

LEARNING IN THE LANDSCAPE:

A COLLABORATIVE PATH TO A SCHOOL SHAPED BY NATURE

Designing collaboratively to provide a
STEAM oriented Middle School that is
fully integrated into a unique
community setting



GRIMM + PARKER
ARCHITECTS

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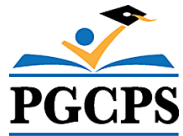


Your Presenters



HIWOT HAILESELASSIE

Project Manager, PGCPS



JONATHAN HILL

AIA, ALEP, LEED AP
Grimm + Parker Architects, Principal

GRIMM + PARKER
ARCHITECTS



KIERAN WILMES

AIA, LEED AP BD+C
Grimm + Parker Architects, Co-President

GRIMM + PARKER
ARCHITECTS



SHARON BRADLEY

Ph.D., RLA
Bradley Site Design, President



Grimm + Parker Architects

54

YEARS EXPERIENCE

95+

TALENTED STAFF
MEMBERS



110+

ELEMENTARY SCHOOLS

45+

MIDDLE SCHOOLS

65+

HIGH SCHOOLS



**32 YEARS
EXPERIENCE**

15 STAFF

**MULTI-
DISCIPLINARY
FIRM**

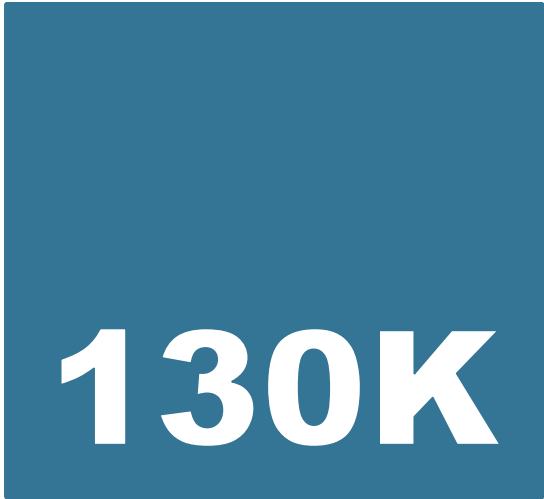
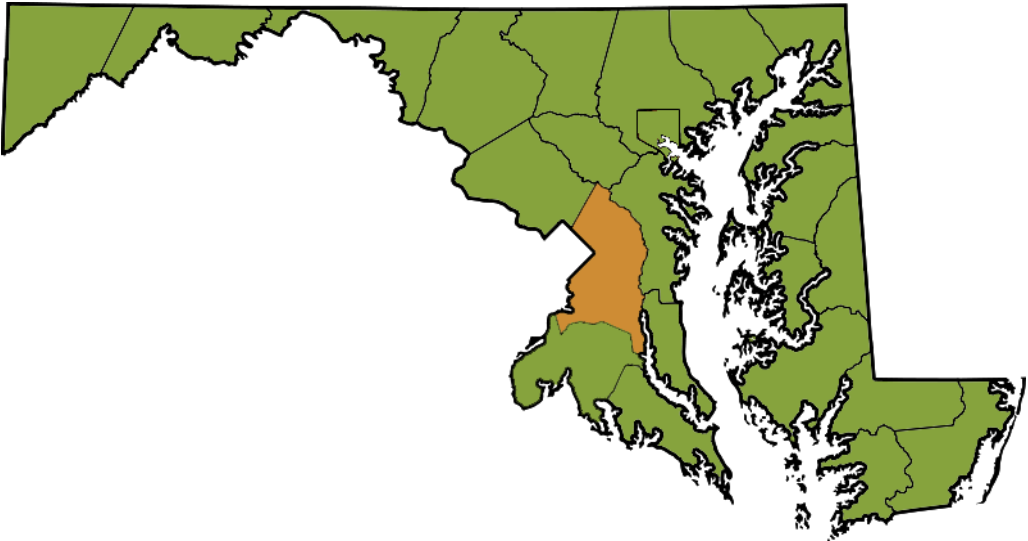
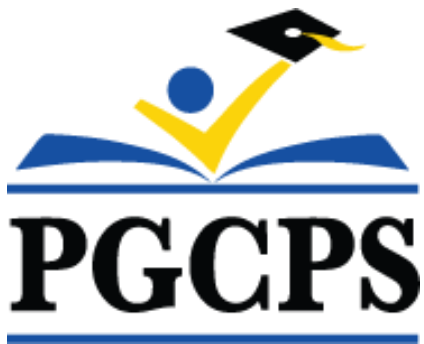
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
PLANNING
CAMPUS DESIGN
MASTER PLANNING
DESIGN IMPACT ANALYTICS
CURRICULUM INTEGRATION
SITE FEASIBILITY STUDIES

108+ SCHOOLS

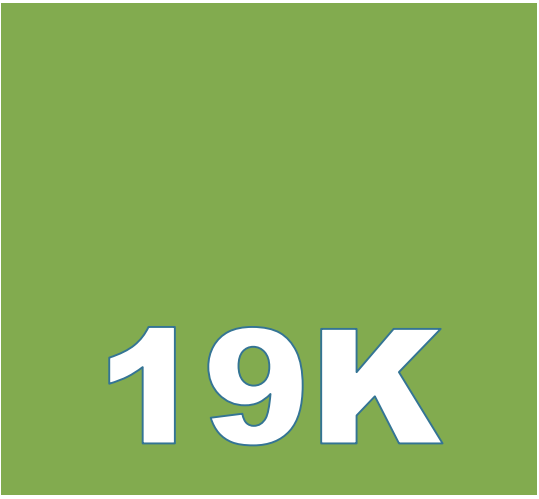


Prince George's County Public Schools

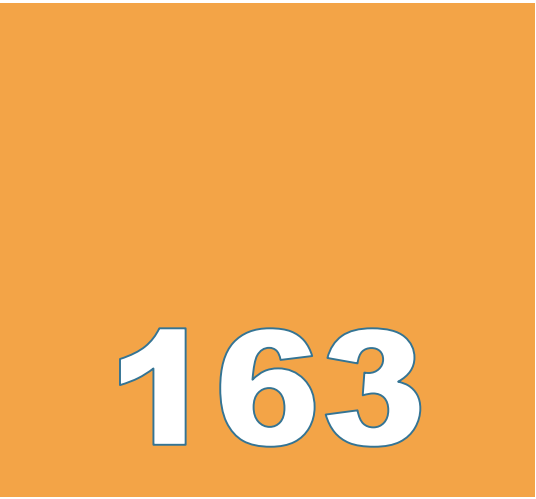
(PGCPS), one of the nation's 25 largest school districts, has 208 schools and centers, more than 130,000 students and nearly 19,000 employees. The school system serves a diverse student population from urban, suburban and rural communities located in the Washington, DC suburbs. PGCPS is nationally recognized for innovative programs and initiatives that provide students with unique learning opportunities, including arts integration, environmental and financial literacy, and language immersion.



student capacity



employees



schools and centers



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

The Organization

Founded in 1927, The Maryland-National Capital Park and Planning Commission (M-NCPPC) is a nationally recognized leader in land use planning, parks, and recreation achieving countless awards for innovation, stewardship and exemplary vision for enhancing the lives of current and future generations.

The agency, which is chartered by the State of Maryland, has geographic authority in the Montgomery County and Prince George's County region, which are the two Maryland counties surrounding Washington, DC.



