

**AGENDA ITEM 2a COOL/SUSTAINABLE PAVEMENTS
DRAFT INITIAL EXPRESS TERMS
FOR PROPOSED BUILDING STANDARDS
OF THE CALIFORNIA BUILDING STANDARDS COMMISSION
REGARDING THE 2022 INTERVENING CODE ADOPTION CYCLE,
CALIFORNIA GREEN BUILDING STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11
CALIFORNIA GREEN BUILDING STANDARDS (CALGreen)
([RULEMAKING FILE #])**

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout and ellipsis.

LEGEND for EXPRESS TERMS (California only codes - Parts 1, 6, 8, 11, 12)

- Existing California amendments appear upright
- Amended or new California amendments appear underlined
- Repealed California language appears ~~upright and in strikeout~~
- Ellipsis (...) indicate existing text remains unchanged

INITIAL EXPRESS TERMS

ITEM [Insert Item #]

CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES, SECTION 5.106

SITE DEVELOPMENT

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5.106.10 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows . . .

5.106.XX.X Cool/Sustainable Pavements [N]

[CCRC workshop collaboration for 2022 Intervening Code Cycle Development]

5.106.12 Shade trees. [SEE AGENDA ITEM 2b FOR SHADE TREE DRAFT INITIAL EXPRESS TERMS]

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APPENDIX A5

NONRESIDENTIAL VOLUNTARY MEASURES

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SECTION A5.106

SITE DEVELOPMENT

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A5.106.11 Heat island effect. [SEE ITEM 2b FOR DRAFT INITIAL EXPRESS TERMS FOR Reduction of Heat island effect] . . .

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A5.106.11.1 Hardscape alternatives. Use one or a combination of strategies 1 and 2 for 50 percent of site hardscape or put 50 percent of parking underground.

1. Use light colored materials with an initial solar reflectance value of at least 0.30 as determined in accordance with American Society for Testing and Materials (ASTM) Standards E1918 or C1549.
2. Use open-grid pavement system or ~~pervious~~ or permeable pavement system.

A5.106.11.1.1 Cool/Sustainable Pavements **[CCRC workshop collaboration for 2022 Intervening Code Cycle Development]**

Further reduce (nonroof heat islands) in in vehicle parking lots, in hardscaped walkways, plazas and courtyard areas. vehicle parking lots and hardscaped areas by providing approved construction plans using one or a combination of the following (4) methods and specifications for sustainable pavement:

1. In vehicle parking lot areas, use modified Caltrans specifications for Recycled Asphalt Pavement (RAP).
2. In vehicle parking lot areas, use modified Caltrans specifications for Cold In-place Recycling (CIR) for partial and full-depth recycling procedures using asphalt recycling agents and/or portland cement stabilization.
3. In vehicle parking lot areas, use Caltrans specifications for cool pavements.
4. In hardscaped walkways, plazas, and courtyard areas, use modified Caltrans specifications for permeable pavements.

A5.106.11.2 Cool roof for reduction of heat island effect. Use roofing materials having a minimum aged solar reflectance . . .

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Rationale:

[Initial Statement Of Reasons (ISOR)]

Section A5.XXX.XX Cool/Sustainable Pavements.

CBSC is proposing this voluntary section as a recognized method for preserving the environment and further advancing California's commitment to reducing GHG emissions and addressing climate change. Both BSC and Caltrans recognize that there are four

major pavement strategies to be sustainable without negatively affecting performance: Recycle Asphalt Pavement (RAP), Cold In-place Recycling (CIR) with asphalt or cement, cool pavement and permeable pavement. Recycling (RAP or CIR) reduces the need to use natural materials, as existing pavement structures can be rejuvenated and used as new. Cool pavements reflect more solar energy, absorbing less heat and lowering its temperature. Permeable pavements absorb stormwater reducing runoff, filtering pollutants and improving water quality.

In 2022, the California Building Standards Commission (BSC) co-hosted with other state agencies a series of CALGreen Carbon Reduction Collaborative (CCRC) workshops comprised of interested parties and state agencies to provide input and feedback for future carbon reduction regulations in CALGreen. The proposed regulatory updates may be considered for inclusion in the 2022 California Green Building Standards Code, Part 11 during the 2022 Intervening Code Adoption Cycle. As Subject matter experts, Caltrans contributed a presentation outlining the benefits of using sustainable pavement designs that can be scalable for parking lots and hardscape applications.

The specific purpose of this amendment to the CALGreen nonresidential voluntary measures, is to provide viable options for local jurisdictions to adopt through the ordinance process proven industry cool and sustainable pavement strategies for parking lots and hardscape areas.

Using cool and sustainable pavement applications in site development is a sensible and reasonable path to approach a commitment to address climate change challenges and to aim at achieving Senate Bill 32 (SB 32) 2030 targets. Since industry stakeholders are already equipped to take advantage of the benefits that allow recycled materials and innovative methods to be used in parking lot pavement mix designs, adopting these methods at the local level can effectively reduce GHG emissions while realizing life cycle cost savings.

Incorporating the cool and sustainable pavement strategies in wide scale highway applications, Caltrans has demonstrated that reusing recycled pavement and certain building materials at varying levels can reduce embodied carbon. These sustainable practices can be scaled to certain building site development applications and promote the optimal use of building materials with high-recycled or low-carbon products. By adopting these practical, cost-effective pavement options through ordinance processes, local jurisdictions can allow designers, developers and building owners greater flexibility in addressing responsible sustainability in building site development.

Notation:

Authority: [Insert statutory authority]

Reference(s): [Insert statutory reference(s)]