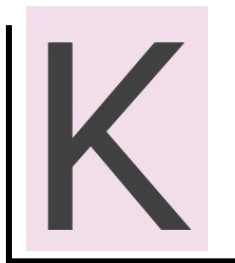




Contractor Skill-Building Webinar: Building a RainWise Rain Garden



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In This Presentation

- Preliminary planning and design
- Excavation best practices
- How to complete the installation for a rain garden



Preliminary Planning and Design

- General site evaluation
 - Able to capture entire roof (1,715 SF)
 - Two cisterns and a rain garden
 - Rain garden would have been huge, so installed two cisterns to reduce the size
 - Note #1: Adding a cistern to a cistern/RG combo does not increase the rebate, it just reduces the size of the rain garden.
 - Note #2: Also the size of the cistern doesn't determine the RG size



Preliminary Planning and Design

- Rain garden design
 - Front of house ideal for rain garden
 - Overflow access
 - Nice view from sidewalk
 - Not much going on in area
 - Big open area for rain garden of this size
 - Very shady for summer planting
 - Homeowner sent pictures of what they would like
 - Lush and dramatic
 - A lot of hostas, ferns, heucheras, etc
 - Important specs
 - 35 SF bottom area
 - At least 14' away from house (basement)
 - Two overflows, 10' apart



Preliminary
Planning and
Design:
Q&A

Excavation Best Practices

- Trenching
 - Trench to connect cistern overflow to rain garden inlet
 - PROTIP #1: Make sure trench is straight, use a fishing line or marking paint to help with this
 - PROTIP #2: Trench first before you dig out the rain garden, especially if you need to trench a far distance
 - PROTIP #3: Always trench deeper than expected



Excavation Best Practices

- Close-up of cistern overflow connection to trenched underground

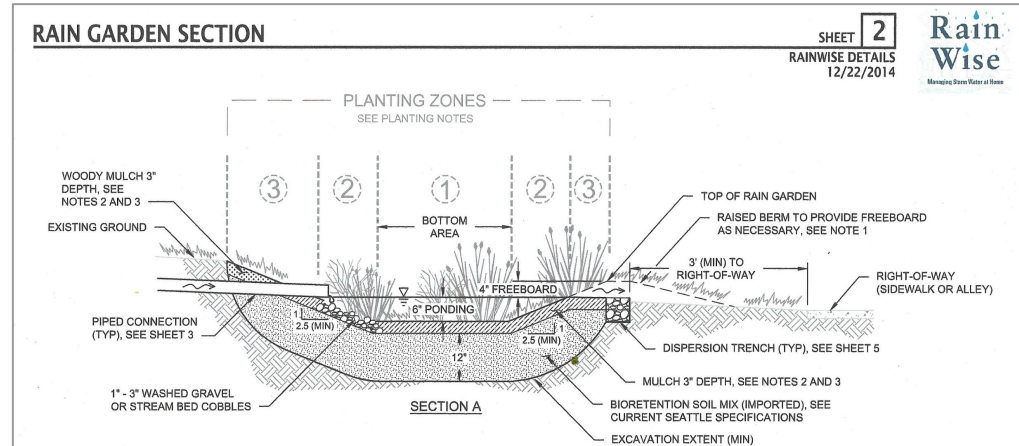


Excavation Best Practices

- Digging out bottom area of the rain garden
 - Dig out bottom area first
 - Make sure the depth of the bottom area is 25" from the bottom of the inlet pipe
 - 12" bioretention
 - 3" mulch
 - 6" ponding
 - 4" freeboard



Get at those roots!