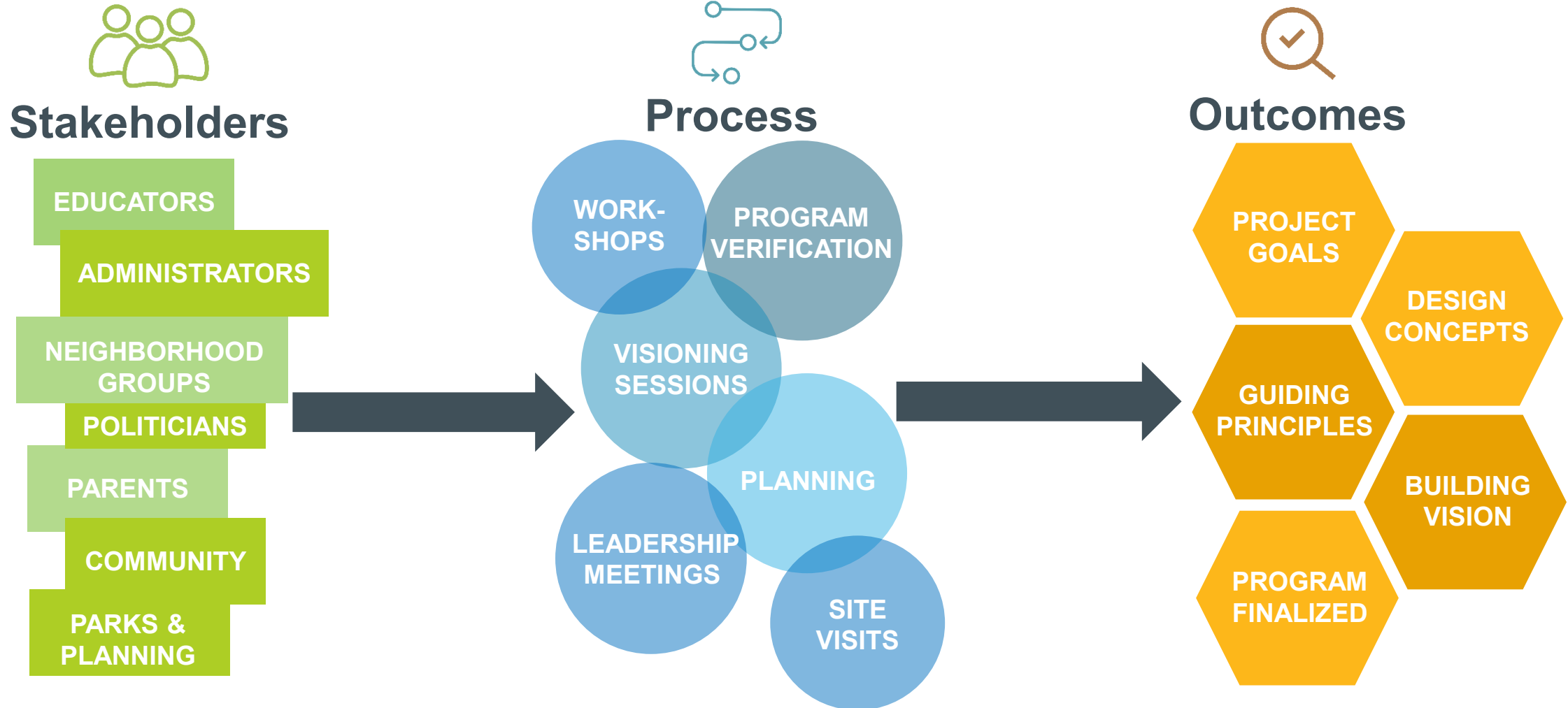


Project Requirements

- ❖ New 1200-seat Middle School
- ❖ LEED Silver Certification
- ❖ Land swap required between PGCPs and MNC-PPC
- ❖ Integrate new project with existing park

The Planning Process:

stakeholder engagement



Q1 A cohesive integration w/ the existing park and its natural feature.

② Cultural Diversity Adelphi, MS
Suburban area with transit oriented residents

Community having pride in the school, easy walkable access to school and uncongested vehicle access to school

for parental and family engagement, pride in facility's nearby. Students able to walk to school for increased sense of community.

What's on your mind?
We want to hear your feedback on the project.

Name:

E-Mail:

Your Comments:

[Send Us Your Comments](#)

SCHOOL AS A MEMORABLE PLACE

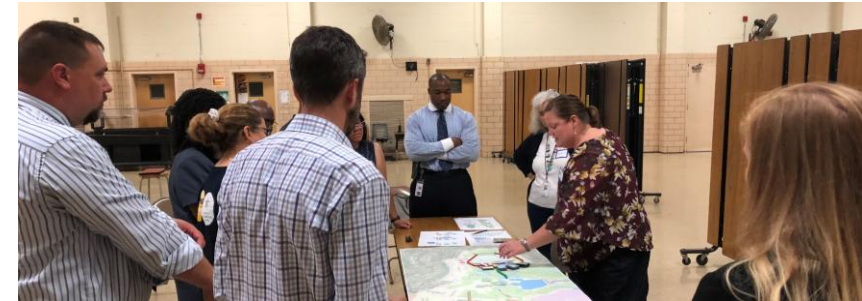
ENVIRONMENTAL EDUCATION

WHAT WOULD BE SCHOOL SUCCESS FOR YOU?

Welcoming approach + entry

Spaces for outdoor learning

Separate entrances for cars + busses



Trail connections to park and fields

Integrate school with the park

Creating a Vision

stakeholder engagement

Creating a Vision: *community engagement*

Community workshops and engagement exercises resulted in the following project Guiding Principles, intended to capture and codify the aspirations of the new middle school project directly from the stakeholders in a way that directly informed all decision-making and the results generated by the design process

The new Ellen Ochoa Middle School will...

provide resources and
*spaces for students to
thrive* and achieve their
goals

be *welcoming and inviting
to all* students, parents,
staff and neighbors

become a *community hub*
that is open and accessible
to its diverse neighborhood

enhance a *sense of pride*
in the community

... integrate with its
Glenridge Park setting and
connect with nature

be a *school in the park*



Site Design

- ❖ The park conditions
- ❖ The existing park amenities
- ❖ Surrounding neighborhoods



Glenridge Community Park



Site Context

existing conditions

The new school would tie into and expand the existing path system

PGCPS and M-NCPPC worked together to plan the new site amenities

Purple Line Construction complicated the process.

**PURPLE LINE
MAINTENANCE YARD**

GLENRIDGE ES



Site Context

proposed zoning

... integrate with its
Glenridge Park
setting and *connect
with nature*

be a *school in the
park*

West Fields District

PURPLE LINE
MAINTENANCE YARD

Athletic Fields District

Park District

MULTIPURPOSE
FIELD WITH (2)
SOCCER GOALS

BASKETBALL
COURT WITH (6)
GOALS

GLENRIDGE MS

POND

PAVILION

FUTSOL
COURT

5-12 PLAYGROUND

COMFORT
STATION/PAVILION

2-5 PLAYGROUND

FUTSOL &
BASKETBALL
COURT

SOCCER FIELD
OVERLAY

BASEBALL FIELD

SOFTBALL FIELD

GLENRIDGE ES

Site Context

a school in the park



Site Design Integration

implementing the guiding principles



1. CRITICAL ANALYSIS & CREATIVITY

Mastery of the knowledge and skills associated with critical analysis and creativity.

- | | |
|---------------------------------------|----------------------------|
| Design Response | opportunity |
| • Educational signage | • Whisper Wall |
| • Entire school grounds as a teaching | • Sundial |
| | • Weather Station |
| | • Interactive Art Features |

2. HEALTH & FITNESS

Student and staff member's health and fitness facilitating teaching, learning, and personal development.

- | | |
|--|--|
| Design Response | • Fitness stations to support a physical education class |
| • Incorporate gardening plots to grow and harvest vegetables | • Multi-sport courts |
| • Compost bins | • Nature trail |

3. COLLABORATION & COOPERATION

Collaboration and cooperation among students and teacher collaboration in making linkages across the curriculum.

- | |
|--|
| Design Response |
| • Outdoor Patio |
| • Seating Areas |
| • Work, Display, and Performance Areas |
| • Teaching Station |
| • Chalkboard |

4. COMFORT, SAFETY, & ORDERLINESS

Feelings of comfort, safety, and orderliness felt by students and staff members in the environment.

- | |
|--|
| Design Response |
| • Separation of pedestrian and vehicular traffic |
| • Bike Racks |
| • Shade Structures |

5. FLEXIBILITY & SENSE OF COMMUNITY

Small communities of grade level teams to facilitate flexibility and a sense of community.

- | | |
|---------------------------|-------------------|
| Design Response | • Gathering Mound |
| • Movable Tables & Chairs | |
| • Stepped Seating | |
| • Grove Seating | |

6. SPECIAL NEEDS

Classrooms that are accessible to students with special needs.

- | | |
|---|---------------------------|
| Design Response | • Special needs classroom |
| • Accessibility to all facilities and amenities | |

