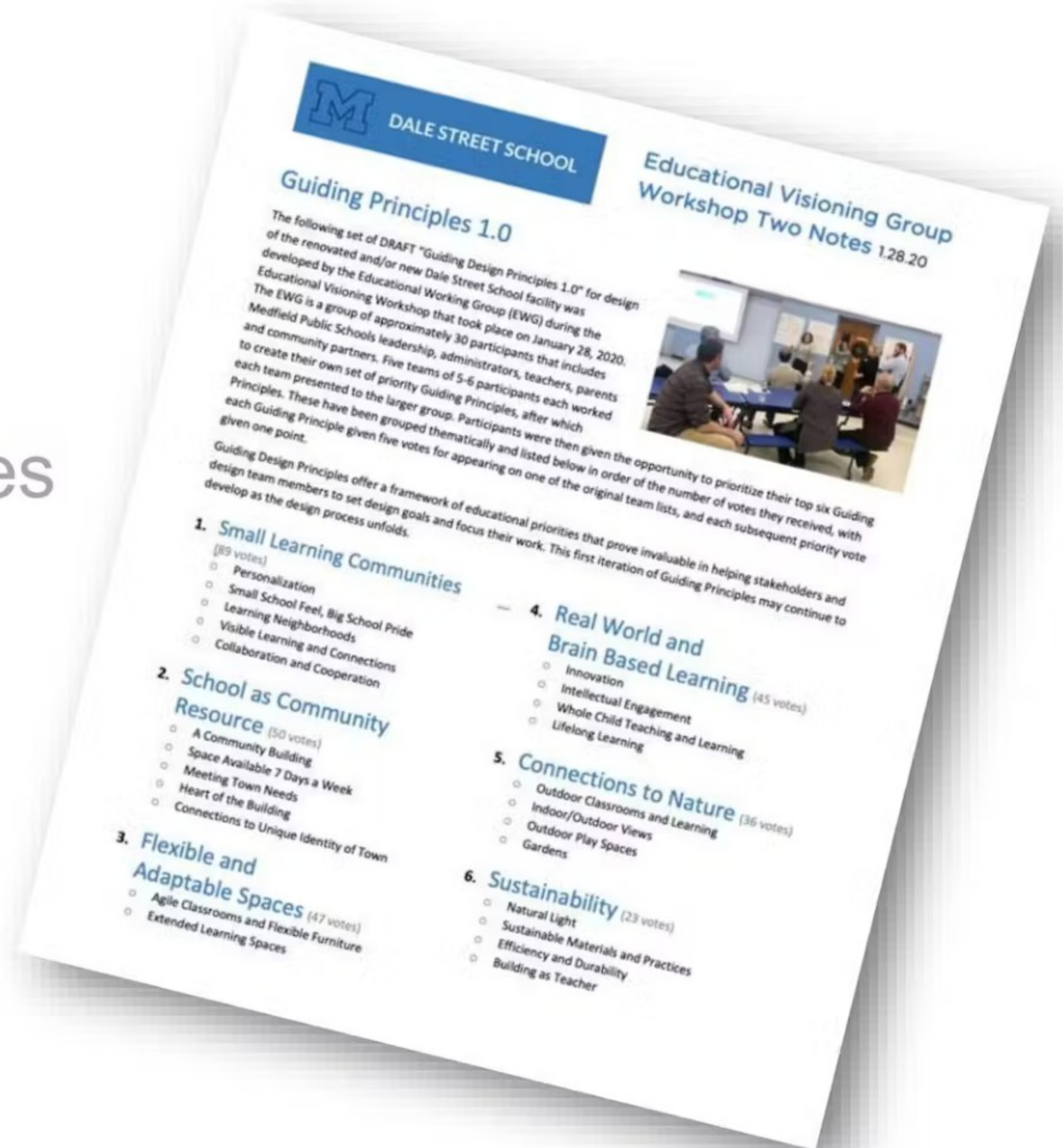




MANCHESTER SCHOOL DISTRICT

Guiding Principles

Guiding Principles set design priorities and offer an invaluable framework for making decisions and choices as the design process unfolds...



