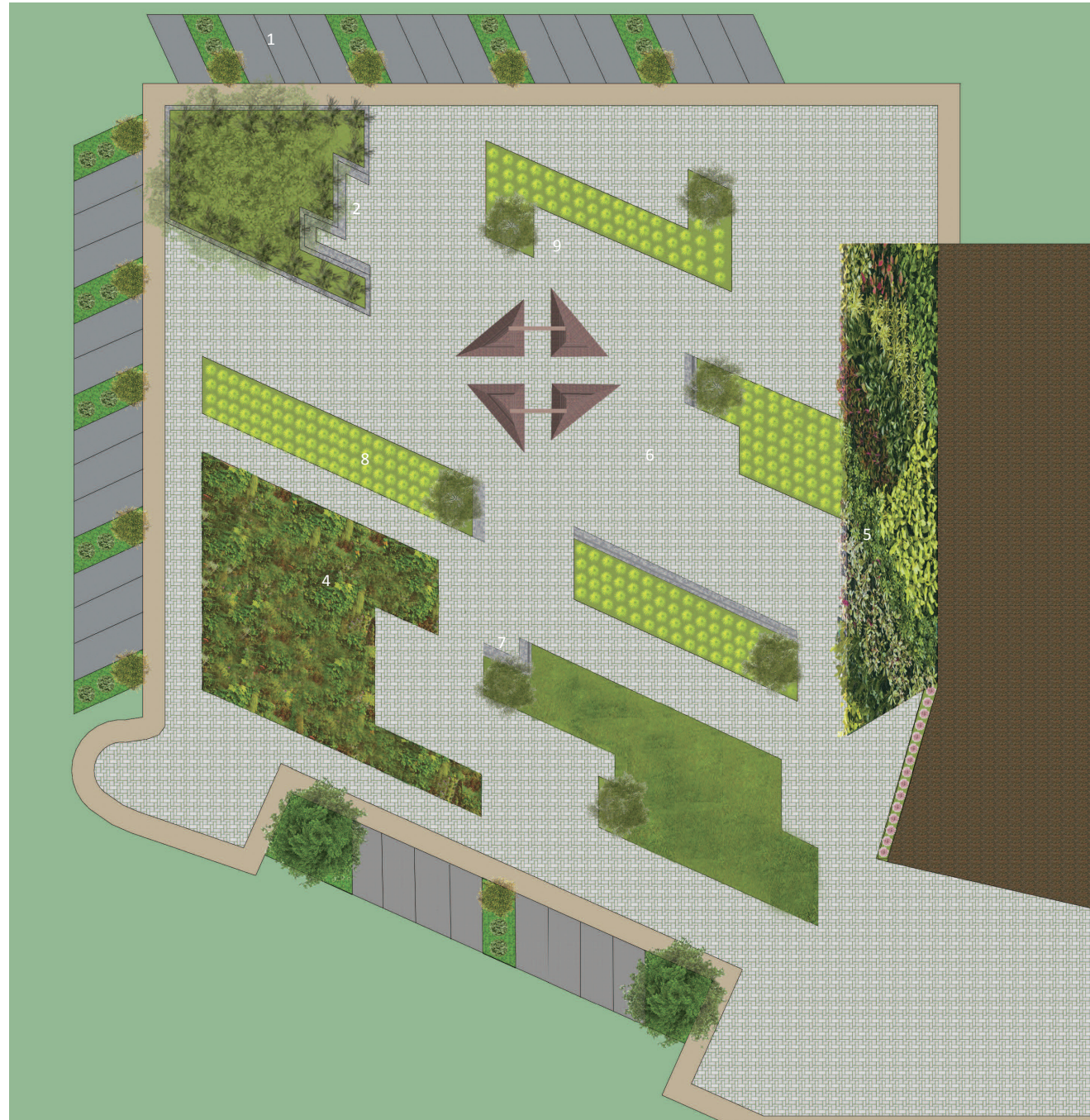
Scale : 1"=100'-0"



Catherine Garcia, Evan-Claire Schaum, & Ryan Young

Entrance

Site Plan



Goal

Enrich Suitland's school spirit by embracing the theme of "Purposed" to encourage students to find their purpose.

Objectives

- provide an outdoor space for students and visitors to stay and socialize
- solve circulation issues for those entering the school
- incorporate sustainable design to improve environmental health
- solve rainwater roof runoff problem with vegetative awning
- provide innovative seating options

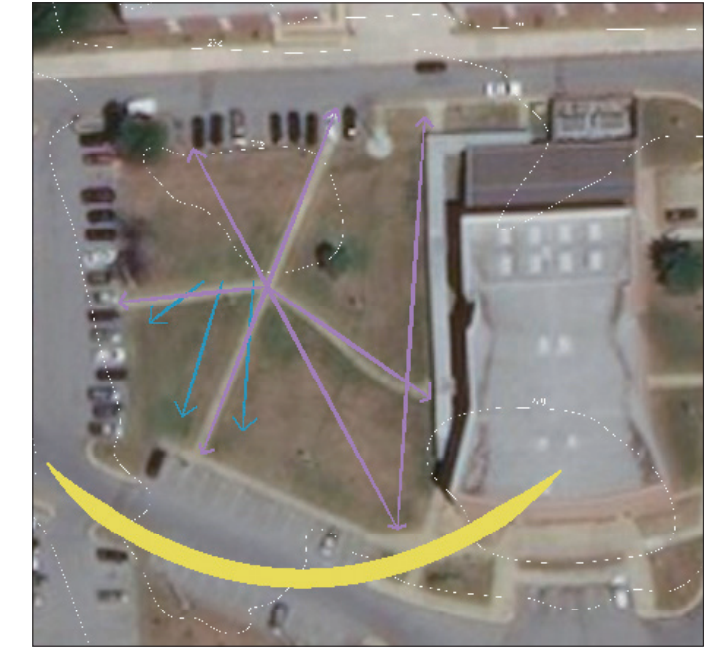
Legend

1. Redesigned parking spaces
2. Seating with vegetation in back
3. Red mosaic statue
4. Rain garden
5. Vegetative awning
6. Open plaza space
7. Seating
8. Scattered green space
9. "Enter to Learn" "Leave to Achieve"

Scale : 1"=40'-0"



Site Analysis



Functional Diagram



Evan-Claire Schaum

Perspectives

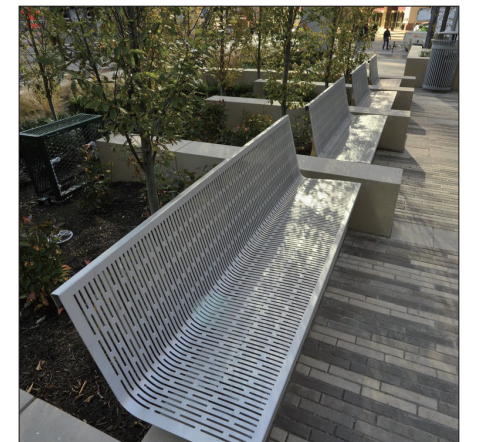
Perspective showing green spaces, stone seating areas, and pervious plaza space



Perspective showing focal point statues that provide places to learn and socialize, as well as a point of interest to draw walkers



Inspiration



Courtyard

Site Plan



Goal

Better use the central courtyard to create a 'productive' space that provides learning opportunities and engages students outside.

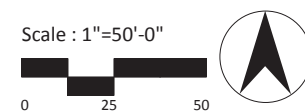
Objectives

- provide a space for outdoor learning
- solve flooding problem in the courtyard's center
- supply local ecological benefits
- provide a space for students to gather and eat.
- create a school garden to be incorporated in school lunches
- accommodate heavy circulation between classes

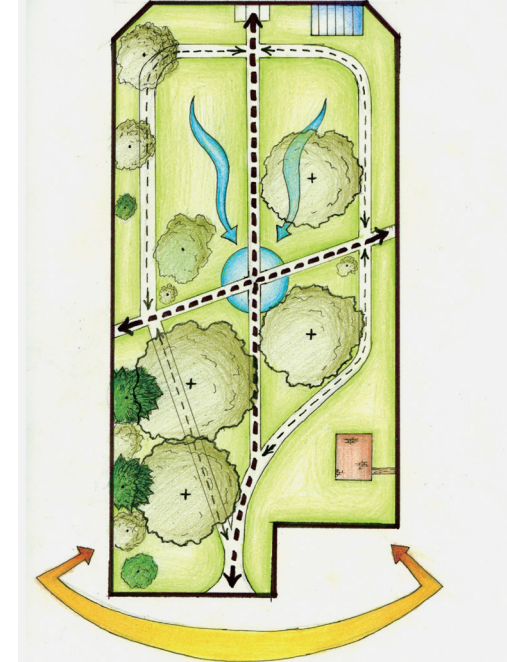
Legend

1. Produce garden
2. Gathering area
3. Rain garden
4. Pathway
5. Outdoor learning space
6. Butterfly garden

Scale : 1"=50'-0"



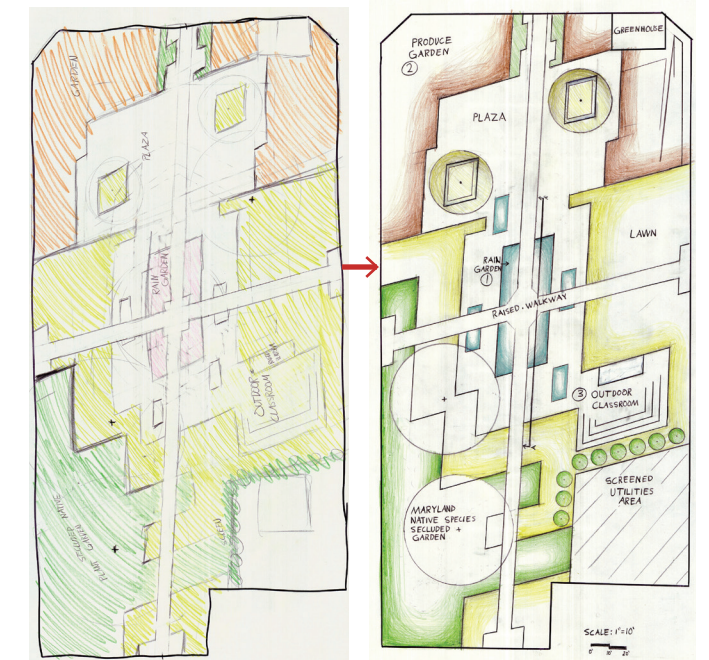
Site Analysis



Functional Diagram



Design Process



Inspiration



Ryan Young

Perspectives



Southeast View of Rain Garden and Outdoor Classroom



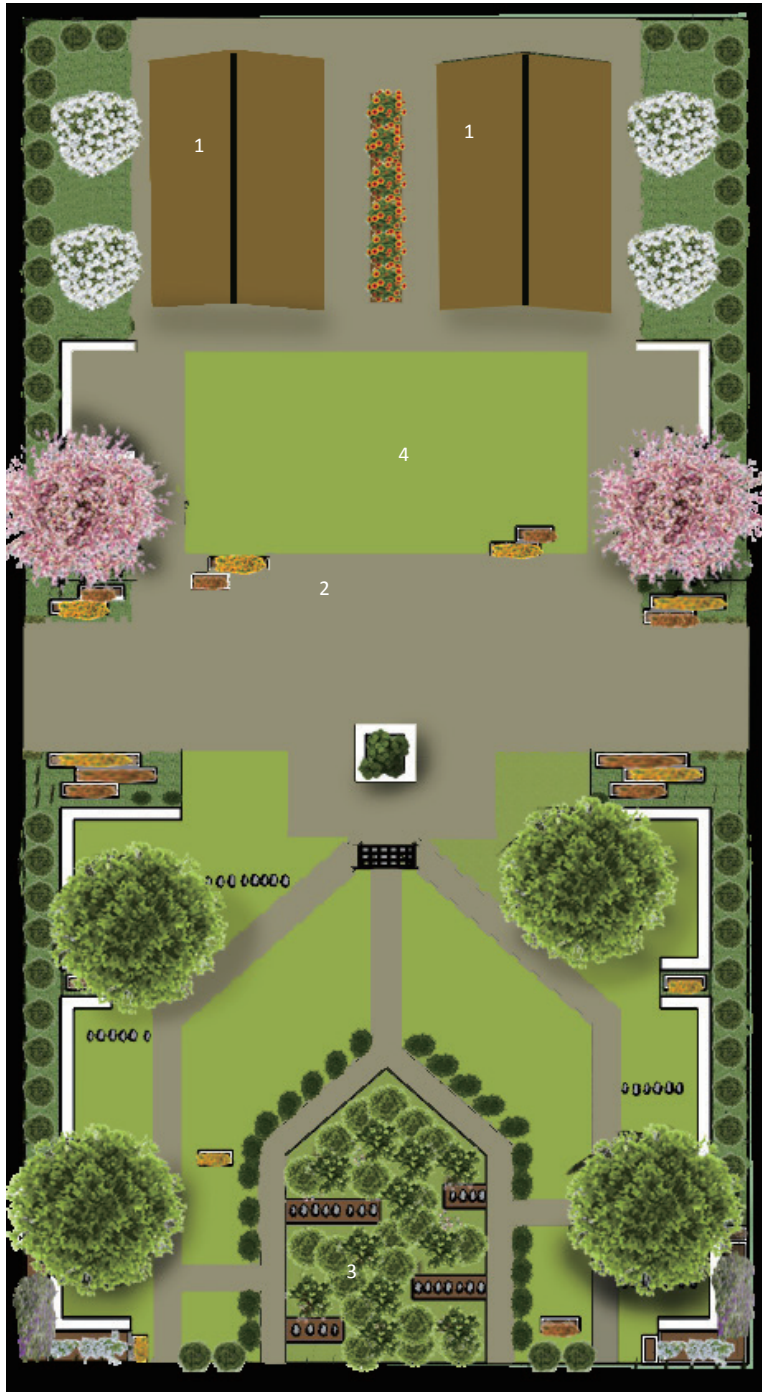
Northeast View of Secluded Native Species Garden



East View of Lunch Plaza with Greenhouse and Produce Garden

Technical Academy

Site Plan



Goal

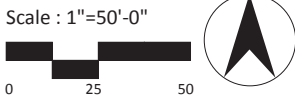
To restore a neglected lot into a beautiful and ecologically friendly space for teachers and students to relax, gather, and learn.

