

Green Roof Density Bonus Review Process



Increase allowable dwelling units 25% by adding a green roof.



Overview

The Philadelphia Zoning Code offers incentives for installing green roofs by providing exceptions to certain residential density rules. These exceptions apply to development projects within RM-1, CMX-2, and CMX-2.5 zoning districts. The green roof conditions necessary to satisfy the density exception are explained in §14-702 of the Philadelphia Zoning Code. Projects applying for this exception must obtain prerequisite approval from the Philadelphia Water Department (PWD).

Applying for the Density Bonus

Any project pursuing the Green Roof Density Bonus must submit an Existing Resource and Site Analysis (ERSA) Application at www.PWDplanreview.org. When submitting the ERSA application, indicate "yes" when asked about applying for the bonus. In addition to preparing an Erosion and Sediment (E&S) Control Plan, applicants seeking the bonus must also provide the following documents:

1. A detailed green roof plan, signed and sealed by a [registered professional](#), that includes the following:
 - a. General plan sheet requirements as specified in [Table E-1](#) of the Philadelphia Stormwater Guidance Manual (Manual).
 - b. Compliance with design guidance specified in [Section 4.3](#) and [Appendix F.9](#) of the Manual.
 - c. Calculations to demonstrate that the green roof covers at least sixty percent (60%) of the rooftop in accordance with §14-702(16)(a)(.4).
 - d. Calculations to demonstrate that the total earth disturbance is at least 5,000 square feet or,
 - e. Calculations to demonstrate that the footprint of the existing building is at least 5,000 square feet.
2. Completion of Registered Owner(s) of Property details in Project Information section of the ERSA application.
3. Operations and Maintenance (O&M) Schedule for the green roof as specified in [Table 4.3-1](#) of the Manual.
4. [Construction Certification Package](#) for the green roof.
5. SMP [Maintenance Guide](#) (prepared by the designer).

Review and Inspection Procedures

Once the ERSA application submission is received, the review will proceed according to procedures outlined in Chapter 2 of the Manual and the project's Review Path. PWD typically reviews the technical design of stormwater management systems as part of the Post Construction Stormwater Management Plan (PCSMP) Review Phase. However, projects seeking the Green Roof Density Bonus must obtain PWD's technical review of the green roof design earlier in the process, as part of the PWD Conceptual Review Phase. In addition, the green roof design must be finalized prior to applying for a Zoning Permit for incorporation into an Operations and Maintenance (O&M) Agreement. Applicants can use the PWD Conceptual Approval to obtain a Zoning Permit and to demonstrate compliance with PWD design standards in accordance with §14-702.

Review and Inspection continues on back ➤

Review and Inspection Procedures, Continued

After Conceptual Approval is obtained, projects that are applicable to the PWD Stormwater Regulations in the Development Compliance Review Path will proceed to the Post Construction Stormwater Management Plan (PCSMP) Review Phase as described in Chapter 2 of the Manual. Projects in the Development Exemption Review Path do not need to obtain an additional stormwater management review from PWD. Please note that projects in both paths must notify PWD at least seven (7) business days prior to the start of construction so that a preconstruction meeting can be held. In addition, the applicant must submit construction documentation to PWD both before and after construction is complete.

Major Review Variations: Applying For The Green Roof Density Bonus

Development Exemption Review Path

- Technical review of green roof components takes place during Conceptual Review Phase.
- O&M Agreement must be executed during the Conceptual Review Phase.
- PWD will inspect the project through the duration of construction.
- [Record Drawings](#) must be submitted to PWD at the conclusion of construction.

Development Compliance Review Path

- Technical review of green roof components takes place during Conceptual Review Phase.



Eligibility For Stormwater Billing Fee Credits

After construction and Record Drawing verification, eligible projects can use the installed green roof to apply for a credit to reduce their monthly stormwater bill. For more information contact PWD Stormwater Billing & Incentives at (215) 685-6070 or pwd.stormwatercredits@phila.gov and visit their website at water.phila.gov/stormwater/incentives/development.

Note that projects seeking the bonus are not eligible for a PWD Stormwater Grant for the green roof.

Philadelphia Water Department: More Information and Contact List

Access Philadelphia Water Department's **Stormwater Management Guidance Manual** online:


 water.phila.gov/SMGM

Want to discuss your green roof project? Sign up for a pre-application meeting:

[Pre-Application Meeting Request Form](#)

Contact **Stormwater Plan Review** with questions:

 PWD.PlanReview@phila.gov

 (215) 685-6387