Jacobs

Elementary School

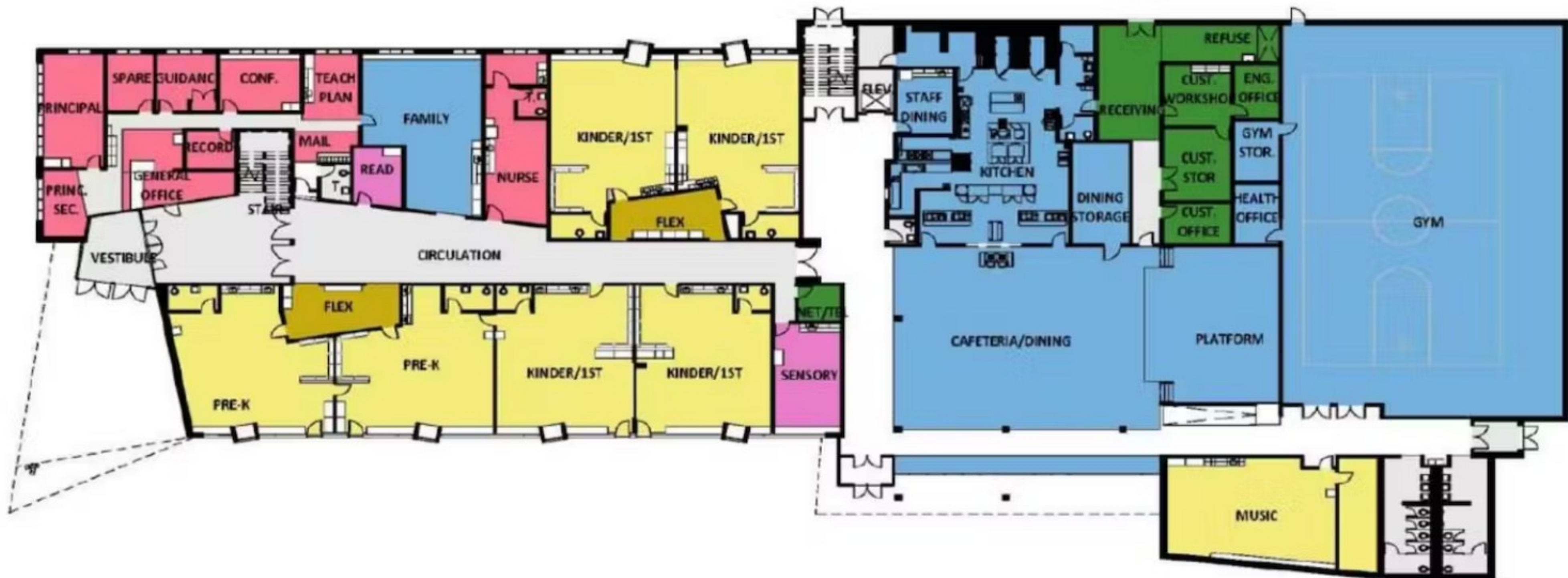
JACOBS ELEMENTARY



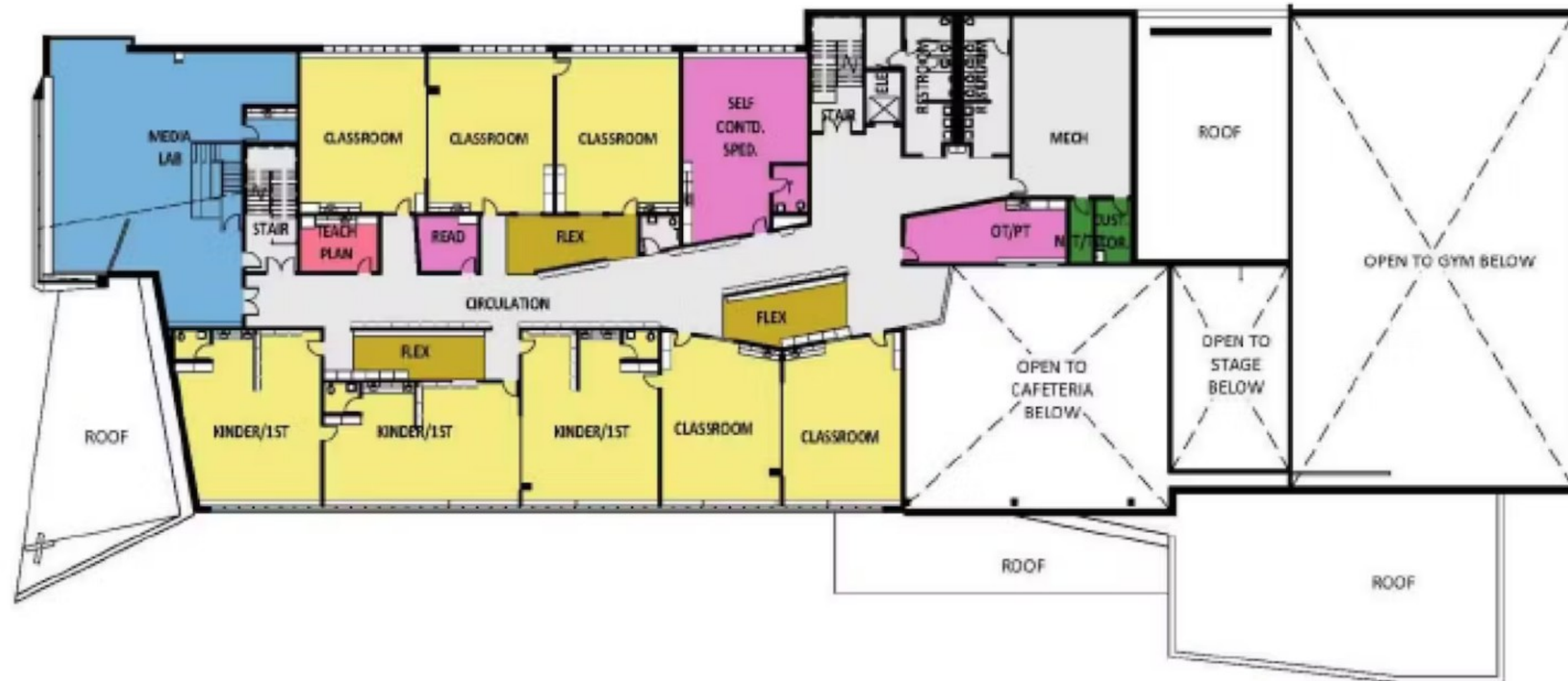
1. Real World and Brain-Based Learning
2. Learning Communities
3. School as Community Resource
4. Flexible and Adaptable Spaces
5. Outdoor/Nature Connections
6. Sustainability/Building as Teacher



Jacobs Elementary School



Jacobs Elementary School



Jacobs Elementary School



Jacobs Elementary School Community



Jacobs Elementary School Community



Jacobs Elementary School Flexibility



Jacobs Elementary School Flexibility





Jacobs Elementary School Flexibility



Jacobs Elementary School

Wayfinding



Jacobs Elementary School Sustainable Materials



- Bamboo – rapidly renewable material
- Linoleum flooring - all natural bio-degradable product