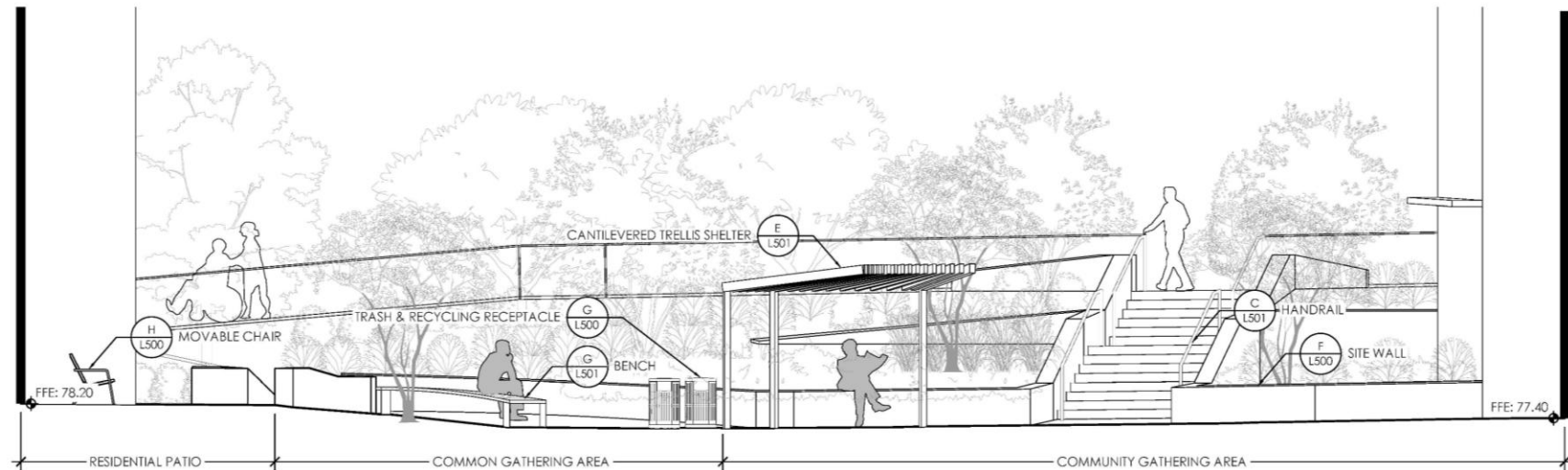
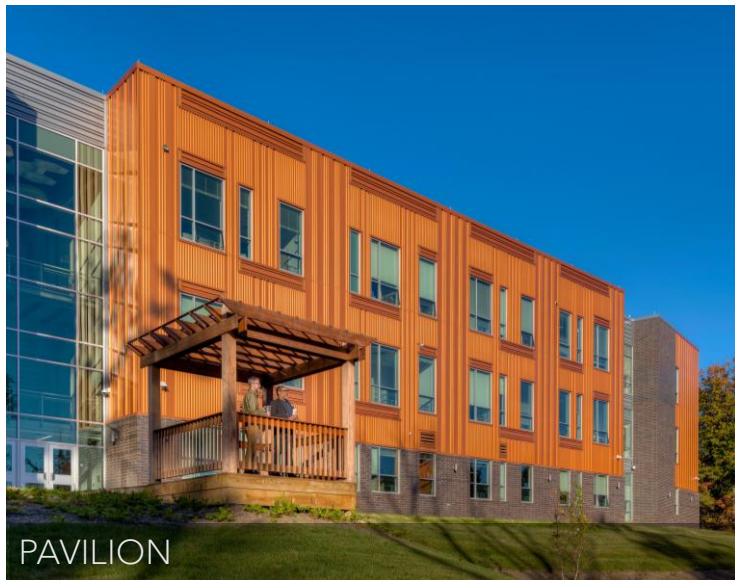
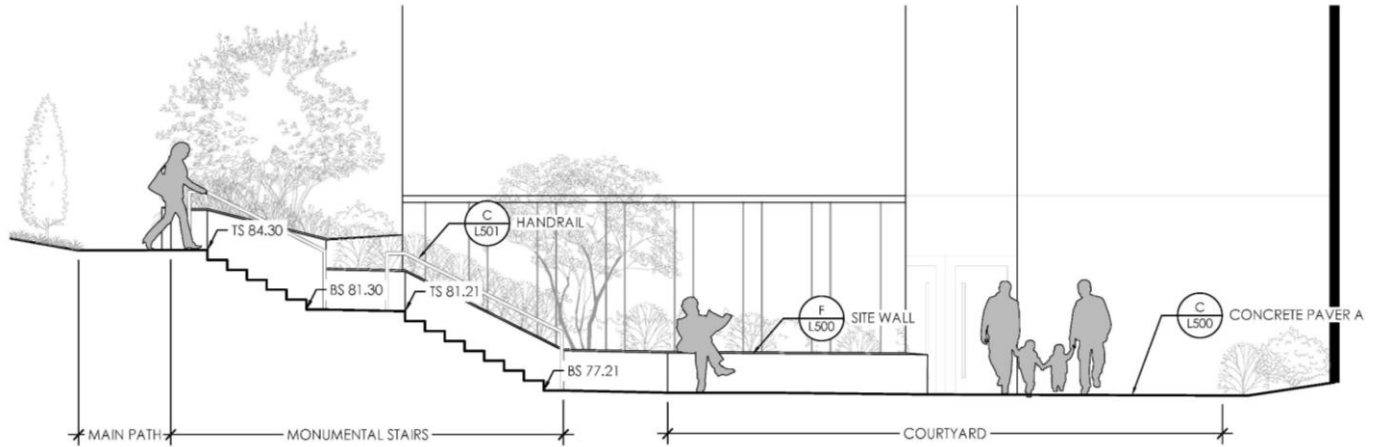
7. SUSTAINABILITY

Healthy, sustainable, and supportive environments

- | | |
|---------------------|------------------------------------|
| Design Response | • Access to Existing Forested Area |
| • Native Plants | • Bioretention |
| • Pervious Pavement | • Planting |
| • Use of Stone | • Pollinator Garden |
| • Gardening Areas | |

Site Design Integration

engaging the surroundings



A photograph of a modern building with a copper-colored facade and large windows. The building has a brick base and a copper upper section. Several students are walking on a path in front of the building. The image is partially framed by a white border on the right side.

Building Design

- ❖ Program Goals + Relationships
- ❖ Nature Inspires Design
- ❖ Small Learning Communities
- ❖ Media / Dining Commons
- ❖ Sustainability

Program Goals



... integrate with its
Glenridge Park setting
and *connect with nature*

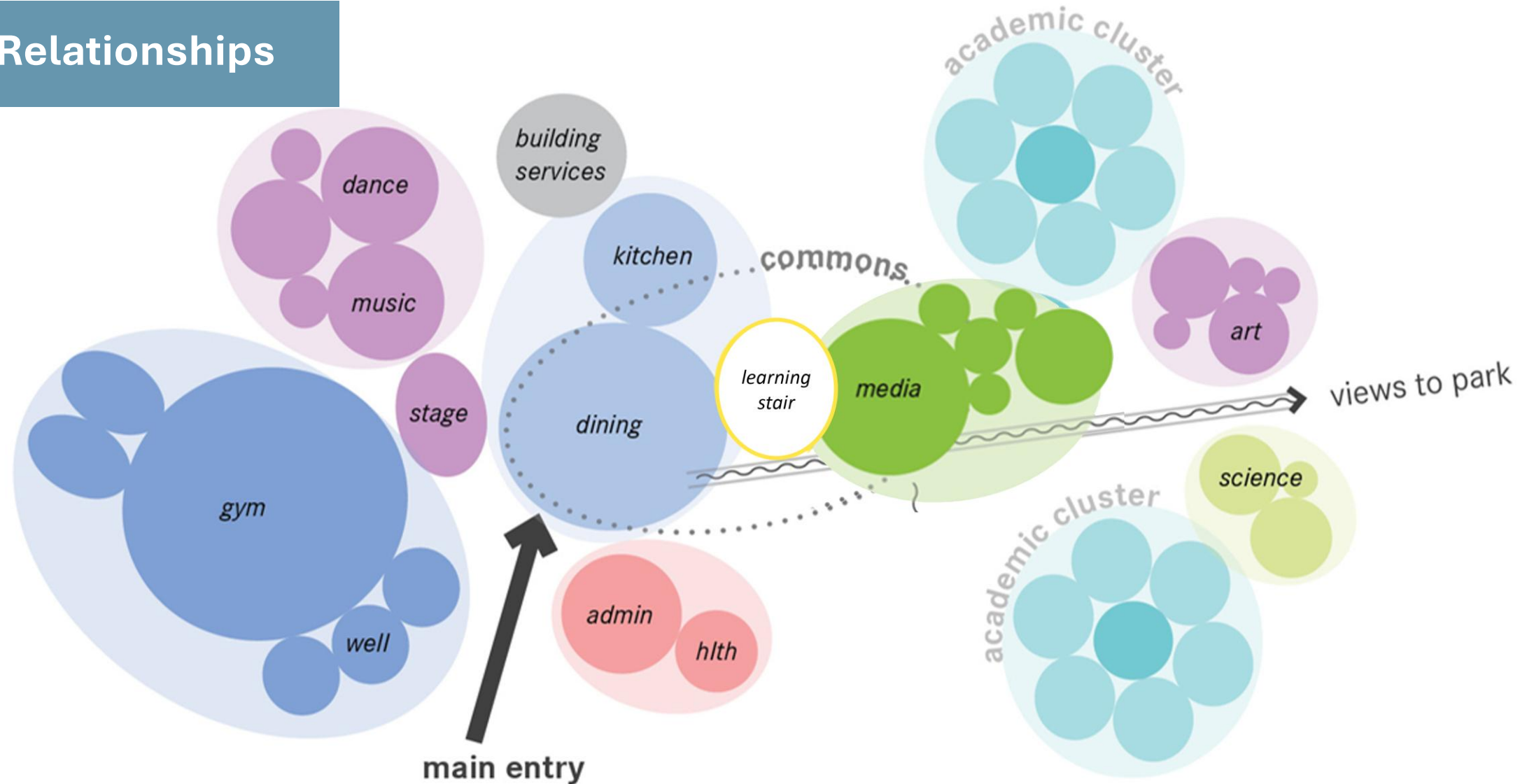


provide resources and
*spaces for students to
thrive* and achieve their
goals



become a *community
hub* that is open and
accessible to its diverse
neighborhood

Program Relationships



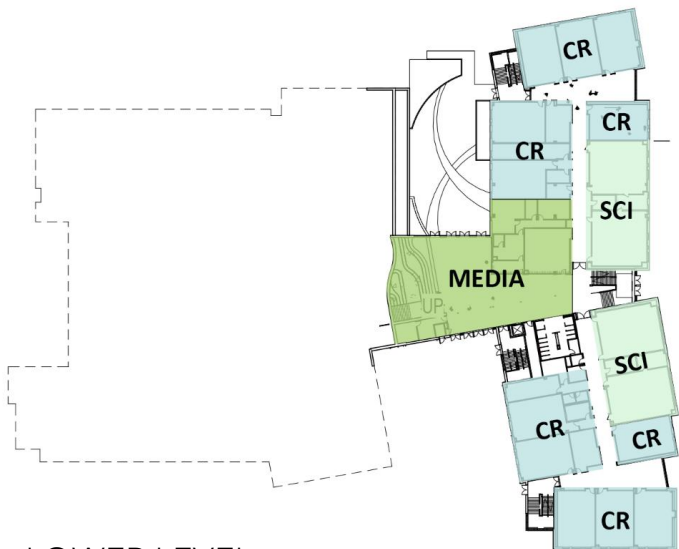
enhance a **sense of pride** in the community