Excavation Best Practices

- Building the slope of the rain garden
 - Slope of the rain garden needs to be at least 2.5 to 1
 - Creating a jig helps with measuring out the slope
 - Remember to account for mulch and bioretention soil when creating the 2.5 to 1 slope
 - Build a slight berm which will be the top of your rain garden



Excavation Best Practices

- How the rain garden looks after it's been sloped

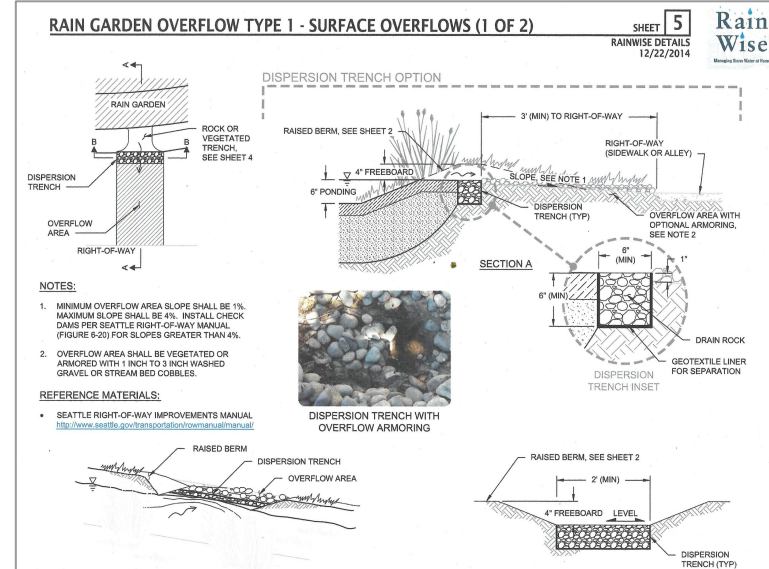
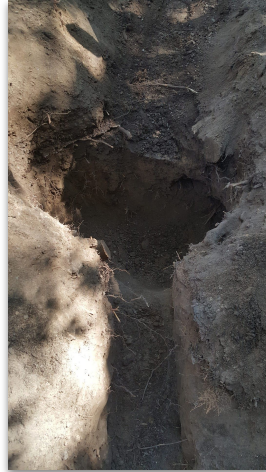


Remember to tamp!



Excavation Best Practices

- Creating the Outlet and dispersion trench
 - Outlet needs to be lower than the inlet
 - Dispersion trench can be built in the berm itself or outside of it
 - Dispersion trench specs:
 - At least 2' long
 - At least 6" deep
 - At least 6" wide
 - 4" freeboard
 - Lay landscape fabric
 - This part takes time



Excavation Best Practices

- Dispersion trench and outflow after landscape fabric is laid





Excavation Best Practices: Q&A



How to Complete the Installation for a Rain Garden

- Lay the bioretention soil
 - Layer needs to be 12"
 - Make sure there is room for mulch, ponding, and freeboard below the inlet
 - Be careful to keep 2.5 to 1 slope
 - Remember to tamp some more!



How to Complete the Installation for a Rain Garden

- About the plants in this rain garden



How to Complete the Installation for a Rain Garden

- Planting Time!



How to Complete the Installation for a Rain Garden

- Finally lay cobble for inlet, outlet, and dispersion trench. Mulch
- The rain garden is complete! - *Don't forget to water after planting!*



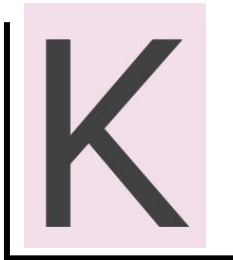
How to Complete the Installation for a Rain Garden

- Some important rain garden specs inspectors are looking for:
 - Outlets are lower than the inlets
 - If multiple outlets, they are at the same level
 - 2.5 to 1 slope ratio
 - Flat bottom area
 - 80% plant coverage (when fully grown)
 - If outflowing to sidewalk, the end of outflow meets with sidewalk
 - Cobble armoring inlets and outlets
 - At least 12" of bioretention soil
 - Adequate spacing from inlet to bottom of rain garden
 - Mulch in rain garden
 - ***PROTIP: Always consult the RainWise specifications handbook and take advantage of the free pre-inspection!***

How to Complete
the Installation for
a Rain Garden:
Q&A



Thank You!



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