Jacobs Elementary School Scale



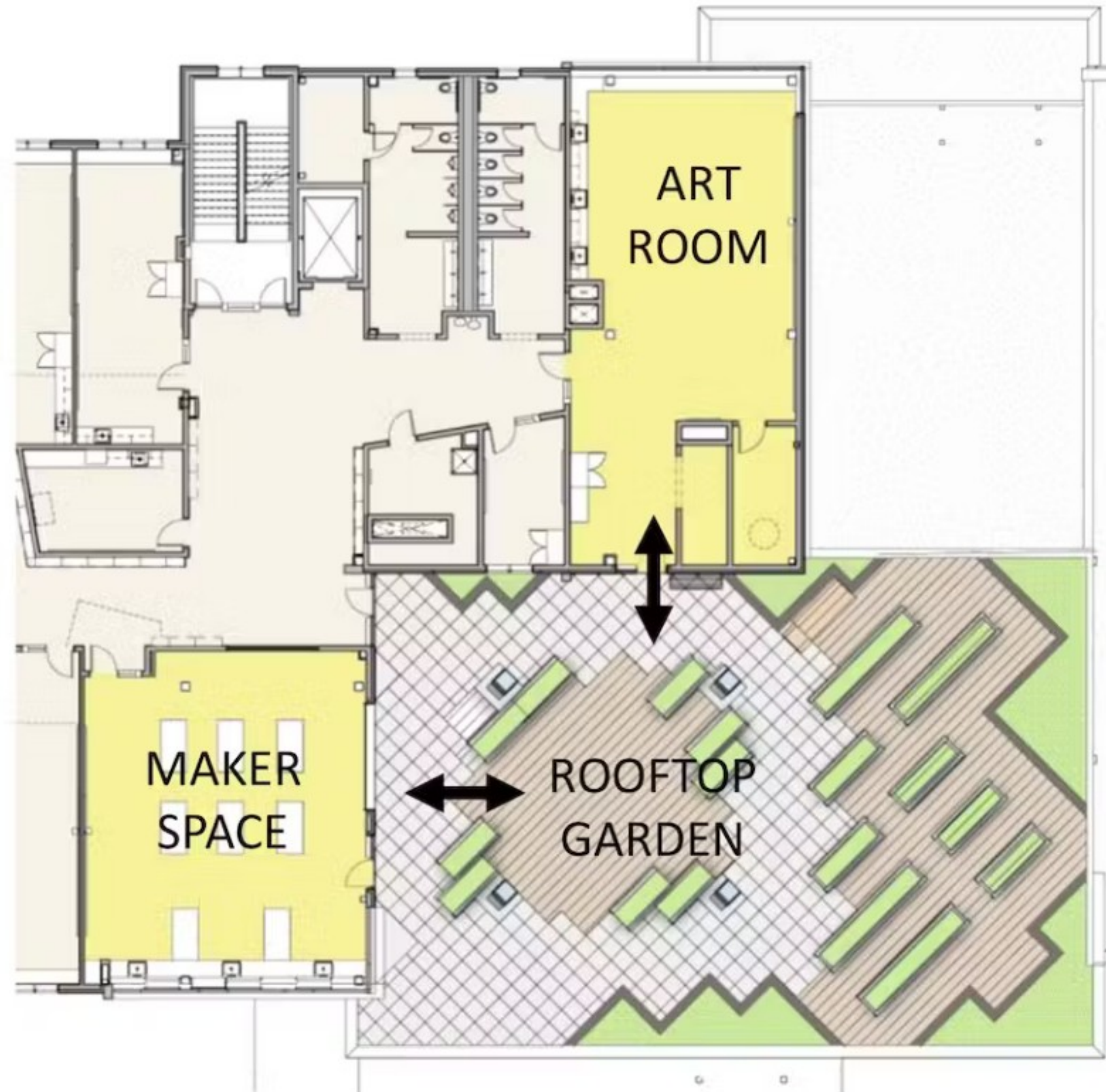
Jacobs Elementary School

Hands On Minds On

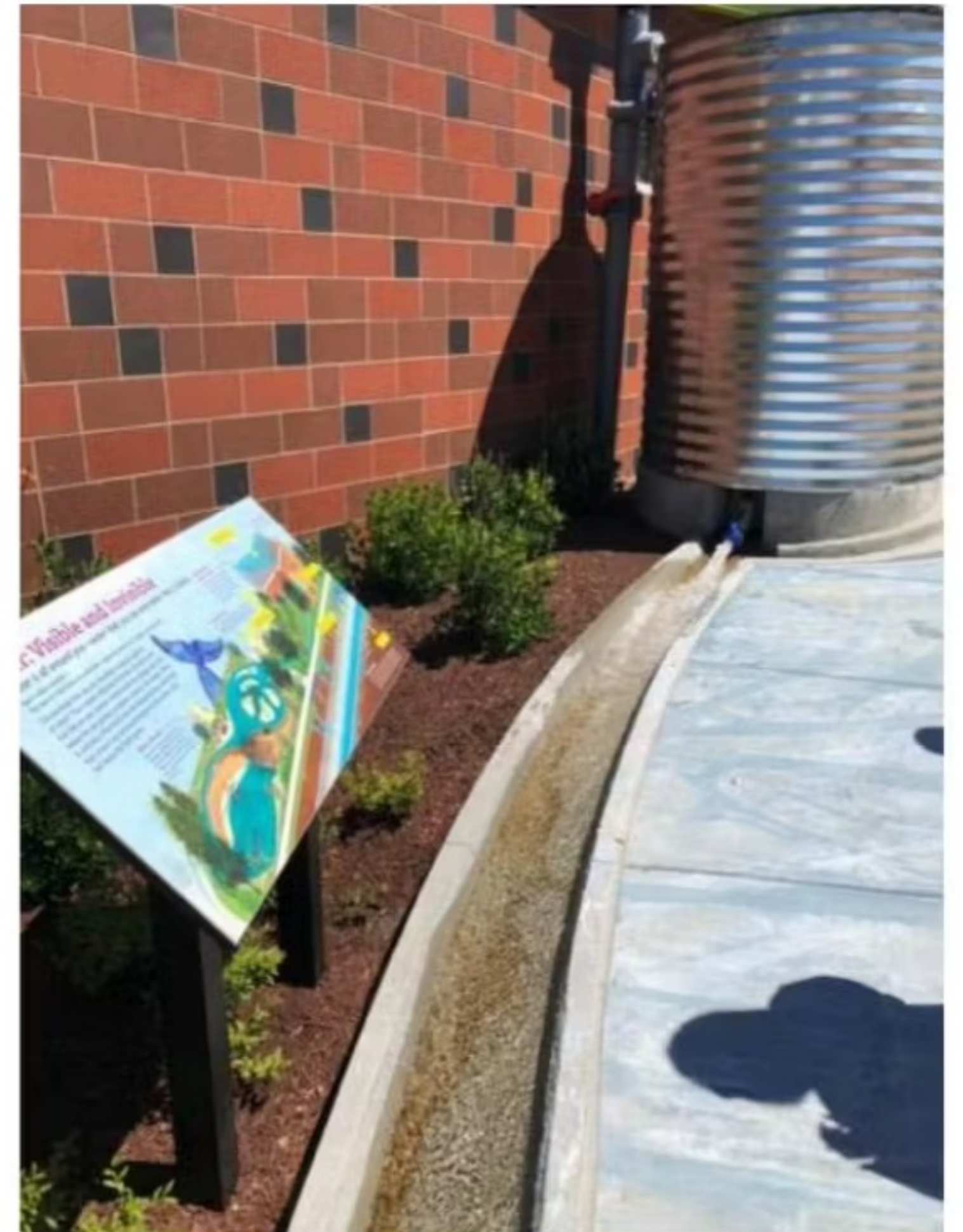


Jacobs Elementary School

Hands On Minds On



Jacobs Elementary School Play and Inquiry



Beverly

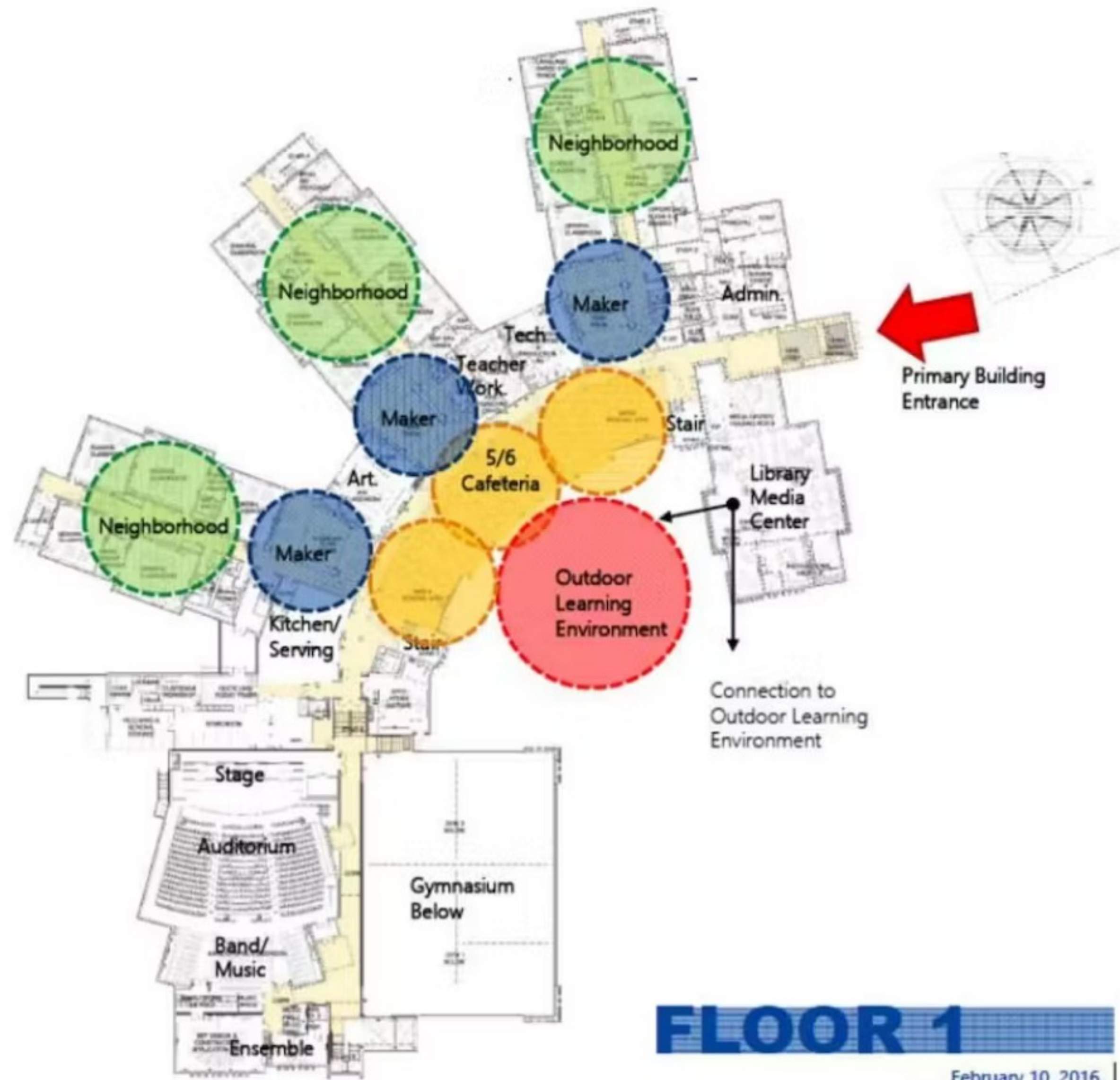
Middle School

BEVERLY MIDDLE SCHOOL

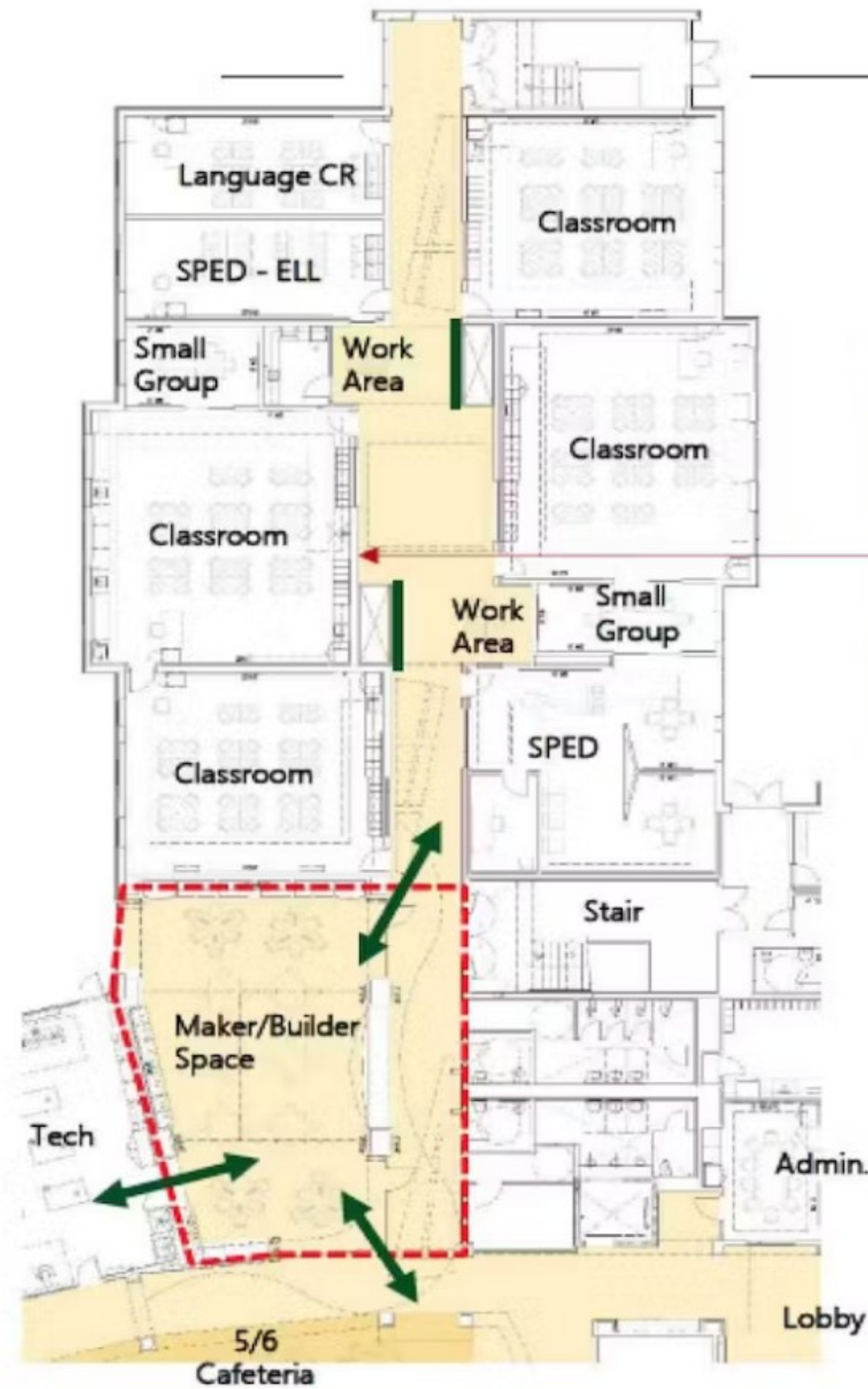


1. School Without Walls
2. Ever Evolving
3. Belonging and Ownership
4. Small School Feel,
Large School Pride
5. Growth Mindset









Academic Neighborhood

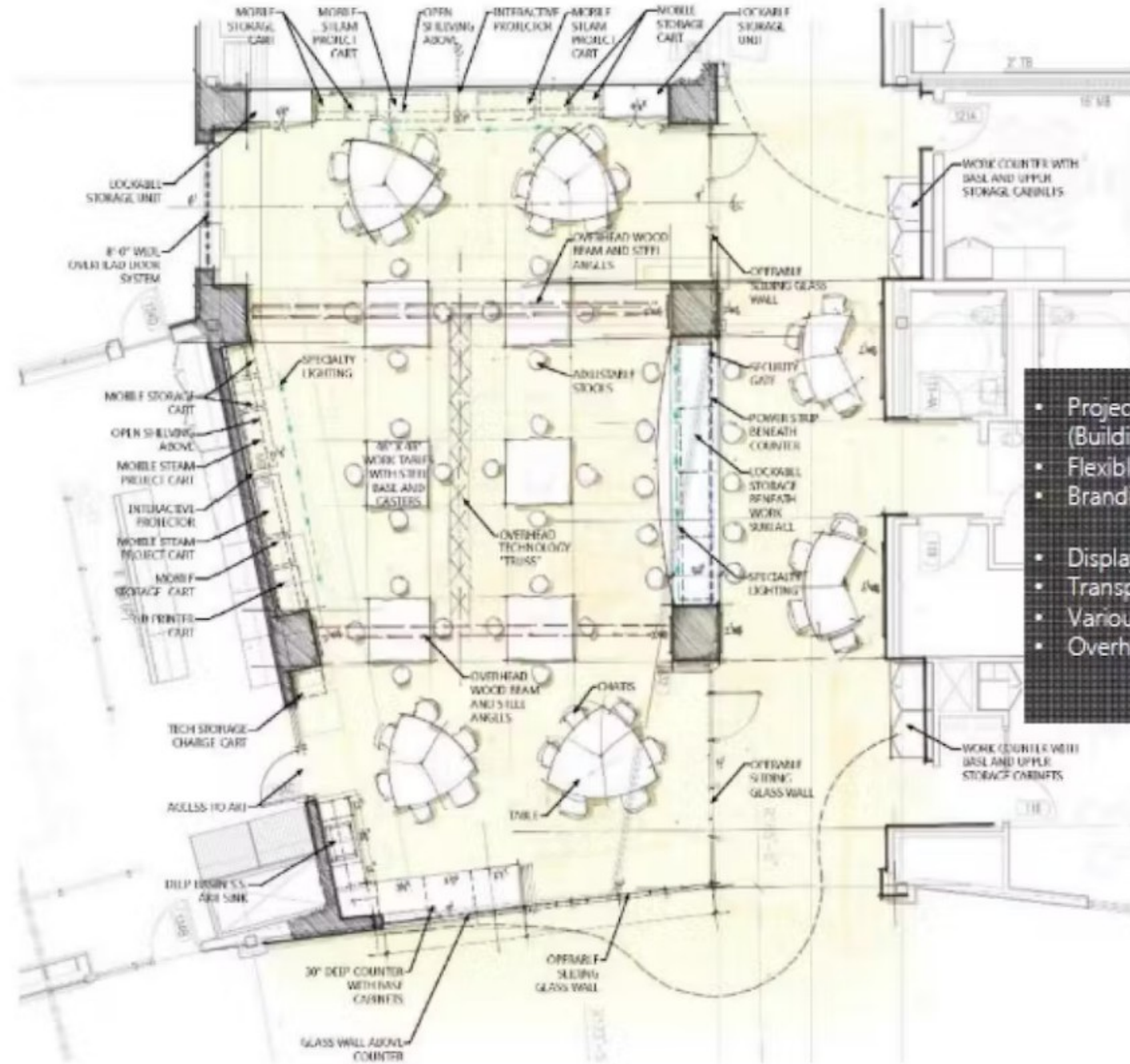


PORCELAIN WALL TILE: 4'-6" AFF

- Flexible & Adaptable Spaces (Maker/Builder Space)
- Integration of Arts/Tech (STEAM)
- Branding (Makerspace as gateway to Neighborhood)
- Display space for material/student work
- Transparency (visible connection / inspiration)
- Distributed Leadership
- Differentiated Instruction



Maker / Builder Space



- Project based & research based learning activities (Building/Multi-media/presentation/arts integration)
- Flexible & Adaptable Space (Furniture/storage)
- Branding (Makerspace as gateway to Neighborhood)
- Display space for material/student work
- Transparency (visible connection / inspiration)
- Various writable surfaces
- Overhead Power / technology / water











- Educational Advantages:
 - Outdoor dining area