be **welcoming and inviting to all** students, parents, staff and neighbors

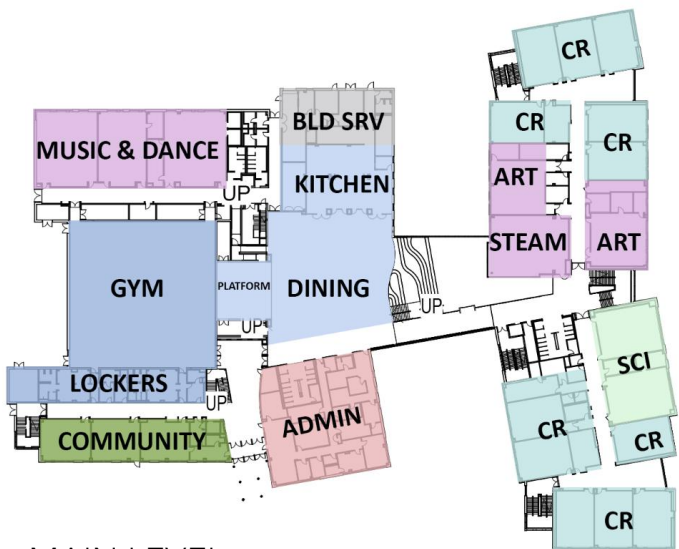
become a **community hub** that is open and accessible to its diverse neighborhood

provide resources and spaces for **students to thrive** and achieve their goals

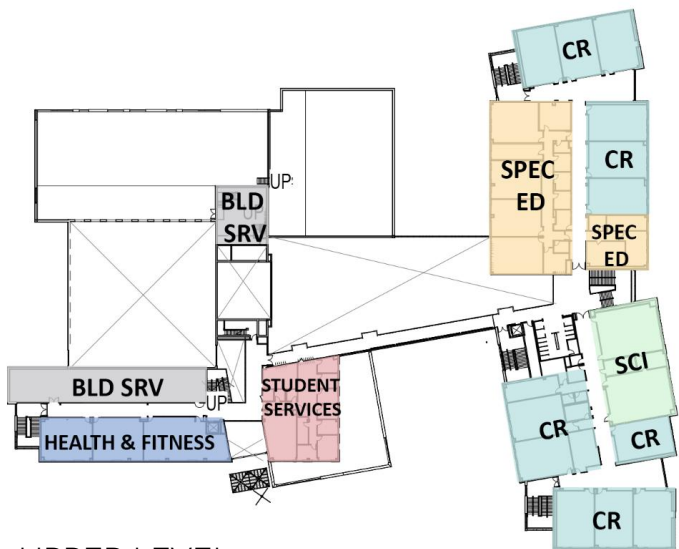
Program Relationships



LOWER LEVEL



MAIN LEVEL



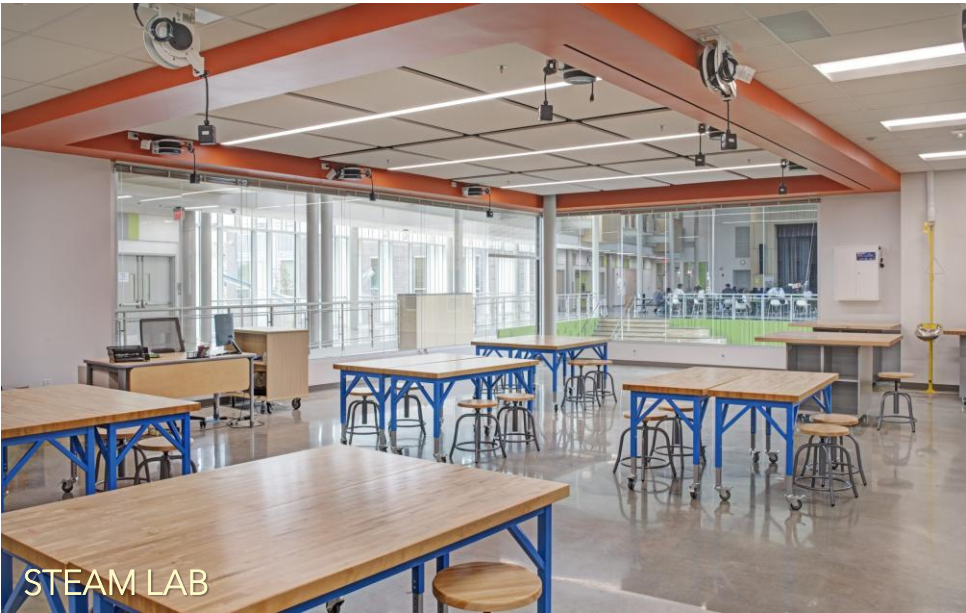
UPPER LEVEL



COMMONS BRIDGE



GYMNASIUM ENTRY



STEAM LAB



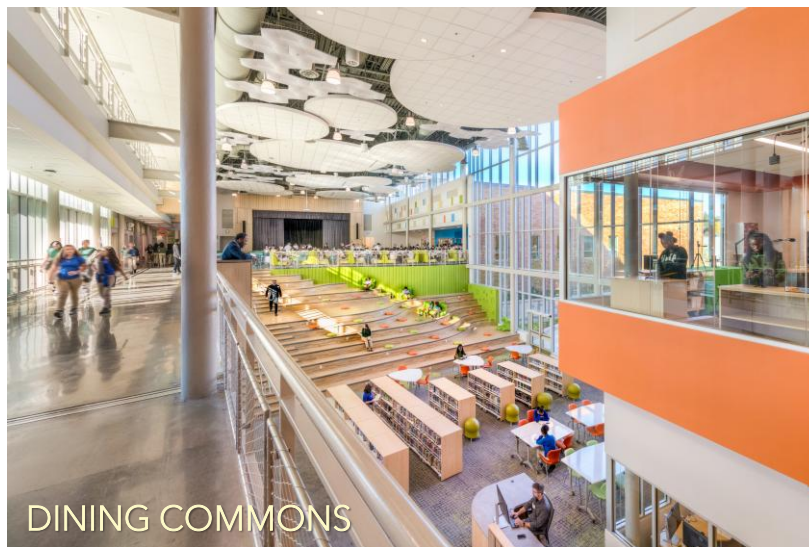
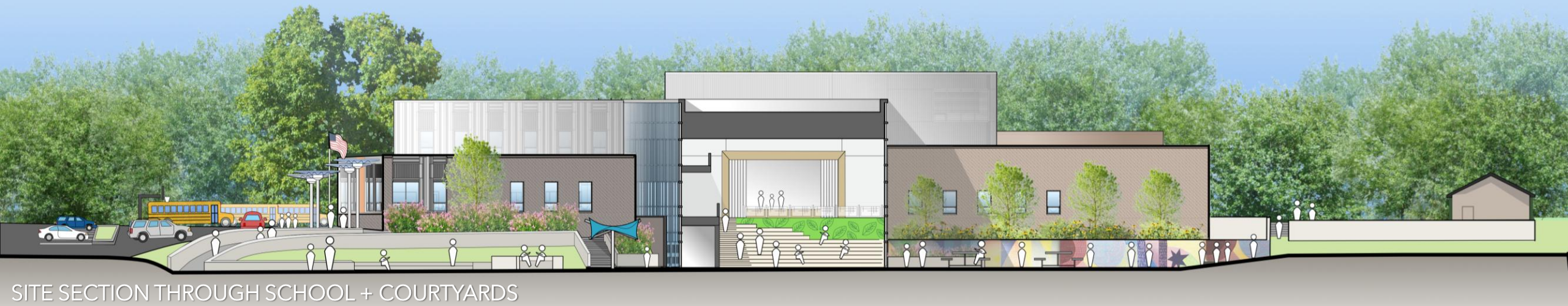
Integrating with the Park:

The school building steps with the natural topography of the site, minimizing earthwork and grading, while providing dynamic multi-story interior spaces that form the heart of the school. Expansive views and connections to nature result from the 3-story academic wing that is position amongst the park's many trees.

