

**DOWNTOWN URBAN FORM PROJECT**

**DRAFT Sustainability Standards, August 29, 2007**

**Existing R-4 and R-5 Districts to Remain (Roosevelt South, Grant Park, Central Park)**

**Benchmark Standards**

- SET 100° F for typical, shaded pedestrian areas such as sidewalks
- SET 95° F for “cool island” locations (pocket parks, building entrances etc.)
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**Shading – Ground Level**

*Shade is measured at solar noon on the summer solstice*

*Shade from trees and 50% open shade fabric is considered as full shade*

- 75% of the sidewalk area to be shaded at solar noon on the summer solstice.
- 50% of surface parking lots to be shaded by buildings, shade structures or tree canopy (after 5 years)
- 100% of building entrances facing onto public streets

**Shading – Building Walls Addressing Streets and Publicly Accessible Spaces**

*50% Perforated metal or open weave material is considered as full shade for the following:*

- 25% of the south facing wall surface is to be shaded at solar noon on the summer solstice.
- 25% of the east and west facing walls are to be shaded at 9:30 am and 3:30 pm on the summer solstice.

**Shading – Roofs**

- 50% of habitable roof areas (including parking decks) are to be shaded at solar noon on the summer solstice. (Roof shade can take the form of photo voltaic panels.)

**Ground Cover**

- Areas within the right of way (with the exception of driveways and sidewalks) to be planted with continuous ground cover.

**Paving**

- Sidewalks and plaza areas to be sand set, pre-cast concrete pavers (2" thick, 5,000 psi) with a minimum SRI of 35.
- Traffic areas of streets to be rubberized asphalt with light colored aggregate. (Minimum SRI?)

**Roofing Material**

| Roof Type         | Slope | SRI |
|-------------------|-------|-----|
| Low sloped roof   | >2:12 | 78  |
| Steep-sloped roof | <2:12 | 29  |

- Use roofing material having an SRI equal to or greater than the values in the table above for a minimum of 75% of the roof surface. A vegetative roof can be used in lieu of an SRI roof.

**Wall Materials**

- Wall materials to be light colored materials with smooth surfaces with the ability emit heat to the surrounding environment. (High levels of reflectivity and emissivity).
- Materials with a reflective index of less than .4 are to be covered with a near infra-red reflective coating.

**Green Walls**

- Green walls are encouraged to reduce excessive radiant heat accumulation in pedestrian areas receiving excessive sunlight.

#### **Shading Materials**

- Where possible, shading materials for trellises and canopies to be made of low mass, non conductive materials. When used, metal is to be coated with a light colored, infrared reflective paint. Large shading surfaces such as shade cloth to be 50% open to encourage evening cooling.