Site Analysis Considerations

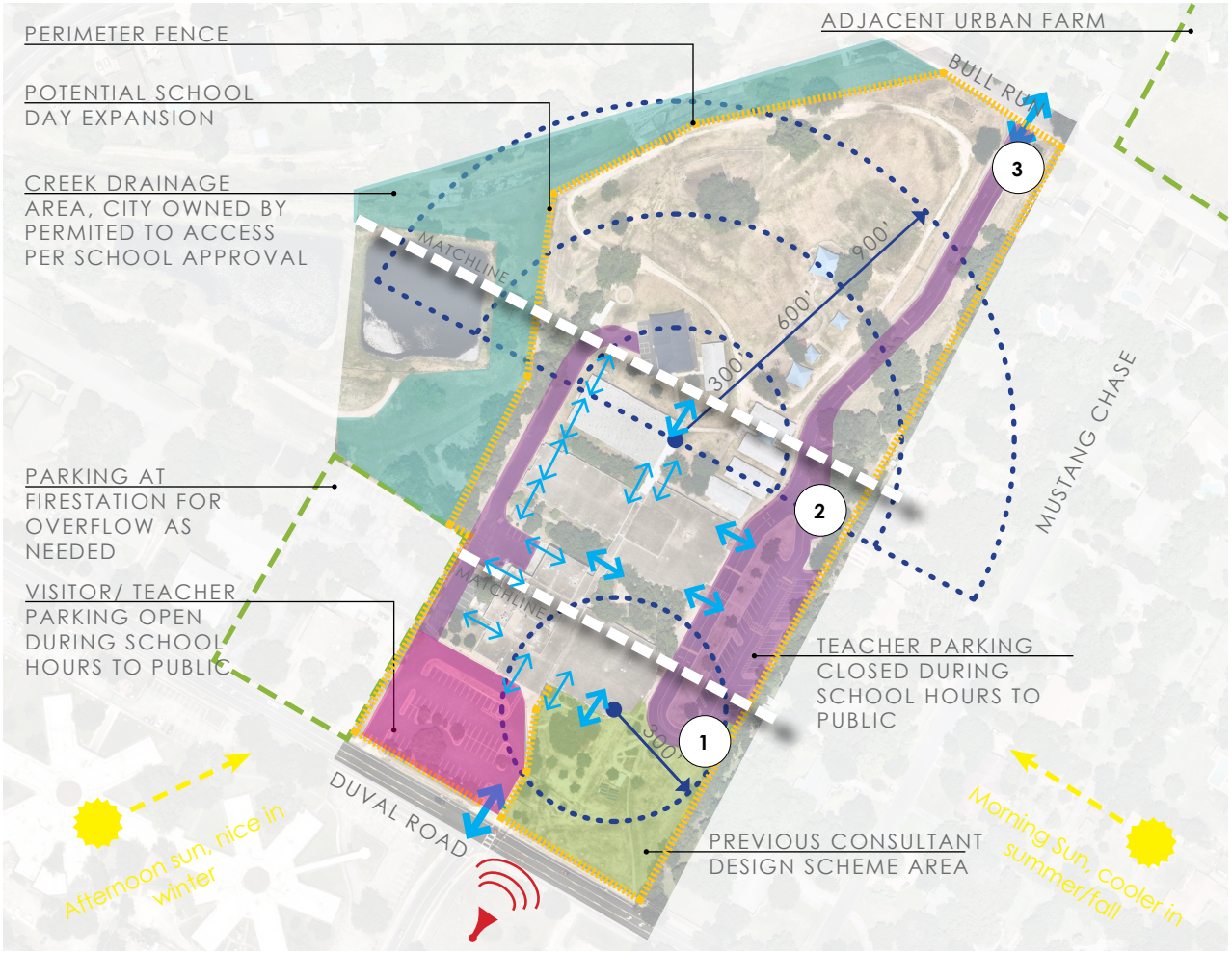

Image Source: NearMap

entry from street

entry from building

entry from classroom

noise

0 200' 400'

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.

Davis Elementary School
Austin, Texas

School Characteristics

Students

- 800-900 students in grades PK-5
- Approximately 35 classes with 30 students each
- 4 PK-5 classes of approximately 30 students each.
- Approximately 50% of students will be onsite = 400-450 students
- Need 35 small breakout areas for 15 students each
- Provide a trauma-informed design approach (likely for all urban schools)

School Grounds

- Semi urban location, approximately 13 acres
- Adjacent to high traffic road on the south, neighborhoods to the east
- Retaining ponds and dry creek park (city park) along the western edge
- Church to the west of site willing to share parking lot during the week adding an additional acre for use
- Challenges = heat and vehicular noise
- School has three gardens: salsa, pollinator and memorial
- Minimal outdoor storage available.

Climate

- Three distinct seasons: warm wet spring, hot, humid summers and quick temperate winters. Heavy rain, high wind, and extreme heat are factors.