SITE SECTION THROUGH SCHOOL + PARK



SITE PLAN



Nature Inspires Design



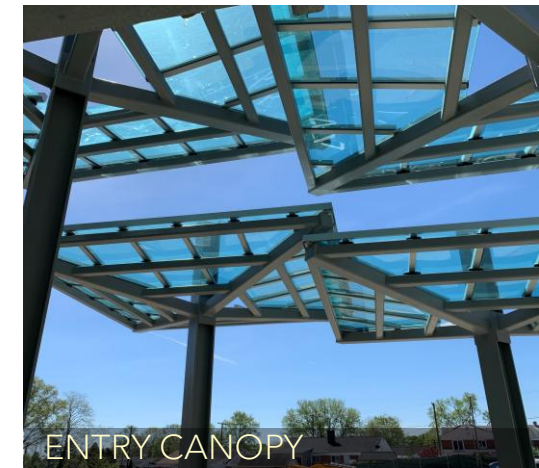
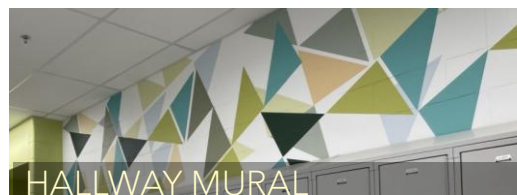
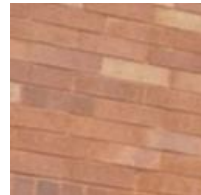
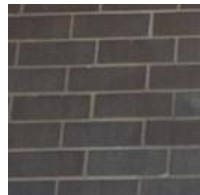
Nature Inspires Design

... integrate with its
Glenridge Park setting
and *connect with
nature*

Draws inspiration from
nature for textures,
patterns and proportions

Vertically oriented
corrugated metal panel

Organic palette for
materials and color
tones



Transparency with Nature



SUNSHADES

WINDOW FINS

*TRANSLUCENT GLASS
PATTERNS*



Transparency with Nature



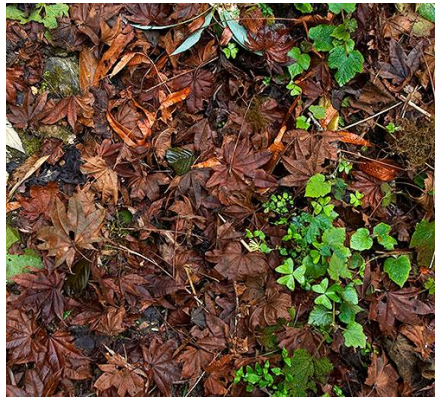
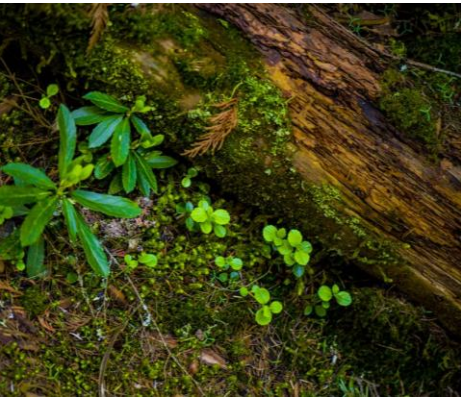
Interior Palette



**FOREST
CANOPY**



**FOREST
UNDER-STORY**



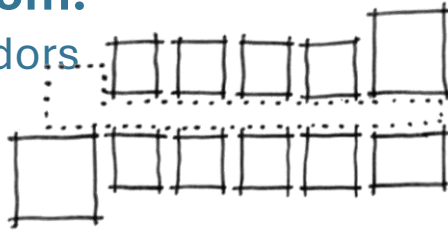
**FOREST
FLOOR**



Small Learning Communities

Design that Moves Away From:

- Strict, double-stacked corridors
- Inflexible spatial hierarchies
- Minimal natural light

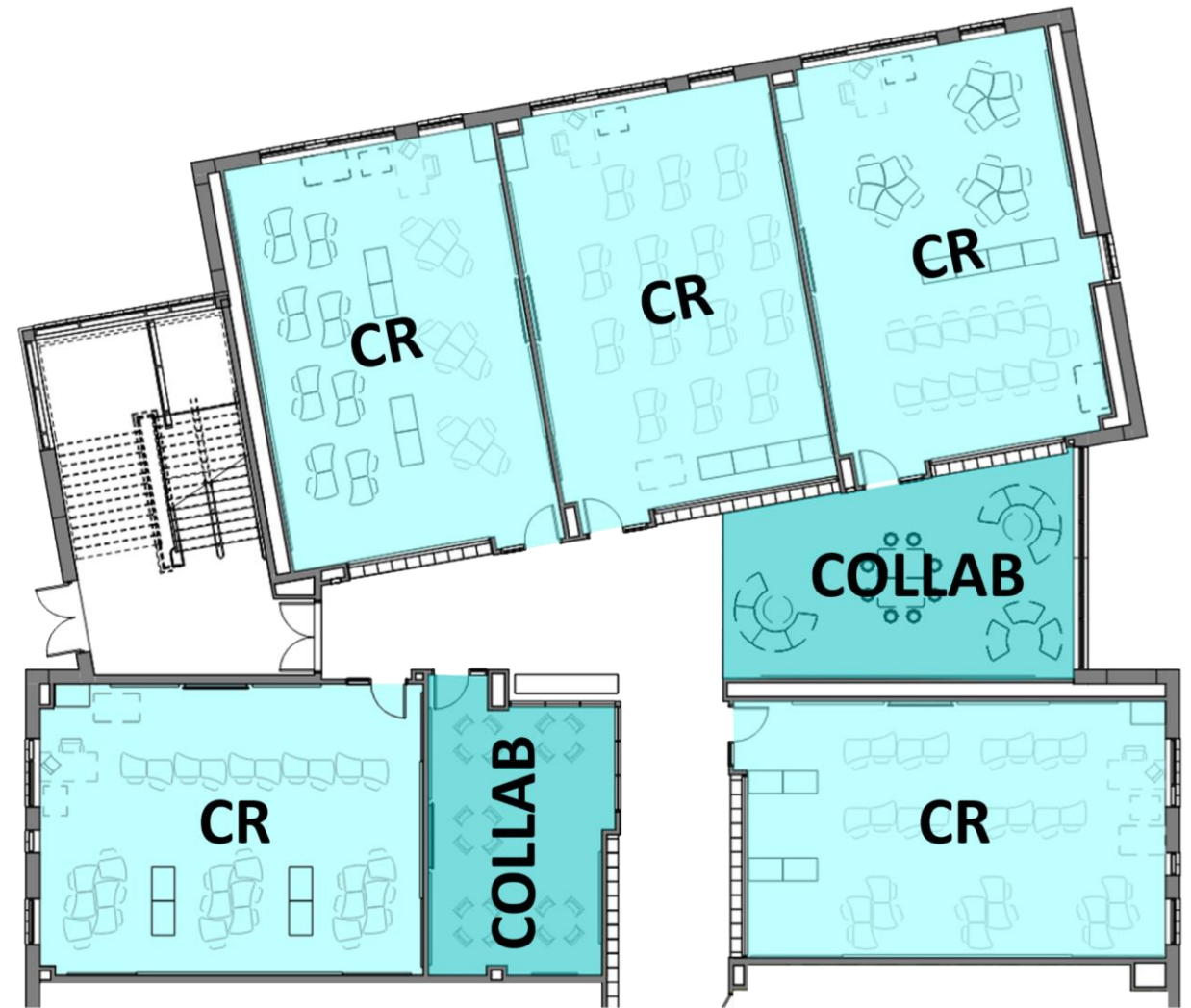


Towards a Design that Celebrates:

Flexibility in
instructional
delivery and size
of student
groupings



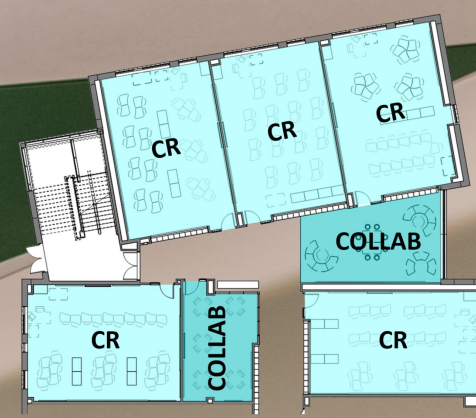
Clustered
classrooms—
Culture of school as
smaller learning
communities



Spaces that prove
that Students matter

Fostered
Collaboration

Small Learning Communities



Media Commons

individualized learning environments

The Media Commons aims to provide diversified environments to support individualized student learning through spaces and furnishing for:

