



HOMWORK RAINGARDEN SITE PLAN WORKSHEET

This “homework” will assist you in the initial stages of designing and determining where to install your raingarden. Please complete before attending the Part B Workshop or scheduling an Onsite Consultation. If you have any questions along the way, please call 651-699-2426 and a landscape design assistant will return your call within 48 hours.

Step One: Call Gopher State One-Call (free service)

You need to make sure that when planning the location of your raingarden(s), you know where you cannot dig. Call Gopher State One-Call at 651-454-0002 to have your underground utilities marked.

Step Two: Test Your Soil Infiltration Rate

To test the infiltration rate of the soils in your yard, dig a hole in the likely raingarden area about the size of a coffee can. Fill the hole with water, let it soak for 2-3 hours minimum, then re-top the hole with more water and insert the provided stick right at the top of the water level. Leave the hole alone for one to two hours. When you come back, measure by inches how much the water level reduced and soaked into the ground from where you placed the stick. Then multiply that by how many hours it would take if you left it for a day. For instance, if you return after filling the hole one hour later, multiply the measurement by 24. If you returned two hours later, multiply the measurement by 12. This will give you the estimated depth of your raingarden.

1 Hour Return: _____ measurement x 24 = _____ = depth of the raingarden.

2 Hours Return: _____ measurement x 12 = _____ = depth of the raingarden.

Example: In Rusty’s yard, he dug a hole and did the measurement indicated above. He determined that during the one-hour measurement time, $\frac{1}{4}$ inch of water soaked into the ground. So he multiplied $\frac{1}{4} \times 24$ hours and got an answer of 6”. This will become the depth of his raingarden. Remember, 12 inches is probably the maximum depth you will want your garden.

Step Three: Size of the Garden

To determine the size of the garden you will need to capture the water created by a typical 1.25” rainfall, you first need to know the size of the roof or the driveway that will send water into the raingarden. First, multiply the width and the length of the roof that drains into the downspout you are redirecting to the raingarden or off a driveway. So if you have a section of the house that is 30’ x 20’ going to a downspout you would multiply those two numbers together: $30 \times 20 = 600$ square feet. This is then divided by the depth of your proposed raingarden. If the infiltration test yielded a 6” depth, then divide 600 sq. ft by 6”.

$$600 \text{ sq. ft (roof/driveway)} \div 6 \text{ in. (depth)} = 100 \text{ sq. ft of raingarden}$$

Step Four: Site Photos

Take pictures of the location(s) you want for the raingarden(s). Bring the photos and answers to the following questions to Workshop B.

1. Will your raingarden be in sun or shade: _____
2. Will your raingarden be on a hillside: _____
3. My soil infiltration rate is: _____
4. Your soil type if known (clay, silt, loam, sand): _____
5. The depth of my raingarden is: _____
6. Number of downspouts on your house: _____
7. Proposed size of your raingarden: _____ square feet
8. Make a list of your favorite plants (or colors): _____

Sketch out the Yard (optional, but very helpful)

When laying out the features of your landscape, use graph paper as an easy way to measure size. A typical urban yard is 40 x 128’. If you use an 8 ½ x 11 piece of graph paper (included in your workshop packet) make each square equal to two feet and the length of the yard will just barely fit on the paper lengthwise. If you have internet access, you can make this easy by looking for your yard’s aerial photograph at <http://www2.co.hennepin.mn.us/pins/> for basic lot size information.