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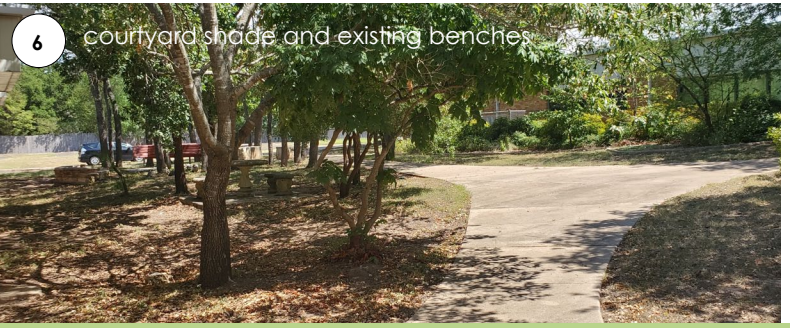
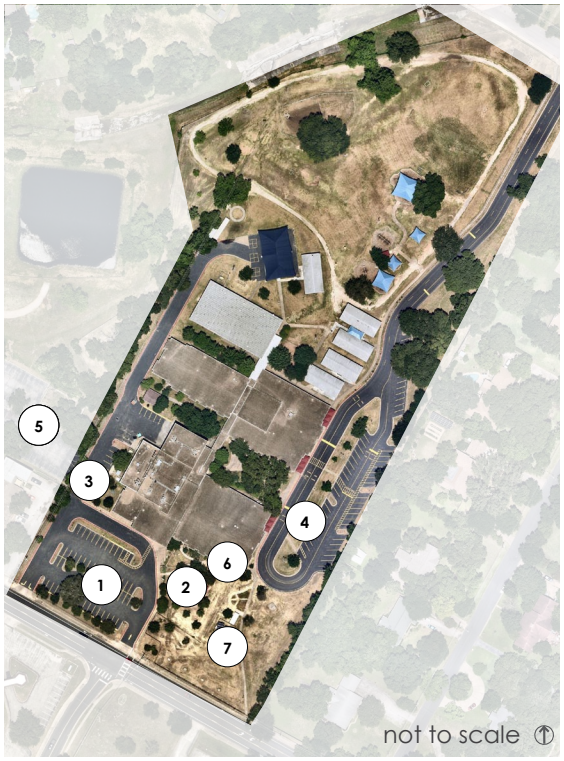
Davis Elementary School
Austin, Texas

Site Photographs





Photographs, top row to bottom row

1. Front parking lot by Duval Street along with mature shade tree with two picnic tables
2. Parking lots to the west and east side of the school
3. Overflow parking lot behind fire station to the west of campus
4. Courtyard area and solar panels with shipping container storage

Photos: Kathy Provenzano

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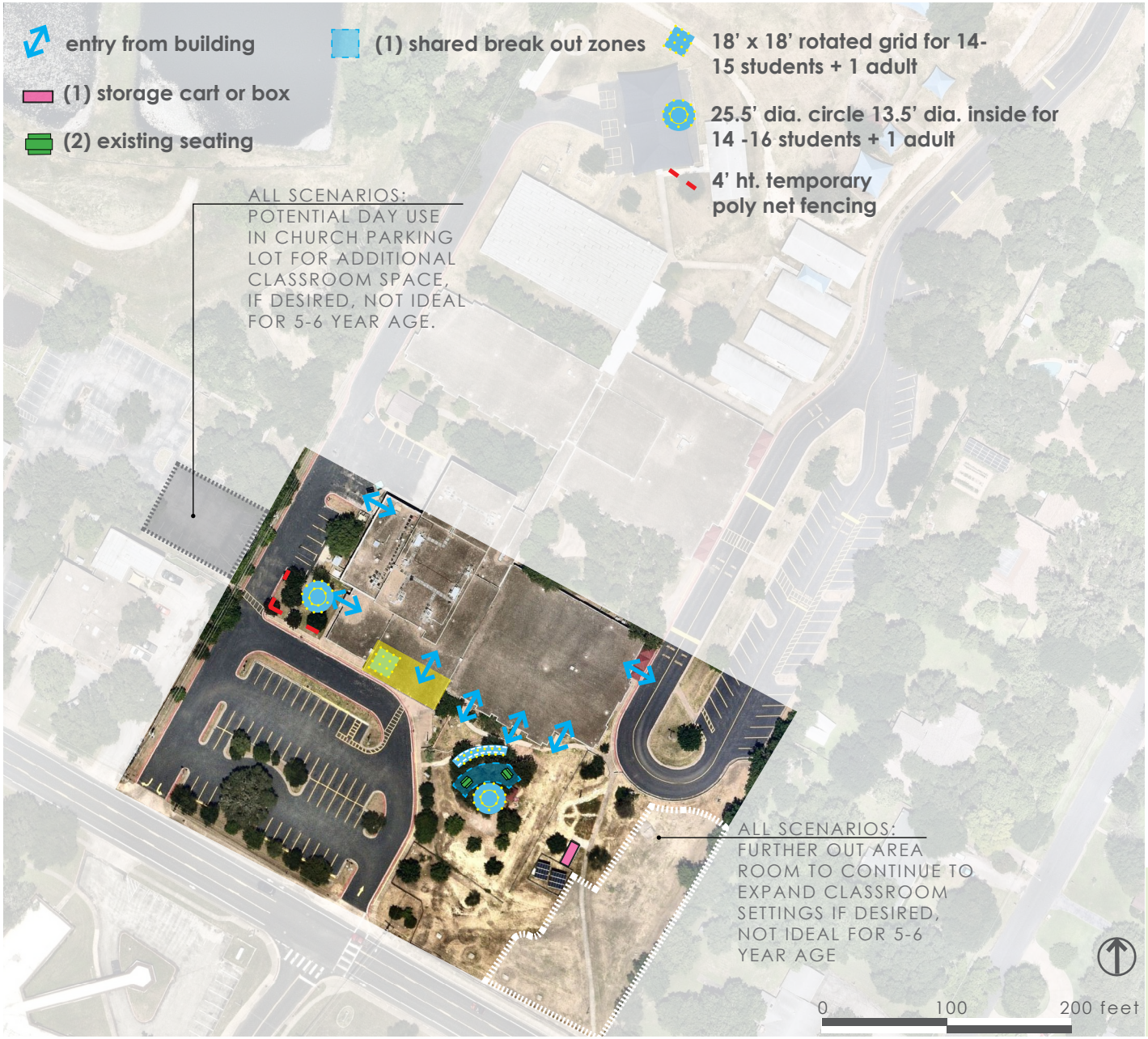
Potential Outdoor Classrooms

