



NATIONAL COVID-19
OUTDOOR LEARNING
INITIATIVE

CREATING
OUTDOOR SPACES

EMERGENCY
SCHOOLYARD
DESIGN VOLUNTEERS



KENMORE MIDDLE SCHOOL — ARLINGTON, VIRGINIA

Kenmore Middle School is an Arlington, Virginia public school with 1,005 students in grades 6th through 8th. Class sizes are about 25 students and the school was hoping small groups of students could have lunch outdoors, as well as augment their existing outdoor seating and gardens. The goal was to accommodate as many students as possible outside. The school is now installing a permanent shelter, would like to expand their gardens, and is excited to shift their future towards a nature-inspired learning and educational model.

Site Analysis Considerations

Kenmore Middle School
Arlington, Virginia

School Characteristics

Students

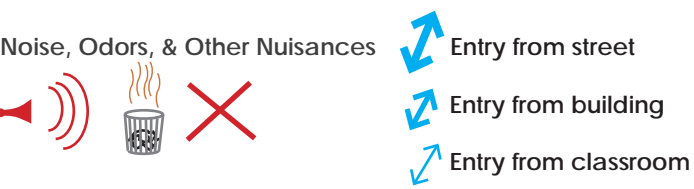
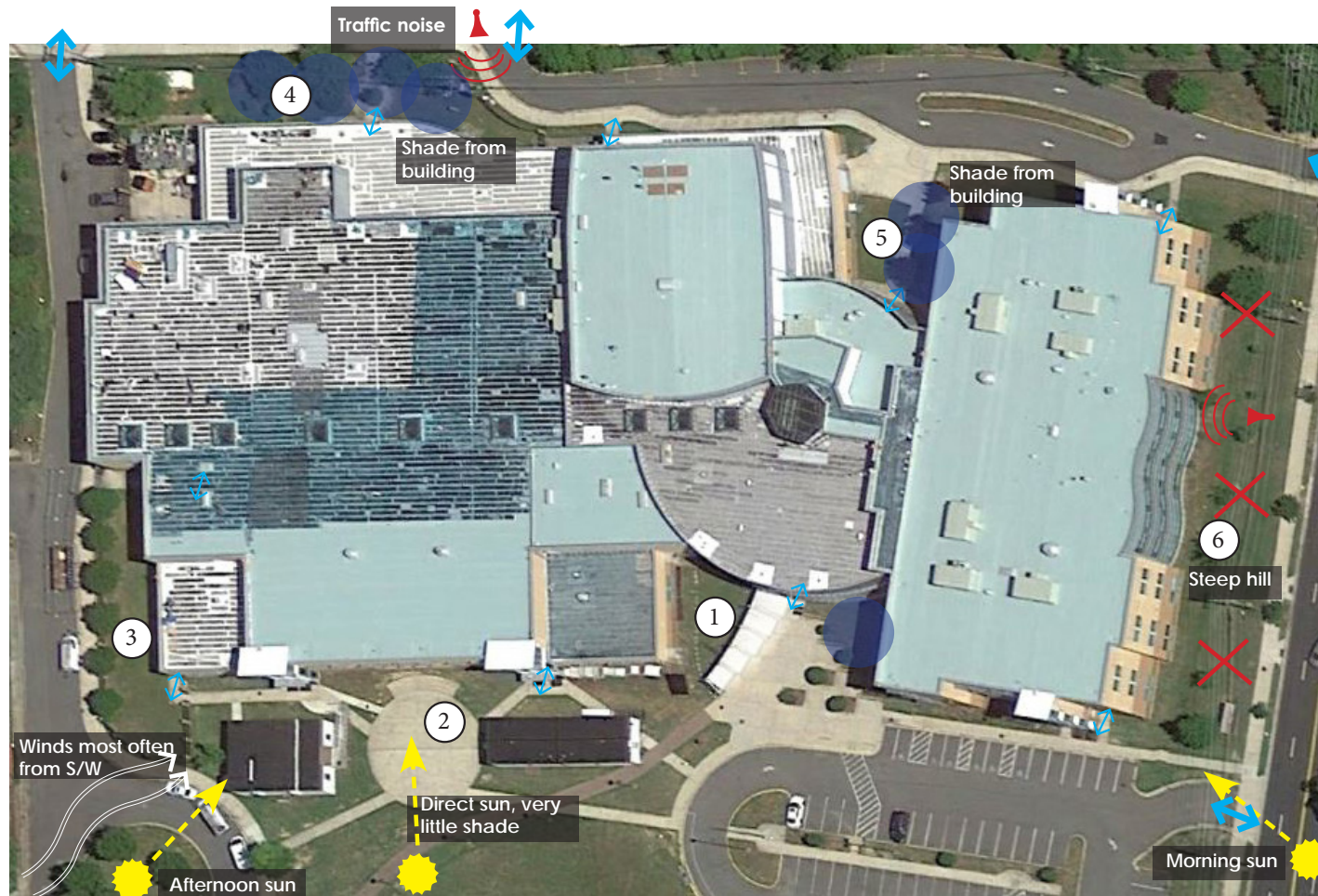
- 1,005 students in grades 6-8
- Small groups (around 15) of students could have lunch outdoor
- Class size: 25 students
- Maximum use of time: 90 mins per class
- Hybrid class starting in January (2 times per week alternating days, all tentative)