 - Outdoor amphitheater
 - Exhibit and work areas
 - Open green space
 - Outdoor classroom space
 - Outdoor science space
 - Outdoor project space – extension of maker/builder space
 - Examples.....
 - *Science:* (Raised planting beds, testing cars in physics projects, heat transfer, weather analysis, water features, engineering elements: pulleys, planes, etc.)
 - *Humanities:* (Socratic Debate, drama, poetry, Greek myths)
 - *Arts:* (3D installations, sculpture, etc.)
- Maintain a **secure** outdoor environment
- **Defined pathway** from drop off area to building entry
- Outdoor holding space for early arrivals and late departures
- Varying elevations of **"Educational Zones"**: more clearly defined areas
- Direct access from **Cafeteria**
- Maintain **privacy** from classroom neighborhoods
- Easy access from **centralized circulation stairs** for all grade levels
- Easy access for **maintenance equipment / staff**
- Greater potential for separate **structured community use**





North Middlesex Regional High School

NORTH MIDDLESEX REGIONAL HIGH SCHOOL



1. Flexibility and Evolution
 - a) Two Story Flexible Pods
 - b) Humanities/STEAM
2. STEM/Art Integration (STEAM)
3. Integration and Synergy
 - a) Science Dispersed Across 4 Pods
 - b) Interdisciplinary Floor Plan
4. Outdoor Learning Environments
5. Joy of Learning