Using Existing Tree Canopy and Portable Shade for Mild Weather



Davis Elementary School
Austin, Texas

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Scenario #1: Low Cost

Climate Considerations

- Local climate varies seasonally but sun exposure is a major factor
- Classes will require protection from sun, rain and appropriate seating for the rocky natural terrain

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice; go inside when it is raining or too hot/ cold
- Place seating in areas where existing tree canopies provide morning or afternoon shade while maintaining seating areas within 300' of the building for ease of accessibility

Use and Augment Existing Infrastructure

- Use 2 areas with shade trees/building canopy cover and add low cost seating (mats, stumps, boulders collected on site, and/or existing desks/tables)
- Preserve existing plant/garden areas and existing trees for natural shade and character

Scenario #1: Outdoor Capacity

- Max: 64 students in 4 seating areas
- Between 12-16 students per seating area
- Capacity: 8% of enrolled students (out of approx. 850 total students)

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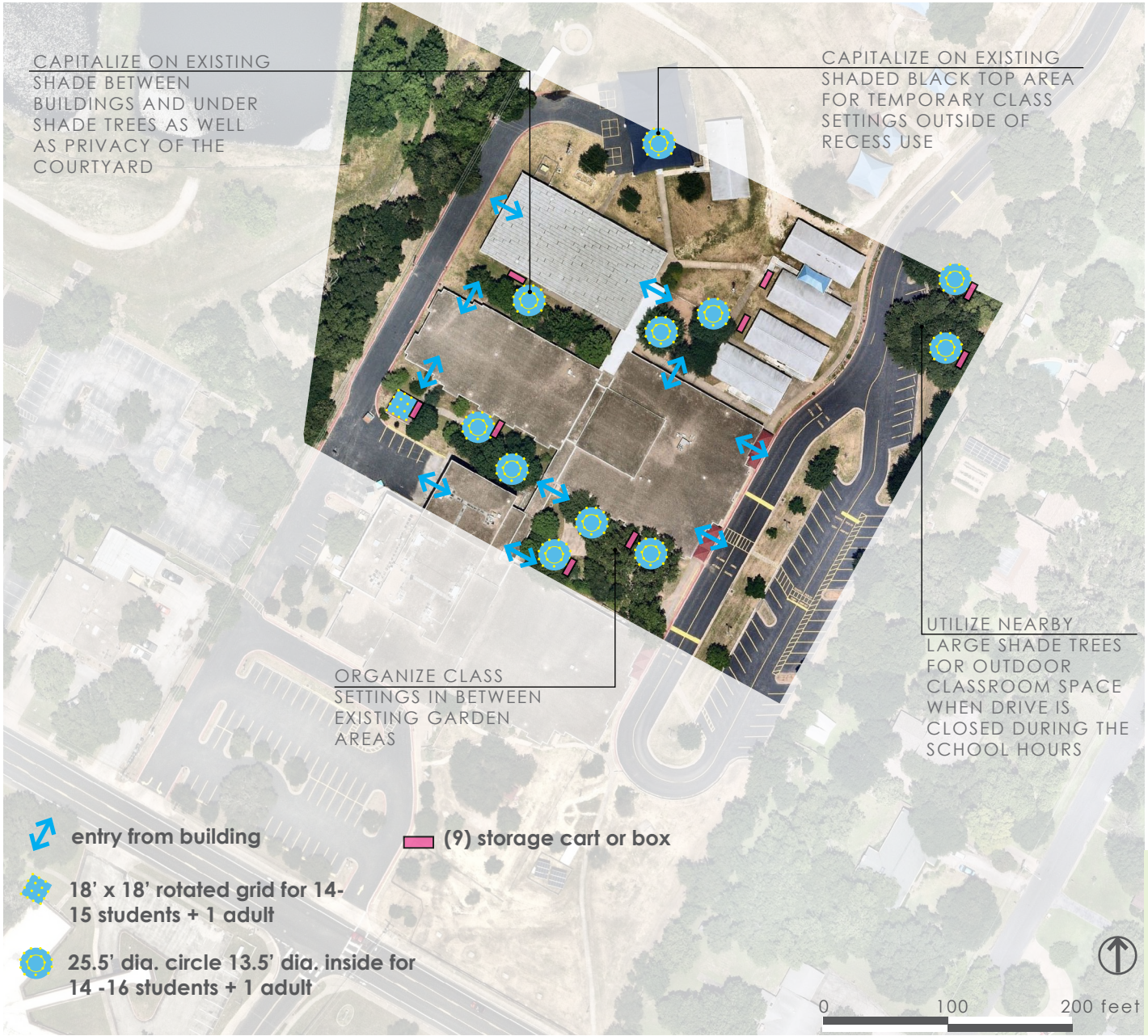
Potential Outdoor Classrooms