Objectives

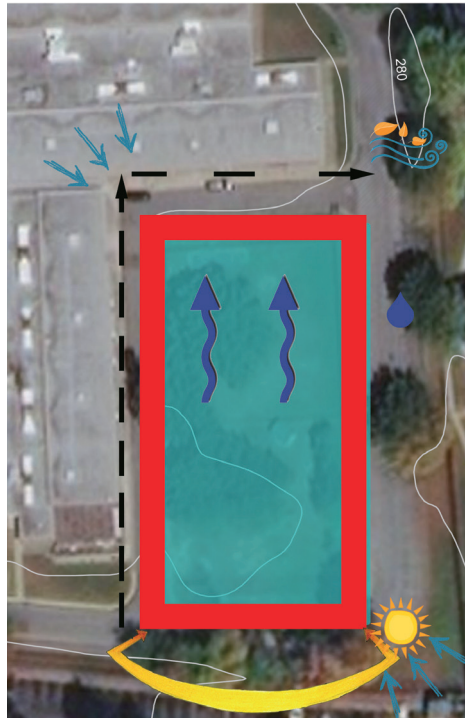
- provide a space for outdoor learning
- implement stormwater management
- supply local ecological benefits
- provide a space for students to gather and eat

Legend

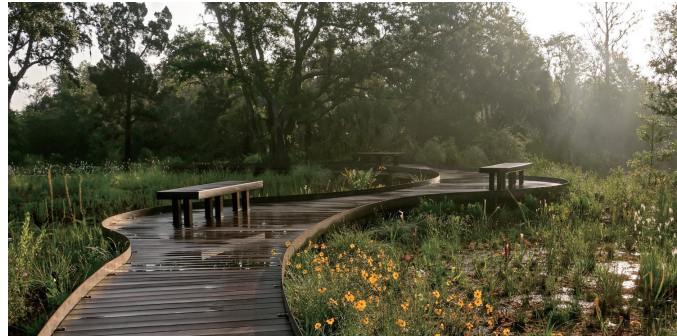
1. Pavilion
2. Gathering area
3. Rain garden
4. Meadow



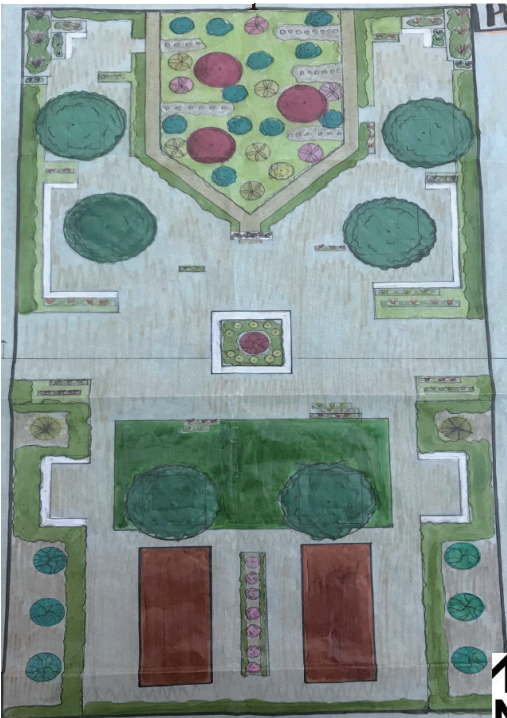
Site Analysis



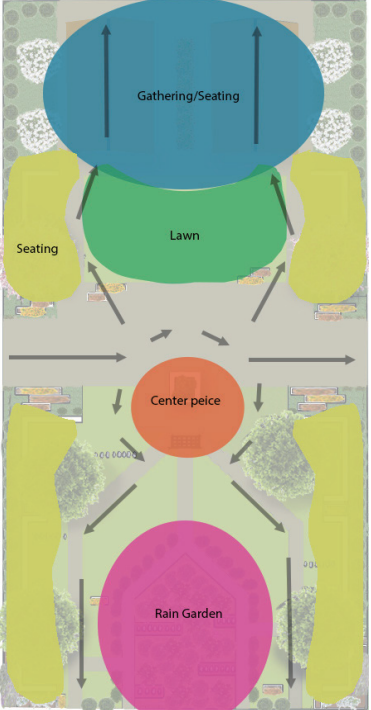
Inspiration



Initial Concept



Functional Diagram

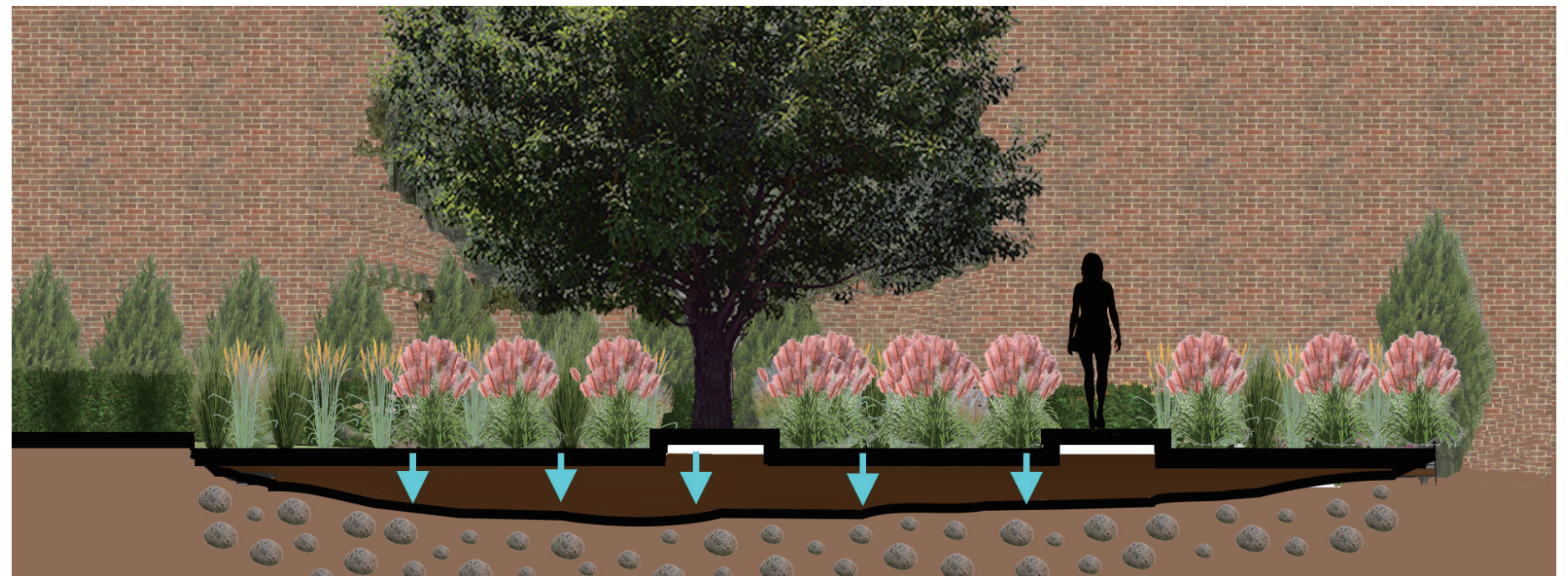


Catherine Garcia

Perspectives



Section



William Wirt Middle School

Site Analysis



History and Demographics

School History

William Wirt Middle School was built in 1963, named for William Wirt, an American author and the 9th US attorney general.

It became a Title I school after the No Child Left Behind Act of 2001 (NCLB).

A Title I school works to ensure equal, fair, and significant opportunities for all students to acquire high quality education and “meet challenging state academic standards.”

Involvement of Students

In 2007, students from the Engaged University of UMCP worked alongside students from William Wirt Middle School to create a community mural.

The Department of Business and Economic Development granted the project \$8,000, which was used for materials and as a commission for the students involved.

Students worked together once a week for 14 weeks as part of an after-school, Art Club program. The mural itself is designed to “promote equality and acceptance of diverse cultures.”

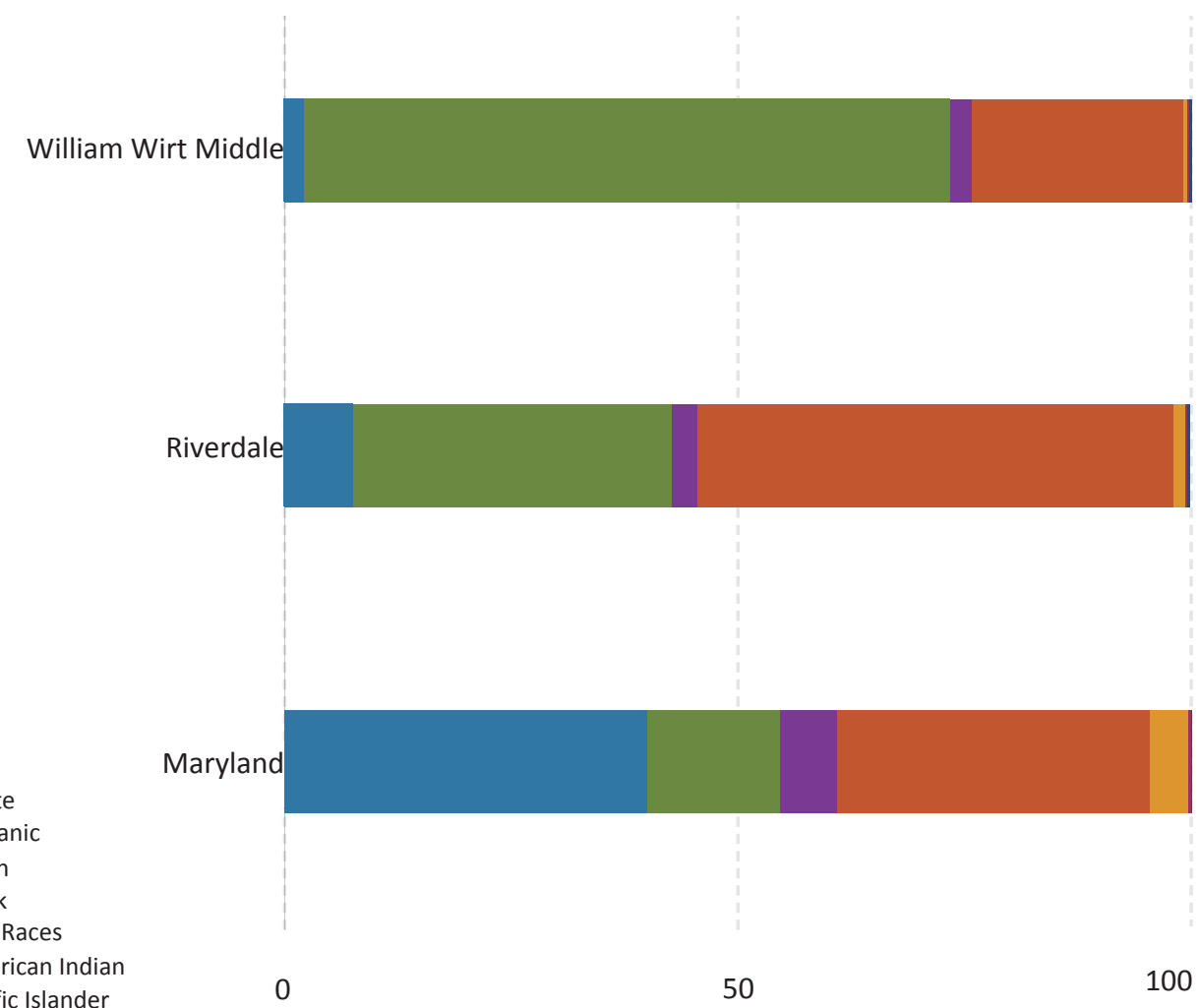
Demographics

Compared to demographics in Riverdale and Maryland, the population at William Wirt Middle School is very different.

Most students at this school identify as Hispanic, 71.2 percent, compared to 35 percent in Riverdale and 14 percent in Maryland.

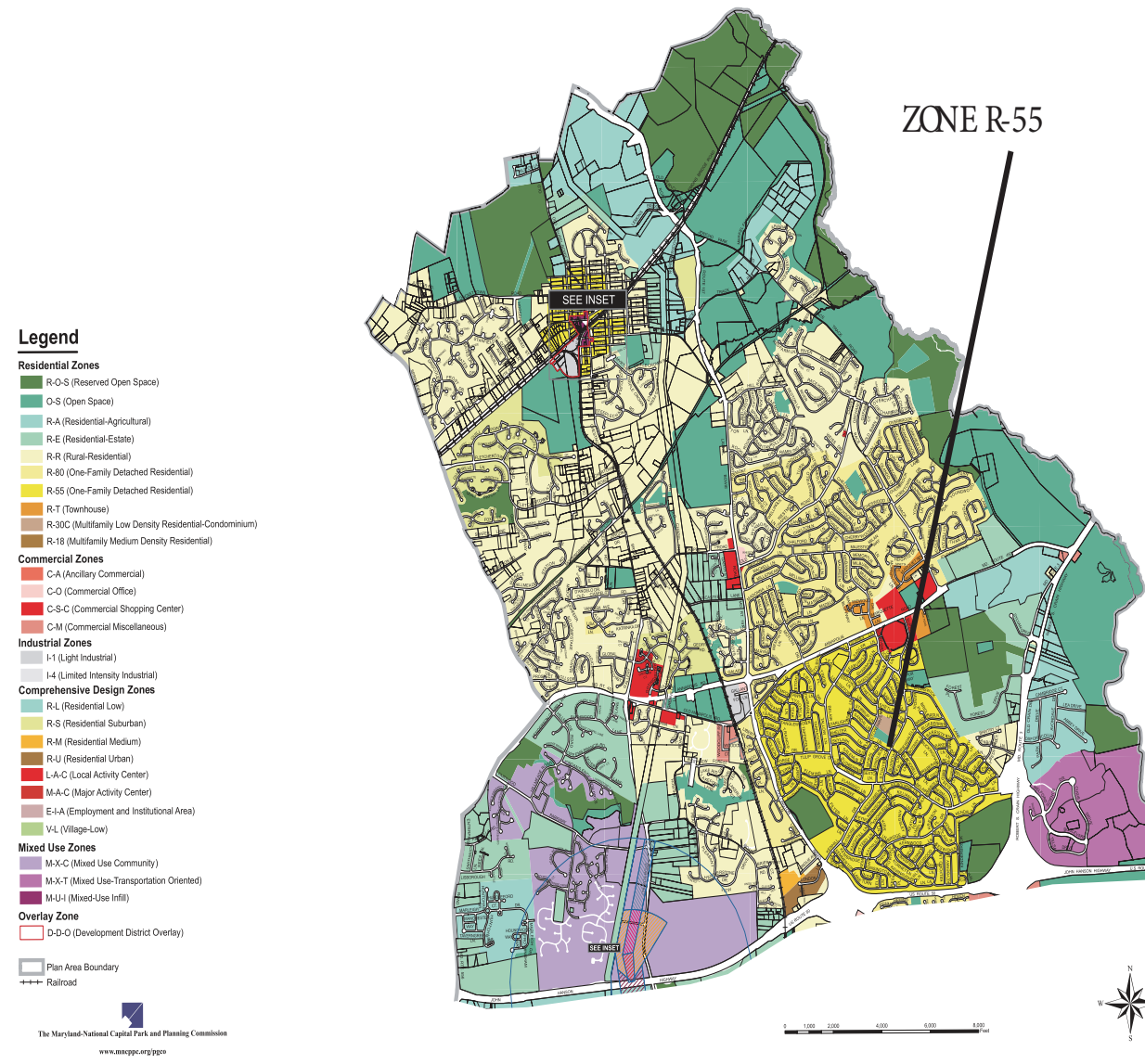
The second highest ethnicity in the school is Black, 23 percent of students, which is lower than the Riverdale and state averages.

Finally, remaining William Wirt students identify themselves as White, 2 percent, Asian, 2 percent, and American Indian and/or Pacific Islander, 1 percent.