School Grounds

- Area 1: Front entrance, existing sensory garden to support students with autism
- Area 2: The big concrete pad is an amphitheater; Two functional movable buildings; The area gets really hot in the summer; Lots of events were held here.
- Area 3: Outdoor lunch, existing picnic tables
- Area 4: Art room access, fenced in but noisy
- Area 5: Loading Dock but has some space
- Area 6: Steep hill along road, not ideal for play
- Curved part of the building has ceiling windows - opportunity to consider the inside-outside relationship
- Large field in front has potential for temporary uses
- Bluemont Park is used for water study (.5 mile walk - potential for movable classrooms, but this should not be the focus of the design)

Climate

- August days can be hot and humid (highest ~89 °F), while January days can be cold and dry (Lowest ~24 °F). Arlington averages 15 inches of snow per year. The warmth in the air in early Spring, and the chill in the air in the Fall, "feel" different from other seasons.

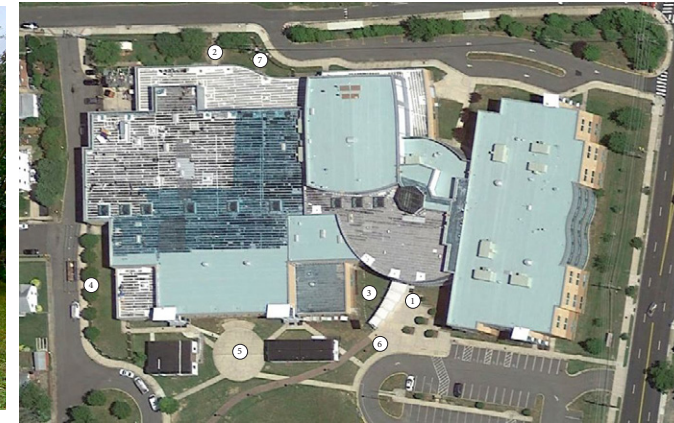


NOTE: These diagrams are intended to provide visual concepts to assist schools in planning. They are neither intended nor may be used for construction. Neither Green Schoolyards America nor the design volunteers assume responsibility or liability for the technical accuracy of drawings or for any unauthorized use.



Kenmore Middle School Arlington, Virginia

Site Photographs



Photographs, top row to bottom row

1. Bike Racks
2. Back of building
3. Newly planted trees
4. Picnic tables
5. Front circle flanked by two temporary trailer classrooms.
6. Front entrance
7. Outside of art classroom.