Using Existing Tree Canopy/Building Facades for Shade and Mild Weather



Davis Elementary School
Austin, Texas

Scenario #1: Low Cost

Climate Considerations

- Local climate varies seasonally but remains in the 70-90 degree range most of the year
- Classes will require protection from sun, rain and appropriate clothing to keep everyone cool and dry

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice or in mild rain; go inside or online when it is too cold or harsh
- Place seating in areas where existing tree canopies provide morning or afternoon shade, and away from street to reduce noise

Use and Augment Existing Infrastructure

- Use 13 areas with shade trees or existing shelters and add low cost seating (mats, stumps, benches, and/or existing desks/ tables)
- Place 9 seating circles outside building doors and 4 circles for older grades a bit further away
- Add storage sheds for class materials
- Preserve space for gardening and nature play

Scenario #1: Outdoor Capacity

- Max: 191 students in 12 areas that are covered with shade or exisitng shade structure
- Capacity: 22% of enrolled students (out of approx. 850 total students)

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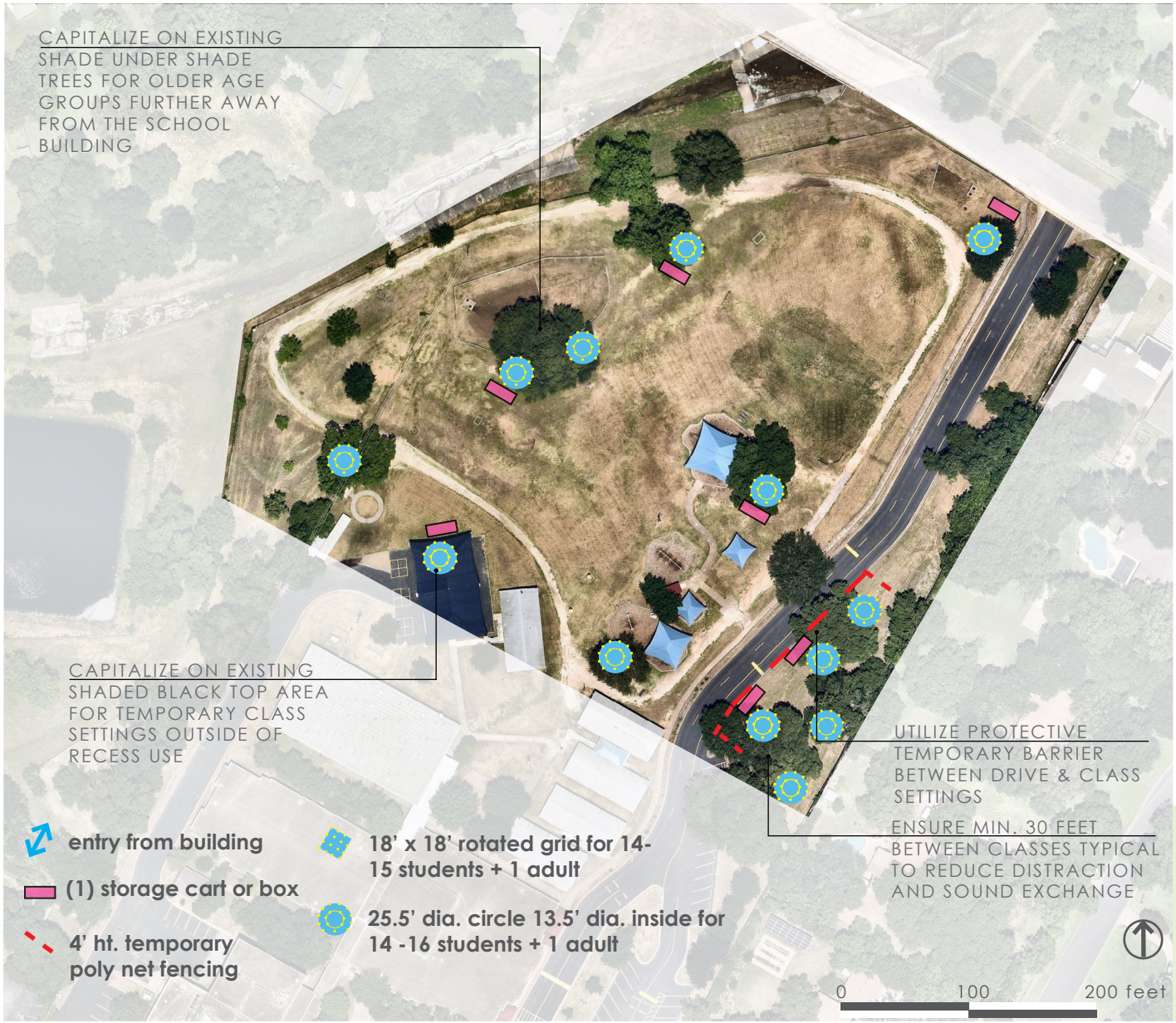
Potential Outdoor Classrooms
Using Existing Tree Canopy and Shade Structures for Mild Weather

Davis Elementary School
Austin, Texas



Scenario #1: Low Cost

Climate Considerations

- Local climate varies seasonally but remains in the 70-90 degree range most of the year
- Classes will require protection from sun, rain and appropriate clothing to keep everyone cool and dry
- Add portable outdoor heaters and/or provide rain 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, only light rain; Recommend classes go inside or online when it is too cold or harsh
- Place seating in areas where existing tree canopies provide morning or afternoon shade, adjust location with sun exposure.

