

# SUSTAINABLE LAND USE CODE PROJECT

## Capitol Region Council of Governments



## MODEL REGULATIONS: GREEN ROOF INCENTIVES

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# GREEN ROOF INCENTIVES

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## Introduction

Green roofs—roofs of a building partially or completely covered with vegetation—serve several important sustainability goals, including:

- Helping to lower urban air temperatures and mitigate the summer urban heat island effect,<sup>1</sup>
- Reducing building energy use by providing additional insulation,
- Absorbing greenhouse gases,
- Reducing stormwater runoff,
- Providing open space for residents and employees, and
- Creating wildlife habitat.



Hollander Building, Hartford, CT

An increasing number of cities such as Chicago, Portland, Seattle, and New York City are offering significant incentives bonuses in their development codes to promote installation of green roofs. This section offers a variety of potential zoning incentives that a local government in the Capitol Region might consider to promote creation of green roofs.

## Model Code Provisions for Green Roof Incentives

### 1.1. GREEN ROOFS--GENERAL

#### 1.1.1. PURPOSES

The purposes of these provisions relating to green roofs are to:

- A. Promote the conservation of energy;
- B. Reduce the urban heat island effect;
- C. Reduce stormwater runoff;
- D. Encourage creation of open space and related amenities; and
- E. Promote creation of wildlife habitat.

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<sup>1</sup> Defined as an area, such as a city or industrial site, having consistently higher temperatures than surrounding areas because of a greater retention of heat, as by buildings, concrete, and asphalt and thus often use more energy for air conditioning.

**1.2. DEFINITIONS AND INCENTIVES**

**1.2.1. GREEN ROOF DEFINITION**

A “green roof” shall mean the roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and irrigation systems. Pre-planted tray systems with green roof layers combined into small units shall qualify as a green roof. However, container gardens with plants in pots or roofs painted a reflective color without plants shall not qualify as a green roof for purposes of this section.



**1.2.2. INCENTIVES**

Roofs that meet the definition of green roof shall qualify for the following incentives provided they meet the standards set forth below.

**A. Height Waiver**

1. Vegetation on a green roof may exceed the applicable zone district height limit by up to 35 feet.<sup>2</sup>
2. Buildings qualifying for a green roof floor area bonus shall automatically be allowed to exceed the maximum zone district height by 12 feet.

**B. Floor Area Calculation Waiver<sup>3</sup>**

1. The total area of a green roof shall be excluded from the calculation of gross (or net) floor area even when access to the rooftop is provided.

**C. Green Roof Floor Area Bonus**

1. Where the total area of a green roof is at least 30 percent but less than 60 percent of a building’s footprint, each square foot of green roof shall earn two square feet of additional floor area.
2. Where the total area of a green roof is at least 60 percent of a building’s footprint, each square foot of green roof shall earn three square feet of additional floor area.

**D. Open Space Credit**

1. The total square footage of any green roof shall be credited towards any open space requirement in the zoning regulations (Option: Offer 2-3X credit as additional incentive).
2. Decks and patios that are less than 15 percent of a green roof area and setback



<sup>2</sup> This would allow trees 35 feet tall at maturity. This number should be tailored to local preferences.

<sup>3</sup> In jurisdictions that do not use floor area ratio as a regulatory metric, the local government might consider bonuses related to other metrics and bonuses such as increasing the percentage of lot coverage or permissible building height.

three feet from all building edges may also be excluded from gross floor area calculations.

**E. Stormwater Management Credit**

Green roofs shall be recognized as an acceptable best management practice for purposes of calculating stormwater management requirements and credited appropriately.

**1.2.3. CODE COMPLIANCE**

Green roofs shall comply with all applicable state building codes.