FIRST FLOOR

1. Administration
2. Student Dining Commons with Stair & Stage
3. Small Commons w/ Operable glazed wall (LGI)
4. Gym Dance Fitness
5. Humanities, Arts & Science Classroom Pod
6. STEAM Pod
7. Project Based Learning & Maker Spaces
8. Covered Outdoor Classrooms
9. Outdoor Dining and Community Service Gardens
10. Teacher Planning
11. TV Studio and Lab
12. 600 Seat Auditorium, Fine Arts & Music Suites
13. School Store



SECOND FLOOR

- 1. *Student Dining Commons with Stair & Stage Below*
- 2. *Small Commons w/ Operable glazed wall– Large Group Below*
- 3. *Gymnasium, Dance & Fitness Below*
- 4. *Humanities, Arts, and Sciences Classroom Pod*
- 5. *STEAM Pod*
- 6. *Science Labs*
- 7. *Project Based Learning & Makers Spaces Below*
- 8. *Teacher Planning*
- 9. *600 Seat Auditorium, Fine Arts & Music Studios below*
- 10. *Media Center*



Outdoor Classrooms

Community Service Gardens

Student Centric Spaces



Large Group Instruction (LGI)





Student Dining: Multiple dining options; Used throughout the day; integral to circulation; Hub of Public Spaces; Pre and Post Function space



Library / Media Center – classes, collaboration, research, reflection





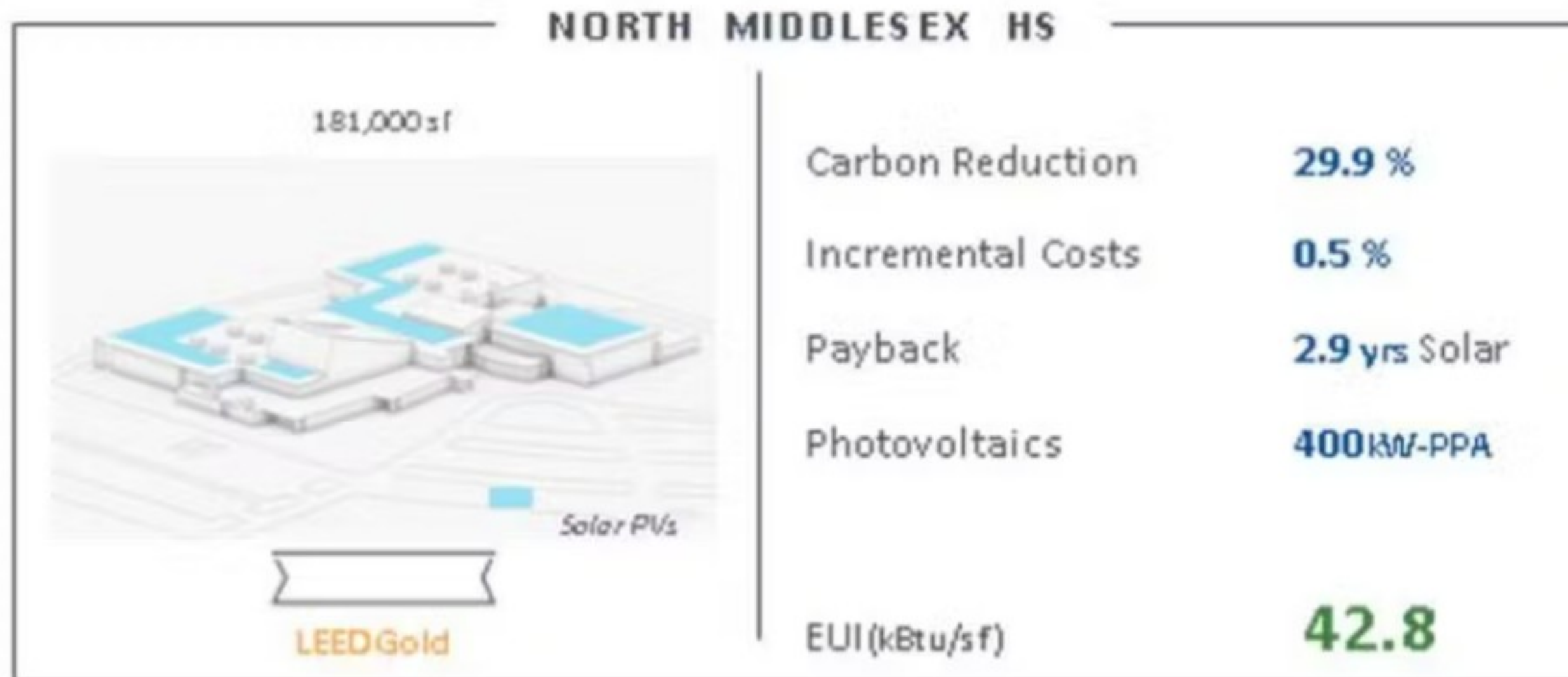
Sustainability and Wellness

The project had three core sustainability goals in mind:

- » Achieve an advanced standard of energy efficiency
- » Provide students with a healthy 21st century educational facility in all aspects
- » Foster environmental literacy

LEED Certification

North Middlesex Regional High School was awarded LEEDv3 2009 Gold Certification (63 points), achieved in part through the designers' expertise in sustainable design, as well as through a collaborative approach with the towns' constituents.



LEED Certification Review Report

This report contains the results of the technical review of an application for LEED® certification submitted for the specified project. LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council® (USGBC®). The LEED certification program is administered by Green Business Certification Inc. (GBCI®).

North Middlesex Regional High School

Project ID: 1000042708
 Rating system & version: LEED FOR SCHOOLS
 Project registration date: 05/27/2014



Construction Final Review Decision

PENDING: 0/0, SILVER: 0/0, GOLD: 0/0, SILVER: 0/0, PLATINUM: 0/0

LEED 2009 SCHOOLS

ATTEMPTED: 72, DENIED: 1, PENDING: 8, AWARDED: 63 OF 110 POINTS

SUSTAINABLE SITES	12 OF 24	MATERIALS AND RESOURCES	7 OF 13
SSp1 Construction Activity Pollution Prevention	✓	MRp1 Storage and Collection of Recyclables	✓
SSp2 Environmental Site Assessment	✓	MRc1 Building Reuse: Maintain Existing Walls, Floors and Roof	0/2
SSc1 Site Selection	0/3	MRc3 Building Reuse: Maintain 50% of Interior Non-Structural Elements	0/3
SSc2 Development Density and Community Connectivity	0/4	MRc2 Construction Waste Mgmt	2/2
SSc3 Brownfield Redevelopment	1/3	MRc3 Materials Reuse	0/2
SSc4 Alternative Transportation: Public Transportation Access	0/4	MRc4 Recycled Content	2/2
SSc4.2 Alternative Transportation: Bicycle Storage and Changing Rooms	0/3	MRc5 Regional Materials	2/2
SSc4.3 Alternative Transportation: Low-Emitting and Fuel-Efficient Vehicles	2/2	MRc6 Rapidly Renewable Materials	0/3
SSc4.4 Alternative Transportation: Parking Capacity	2/2	MRc7 Certified Wood	1/3
SSc5 Site Development: Protect or Restore Habitat	1/3		
SSc5.2 Site Development: Maximize Open Space	1/3		
SSc6 Stormwater Design: Quantity Control	1/3		
SSc6.2 Stormwater Design: Quality Control	1/3		
SSc7 Heat Island Effect: Non-Roof	0/3		
SSc7.2 Heat Island Effect: Roof	1/3		
SSc8 Light Pollution Reduction	1/3		
SSc9 Site Master Plan	0/3		
SSc10 Joint Use of Facilities	1/3		
WATER EFFICIENCY	8 OF 11	INDOOR ENVIRONMENTAL QUALITY	12 OF 18
WEp1 Water Use Reduction: 20% Reduction	✓	EQp1 Minimum IAQ Performance	✓
WEc1 Water Efficient Landscaping	4/4	EQp2 Environmental Tobacco Smoke (ETS) Control	✓
WEc2 Irrigation Water Conservation Technologies	0/2	EQp3 Minimum Acoustical Performance	✓
WEc3 Water Use Reduction	3/4	EQc1 Outdoor Air Delivery Monitoring	1/3
WEc4 Process Water Use Reduction	4/4	EQc2 Increased Ventilation	0/3
		EQc3 Construction IAQ Mgmt Plan During Construction	3/3
		EQc3.2 Construction IAQ Mgmt Plan Before Occupancy	0/3
		EQc4 Low-Emitting Materials	4/4
		EQc5 Indoor Chemical and Pollutant Source Control	1/3
		EQc6 Controlability of Systems Lighting	1/3
		EQc6.2 Controlability of Systems Thermal Comfort	0/3
		EQc7 Thermal Comfort Design	1/3
		EQc7.2 Thermal Comfort Verification	1/3
		EQc8 Daylight and Views Daylight	0/3
		EQc8.2 Daylight and Views Views	0/3
		EQc9 Enhanced Acoustical Performance	1/3
		EQc10 Mold Prevention	1/3
ENERGY AND ATMOSPHERE	17 OF 33	INNOVATION IN DESIGN	5 OF 6
EAp1 Fundamental Commissioning of the Building Energy Systems	✓	IDc1.1 Innovation: Green cleaning policy/program	1/3
EAp2 Minimum Energy Performance	✓	IDc1.1 Innovation in Design	0/3
EAp3 Fundamental Refrigerant Mgmt	✓	IDc1.2 IDc1.2 Sustainable Purchasing - Reduced Mercury (Hg) in Lamps	1/3
EAc1 Optimize Energy Performance	14/19	IDc1.2 Innovation in Design	0/3
EAc2 On-Site Renewable Energy	0/7	IDc1.3 Exemplary Performance: SSc5.2 Site Development: Maximize Open Space	1/3
EAc3 Enhanced Commissioning	2/3	IDc1.3 Innovation in Design	0/3
EAc4 Enhanced Refrigerant Mgmt	0/3	IDc1.4 Innovation in Design	0/3
EAc5 Measurement and Verification	1/2	IDc1.4 Innovation in Design - Exemplary Certified Wood	1/3
EAc6 Green Power	0/2	IDc2 LEED® Accredited Professional	1/3
		IDc3 The School as a Teaching Tool	0/3
		REGIONAL PRIORITY CREDITS	2 OF 4
		RPc3 Brownfield Redevelopment	1/3
		RPc4 Stormwater Design: Quality Control	1/3
		TOTAL	63 OF 110