Use and Augment Existing Infrastructure

- Install 4' ht temporary fencing along the east curbline of the school's entry drive from Bull Run to protect students
- Add low cost seating (mats, stumps, benches, and/or existing desks/tables)
- Add storage sheds/boxes for class materialls. Three classes per cart/box max.

Scenario #1: Outdoor Capacity

- Max: 195 students in 13 outdoor areas (12 natural Tree Canopy covered seating areas and 1 covered seating area in the existing Athletic Pavilion)
- Capacity: 23% of enrolled students (out of approx. 850 total students)

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Potential Outdoor Classrooms

Providing Semi-Permanent Shade and Mild Weather Protection.

Davis Elementary School
Austin, Texas

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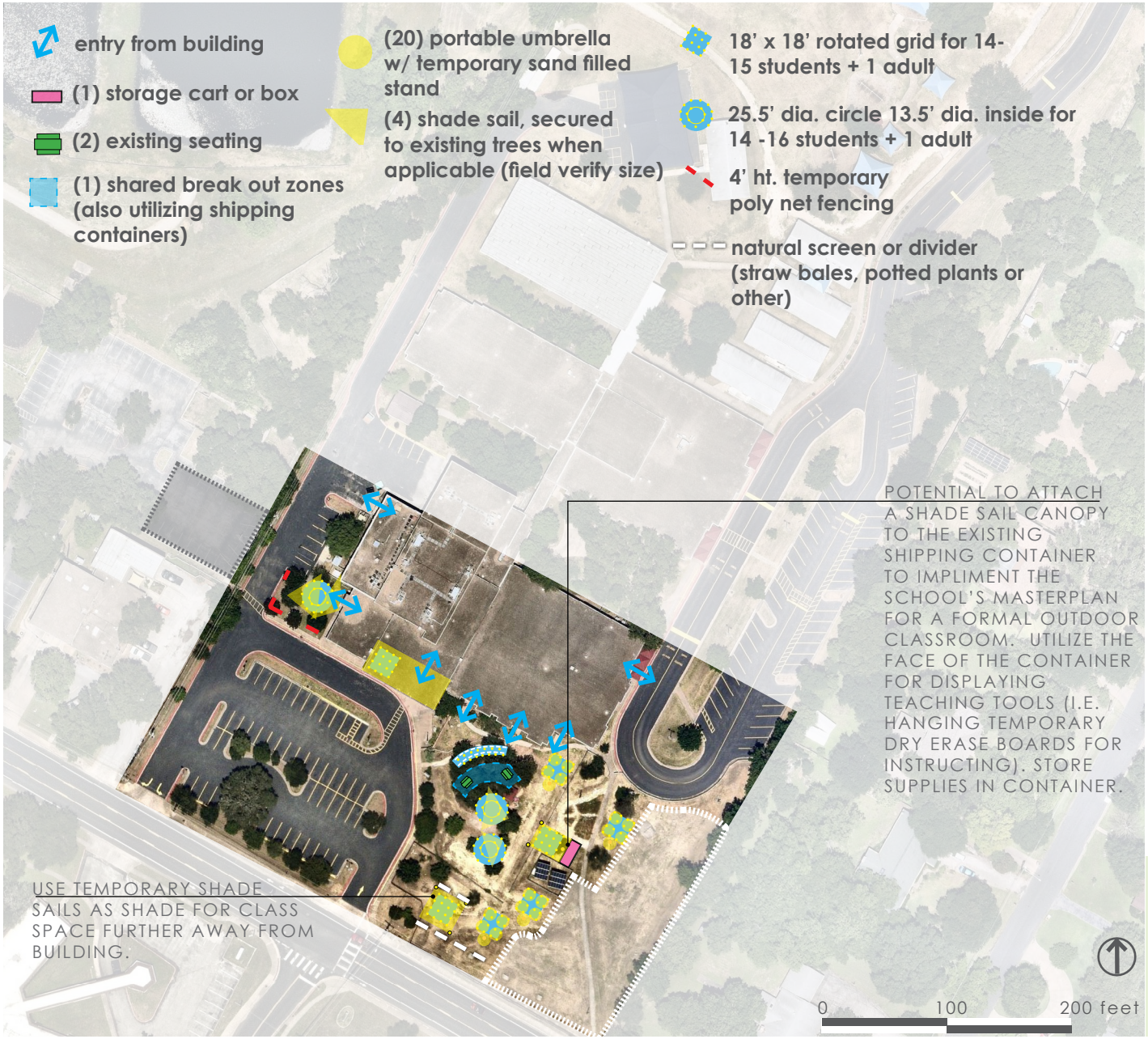

Scenario #2: Moderate Cost

Climate Considerations

Build on Scenario #1

- Utilize existing trees and building facades to secure shade sails for protection from sun and light rain.
- Install permanent vertical supports w/ shade sails at locations a part of the school's landscape masterplan. Utilize vertical posts to secure wind break screens when needed during the winter.

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice; go inside when it is raining or too hot/ cold
- Place seating areas within 300' of the building for ease of accessibility

Use and Augment Existing Infrastructure

- Add permanent seating at long term location (i.e. botanical structure and shipping crate structure). Seating types could be small wood pile seats, natural boulders, built wood benches.
- Utilize existing shipping container for outdoor classroom storage.
- Capitalize on existing shade under building canopy and existing trees.