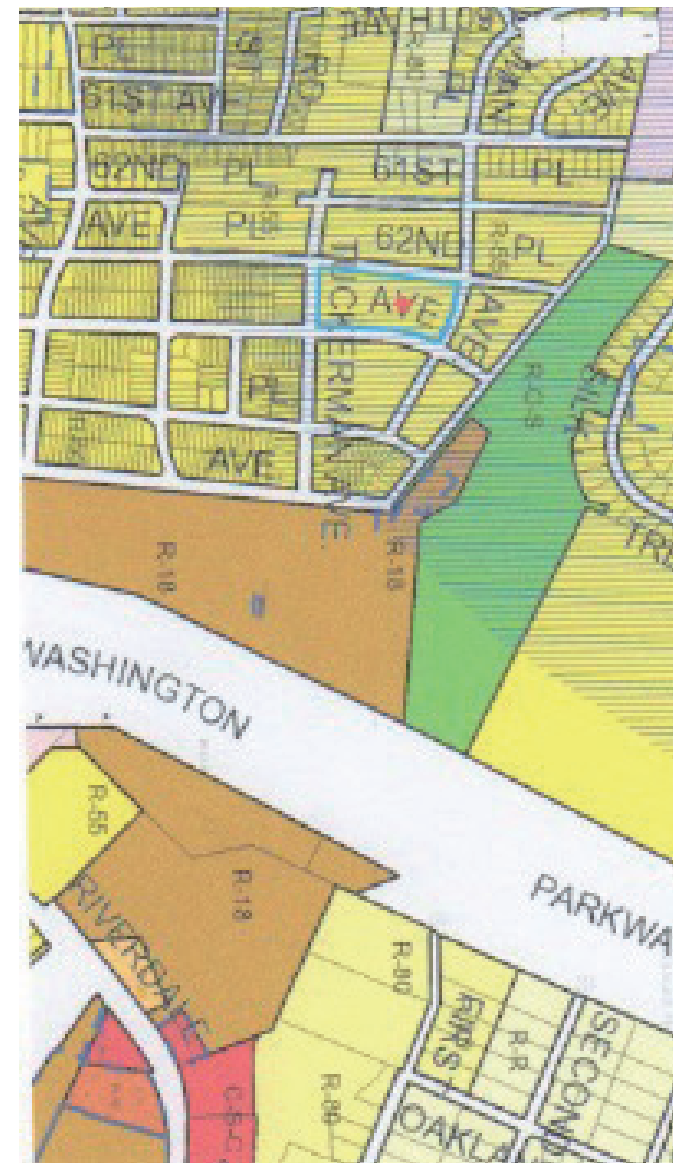


Zoning

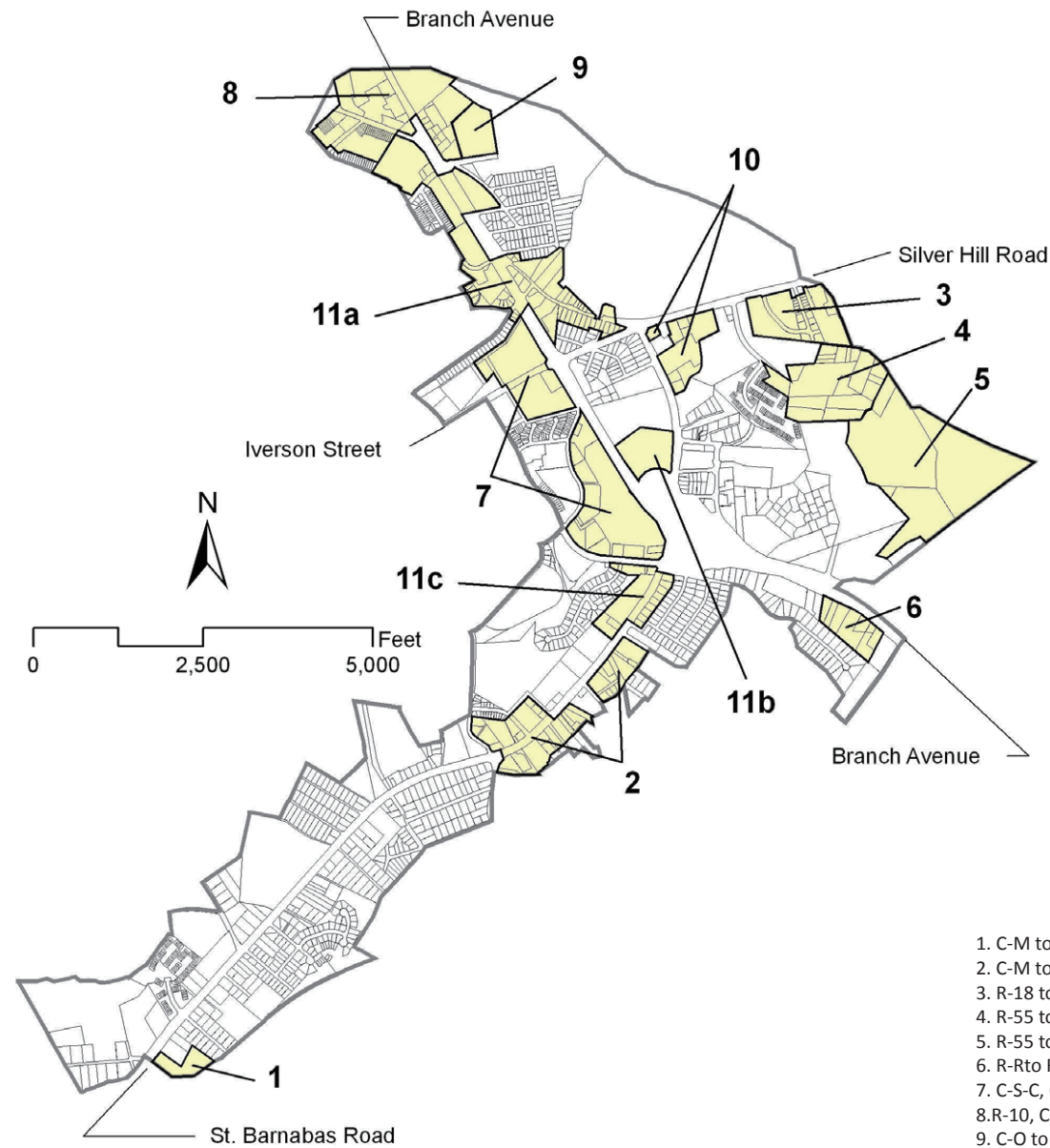
Prince George's County Zoning Map



Aviation Policy Area



Zoning, William Wirt Middle School and Surroundings

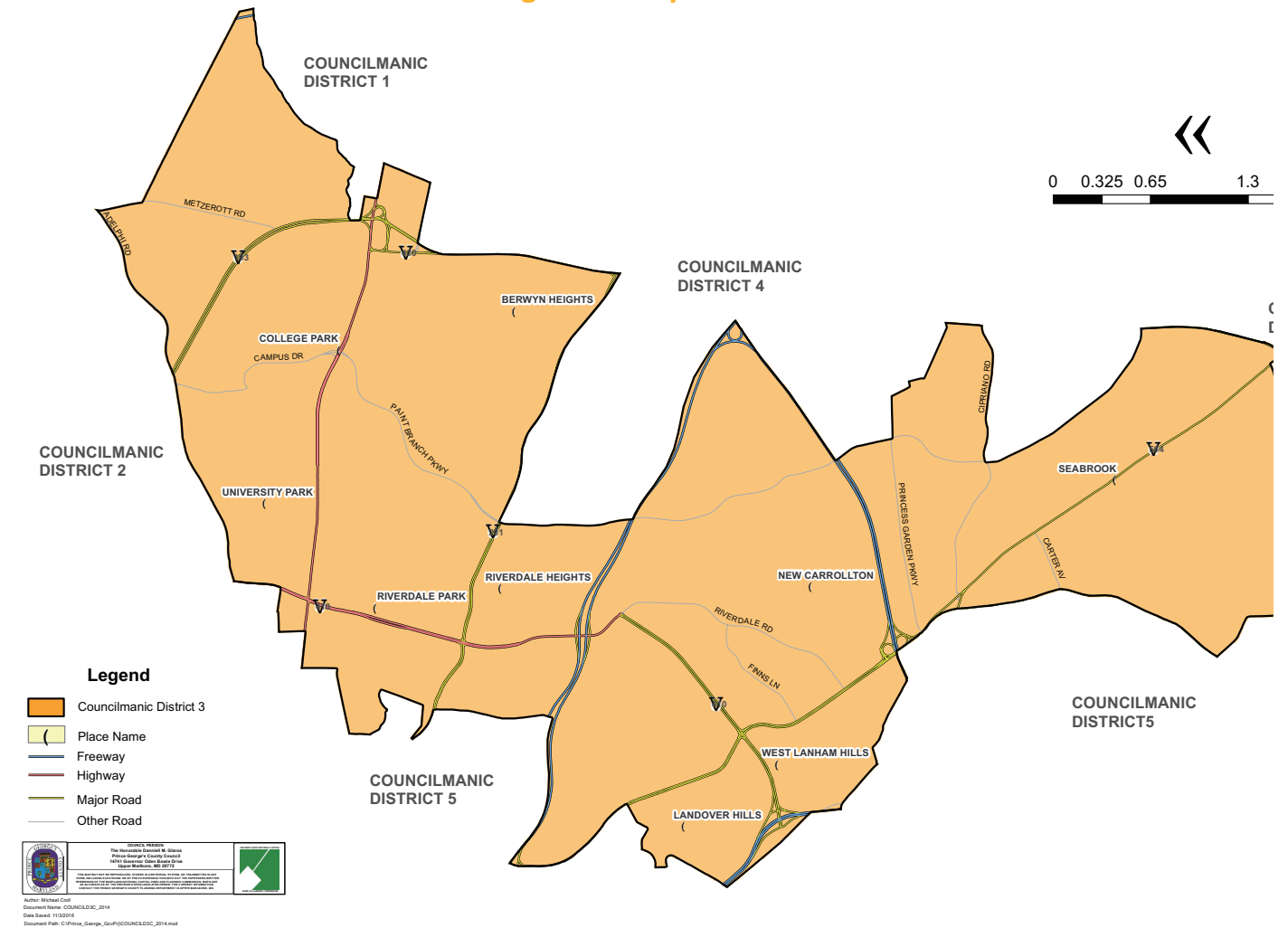


- 1. C-M to C-S-C
- 2. C-M to C-S-C
- 3. R-18 to R-10
- 4. R-55 to R-30C
- 5. R-55 to R-O-S
- 6. R-Rto R-T
- 7. C-S-C, C-O to M-X-T
- 8. R-10, C-S-C, C-M, C-O to M-X-T
- 9. C-O to O-S
- 10. C-M to C-S-C
- 11a. R-55, R-10, C-O, C-M, C-S-C, to M-X-T
- 11b. C-S-C to M-X-T
- 11c. C-O, C-S-C to M-X-T

- R-O-S Reserved Open Space
Minimum lot size 20 acres
Maximum dwelling units per net acre 0.5
- R-30C Multifamily Low Density Residential-Condo
Garden apartments 14,000 square feet
Two-family dwellings 1,500 square feet
- R-55 One-Family Detached Residential

- R-55 One-Family Detached Residential
Permits small-lot residential subdivisions; promotes high density, single-family detached dwellings.
Maximum dwelling units per net acre 6.70
Estimated average dwelling units per acre 4.2

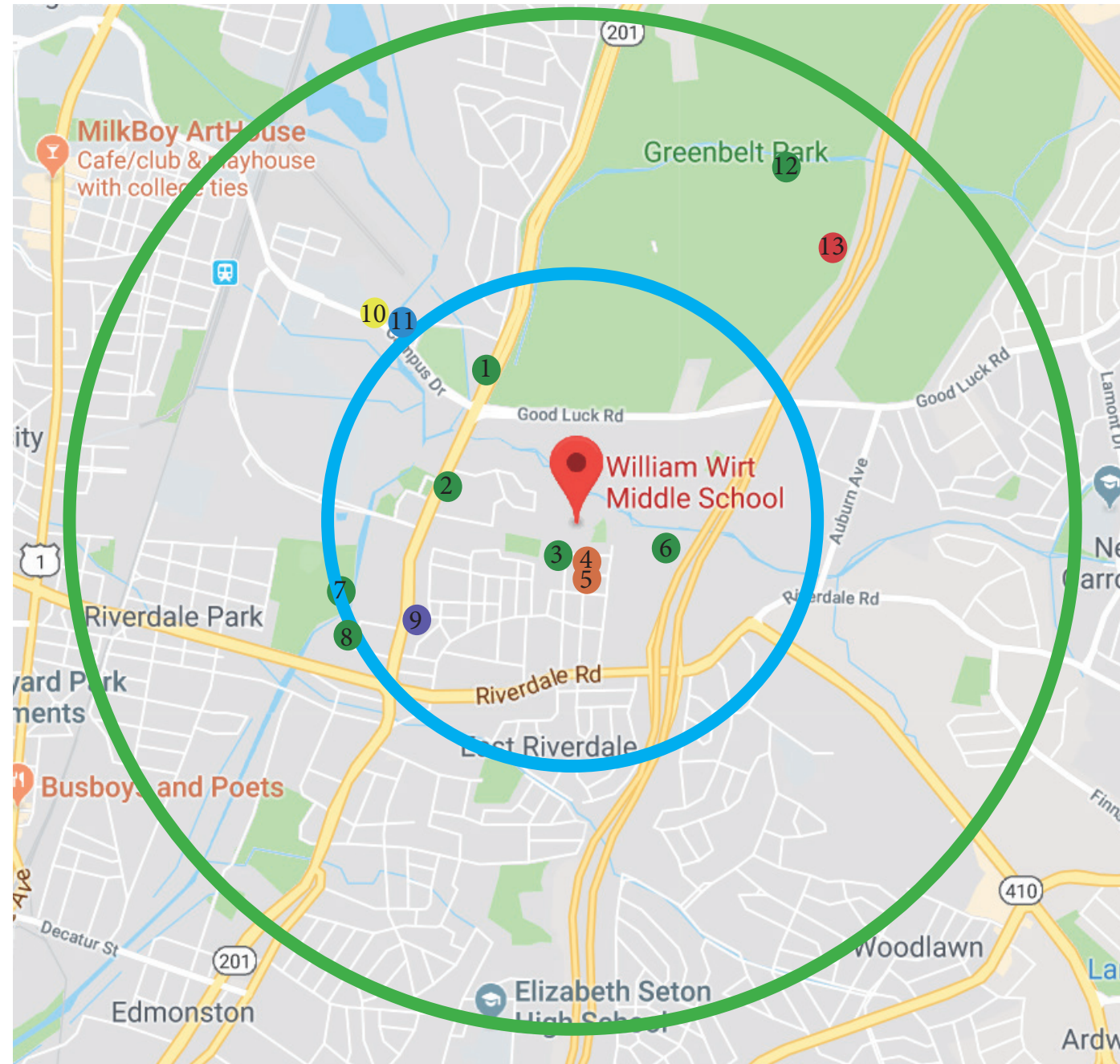
Councilmanic District 3: Prince George's County



Linda Macsorley



Context



Community Context (.5 mile)

1. Calvert Road Park Disc Golf
2. Maryland National Capital Park and Planning Commission
3. Riverdale Hills Neighborhood Park
4. Field of Greens Community Garden
5. Sheridan Street Community Garden
6. Serjio Trail

Community Context (1 mile)

7. Riverdale Community Park
8. Riverdale Recreation Center
9. Rinaldi's Riverdale Bowl
10. Herbert Wells Ice Rink
11. Ellen E Linson Swimming Pool
12. Greenbelt Park
13. Greenbelt Campground



1. Calvert Road Park Disc Golf



2. Maryland National Capital Park



3. Riverdale Hills Neighborhood Park

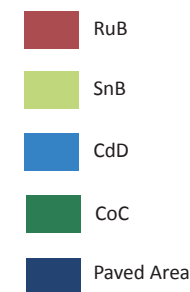
Rachel Greenhawk

Soil Classification

Soil Map



Paved Area



SnB—Sassafras-Urban land complex

0 to 5 percent slopes

Description of Sassafras:
 Depth to restrictive feature: More than 80 inches
 Natural drainage class: Well drained
 Runoff class: Low
 Hydrologic Soil Group: B

Description of Urban Land:
 Hydrologic Soil Group: D

CdD—Christiana-Downer-Urban land complex

5 to 15 percent slopes

Description of Christiana:
 Natural drainage class: Moderately well drained
 Runoff class: High
 Depth to water table: About 20 to 40 inches
 Hydrologic Soil Group: D

Description of Downer:
 Natural drainage class: Well drained
 Depth to water table: More than 80 inches
 Runoff class: Low