Mount Greylock Middle High School

MOUNT GREYLOCK MIDDLE HIGH SCHOOL



1. Flexible Learning
2. Personalization
3. Collaboration and Connection
4. Visible Learning
5. Environmental Integration
6. Seamless Technology

















Small Group Brainstorm

Work in small groups to brainstorm 5-7 Guiding Principles for renovated and/or new MSD facilities

Please take a
screenshot of these
Guiding Principles

- Real World and Brain-Based Learning
- Learning Communities
- School as Community Resource
- Flexible and Adaptable Spaces
- Outdoor/Nature Connections
- Sustainability/Building as Teacher
- School Without Walls
- Ever Evolving
- Belonging and Ownership
- Small School Feel, Large School Pride
- Growth Mindset
- Transdisciplinary Instruction
- Wrap Around Support
- Whole Child, Whole Community
- Visible Learning
- Community and Civic Hub
- Adaptability
- Flexibility and Evolution
- STEM and STEAM
- Integration and Synergy
- Outdoor Learning
- Joy of Learning

Instructions

Group leaders please list your group's priority Guiding Principles.



Please list your 2 personal favorite priority Guiding Principles here.



A word cloud of guiding principles. The words are arranged in a roughly circular shape, with some words being larger and more prominent than others. The colors of the words vary, including shades of blue, green, yellow, and purple. The words are: meeting and collaboration, work and life ready basic, funding from the state, wrap around support, plan to meet needs wants, community and civic hub, joy of learning, health and wellness, need for new and or renov, community access, community schools, community chool, adaptability, student agency, community schools as hubs, foster civic pride, whole child, improved art spaces, real world and brain base, and community and civic hud.

meeting and collaboration
work and life ready basic
funding from the state
wrap around support
plan to meet needs wants
community and civic hub
joy of learning
health and wellness
need for new and or renov
community access
community schools
community chool
adaptability
student agency
community schools as hubs
foster civic pride
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improved art spaces
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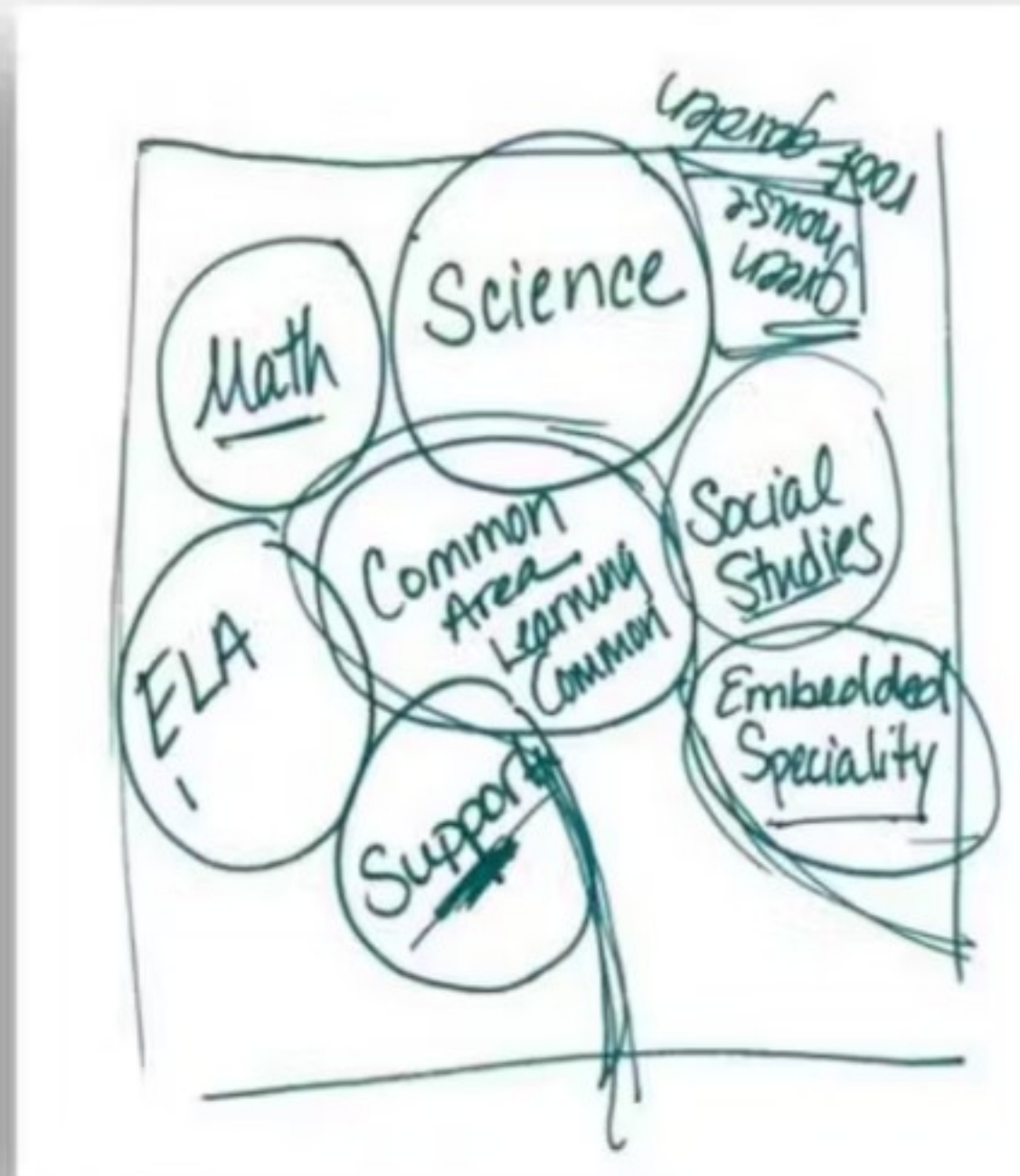
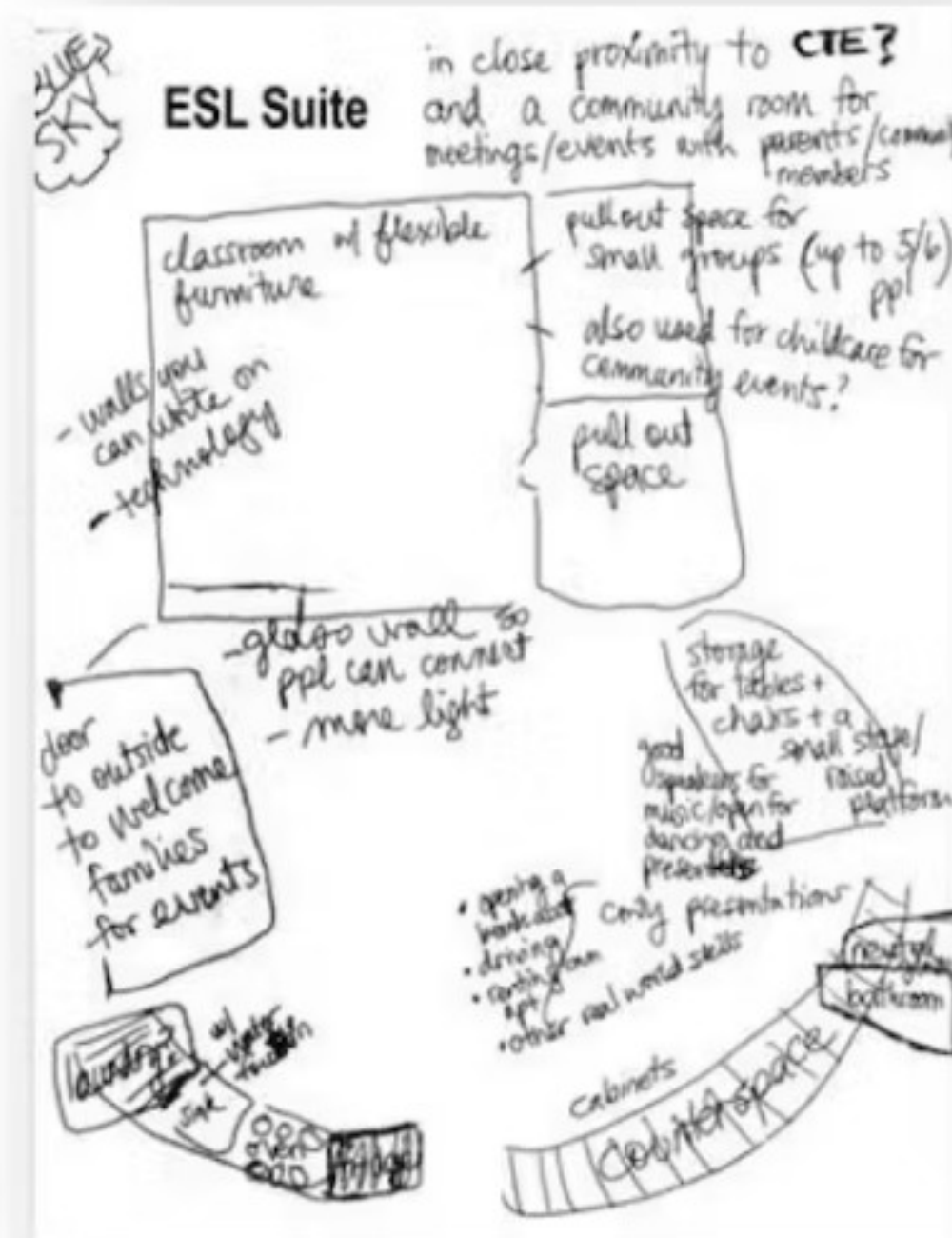
MANCHESTER SCHOOL DISTRICT

