

**DIVISION OF THE STATE ARCHITECT
2018 TRIENNIAL CODE CYCLE
GREEN BUILDING FOCUS GROUP
WORKSHOP #2
January 18, 2018 – Agenda Item 1
*Discussion on Shade Tree at Schools and Community Colleges***

**CALIFORNIA GREEN BUILDING STANDARDS CODE
(CALGreen Code) PART 11
TITLE 24, CALIFORNIA CODE OF REGULATIONS**

1. Scope of proposed tree shade measure
 - a. Should this measure focus on one or a combination of the following?
 - i. Parking Lots?
 - ii. Playgrounds? Playfields?
 - iii. Campus open areas used by students (amphitheater, grass meeting areas, etc.)?
 - iv. Campus landscaped areas?
 - b. Should new requirements apply only to new campuses or to both new and existing campuses? If so, what would trigger this requirement on an existing campus?
 - c. How do trees add or subtract from the efficacy of the photovoltaic (PV) systems and shade structures?
2. Example in both Leadership in Energy and Environmental Design (LEED) and Collaborative for High Performance Schools (CHPS-CA): *Provide shade (within 5 years) on at least 50% of non-roof, paved impervious or pervious surfaces on the site, including parking lots, walkways, plazas, etc.*
3. Example of a city ordinance landscaping requirements at parking lot planters: *Trees shall be interspersed throughout the parking area so that in 15 years 40 percent of the parking lot will be in shade at high noon, assuming the sun directly overhead. The percentage of area required to be shaded shall be based on aboveground and uncovered parking area. Trees shall be equivalent to 10-gallon-can size or larger at planting.*

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**CHAPTER 3
GREEN BUILDING**
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301.4 Public schools and community colleges. [DSA] Newly constructed buildings and facilities on new or existing sites shall comply with Chapter 5. Alterations of or additions to existing buildings shall **only** be required to comply with Chapter 5, Sections **5.107 and** 5.304.6, ~~Outdoor Water Use~~.

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**CHAPTER 5.1
PLANNING AND DESIGN**
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5.107 Shade trees. [DSA-SS] For public schools and community colleges, shade trees, with a minimum size at planting of a ten (10) gallon container or equal, shall be installed to comply with Sections 5.107.1 through 5.107.5. Percentages shown shall be measured at twelve o'clock noon. Landscape irrigation shall be installed to establish and maintain tree health in accordance with Section 5.304.6.

5.107.1 Aboveground and uncovered parking areas. Shade trees interspersed throughout the parking area so that in 15 years 40 percent of the parking lot will be in shade.

5.107.2 Playground areas. Shade trees interspersed throughout the impervious or pervious hard surface play area(s) so that in 15 years 40 percent of the play area will be in shade.

5.107.3 Turf playfield spectator areas. A minimum of four shade trees planted on each spectator side of each playfield with a minimum assumed 20 foot setback from playfield boundaries measured to the edge of a grown tree canopy in 15 years.

5.107.4 Turf gathering areas. A minimum of four shade trees planted along outer perimeter of gathering space.

5.107.5 Alterations and additions to existing buildings. A minimum of a total of four shade trees shall be planted at any of the areas indicated in Sections 5.106.1 through 5.106.4.

Exceptions:

1. Existing solar arrays can be counted toward percentages outlined in Sections 5.107.1 and 5.107.2
2. Shade trees shall not be planted too close to existing solar arrays so that at full growth at 20 years they do not overlap any edge of the photovoltaic shade structure.
3. Areas with playground structures