Photos by Mila Antova



Potential Outdoor Classrooms

Using Existing Tree Canopy and Shade for Mild Weather

Kenmore Middle School
Arlington, Virginia

Scenario #1: Low Cost



--- natural screen or divider
(straw bales, willow, potted plants or other)

- entry from street
- entry from building
- entry from classroom

(18) 22' dia. circle potential outdoor seating areas for 10 students each

0 50 100 feet

Climate Considerations

- Climate varies seasonally, with hot summers and cold winters
- Encourage snow and appropriate clothing in winter to keep everyone warm and dry

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice; go inside or online when it is raining or too cold
- Use Space 4 on days when more shade from trees is needed
- Use Space 1, 4, 5 on particularly windy days as they have the most protection from the building

Use and Augment Existing Infrastructure

- Use picnic tables in Space 3 for classes in addition to lunch
- Use low cost, transportable seating such as yogs mats, blankets, logs/stumps
- Lidded buckets can provide a seat and carriable storage for individual students
- Clipboards for each student for writing surfaces
- Use hay bales or fabric dividers to reduce distraction

Scenario #1: Outdoor Capacity

- Max: 180 students in 18 seating areas
- Capacity: 18% of enrolled students

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Potential Outdoor Classrooms

Providing Light Shelter for Sun, Rain, or Snow

Kenmore Middle School
Arlington, Virginia

Scenario #2: Moderate Cost

Climate Considerations

Build on Scenario #1

- Install canopy shelters to protect from rain, snow, and sun. Ideal shelters could be adjustable in height to allow winter sun.
- Add outdoor heaters and/or provide rain and snow gear so students will be dry and warm when weather is wet and cold

Climate Adaptation Strategies

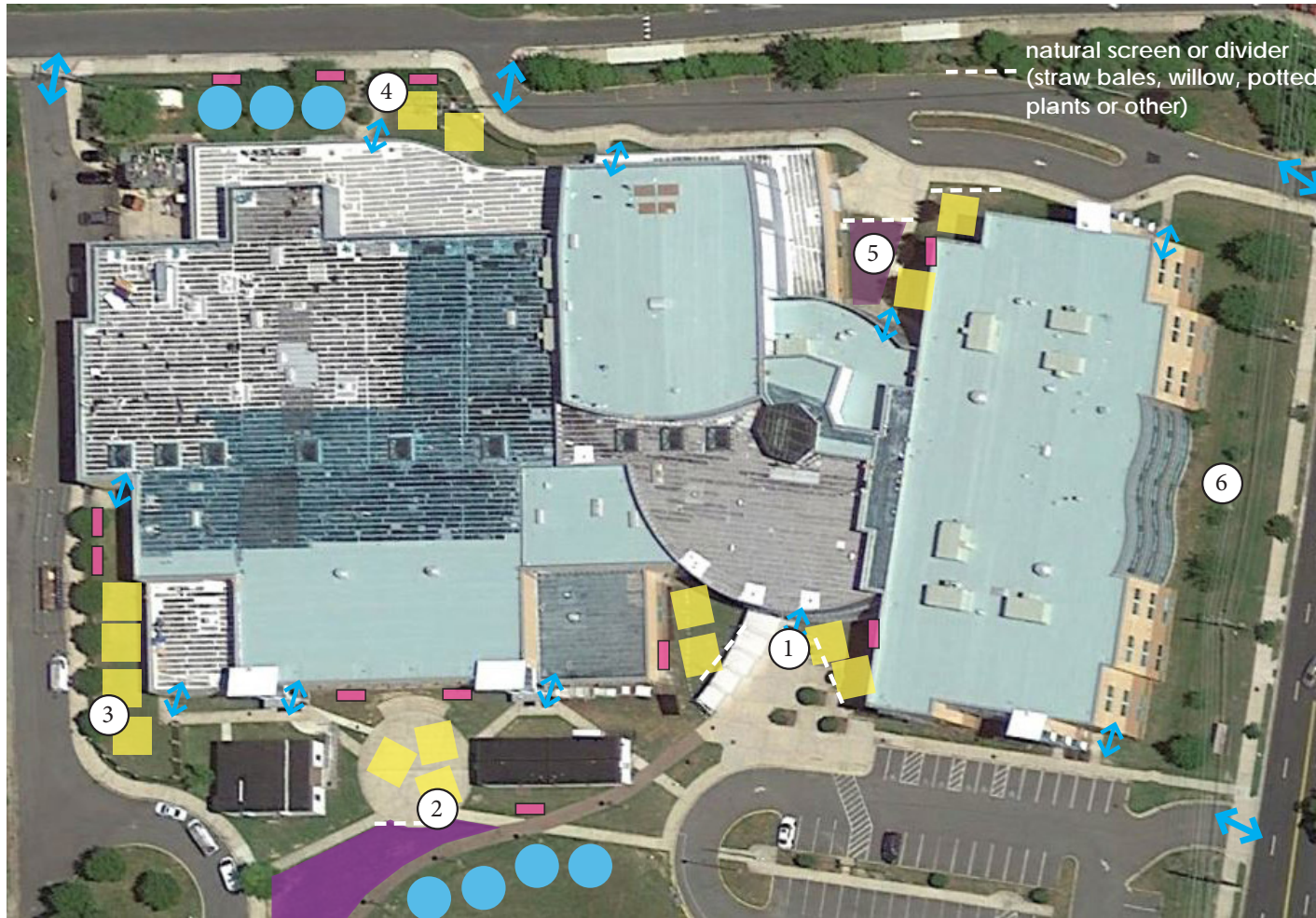
- Use outdoor classrooms as "Plan A" when the weather is nice or in mild rain and snow; go inside or online when it is too harsh