Blue Sky Ideas

Blue Sky Ideas ... Detailed

Take 5 minutes to describe and/or diagram one of your ideas in as much detail as possible

- Size
- Shape
- Use
- Furniture
- Lighting
- Color
- Occupants
- Etc.



Please share your Blue Sky aspirational ideas here.

21 Responses

Totally green self sustaining school.

Teachers Village (Housing)

Green school

Incredible brand new high school offering community resources and supported by the community

Transit Integrated Mobility

Fully accessible playgrounds and genuine park-type spaces for ALL ages

Soft start and end to school day

Housing for displaced families

Change i3 good and e need change

Please share your Blue Sky aspirational ideas here.

21

Responses

Additional staff to support the needs of all students...increase graduation rates!

MSD as a strategic network of city-wide learning resources

Self-sustaining daycare facility in the school for the children of school employees

Housing development as part of a school campus

a beautiful, functional space that the taxpayers are proud of

Community-accessible banks, restaurants, etc... through CTE

Safe buildings!

Building Trades Program (building accessory dwelling units for community)

Hopefully, we could have multi use fields at the schools to eliminate bussing to different places in the city.

Please share your Blue Sky aspirational ideas here. 21 Responses

Manchester Library extension as part of a school

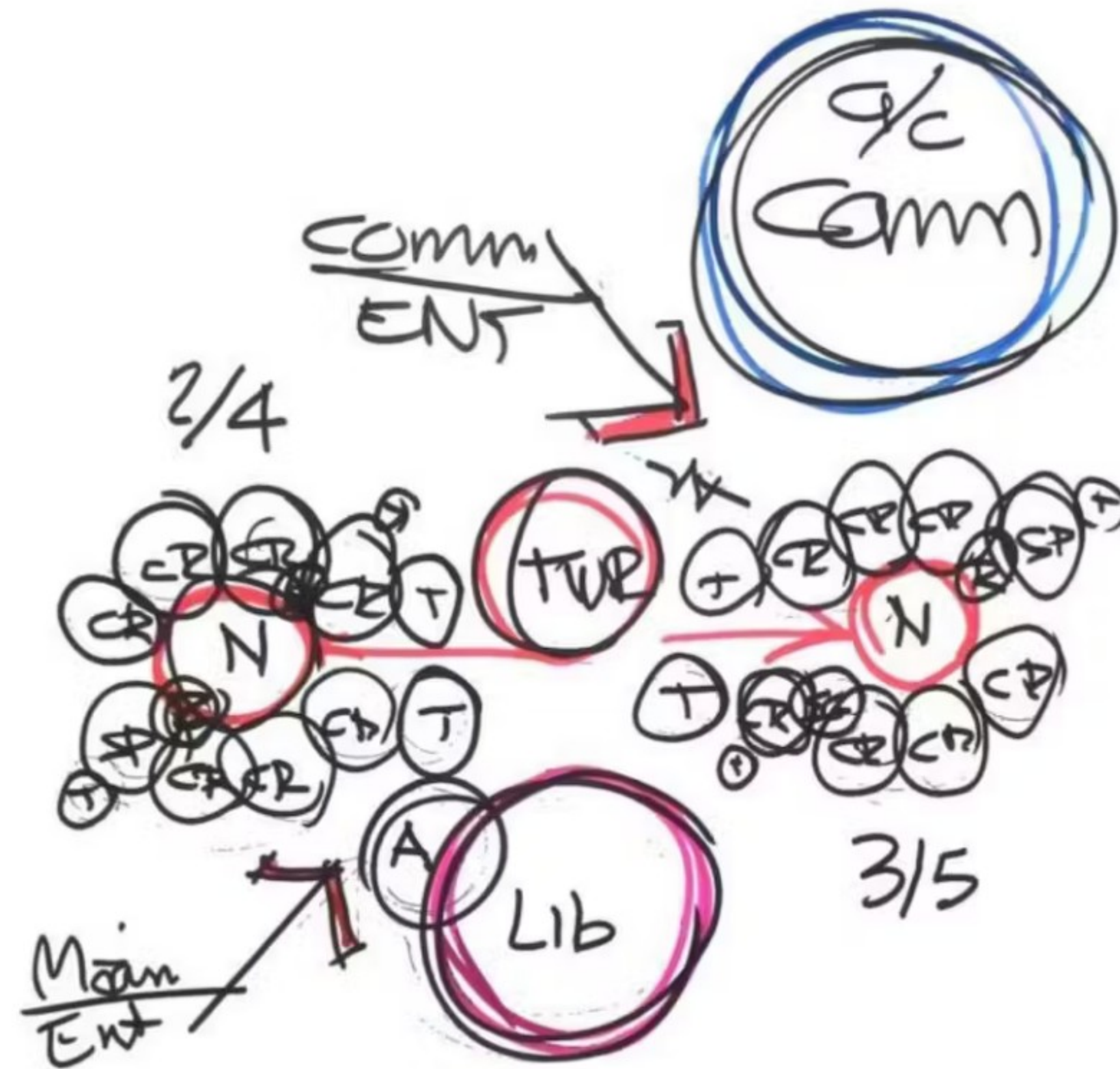
Senior Citizen enrichment programs led by students