RuB—Russett-Christiana-Urban land complex

0 to 5 percent slopes

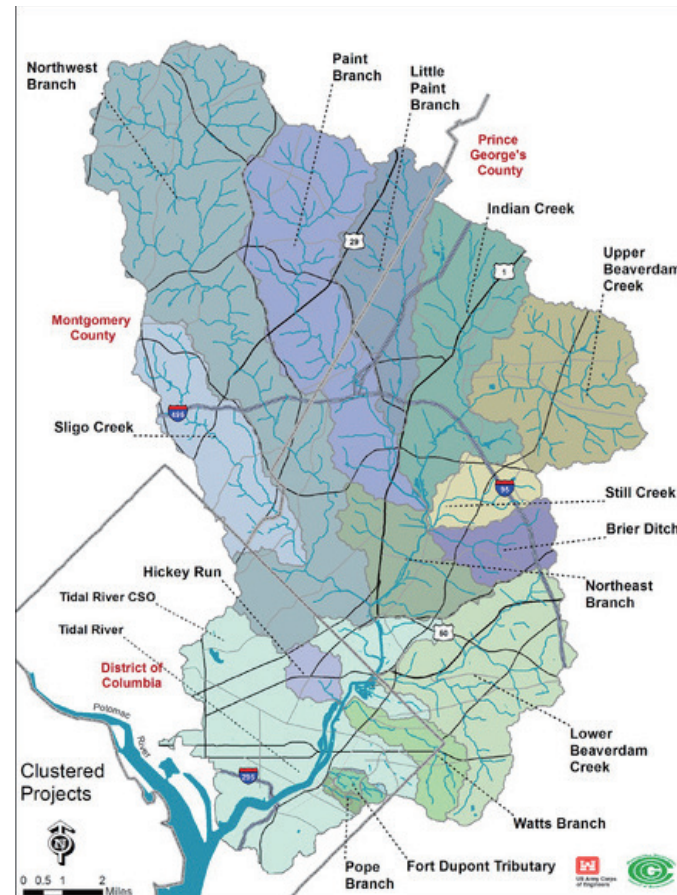
Description of Christiana:
 Natural drainage class: Moderately well drained
 Runoff class: Medium
 Depth to water table: About 20 to 40 inches
 Hydrologic Soil Group: D

Description of Urban Land:
 Hydrologic Soil Group: D

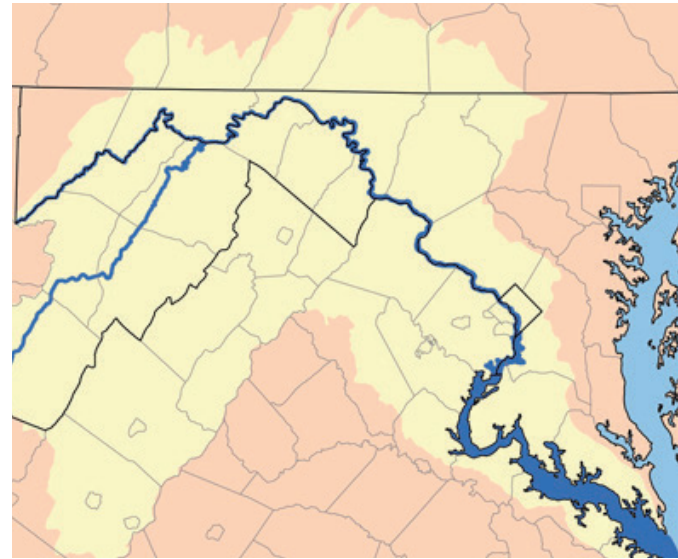
Audrey Wilke

Hydrology

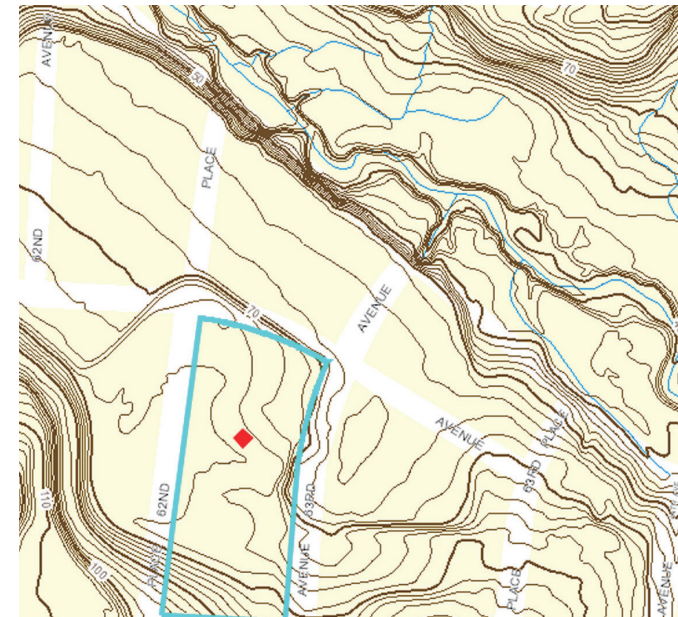
William Wirt Middle School borders Brier Ditch to the north. The school site is in the Anacostia River Watershed, flowing into the Potomac, then the Chesapeake Bay.



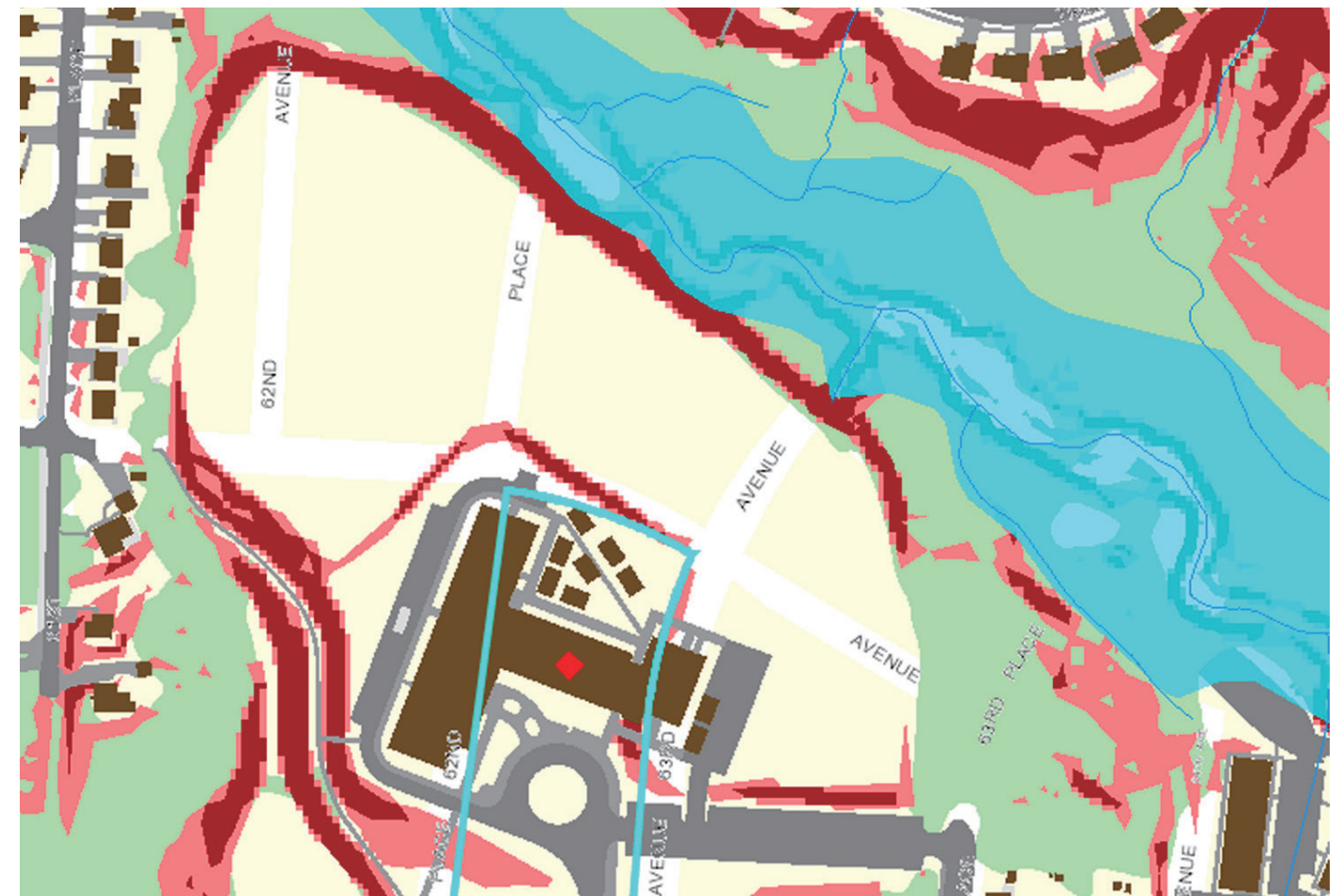
Potomac Watershed



Topography



Potomac Watershed

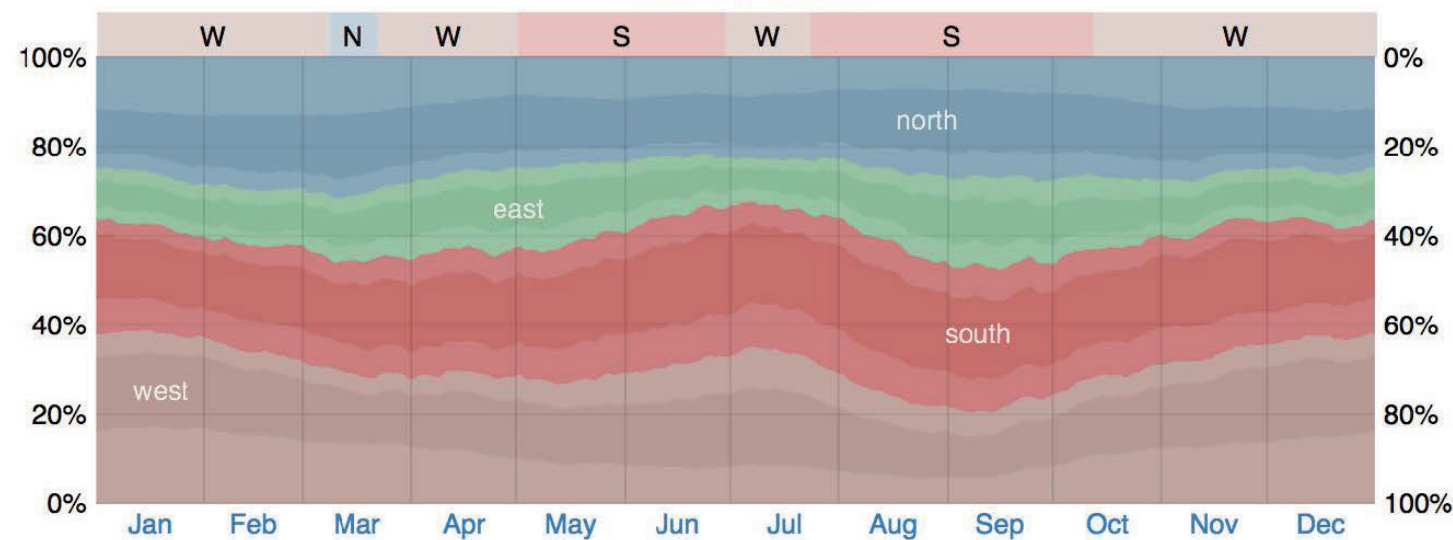


Climate

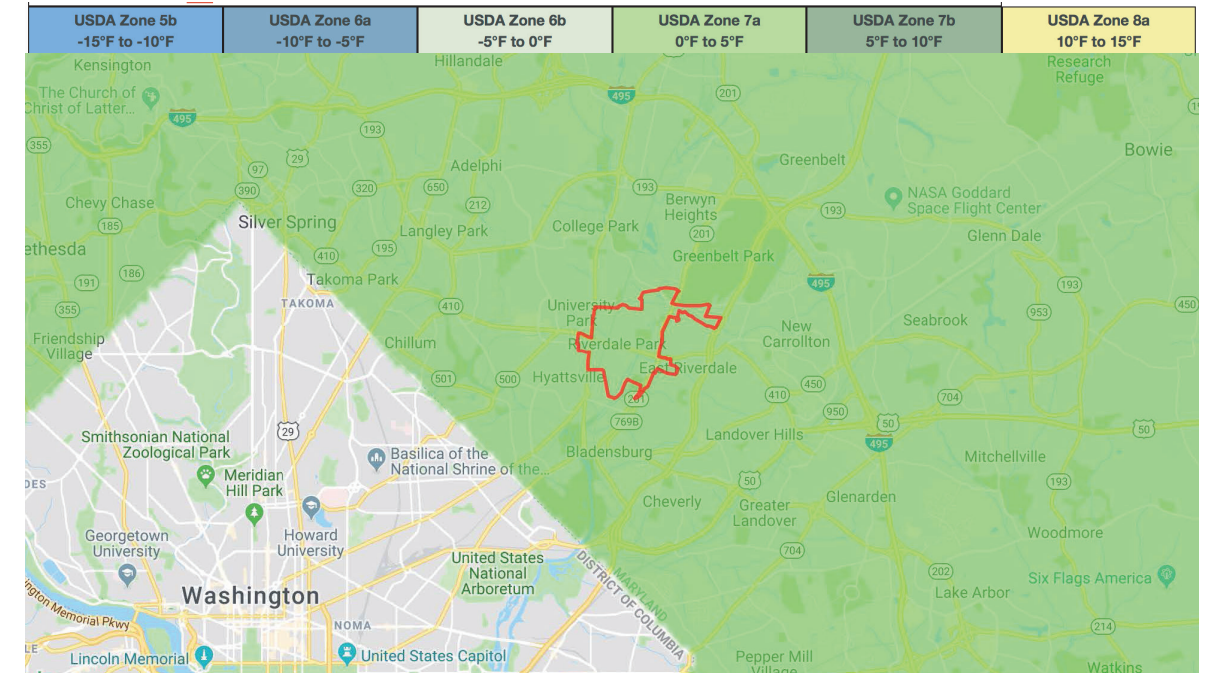
Introduction

- William Wirt Middle School is in USDA Climate Zone 7a.
 - It has average low temperatures between 0°F and 5°F.
 - It is on the east side of the fall line and therefore part of the Atlantic Coastal Plain.
 - Characterized as a humid subtropical climate, with humid hot summers and mild to cold winters.
 - The hot season last for 3.5 months, May through September, and the cold season lasts 3.2 months, November through March.
 - Riverdale experiences mild seasonal cloud coverage variation throughout the year.
- The growing season in Riverdale Park is typically 7 months (214 days), from approximately April 4 to November 3, rarely starting before March 16 or after April 22, and rarely ending before October 15 or after November 25.
 - The wind is most often from the north for 2.0 weeks, from March 8 to March 22.
 - The wind is most often from the west for 1.3 months, from March 22 to May 1 for 3.4 weeks, from June 29 to July 23; and for 4.9 months, from October 12 to March 8.
 - The wind is most often from the south for 1.9 months, from May 1 to June 29 and for 2.6 months, from July 23 to October 12.

Wind Direction



The percentage of hours in which the mean wind direction is from each of the four cardinal wind directions (north, east, south, and west), excluding hours in which the mean wind speed is less than 1 mph. The lightly tinted areas at the boundaries are the percentage of hours spent in the implied intermediate directions (northeast, southeast, southwest, and northwest).