Scenario #2: Outdoor Capacity

- Max: 150 students in 10 covered seating areas
- Between 12-16 students per seating area
- Capacity: 17% of enrolled students

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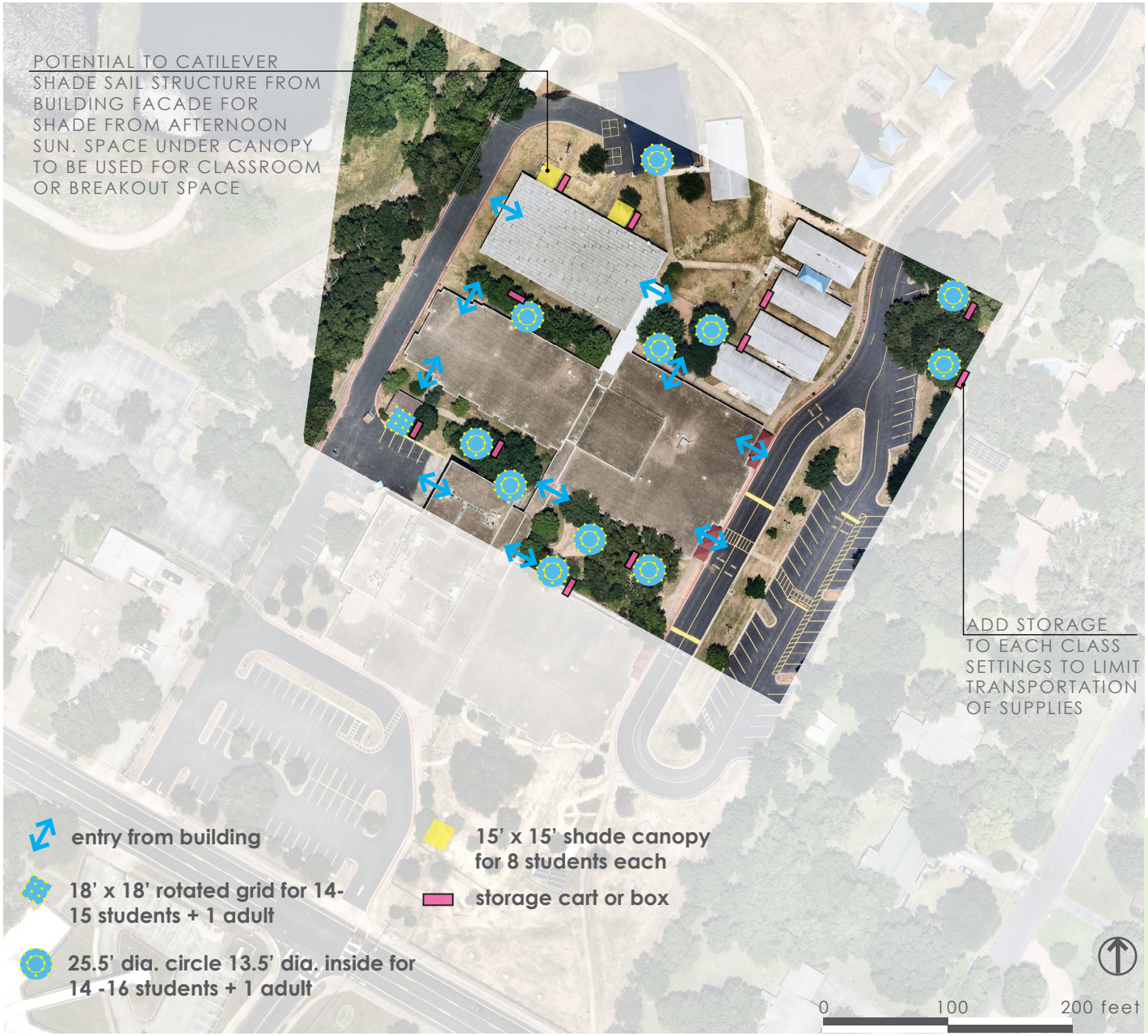
Potential Outdoor Classrooms

Providing Semi-Permanent Shade and Mild Weather Protection.

Davis Elementary School
Austin, Texas



Scenario #2: Moderate Cost

Climate Considerations

Build on Scenario #1

- Utilize existing trees and building facades to secure shade sails for protection from sun and light rain. Ideal shelters could be adjustable in height to allow winter sun.
- Potential to add catilever shade sail structures to facade of building for protection from sun outdoors.
- Add outdoor heaters and/or provide rain 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; go inside or online when it is too cold or harsh

Use and Augment Existing Infrastructure

- Add low cost seating (mats, stumps, benches, and/or existing desks/tables)
- Install shelters to protect from rain and sun in areas away from street
- Add storage sheds for class materials

Scenario #2: Outdoor Capacity

- Max: 191 students in 12 covered seating areas
- Max: 16 students/ circle and 15 students per grid and 8 students per pop up tent
- Capacity: 22% of enrolled students (out of 850 students)

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Potential Outdoor Classrooms
Providing Semi-Permanent Shade and Mild Weather Protection.

Davis Elementary School
Austin, Texas

Scenario #2: Moderate Cost

Climate Considerations

Build on Scenario #1

- Utilize existing trees and building facades to secure shade sails for protection from sun and light rain. Add poles where needed to provide secure attachements.
- Potential to install shade sails at location adjacent to buildings a part of the school's landscape masterplan. Secure wind break screens when needed during the winter.

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice; go inside when it is raining or too hot/ cold

Use and Augment Existing Infrastructure

- Add permanent seating at long term locations under trees. Seating types could be small wood pile seats, natural boulders, built wood benches, or picnic tables.
- Capitalize on shade from existing trees and buildings.