Day care facility in school as program and service

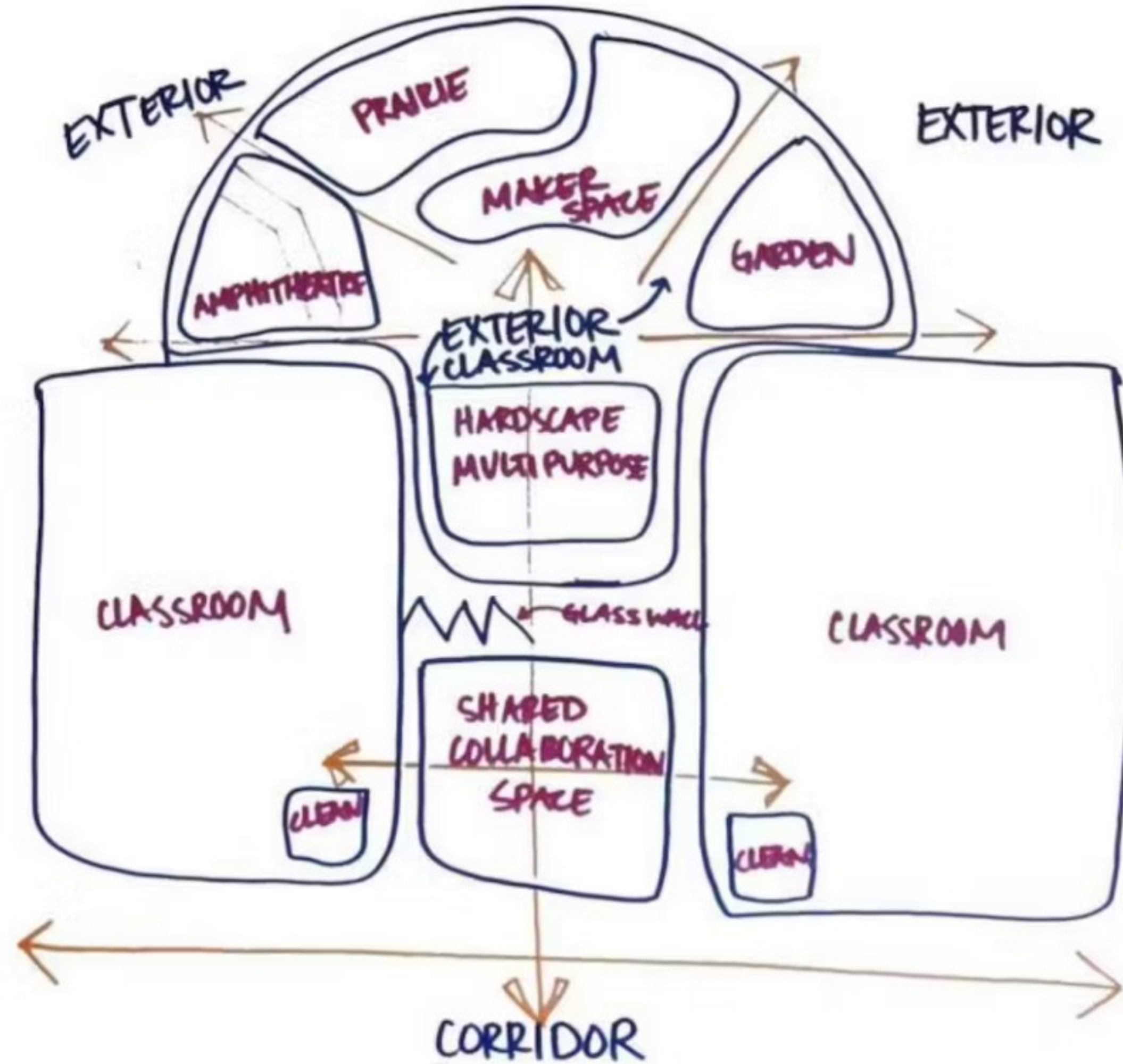


Bubble Diagrams

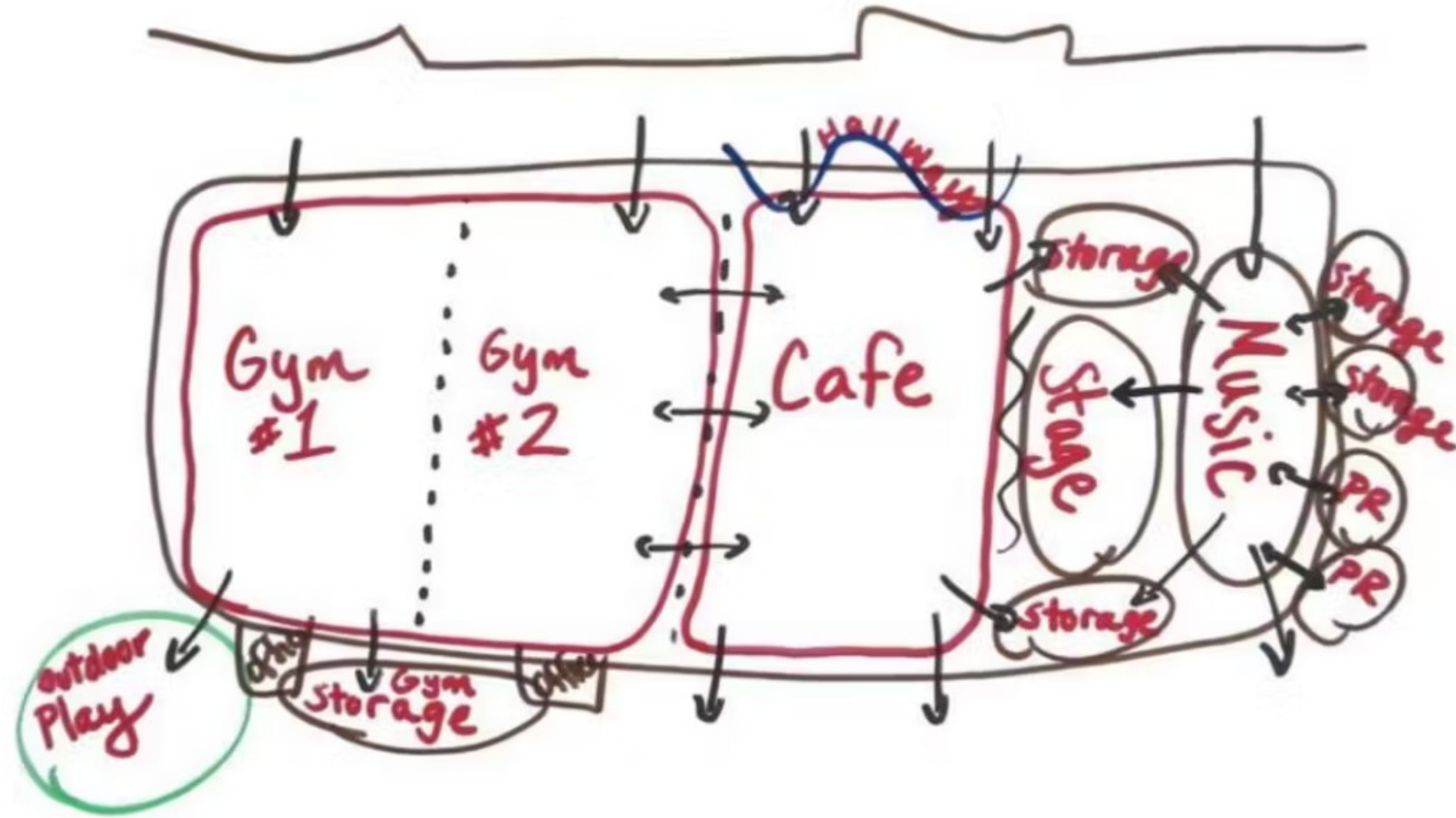
Whole School Relationships



Classroom Neighborhoods



Community Access



Bubble Diagramming Groups

- Group 1 Elementary School Adjacencies
- Group 2 Middle School Adjacencies
- Group 3 High School Adjacencies



MANCHESTER SCHOOL DISTRICT

Next Steps and Q&A