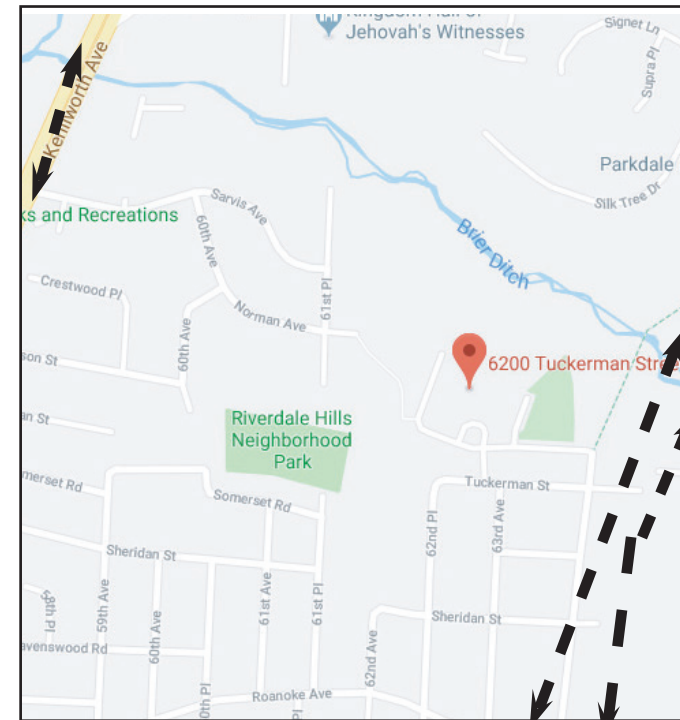
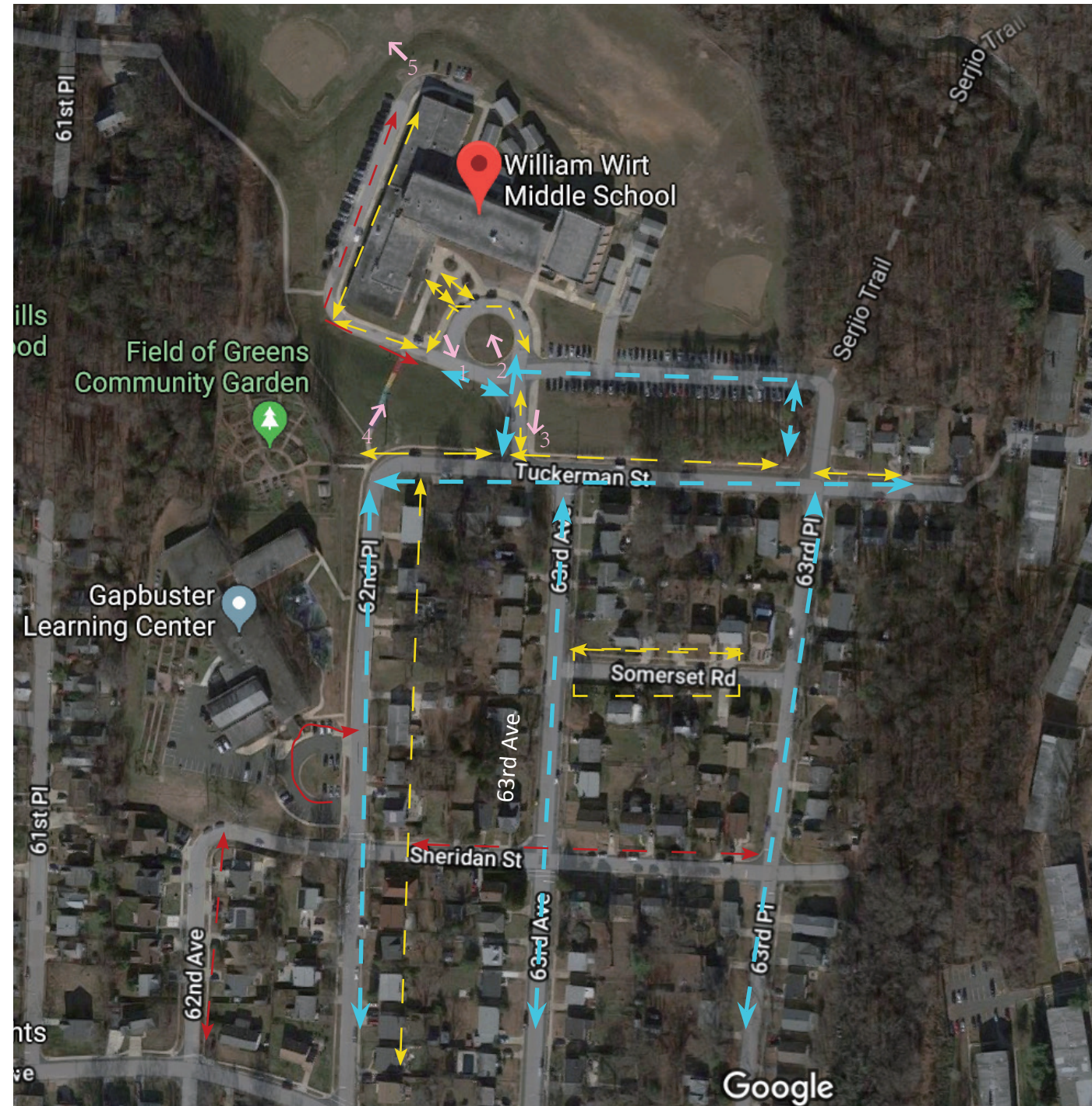


CLIMATE	Riverdale Park, Maryland	United States
Rainfall (in.)	42.7452	39.2
Snowfall (in.)	12.8205	25.8
Precipitation Days	72.3	102
Sunny Days	207	205
Avg. July High	88.391	86.1
Avg. Jan. Low	25.37	22.6
Comfort Index (higher=better)	51	54
UV Index	4.3	4.3
Elevation ft.	44	1,443

Abby Smith

View and Circulation

Circulation



William Wirt Middle School is located near a few major roads--Kenilworth Avenue, Riverdale Road, and the Baltimore Washington Parkway.

Three roads lead to the school--62nd Place, 63rd Avenue, and 63rd Place. The school is also near Brier Ditch, which separates the middle school from Parkdale High School.

The Serjio Trail cuts across Brier Ditch not too far from the school. Also, there are the M-NCPPC and the Riverdale Hills Neighborhood Parks not too far away.

- Medium Traffic
- Light Traffic
- Pedestrian Traffic
- - - Heavy Traffic

Views



Jessica Meilman

Proposed Plants

Grasses/Herbaceous: Up to 4 ft

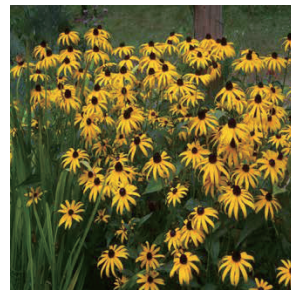
Andropogon virginicus
 Zone: 5-8
 Sun: FS/PS
 Soil: Dry
 Benefits: Seeds for wildlife



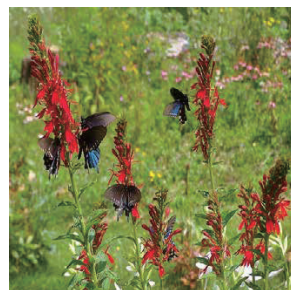
Carex stricta
 Zone: 3-8
 Sun: FS/PS
 Soil: w/m
 Benefits: Easy to Grow



Rudbeckia hirta
 Zone: 3-7
 Sun: FS/PS
 Soil: m/d
 Benefits: Seeds for wildlife



Lobelia cardinalis
 Zone: 3-9
 Sun: FS/PS
 Soil: w/m
 Benefits: Pollinator Plant



Small Shrubs: About 5 ft

Viburnum acerifolium
 Zone: 3-8
 Sun: FS/PS
 Soil: m/d
 Benefits: Great for wildlife



Euonymus americanus
 Zone: 6-9
 Sun: PS
 Soil: Moist
 Benefits: Fruit/Seeds for wildlife



Gaylussacia baccata
 Zone: 3-7
 Sun: PS/SH
 Soil: m/d
 Benefits: Important for wildlife



Spiraea latifolia
 Zone: 3-7
 Sun: FS
 Soil: Moist
 Benefits: Persistent Fruit



Medium/Large Shrubs: 5-15 ft

Ilex verticillata
 Zone: 3-9
 Sun: FS/PS
 Soil: w/m
 Benefits: Important for wildlife



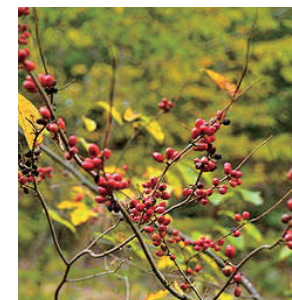
Viburnum dentatum
 Zone: 2-8
 Sun: FS/PS
 Soil: m/d
 Benefits: N/A



Rhus typhina
 Zone: 3-8
 Sun: FS
 Soil: Dry
 Benefits: Good for wildlife



Lindera benzoin
 Zone: 4-9
 Sun: PS
 Soil: m/d
 Benefits: Deer resistant



Trees: 50 ft or more

Nyssa sylvatica
 Zone: 3-9
 Sun: FS/PS
 Soil: All
 Benefits: Attractive



Quercus alba
 Zone: 3-9
 Sun: FS
 Soil: Moist
 Benefits: Habitat/State tree



Prunus serotina
 Zone: 3-9
 Sun: FS
 Soil: Moist
 Benefits: Showy flowers



Quercus marilandica
 Zone: 6-9
 Sun: PS
 Soil: Dry
 Benefits: Clay Soils



Design Alternative #1

William Wirt Middle School

Site Plan



Objectives

Create an outdoor space with varied functions including education, recreation, and environmental remediation, while dealing with parking congestion and bus movement.

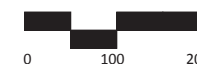
Design Goals

- Create separate loops for bus and car drop off
- Add seating and an amphitheater into hill to limit cut and fill
- Promote outdoor activity with a performance stage, sports fields, and outdoor learning center
- Locate place-based education directly in wetland for student engagement
- Add multi-functional stormwater remediation

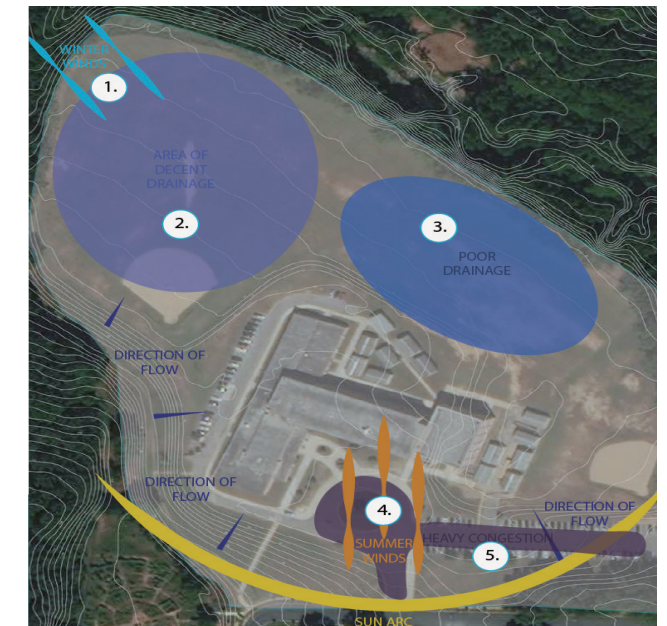
Legend

1. Wetland
2. Outdoor Classrooms
3. Sport Fields
4. Bleacher Seating
5. Amphitheater
6. Parking
7. Car Drop Off
8. Bioswale
9. Bus Loop

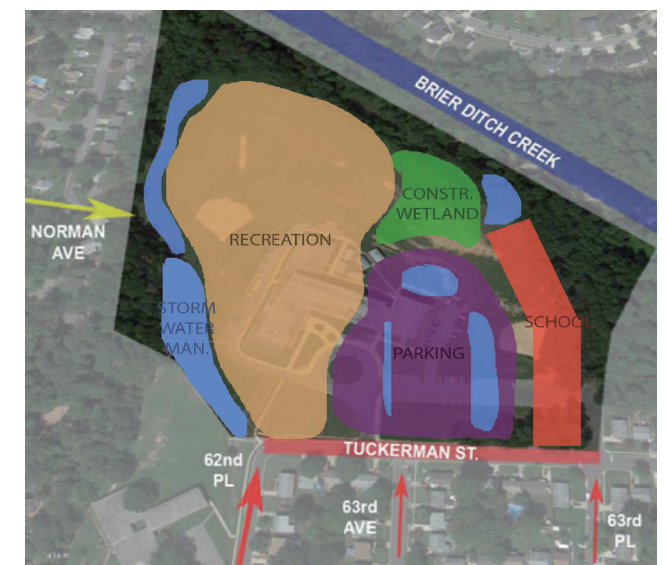
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Site Analysis



Functional Diagram



Rachel Greenhawk, Evan Lipka, Heyner Pajaro

Outdoor Education Wetland

Perspective-Wetland



Inspiration



Rachel Greenhawk



Landscape Architecture
DEPARTMENT OF PLANT SCIENCE AND LANDSCAPE ARCHITECTURE

University of Maryland Department of Landscape Architecture | LARC240 Graphic Communication and Design Studio, Spring 2018 Professor Byoung-Suk Kweon, Ph.D., PLA, ASLA | Design Team: Marquis Barnes, Olivia Duley, Samuel Ehrlich, Allison Fields, Catherine Garcia, Rachel Greenhawk, Maria Harrington, Jovon Jackson, Evan Lipka, Mia Manning, Linda MacSorley, Jessica Meilman, Heyner Pajaro, Gregory Remesch, Abigail Smith, Evan-Claire Schaum, Audrey Wilke, Ryan Young

