

Green Roof Initiative

Compare the Green Roof Initiative with the new proposal

Passed by voters in the November 2017 election, Denver's Green Roof Initiative took effect Jan. 1. The benefits envisioned include decreasing building energy consumption, greenhouse gas emissions and the urban heat island effect. Notwithstanding these admirable intentions, the Green Roof Initiative has been heavily opposed by, among others, Mayor Michael Hancock, members of the Denver City Council, Denver Metro Chamber of Commerce, Downtown Denver Partnership, and local developers and property managers. They criticized the initiative as a "one-size-fits-all" approach that is impractical, inflexible and prohibitively expensive. Tellingly, a recent report from a local newscast revealed that no green roofs have been added in Denver since the initiative's implementation, as developers and building owners seemingly wait for legislative help.

The city's Green Roof Review Task Force was formed to rem-



Brady McShane
Shareholder,
Greenberg Traurig
LLP

edy this. The 24-member group, comprising representatives from City Council, city staff, green roof proponents, the real estate industry, and other stakeholders and industry experts have been meeting since January with the goal to improve the Green Roof Initiative. On June 25, city staff briefed a City Council committee on the task force's proposed changes, which appear to have been well received. City staff is in the process of turning the task force's proposal into a draft ordinance, which ultimately will be considered by the full City Council later this year. Changes to the current ordinance would require approval by two-thirds of the council (nine of 13 members).

■ Comparison of existing initiative and task force proposal. According to the task force, the proposal's new requirements and options – such as cool roofs and ground-level green space – achieve benefits equal to or greater than the current ordinance, while also reducing compliance costs for developers and building owners. This would seem like a step in the right direction. The table below compares the current requirements of the Green Roof Initiative to the task force proposal.

In addition, certain types of new and existing buildings may be exempt from all or part of the Green Roof Initiative, as modified by the proposal. The complete proposal, including applicable exemptions, can be found on the city's website.

■ The devil is in the details. Clearly, more compliance options are better than fewer, especially if those options ultimately lead to greater reductions at less cost. Also, the

proposal appears to address two of the more common complaints with the initiative. Some estimate that up to 90 percent of the existing buildings cannot comply with the initiative due to structural issues. The proposal gives those owners additional and more cost-efficient compliance options that would not require structural retrofitting. Others believe that the initiative places a disproportionate burden on certain new one-story building types. The proposal now considers the number of stories and reduces the roof coverage requirements for some one-story building types as compared to the initiative.

As always, however, the devil continues to be in the details. Below are a few issues to keep in mind going forward.

• All compliance options are not created equal. The city commissioned Stantec's sustainability division to conduct a cost-benefit analysis of the compliance options. The

analysis indicates that the new proposal results in meaningful cost reductions for all new and existing building types. Notably, the analysis also suggests that existing office buildings most likely will select the energy program option for retro-commissioning equipment and systems, and existing retail and industrial buildings will most likely select the energy program option to convert to LED lighting. It is unclear what compliance option(s) are more likely to be selected for new buildings. It also is unclear whether developers will need to be incentivized to adopt certain identified compliance options.

• Appropriateness and effectiveness of in-lieu fee and resulting special revenue fund: The city will commission a rate study to determine the appropriate fee amount to be paid in lieu of implementing a compliance option. It will be important that the determined rate accurately represents, and does not overstate, the cost required to implement the compliance options. It also will be critical that the city and its partners manage the special revenue fund for green space acquisition and improvement efficiently and effectively to ensure maximum benefit.

• Green areas will not actually be green. Forget dreams of grass-filled active park space spread throughout the city. Green grass requires lots of water and energy to maintain. While still to be defined, the city likely will require that the contents of the green areas be similar to xeriscaping.

• Impact on affordable housing. Affordable housing is developed on very thin profit margins. Any new regulatory requirement that increases costs to develop, therefore, threatens the construction of much-needed affordable housing in the city. The proposal attempts to address this by allowing developers to select the Enterprise Green Community compliance option, with which city-supported affordable housing projects already are required to comply and permitting residential buildings five stories or fewer to only install cool roofs.

• Potential for green spaces trading program. The Department of Public Works also will study the possibility of creating a green spaces trading program, whereby developers who construct more than the required green space may generate and sell their excess green credits to other developers in need of credits to comply with the ordinance. Such programs have been successfully implemented in different contexts, like carbon emission credits and the transfer of floor area. ▲

Current Requirements	Task Force Proposal
New buildings over 25,000 square feet	
Select one of three options: 1. Green roof: Green roof covering 10-60 percent of the roof, depending on building type and size; 2. Green and rooftop solar: Green area equivalent to at least 30 percent of the required area; and on-site solar equivalent to up to 70 percent of required area. 3. Rooftop solar: On-site solar covering 100 percent of roof area (or 80 percent coverage in industrial buildings)	Install cool roof plus select one of eight options: 1. Green roof/green area: A green roof or green space anywhere on the site, equivalent to 10 percent of roof area times the number of floors (max. 60 percent of roof area required). 2. In-lieu financial contribution: A financial contribution for off-site green space. (Task Force recommends \$25 per square foot; actual costs to be determined by future rate study.) 3. Green area and solar: Green area equivalent to 3 percent of roof area times the number of floors (max. 18 percent of roof area required); and on-site solar (or other renewable energy) total system production equivalent to solar over 7 percent of roof area times the number of floors (max. 42 percent of roof area required). 4. Green area and energy efficiency: Green area equivalent to 3 percent of roof area times the number of floors (max. 18 percent of roof area required); and minimum 5 percent estimated energy cost savings above current city of Denver energy code at the time of permitting. 5. Solar: On-site solar (or other renewable energy) for a total system production equivalent to solar panels covering 70 percent of roof area. 6. Energy efficiency: Minimum 12 percent estimated energy cost savings above current city of Denver energy code at the time of permitting. 7. LEED Gold: LEED Gold or equivalent certification. 8. Enterprise Green Communities Certification: Enterprise Green Communities is a nonprofit that specializes in affordable housing.
Existing buildings 25,000 square feet or larger	
Green and rooftop solar: At the time of roof replacement, install green roof to at least 30 percent of the required area and rooftop solar up to 70 percent of required area.	At the time of roof replacement, install a cool roof plus select one of five options: 1. Green roof/green area: A green roof or green space anywhere on site covering an area equal to 2 percent of roof area times the number of floors (max. 18 percent of roof area). 2. Solar: Solar panels covering 5 percent of the roof area times the number of floors, up to 42 percent coverage; or area required to meet 100 percent building annual electricity consumption. 3. LEED Silver: LEED Silver or equivalent certification or Enterprise Green Communities certification or equivalent. 4. In-lieu financial contribution: A financial contribution to the city's special revenue fund for green projects. Total square footage should be equivalent to 2 percent of roof area times the number of floors (max. 18 percent of roof area). (Task Force recommends \$17 per square foot; actual costs to be determined by future rate study.) 5. Energy program: Enrollment in a flexible energy program to achieve emission reductions similar to those achieved by the on-site solar option.