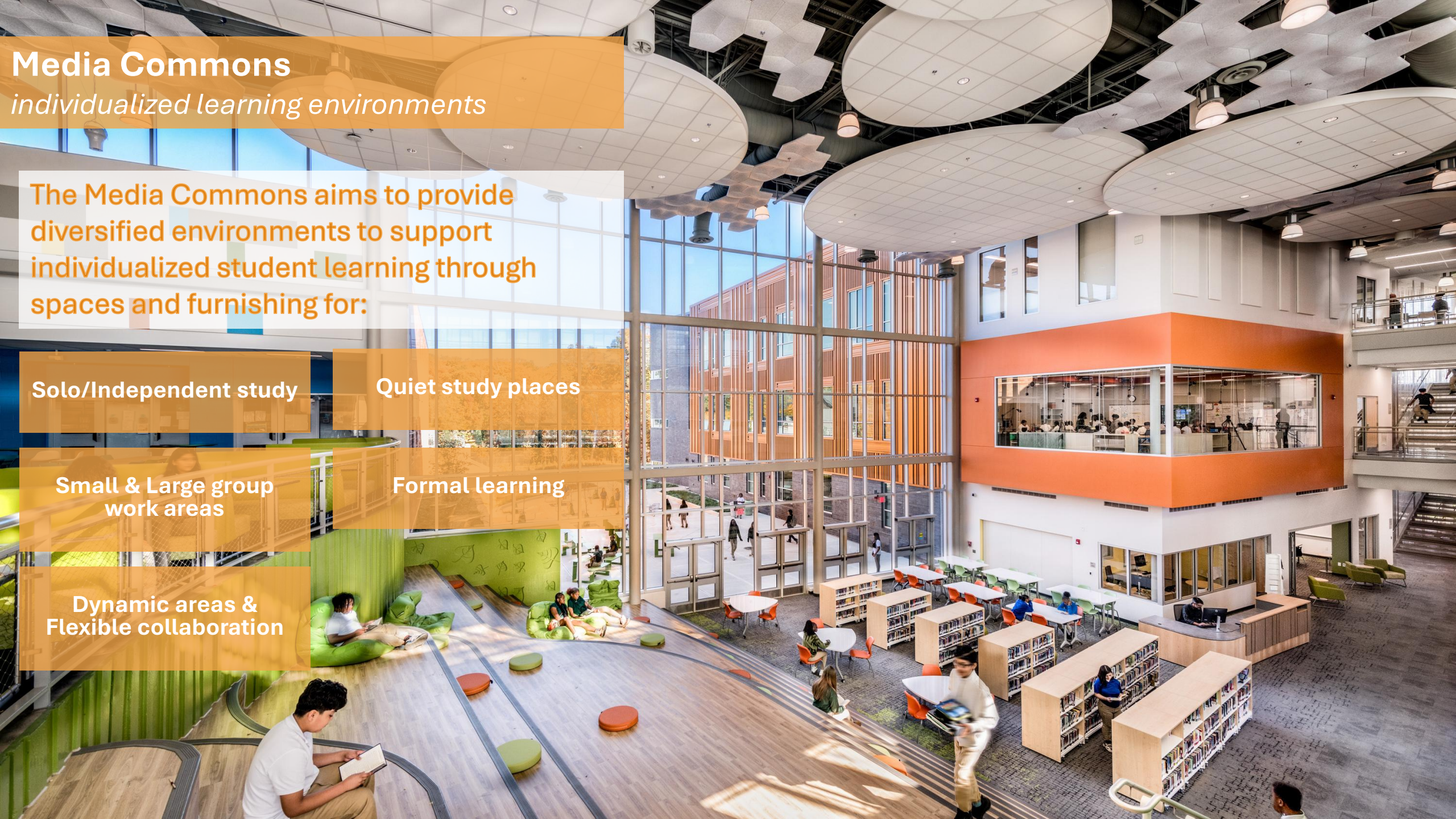
Solo/Independent study

Quiet study places

Small & Large group work areas

Formal learning

Dynamic areas & Flexible collaboration



Media Commons

individualized learning environments

Library Commons Teaching Station

- Tables/Chairs on casters
- Small/Large group student groupings
- Formal and informal learning

Independent and Online Learning

- Room w/ flexible furnishings + technology connections
- Formal learning
- Controlled environment

Look-up Station

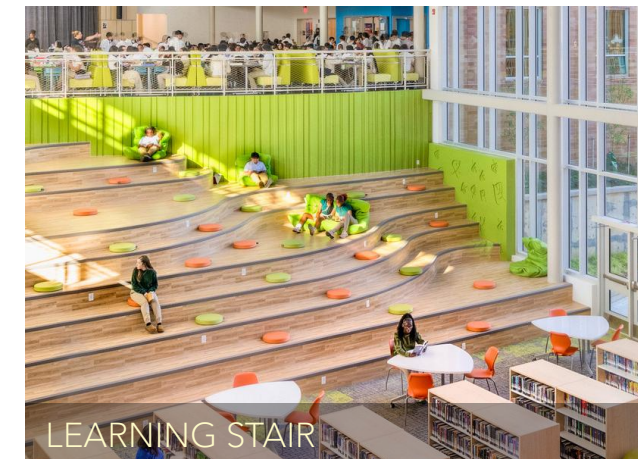
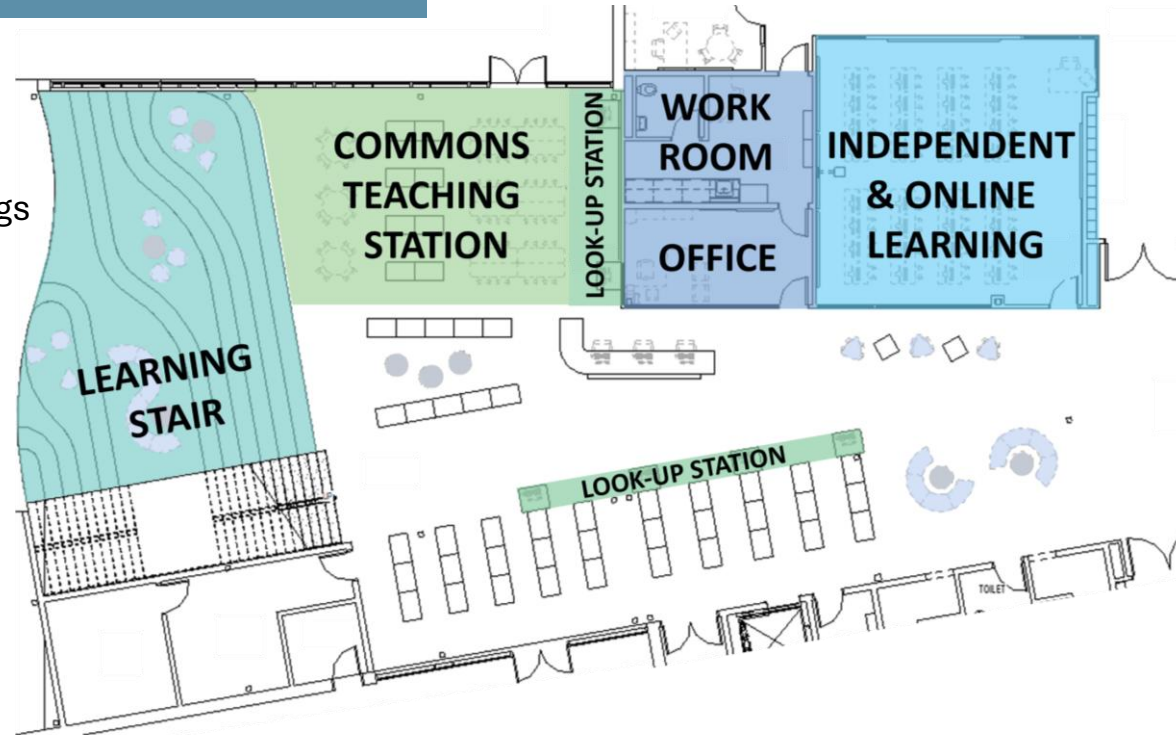
- Stand-up/stool look-up stations