Perspective-Wetland

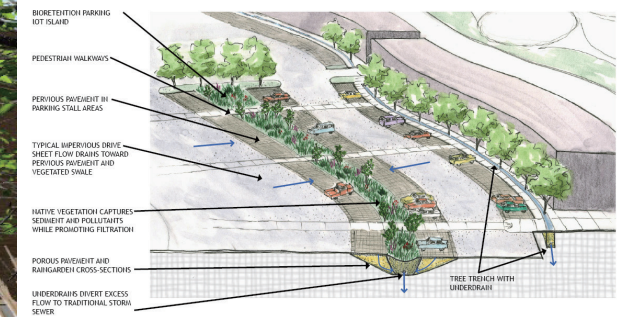


Parking/Bus Loop

Bioswale



Inspiration



Existing Parking



Evan Lipka

Existing Condition



Bus Loop

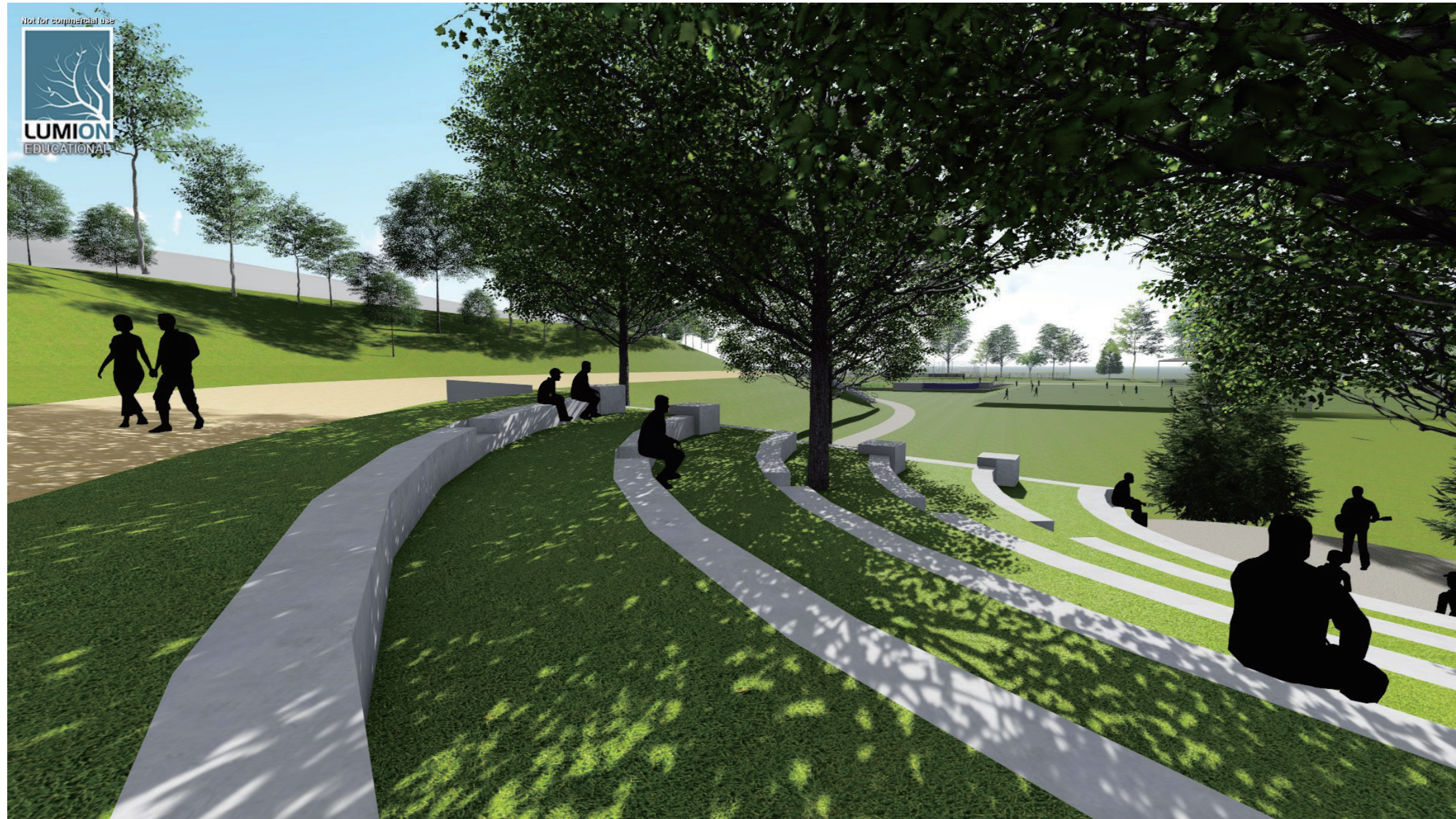


Parking Lot



Amphitheater/Fields

Amphitheater



Inspiration



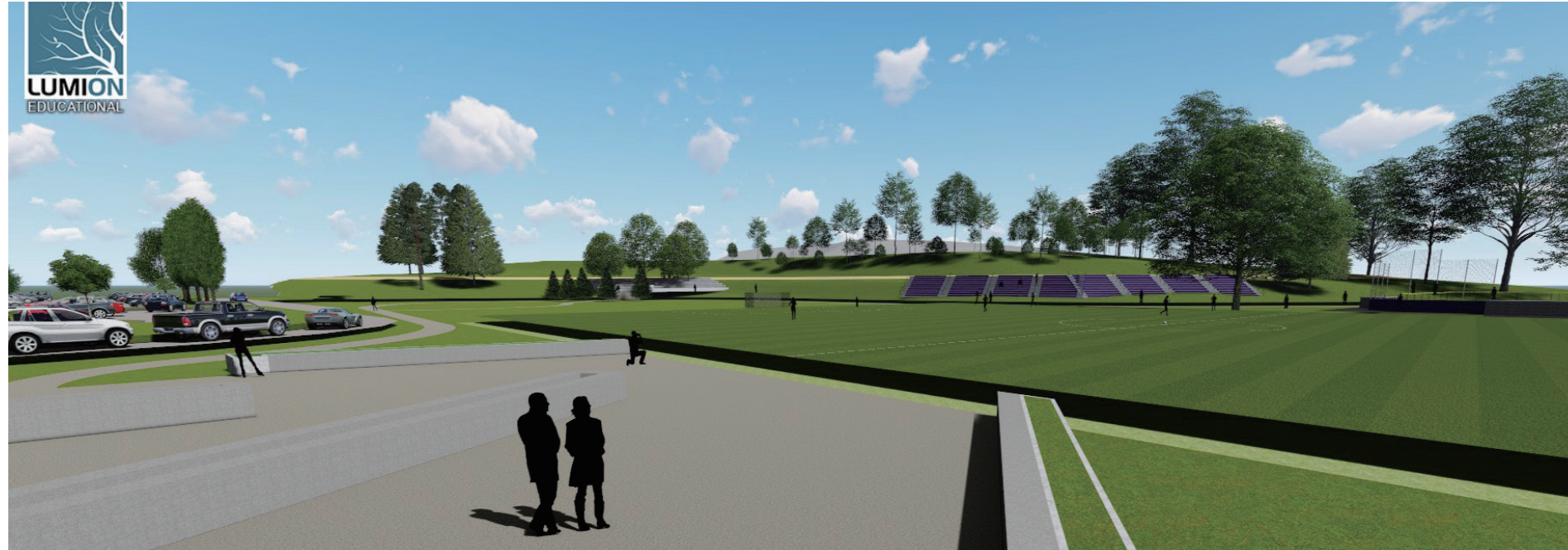
Heyner Pajaro



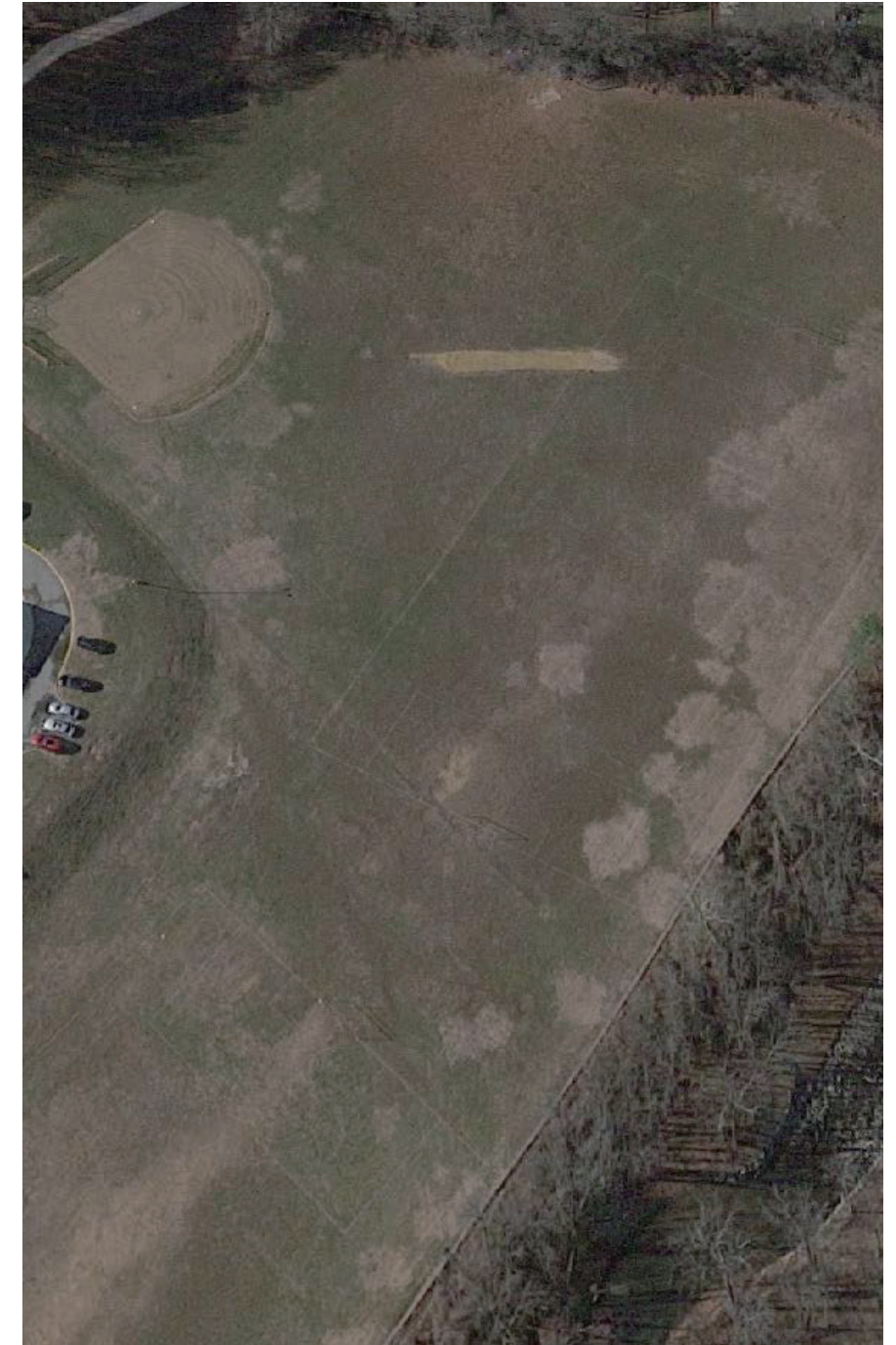
Landscape Architecture
DEPARTMENT OF PLANT SCIENCE AND LANDSCAPE ARCHITECTURE

University of Maryland Department of Landscape Architecture | LARC240 Graphic Communication and Design Studio, Spring 2018 Professor Byoung-Suk Kweon, Ph.D., PLA, ASLA | Design Team: Marquis Barnes, Olivia Duley, Samuel Ehrlich, Allison Fields, Catherine Garcia, Rachel Greenhawk, Maria Harrington, Jovon Jackson, Evan Lipka, Mia Manning, Linda MacSorley, Jessica Meilman, Heyner Pajaro, Gregory Remesch, Abigail Smith, Evan-Claire Schaum, Audrey Wilke, Ryan Young

Field



Existing Field Conditions



Design Alternative #2

Outdoor Education

Site Plan



Goal

Create a safe and interactive outdoor learning space for the students and the community.

Legend

- 1 Parking Lot
- 2 School
- 3 Bus Area
- 4 Soccer Field
- 5 Sports Field
- 6 Concession Stand
- 7 Chesapeake Rain garden
- 8 Garden Plot
- 9 Amphitheater
- 10 Natural Seating
- 11 Relaxing/Viewing Area

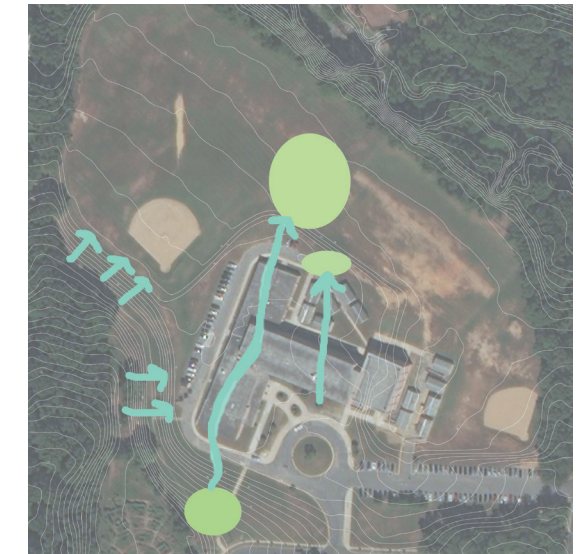
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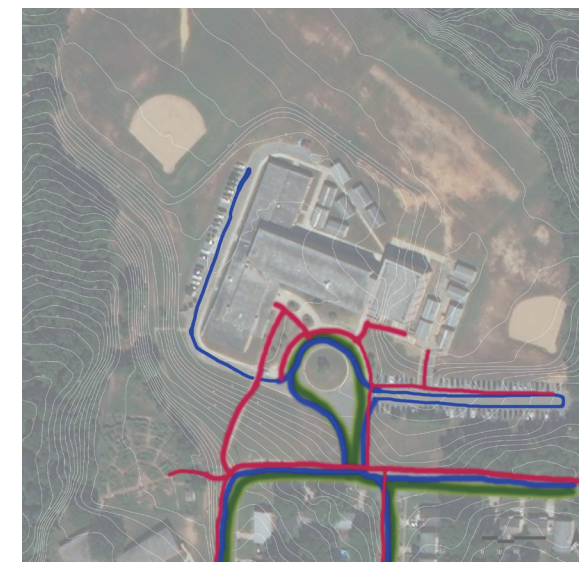
Site Analysis



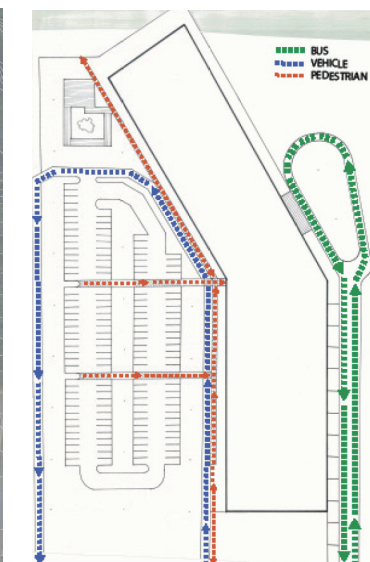
use slopes for seating (red) and garden (orange)



add rain gardens and wetland to retain and guide water on site



existing circulation



proposed circulation

- Bus
- Vehicle
- Pedestrian

Linda Macsorley, Jessica Meilman, Audrey Wilke

Functional Diagram



Inspiration



- Bus Traffic
- Heavy Car Traffic
- Light Car Traffic
- Pedestrian Traffic

Proposed Plants



Clethra alnifolia
Summersweet



Astilbe
Astilbes



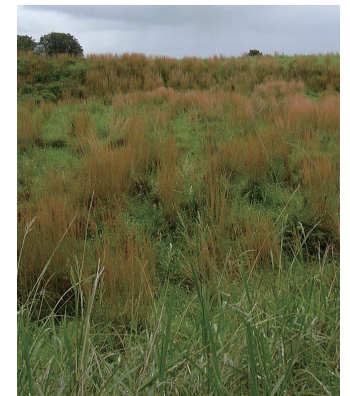
Asclepias tuberosa
Butterfly weed



Lobelia siphilitica
Blue cardinal flower



Anemone canadensis
Meadow anemone



Andropogon virginicus
Broomsedge

Outdoor Learning

A: Educational Garden Plots and Stream



Jessica Meilman, Audrey Wilke



Landscape Architecture
DEPARTMENT OF PLANT SCIENCE AND LANDSCAPE ARCHITECTURE

University of Maryland Department of Landscape Architecture | LARC240 Graphic Communication and Design Studio, Spring 2018 Professor Byoung-Suk Kweon, Ph.D., PLA, ASLA | Design Team: Marquis Barnes, Olivia Duley, Samuel Ehrlich, Allison Fields, Catherine Garcia, Rachel Greenhawk, Maria Harrington, Jovon Jackson, Evan Lipka, Mia Manning, Linda MacSorley, Jessica Meilman, Heyner Pajaro, Gregory Remesch, Abigail Smith, Evan-Claire Schaum, Audrey Wilke, Ryan Young