Use and Augment Existing Infrastructure

- Add more permanent low cost seating (logs, tires, pallets, stumps, existing desks/tables)
- Install shelters to protect from rain, snow, and sun in areas away from street
- Add storage /bins sheds for class materials
- Create interactive vegetable/pollinator garden space
- Rollable White boards serve as screening and wall space
- Other more permanent screening (plants, vines, vertical pallets)
- Make use of field in front of Space 2

Scenario #2: Outdoor Capacity

- Max: 150 students in 15 covered seating areas
- Max: 70 students in uncovered areas
- Max: 25 students in active garden areas
- Capacity: 25% of enrolled students



- ↔ entry from street
- ↔ entry from building
- ↔ entry from classroom
- (7) storage cart or box

- (15) 20' x 20' shade canopy for 10 students
- (2) Active gardening/ experiential learning areas

- (7) 22' dia. circle potential outdoor seating areas for 10 students each

0 50 100 feet

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Potential Outdoor Classrooms

Providing Infrastructure to Support School Programs

Kenmore Middle School
Arlington, Virginia

Scenario #3: Green Infrastructure Investment

Climate Considerations

Build on Scenario #2

- Density tree and shrub planting along perimeter of site to further protect from wind and noise
- Create large rain garden on East side of building along slope to manage storm water run off and provide nature classroom

Climate Adaptation Strategies

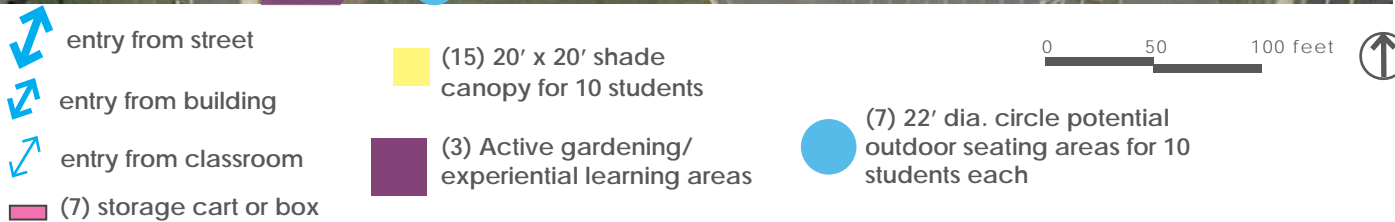
- Use outdoor classrooms as "Plan A" when the weather is nice or in mild rain and snow; go inside or online when it is too harsh

Use and Augment Existing Infrastructure

- Redesign larger/more permanent seating in front circle (Space 2)
- Outdoor heaters at all outdoor spaces
- More permanent "desks" and seating in all spaces
- Expand outdoor gardens - rain garden on East side (6) - students participate in planting
- Student design/art projects (pollinator hotels, canopy structures, garden beds)
- Tree planting around front entrance(1) and circle(2), and density along art yard(4)

Scenario #3: Outdoor Capacity

- Max: 150 students in 15 covered seating areas
- Max: 70 students in uncovered areas
- Max: 75 students in active garden areas
- Capacity: 30% of enrolled students



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