

Calculation Sheet for Blue Roofs

Project Name: _____

Date Submitted: _____

Property Address: _____

Development/Property Name: _____

GMP Number: _____

Design Firm: _____

Design Engineer: _____ Telephone: _____ Email: _____

KY PE No.: _____

MSD Reviewer: _____

WM No. _____

Step A. Site Planning Recommendation

Define goals and primary function of the blue roof based on factsheet 18.5.8 or the Blue Roof Application and Site Feasibility Criteria, or Table 18.5.8-A. Refer to this factsheet or table as needed throughout the remainder of this calculation sheet.

Step B. Determine the Required Water Quality Volume Rain Event, RE_{WQV} in inches (Refer to Chapter 18.3; a minimum depth of 0.6 inches must be used):

_____ inches

Step C. Determine the total runoff volume and drainage

1. A = Contributing drainage area to blue roof: _____ ft^2
2. RE_{WQV} = Required WQV Rain Event in inches: _____ inches
3. I = Impervious cover of the contribution drainage area in percent: _____ %
 - a. $R_V = 0.05 + 0.009 (I) =$ _____
4. $WQV_{Required} = (A/12)(RE_{WQV})(R_V) =$ _____ ft^3

Step D. Compare total volume collected from blue roof to minimum water quality volume (WQV) from Step C.4

1. Total volume of water collected from blue roof _____ ft^3
2. Is volume collected greater than volume required? _____

Step E. Complete O&M documentation

Additional Calculations and Explanation (Required if design deviates from calculation sheet):