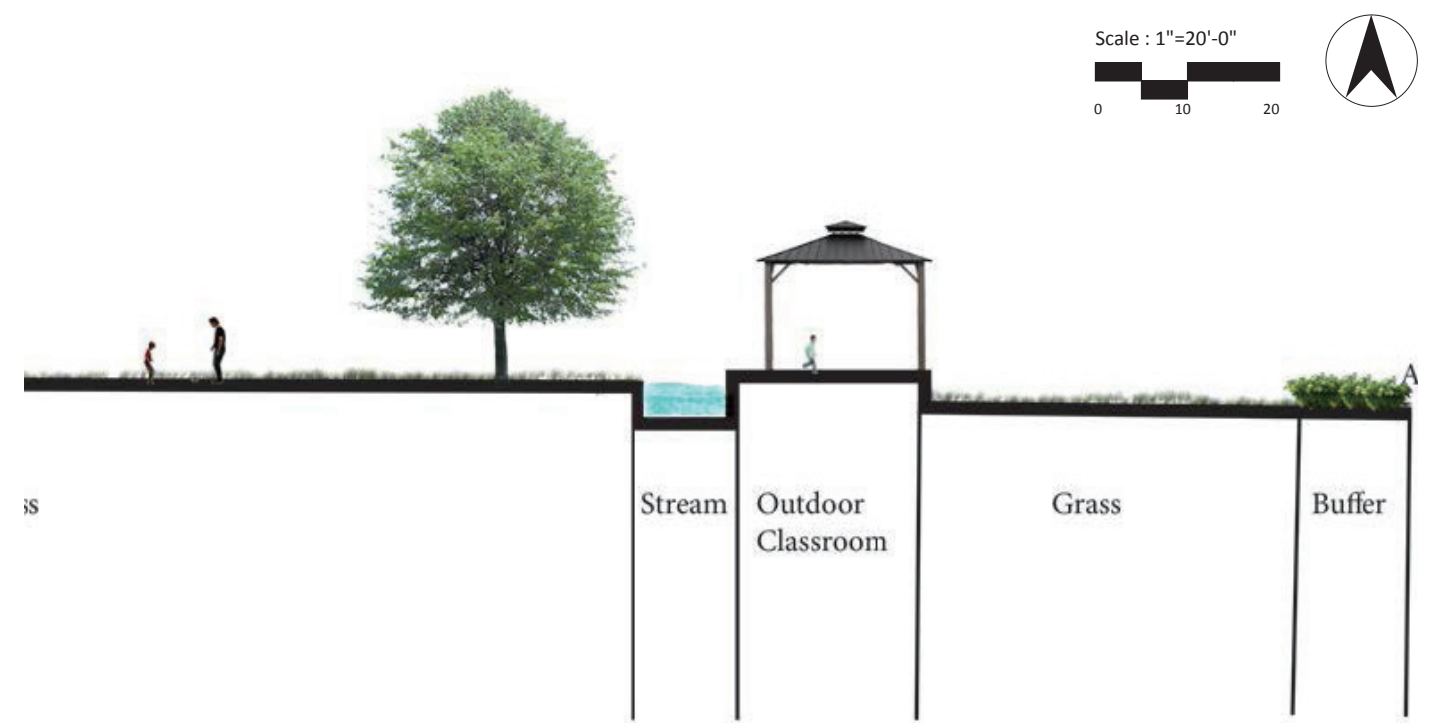
B: Outdoor Learning Environment



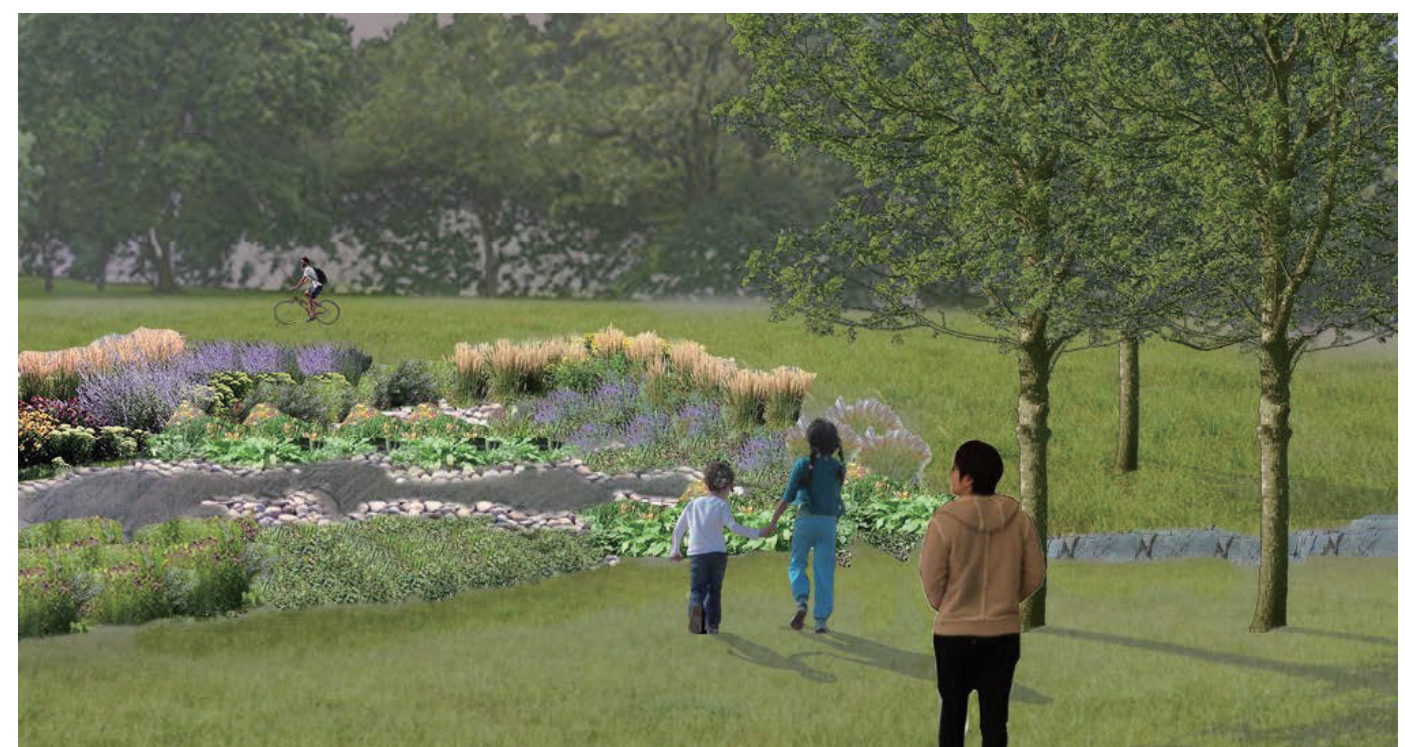
C: Peaceful Water Feature



Section A-A'



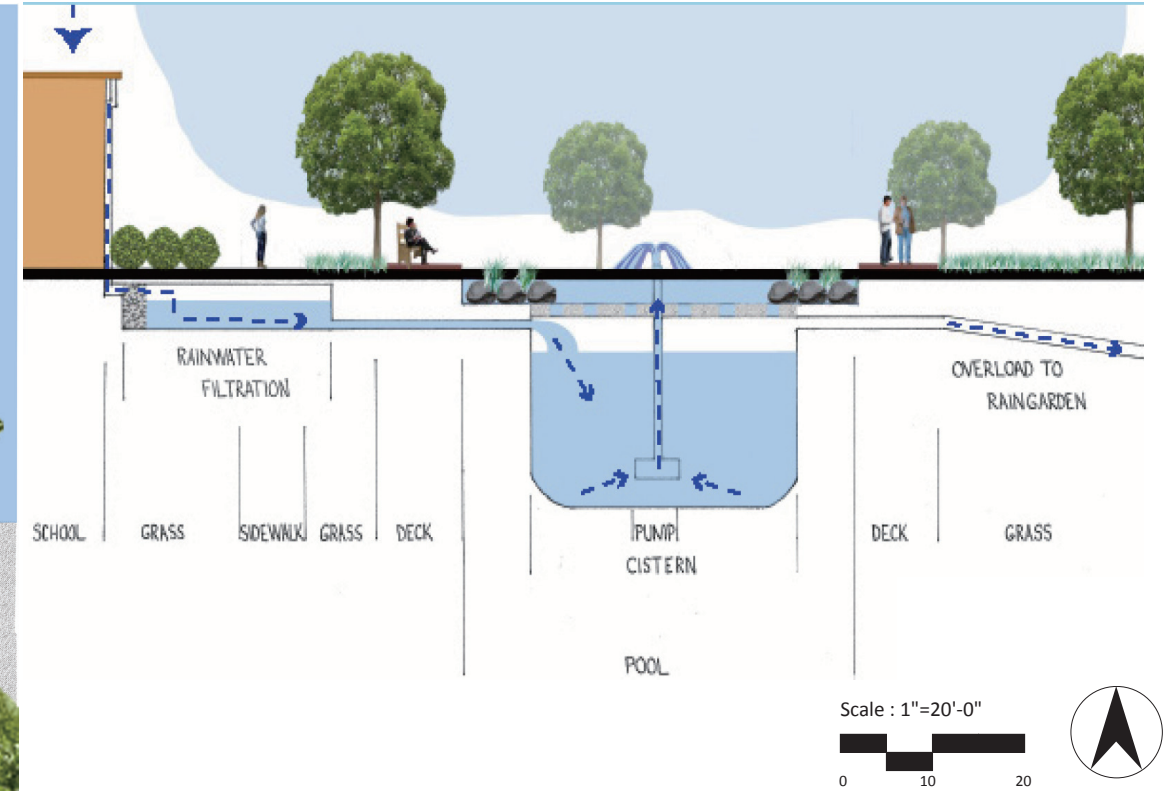
D: Chesapeake Bay Rain Garden



Parking

E: Parking

Section B-B'



Linda Macsorley



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Design Alternative #3

Beyond the Classroom

Site Plan



Design Process



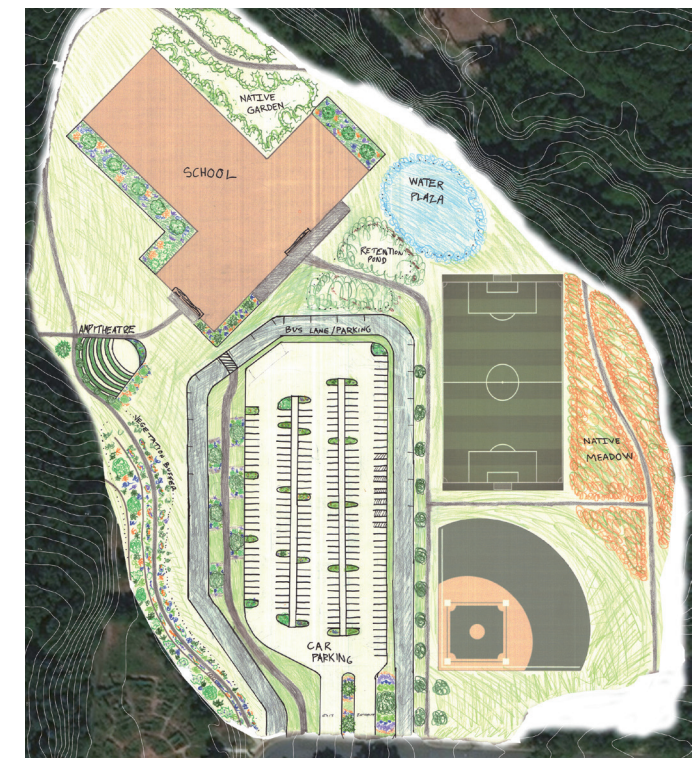
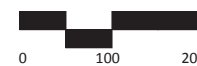
Goal

Create an inspiring campus for the students, that is motivating for the teachers and attentive to the surrounding native habitat.

Legend

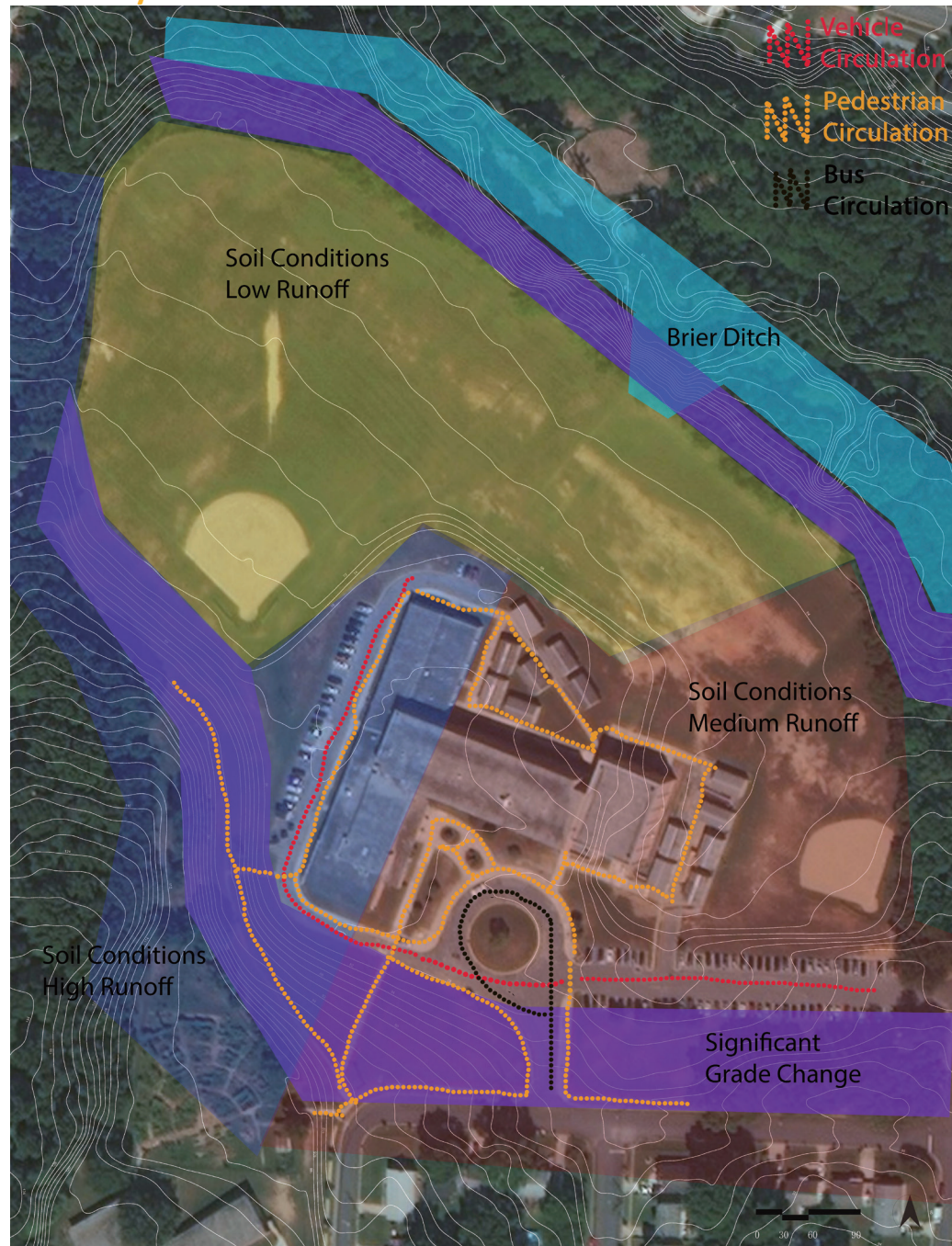
1. Amphitheater
2. Vegetated Buffer
3. Swale Trial
4. Greenhouse
5. Soccer Field/
Dry Detention Basin
6. Water Plaza
7. Sunken Garden
8. Native Meadow
9. Car Drop Off
10. Bus Drop Off

Scale : 1"=200'-0"