Scenario #2: Outdoor Capacity

- Max: 210 students in 14 outdoor areas (13 Tree canopy or building facade suplemented with sail cloth covered seating areas, and 1 covered seating area in the existing Athletic Pavilion)
- Capacity: 25% of enrolled students (out of approx. 850 total students)

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Potential Outdoor Classrooms

Providing Permanent Shade and Protection for All Weather Conditions.

Davis Elementary School
Austin, Texas

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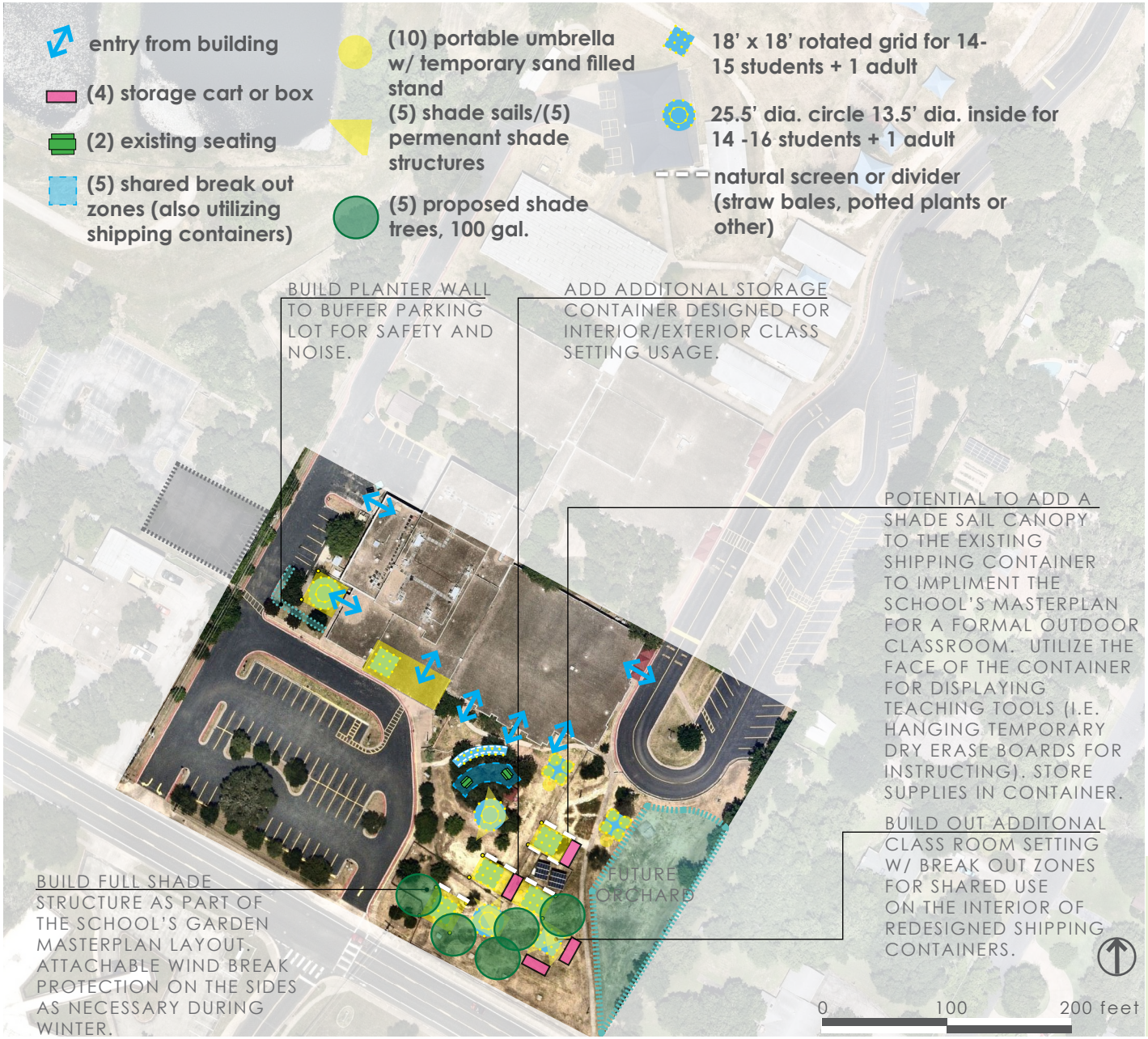

Scenario #3: High Cost

Climate Considerations

Build on Scenario #2

- Utilize existing trees and building facades to secure shade sails for protection from sun and light rain.
- Install permanent vertical supports w/ shade sails at locations a part of the school's landscape masterplan. Utilize vertical posts to secure wind break screens when needed during the winter.

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice; go inside when it is raining or too hot/ cold
- Place seating areas within 300' of the building for ease of accessibility

Use and Augment Existing Infrastructure

- Add permanent seating at long term location (i.e. botanical structure and shipping crate structure). Seating types could be small wood pile seats, natural boulders, built wood benches.
- Utilize existing shipping container for outdoor classroom storage.
- Capitalize on existing shade under building canopy and existing trees.

