



Heat island reduction

GIBC9 | Possible 1 point

Intent

To reduce heat islands to minimize effects on the microclimate and human and wildlife habitat.

Requirements

Option 1. Nonroof measures

Use any combination of the following strategies for 50% of the nonroof site hardscape (including roads, sidewalks, courtyards, parking lots, parking structures, and driveways):

- a. Provide shade from open structures, such as those supporting solar photovoltaic panels, canopied walkways, and vine pergolas, all with a solar reflectance index (SRI) of at least 29.
- b. Use paving materials with an SRI of at least 29.
- c. Install an open-grid pavement system that is at least 50% pervious.
- d. Provide shade from tree canopy (within ten years of landscape installation).

OR

Option 2. High-reflectance and vegetated roofs

Use roofing materials that have an SRI equal to or greater than the values in Table 1 for a minimum of 75% of the roof area of all new buildings within the project; or install a vegetated ("green") roof for at least 50% of the roof area of all new buildings within the project. Combinations of SRI-compliant and vegetated roofs can be used provided they satisfy the equation in Option 3.

Table 1. Minimum solar reflectance index value, by roof slope

Roof slope	SRI
Low (≤ 2:12)	78
Steep (> 2:12)	29

OR

Option 3. Mixed nonroof and roof measures

Use any of the strategies listed under Options 1 and 2 that in combination meet the following criterion:

Area of Nonroof Measures ----- 0.5	+	Area of SRI Roof ----- 0.75	+	Area of Vegetated Roof ----- 0.5	≥	Total Site Hardscape Area	+	Total Roof Area
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