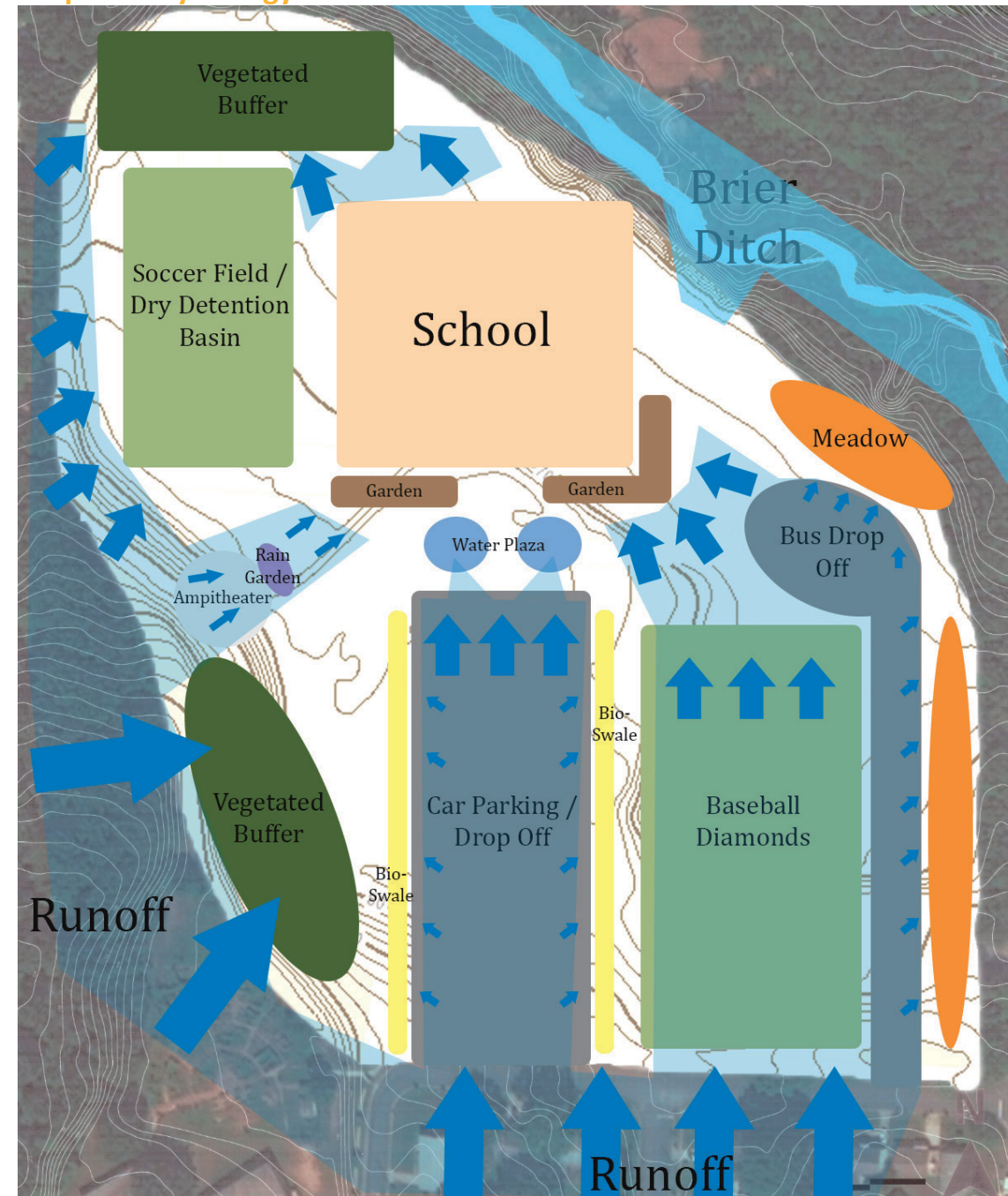
Jovon Jackson, Greg Remesch, Abby Smith

Site Analysis



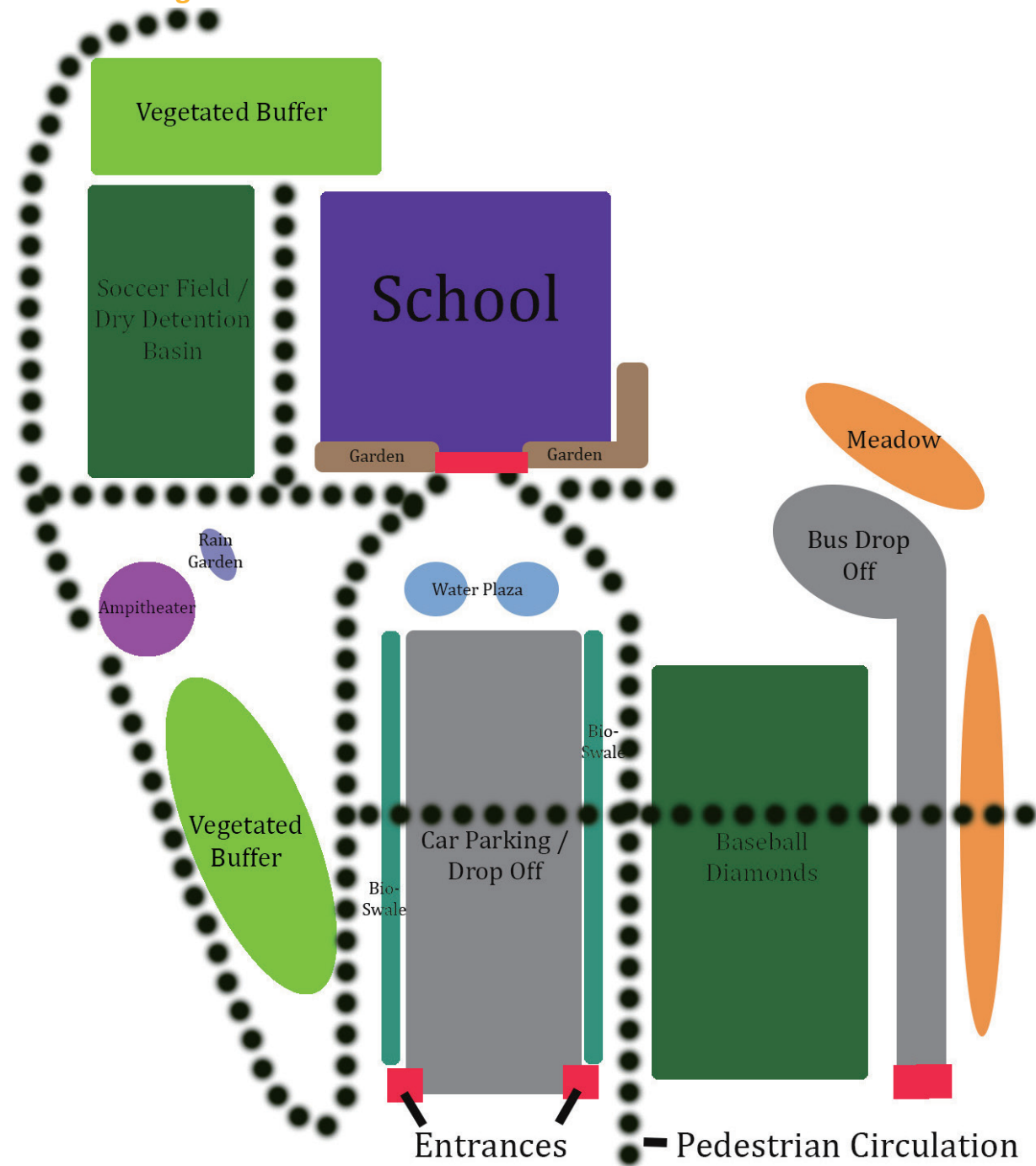
The northern border of the site is the heart of Brier Ditch Watershed, a few miles south of Greenbelt Park. Bordered on the west and south by houses, a source of runoff for the site. The site's topography provides sections of significant grade change, where modification is suggested, and vegetated buffers should be installed.

Proposed Hydrology



The greatest design challenge is the volume of water, both on and off site, that moves toward Brier Ditch. Using best management practices, this design directs, filters, and retains runoff. These practices reduce erosion, sedimentation, and pollution that create damage downstream in the Anacostia River.

Functional Diagram



Proposed Plants

Vegetation is recommended based on its propensity to thrive in the existing site conditions.



Education Amenities

Perspective: Amphitheater



A space to teach, learn, meditate or recreate that can handle and drain high volumes of water and provide a space for the community and school to gather in a natural setting.

Greenhouse



Swale Trail



Perspective: Water Garden Plaza



The Plaza is an enclosed garden space, planted with water-loving grasses and orderly evergreens. The swales bordering the parking lot flow into the two enclosed retention gardens.

Inspiration

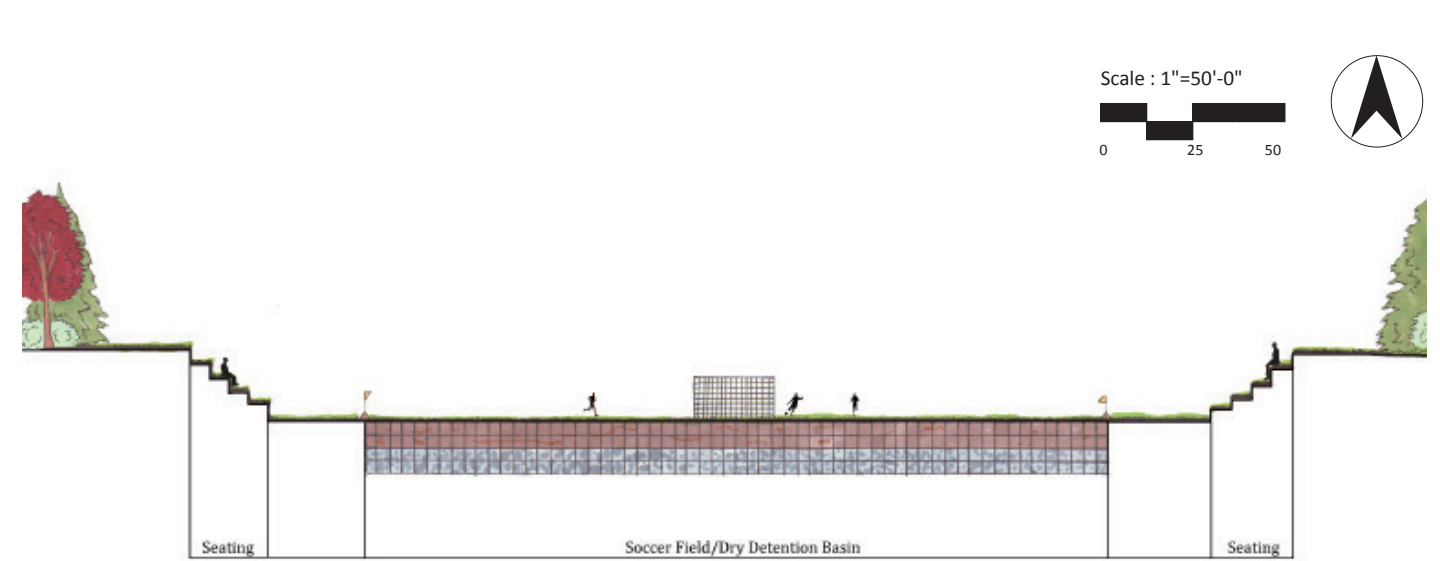


Education Amenities: Elevations

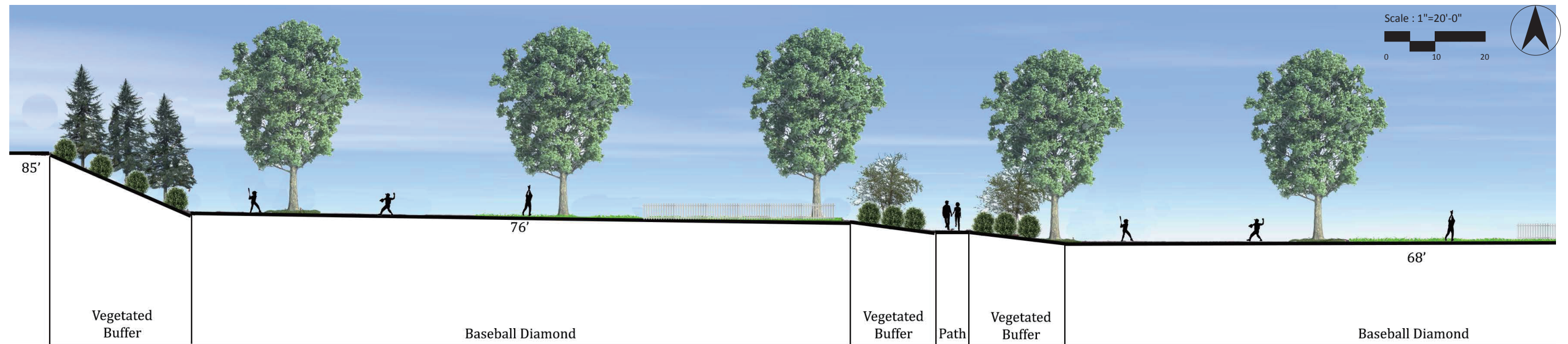
Amphitheater Elevation



Soccer Field/Dry Detention Elevation

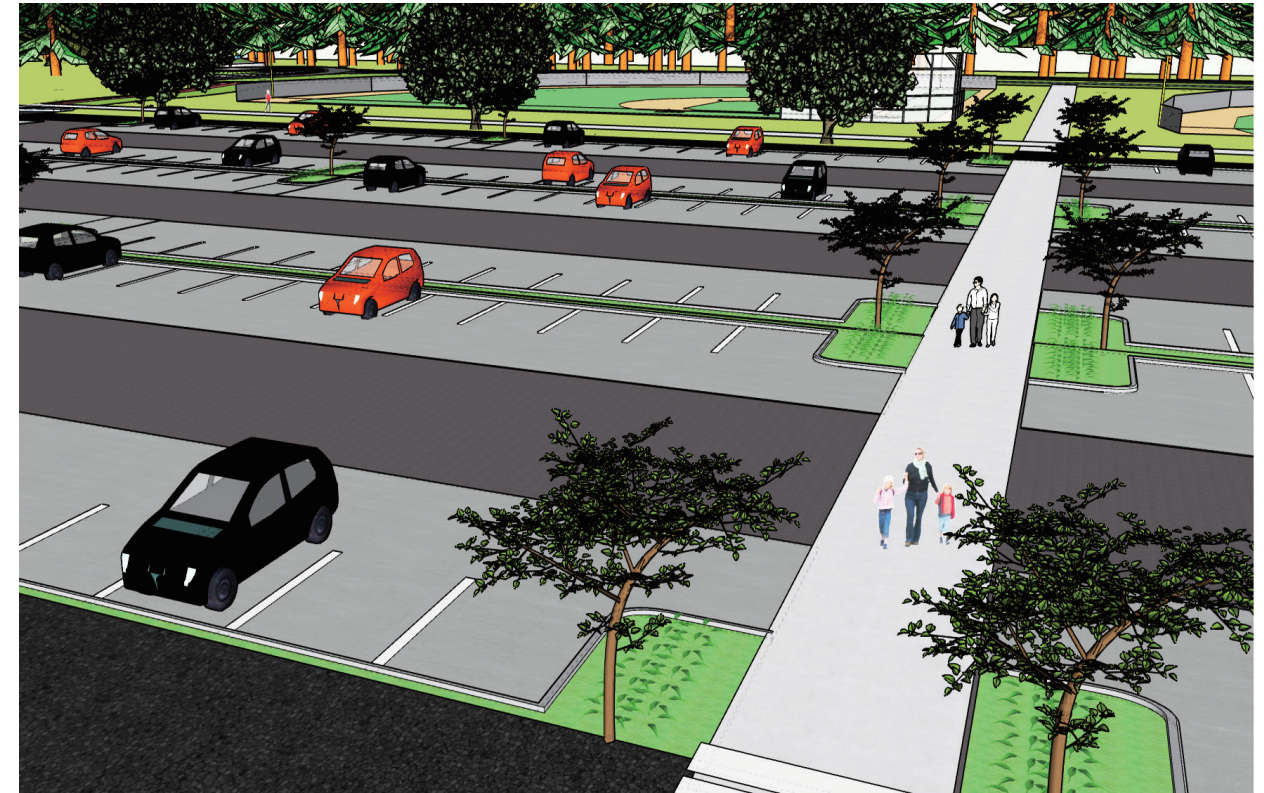


Baseball Field Elevation

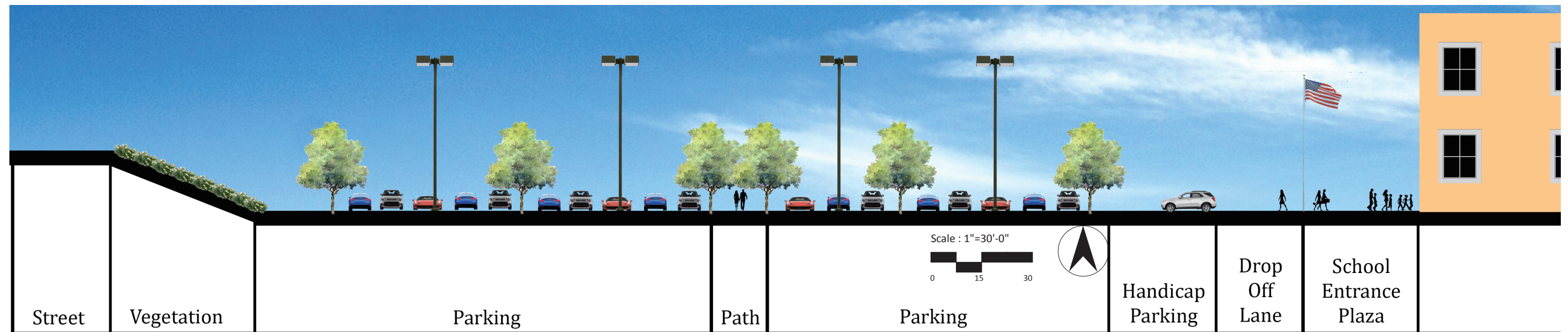


Parking

Baseball Field Elevation



Car Drop Off/Parking Lot Elevation





Suitland High School & William Wirt Middle School

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