Learning Stair

- Cushions
- Ottomans
- Beanbag chairs

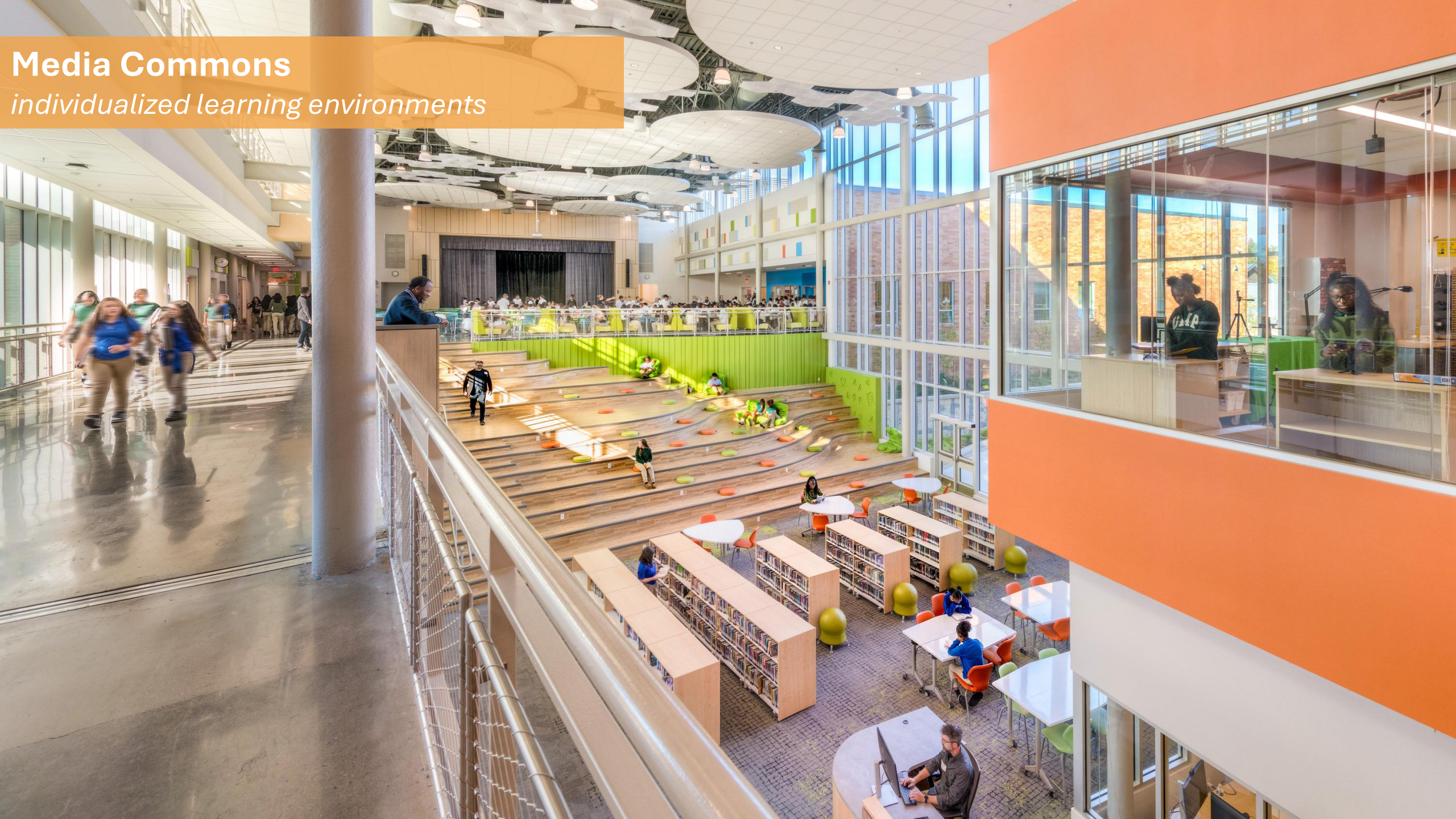
Casual Seating

- Modular soft seating
- Small group
- Solo soft seating



Media Commons

individualized learning environments

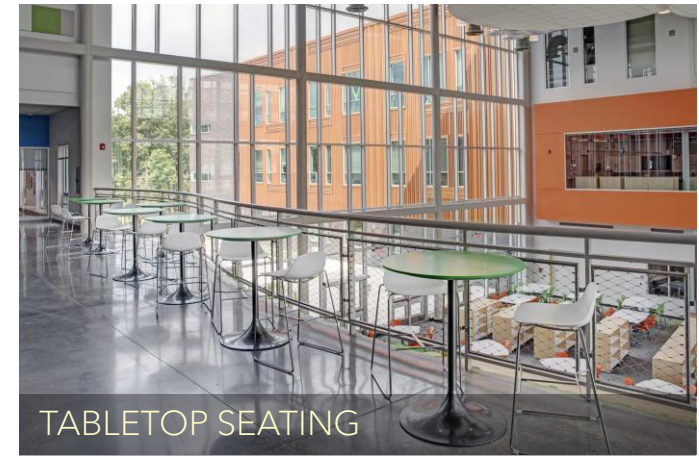


Dining Commons

flexibility in design



STUDENT DINING



TABLETOP SEATING



FOLDING TABLES



BOOTHS & FLEXIBLE SEATING



A School
in the
Park

Sustainable Design Strategies

LEED Gold
Certification



Zero Energy
EUI<23
110% Energy Savings



Geothermal Energy:
160 wells
400' deep



CO2 Sensor
Suite +
Calibration



Demand
Control
Ventilation



All LED Lights
LPD < 0.5 W/sf



PV Array 1,171 MWh
1,600 panels
= Net Positive



PV +
Submetering
Display



35% Water
Savings



Bioretention
Manages 98 % of rainwater for
100-year flood





Outcomes

- ❖ Curriculum Integration
- ❖ School Spirit + Pride
- ❖ Astros in Action

CURRICULUM INTEGRATION



Area	Design Response	MD Curriculum Unit of Study / Design Purpose	Example Use
		(Sciences, Social Sciences, Health, Math, History, Art, Non-academic)	
General Outdoor Learning Areas		Grade 6) Geographic characteristics of places and regions	Map out the characteristics of the outdoor space and identify how civilizations would form (The school garden may be a rich agricultural field, the Gathering Mound a mountain range, the Recreation a lake etc.)
		Grade 7) Geographic characteristics of places and regions	Observe the ways in which the land has been changed to accommodate the school
		Grade 7) Scale drawings	Provide a site plan on a scale, confirm measurements on site
		Grade 8) Work with radicals and integer components	Take measurements of site or site elements and convert to mm, cm, m, in, ft, yd, mi etc. and express using scientific notations
		NCSS) Life Sciences - Growth, Development and Reproduction of Organisms	Plot location on compass (i.e. North or South Courtyard), determine availability of resources (light, soil, water, wind) and discuss how this may affect plant growth
Seating areas		Grade 6) Examine personal assets and strengths that contribute to one's uniqueness	Self-reflection at chosen area around the site
Forest, plants, weathering of materials etc.		Grade 6, 7, 8) Develop ideas, create and perform art	Use the outdoor setting to get inspiration
Front Entrance		Grade 6) Earth orbit of the sun	Stand at the center of the circle to measure the angle of the sun in different seasons
Bermed Lawn		Grade 6, 7, 8) All units of study	Observations and free play
Mounding		Grade 6, 7, 8) Reading, writing, speaking	Reading, writing, speaking
		Grade 6) Evaluate expressions of specific values for their variables	Measure the length of a side to calculate volume of mound using V=1/3 given coefficient
North Courtyard		NCSS) Earth and Space Sciences - The Universe and Its Stars	Design sun / shade locations during different times of the day to determine motion of the sun
General		Grade 6, 7, 8) All units of study	Observations and free play
Chalkboard, table & chairs		Grade 6, 7, 8) Reading, writing, speaking	Observations and free play
Artwork & artist space		Grade 6, 7, 8) Creative Art	Use the outdoor setting to get inspiration - free space for experimentation

Study the site and the curriculum

Align site requirements with lesson units

Integrate teaching opportunities

Provide guides for use

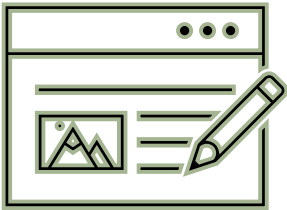
Steep topography



Retaining walls



Design for teaching



Science



The physics of sound



Whisper wall

CURRICULUM INTEGRATION

Area	Design Response	MD Curriculum Unit of Study / Design Purpose (Sciences, Social Sciences, Health, Math, English, Art, Non-academic)	Example Use
General Outdoor Learning Areas		(Grade 6) Geographic characteristics of places and regions	Map out the characteristics of the outdoor space and identify how civilizations would form (The school garden may be a rich agricultural field, the Gathering Mound a mountain range, the Bioretention a lake etc.)
		(Grade 7) Geographic characteristics of places and regions	Observe the ways in which the land has been changed to accommodate the school
		(Grade 7) Scale drawings	Provide a site plan on a scale, confirm measurements on site
		(Grade 8) Work with radicals and integer components	Take measurements of site or site elements and convert to mm, cm, m, in, ft, yd, mi etc. and express using scientific notations
		(NGSS) Life Sciences - Growth, Development and Reproduction of Organisms	Pick location on campus (i.e. North or South Courtyard), determine availability of resources (light, food, space, water) and discuss how this may affect plant growth
	Seating areas	(Grade 6) Examine personal assets and strengths that contribute to one's uniqueness	Self reflection at chosen area around the site
	Forest, plants, weathering of materials etc.	(Grade 6, 7, 8) Develop ideas, create and perform art	Use the outdoor setting to get inspiration
Front Entrance	Sundial	(Grade 8) Earth orbit of the sun	Stand at the center of the circle to measure the angle of the sun in different seasons.
Bermed Lawn	Lawn surface	(Grade 6,7, 8) All units of study	Discussions and role play
		(Grade 6, 7, 8) All units of study	Discussions
		(Grade 6, 7, 8) Reading, writing, speaking	Reading, writing, speaking
	Mounding	Provide varied seating experiences (Grade 6) Evaluate expressions at specific values for their variable	Measure the length of a side to calculate volume of mound using $V=c*L$ given coefficient c
North Courtyard	General	(NGSS) Earth and Space Sciences - The Universe and its Stars	Diagram sun / shade locations during different times of the day to determine motion of the sun
	Chalkboard, table & chairs	(Grade 6,7, 8) All units of study	Discussions and role play
		(Grade 6, 7, 8) All units of study	Discussions
		(Grade 6, 7, 8) Reading, writing, speaking	
	Artwork & artist space	(Grade 6, 7, 8) Create art	Use the outdoor setting to get inspiration, free space for exploration

CURRICULUM INTEGRATION

South Courtyard	General	(NGSS) Earth and Space Sciences - The Universe and its Stars	Diagram sun / shade locations during different times of the day to determine motion of the sun
	School Garden	LEED requirement	
		(Grade 6) Selective breeding	Growing beans etc.
		(Grade 6) What are the problems associated with obtaining, using and distributing natural resources? How can they be solved?	Imagine needing to live off of the resources provided by the forest and school garden
		(Grade 7) How would the ability to live off of The Forest and The Farm change with an increase in population?	
		(Grade 7) Food chains and food webs	Explore how the plants support a wider web of life
		(Grade 7) Explain the role of nutrients	Grow spring and fall vegetables as examples (see harvest schedule)
		(Grade 7) Explain the role of nutrients	Grow spring and fall vegetables as examples (see harvest schedule)
	Whisper Wall Seating	(Grade 6) Wave interactions; (NGSS) Physical Science - Wave Properties	Determine how the whisper wall transmits sound
		(Grade 8) Observe, describe, and compare the motions of objects using position, speed, velocity, and the direction	Explain why a ball bounces off the whisper wall the way it does
	Movable Tables & chairs	Flexibility for greater collaboration	
		(Grade 6) Ratio	Number of tables per shade structure etc.

