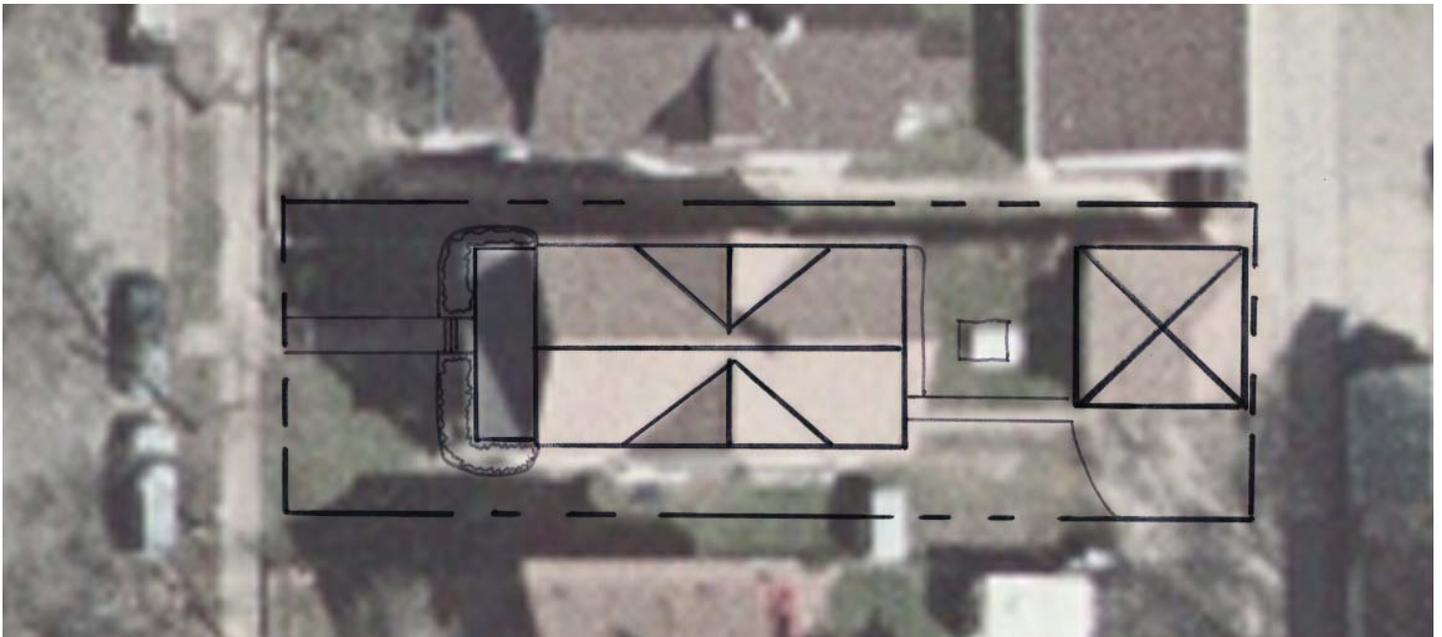


SITE PLAN WORKSHEET

Step One: Sketch out your Yard

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 live in Hennepin County and 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.

Another option is to simply print out an aerial view of your yard from Google Maps, Bing Maps, or Yahoo Maps and outline the important features such as building footprints, existing gardens, and sidewalks with black pen.



A sketch over a printed Google map

Step Two: Test Your Soil Infiltration Rate

To test the infiltration rate of the soils in your yard, dig a hole in the likely rain garden area about the size of a coffee can. Fill the hole with water and let it soak completely into the ground. Then re-fill the hole with more water and insert the provided stick right at the top of the water level. Leave the hole alone for exactly one hour. When you come back, measure by inches how much the water level has reduced and soaked into the ground from where you placed the stick. Then multiply that by 24

One Hour Return: measurement x 24 = = depth of the rain garden (inches).

Example: In Rusty's yard, he dug a hole and determined that during the one-hour measurement time, ¼ inch of water soaked into the ground. So he multiplied ¼ x 24 hours and got an answer of 6". This will become the depth of his raingarden. 6" is a very common depth for raingardens. It is easy to find plants that are happy at this depth. The deeper the garden, the more limited your plant palette becomes.

Remember: Never make your raingarden deeper than 12".

Step Three: Raingarden Sizing Calculations

You can use this simplified method for sizing your raingarden. Calculate the square footage of surface areas on your property by multiplying lengths times widths of the various areas. Include impermeable surfaces such as your roof, driveway, sidewalks, and patio areas. Also include your pervious areas such as lawn, landscaping, and gardens. After you have all of these surface areas mapped, you will want to delineate the areas draining into your proposed raingarden.

Example:

Rusty is proposing a raingarden next to his driveway. The portion of his driveway that will drain directly into his proposed raingarden is 18 feet long x 11 feet wide. ($18' \times 11' = 198$ sq ft) He also has a downspout which drains a 20 foot X 20 foot section of his house. ($20' \times 20' = 400$ sq ft) The turf area draining to his proposed garden is 30 feet x 15 feet ($30' \times 15' = 450$ sq ft) Multiply turf area by .6 to account for the roughly 60% of turf area that will become runoff. (450 sq ft x $.6 = 270$ sq ft)

$$198 + 400 + 270 = 868$$

Rusty's infiltration rate test indicated that he could get six (6) inches of water to soak into the ground within 24 hours. Thus, his garden should be about 1/6th of the surface area draining to his proposed garden, since his garden will be 6 inches deep.

$$868 / 6 = 270$$

Rusty's proposed garden should be about 270 square feet. He decides to make his garden 7 feet wide by 21 feet long.

Step Four: Site Photo

Take a picture of the location(s) you envision for the raingarden(s). Bring the photo and answers to the following questions to the workshop.

Step Five: Important Decisions

1. Will your rain garden be in sun or shade?
2. Will your rain garden be on a hillside?
3. My soil infiltration rate is: _____
4. Your soil type if known (clay, silt, loam, sand): _____
5. The planned depth of my rain garden is: _____
6. Number of downspouts on your house: _____ (mark their location on your sketch)
7. How will water get to the raingarden? (dry creek bed, underground pipe, overland flow, etc)
8. Make a list of your favorite plants (types or colors):

Step Six: Call Gopher State One-Call Before You Dig!

You need to make sure that when planning the location of your rain garden(s), you know where the utilities exist on your property. Once you have a good idea of where you plan to site your garden, **call Gopher State One-Call at 651-454-0002** to have your underground utilities marked. This is a free service. Draw them on your property sketch.