Scenario #2: Outdoor Capacity

- Max: 150 students in 10 covered seating areas
- Between 12-16 students per seating area
- Capacity: 17% of enrolled students

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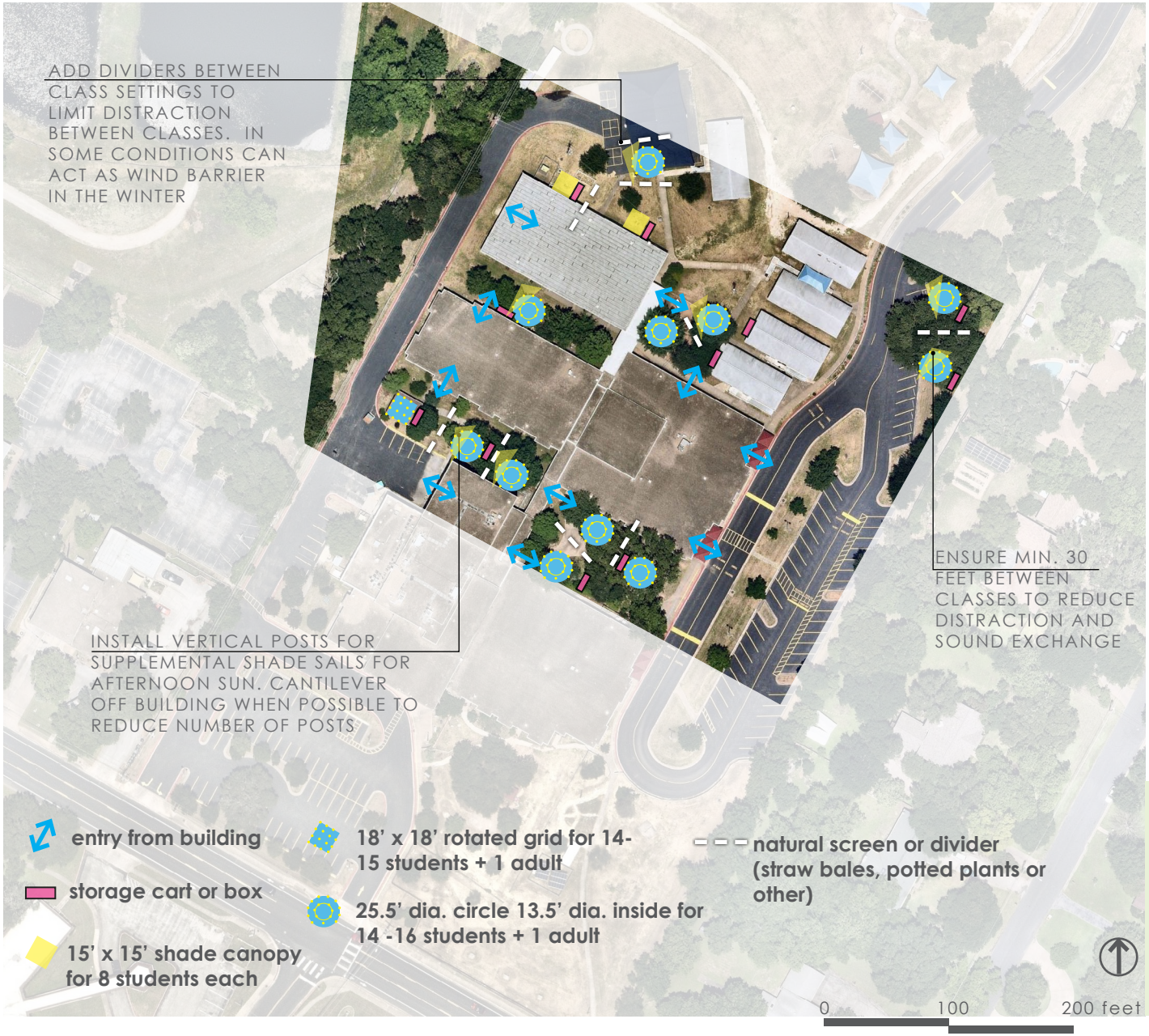
Potential Outdoor Classrooms

Providing Permanent Shade and Protection for All Weather Conditions.

Davis Elementary School
Austin, Texas



Scenario #3: High Cost

Climate Considerations

Build on Scenario #2

- Provide comfortable seating off the ground to reduce effects of heat and insects.
- Install shade sails as supplemental cover with priority to block western afternoon sun
- Provide potted trees for green views or straw bales to divide outdoor class areas. Trees could be replanted in ground later

Climate Adaptation Strategies

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

Use and Augment Existing Infrastructure

- Preserve space for gardening and nature play
- Leave room and flexibility for long-term outdoor classroom vision ideas

Scenario #3: Outdoor Capacity

- Max: 207 students in 12 covered seating areas
- Max: 16 students/ circle, 15 students per grid and 8 students per pop up tent
- Capacity: 24% of enrolled students

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Potential Outdoor Classrooms

Providing Permanent Shade and Protection for All Weather Conditions.

Davis Elementary School
Austin, Texas

Scenario #3: High Cost

Climate Considerations

Build on Scenario #2

- Install three, modified 40' storage containers along exercise trail to provide indoor/outdoor classroom areas with storage
- Plant evergreen shade trees along exercise trail to provide shade and areas for future natural outdoor classrom areas.

Climate Adaptation Strategies

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

Use and Augment Existing Infrastructure

- Preserve and activate space for gardening and nature play
- Leave room and flexibility for long-term outdoor classroom vision ideas

Scenario #3: Outdoor Capacity

- Max: 255 students in 17 outdoor areas (16 Tree canopy or building facade suplemented with sail cloth covered seating areas, and 1 covered seating area in the existing Athletic Pavilion)
- Capacity: 30% of enrolled students (out of approx. 850 total students)

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