CURRICULUM INTEGRATION

Implementation – Without Breaking the Budget!

Design permit-required elements and functional site management needs as active and passive learning opportunities:

BIORETENTION
FACILITIES

RETAINING
WALLS

GRADING
PLANS:
WORKING WITH
TOPOGRAPHY

ADA COMPLIANT
PATHWAYS



Be opportunistic! Take advantage of natural phenomenon: sun, wind, existing trees

CURRICULUM INTEGRATION

Bioretention Facilities

- Habitat creation
- Watershed stewardship
- Native plant ecologies



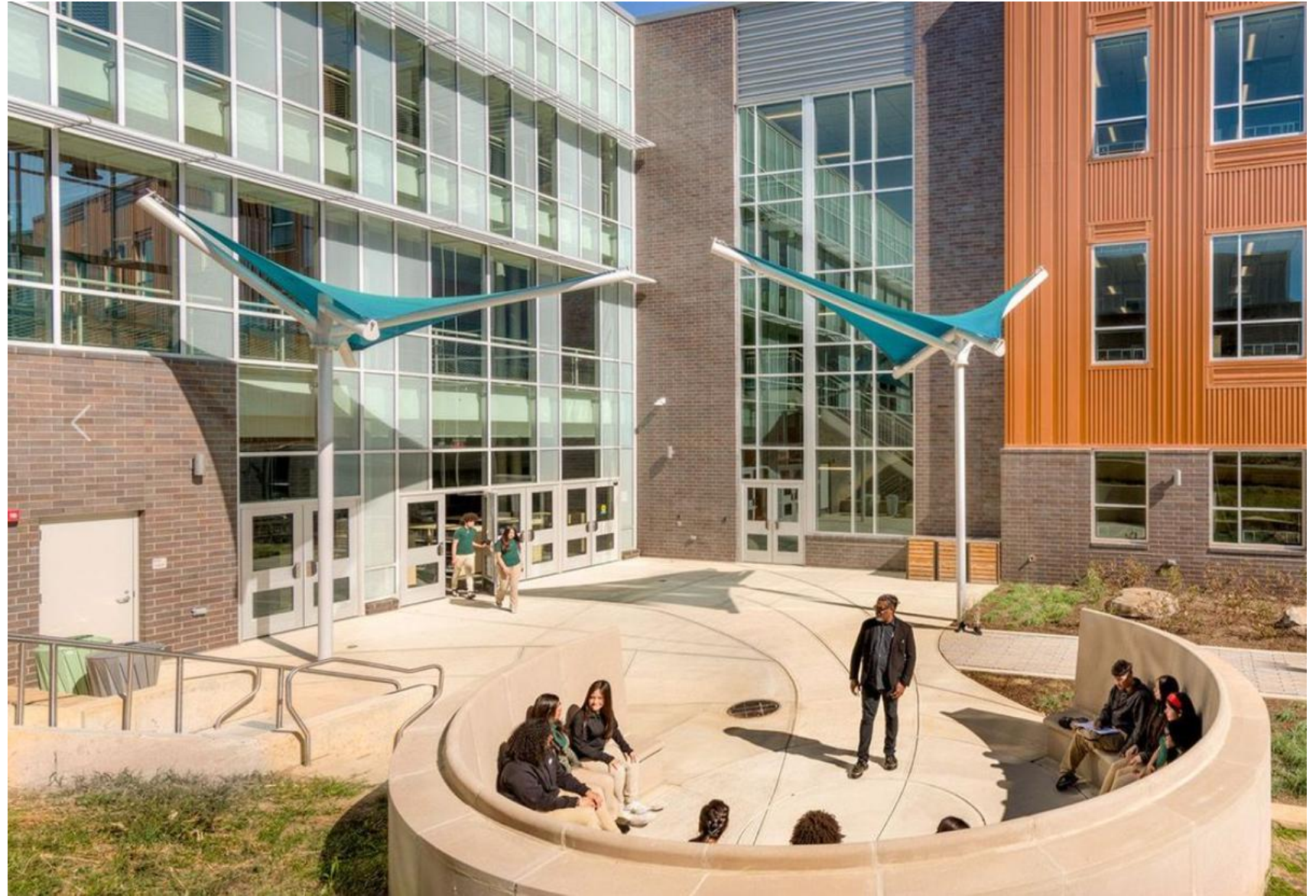
CURRICULUM INTEGRATION

Bioretention Facilities

- Habitat creation
- Watershed stewardship
- Native plant ecologies

Retaining Walls

- Accessible gardens and science plots
- Whisper Walls and other applications of physics and ecology
- Music and art



CURRICULUM INTEGRATION

Bioretention Facilities

- Habitat creation
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Retaining Walls

- Accessible gardens and science plots
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Grading Plans: Working *With* Topography

- Activation of vertical & sloped surfaces for visual and seasonal interest
- Habitat creation
- Sculptural earthforms



CURRICULUM INTEGRATION

Bioretention Facilities

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- Habitat creation
- Sculptural earthforms

ADA-Compliant Pathways

- Immersive journey through themed gardens and bioretention facilities
- Contemplative pathways



SITE OUTCOMES

398

In eight formal outdoor
learning areas

NUMBER OF STUDENTS
ACCOMMODATED

5

Outdoor
Classrooms

OUTDOOR LEARNING
OPPORTUNITIES

3

Learning
Areas

MULTIPLE

Trails, bioretention areas
near walkways, views to
preserved forests, native
plants

PASSIVE LEARNING
OPPORTUNITIES

81

Specific learning units taught
across multiple spaces

CURRICULUM ITEMS
ACCOMMODATED



SITE OUTCOMES

88.9%

PERCENT NATIVE PLANTS
ON SITE

13,945

TOTAL NEW PLANTS
INSTALLED

12,403

TOTAL NATIVE PLANTS
INSTALLED

1.75 AC

AREA OF PRESERVED
FOREST ON SCHOOL SITE

46.78 AC

AREA OF PRESERVED FOREST
IN ADJACENT PARK





Ochoa Spirit + Pride



Astronaut Ellen Ochoa graciously attending the ribbon cutting ceremony.



Members of the design team invited to speak at the ribbon cutting ceremony.



A New Beginning:
Principal Doggett and school community celebrate the first semester in their new middle school.



Ochoa Spirit + Pride



ELLEN OCHOA MIDDLE SCHOOL

UNIFORM Standards

★ PROUD. PREPARED. ASTROS. ★



JACKETS WORN IN SCHOOL MUST BE THE SAME COLOR AS THE UNIFORM SHIRT.



POLO SHIRTS MUST BE WORN UNDER THE JACKETS.



NO HOODIES.

GRADE LEVEL UNIFORM COLORS

6TH GRADE  BLACK POLO SHIRT KHAKI PANTS	7TH GRADE  ROYAL BLUE POLO SHIRT KHAKI PANTS	8TH GRADE  HUNTER GREEN POLO SHIRT KHAKI PANTS
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CLOSED-TOE SHOES ONLY
Slides, flip-flops, heels, heeled boots, jellies, open-toed shoes, etc., are not permitted.
CROCS ARE NOT PERMITTED.



SY 26/27 ASTROS' MISSION:
LOCK IN - EVERY LESSON, EVERY STUDENT, EVERY DAY



FOREST
CANOPY
7th Grade



FOREST
UNDER-
STORY
8th Grade



FOREST
FLOOR
6th Grade



Astros in Action



ellen

ellen

A big
yester
made
envir

Stude
(SSL)

Let's k
beaut
22w

Join us for an evening of connection, resources, and opportunities as we kick off a successful school year together!

**WEDNESDAY
SEPT 2, 2026
6:00 PM - 8:00 PM**

MEET YOUR CHILD'S TEACHERS
Connect with your child's teachers and learn about the exciting year ahead.

MEET OUR SUPPORTING STAFF
Get to know the dedicated staff here to support your child's success.

COMMUNITY & RESOURCES
Explore valuable resources and learn how we can partner together.

VENDORS ON SITE!
Visit with several vendors including our school uniform provider and more!

**TOGETHER, WE
LEARN. LEAD. LAUNCH.**
EVERY LESSON, EVERY STUDENT, EVERY DAY

**LET'S HAVE AN
ASTRO
STRONG YEAR!**

ELLEN OCHOA MIDDLE SCHOOL
HOME OF THE ASTROS
EST. 2024

ASTROS



*"I hope you will participate in your
own voyage of discovery"*

-Dr. Ellen Ochoa, American Engineer, First Latina NASA Astronaut
Message to the students at the EOMS Ribbon Cutting Ceremony