



# Downspout Planter

## INSTALLATION GUIDE



[www.pwdraincheck.org](http://www.pwdraincheck.org)

### Tool List

- Power drill
- Measuring tape
- Digital camera
- Reciprocating saw ("Sawzall") and metal cutting blades
- Power grinder with metal cutting blade
- Level
- Masonry drill bit (if drilling into block or brick)
- Gardening hand tools
- Ladder
- Safety glasses
- Dust mask
- Work gloves

### Material List

#### Provided by PHS

- Pre-fabricated downspout planter and skirt
- Rain Check signage
- 6' garden hose
- Concrete Masonry Units (CMUs) or cinderblocks (for base)
- Drainage stone (pea gravel)
- WeedBlock landscape fabric
- Pre-mixed soil medium
- Plants
- Splash rock (mean 2" diameter)

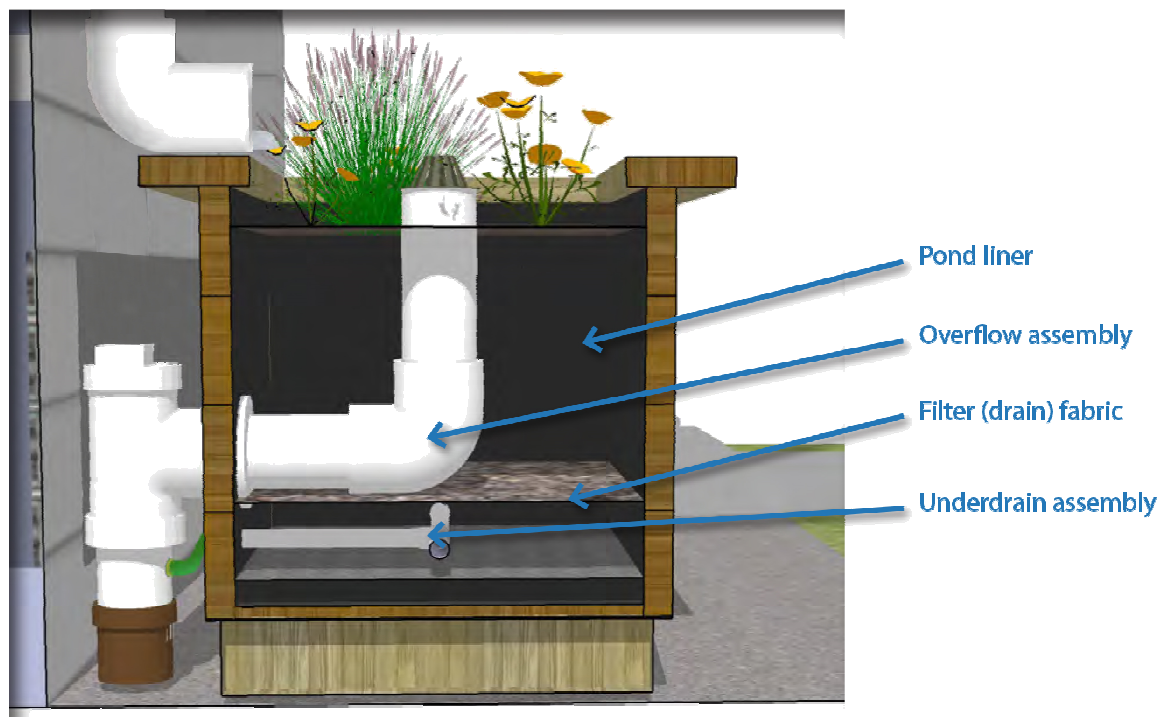
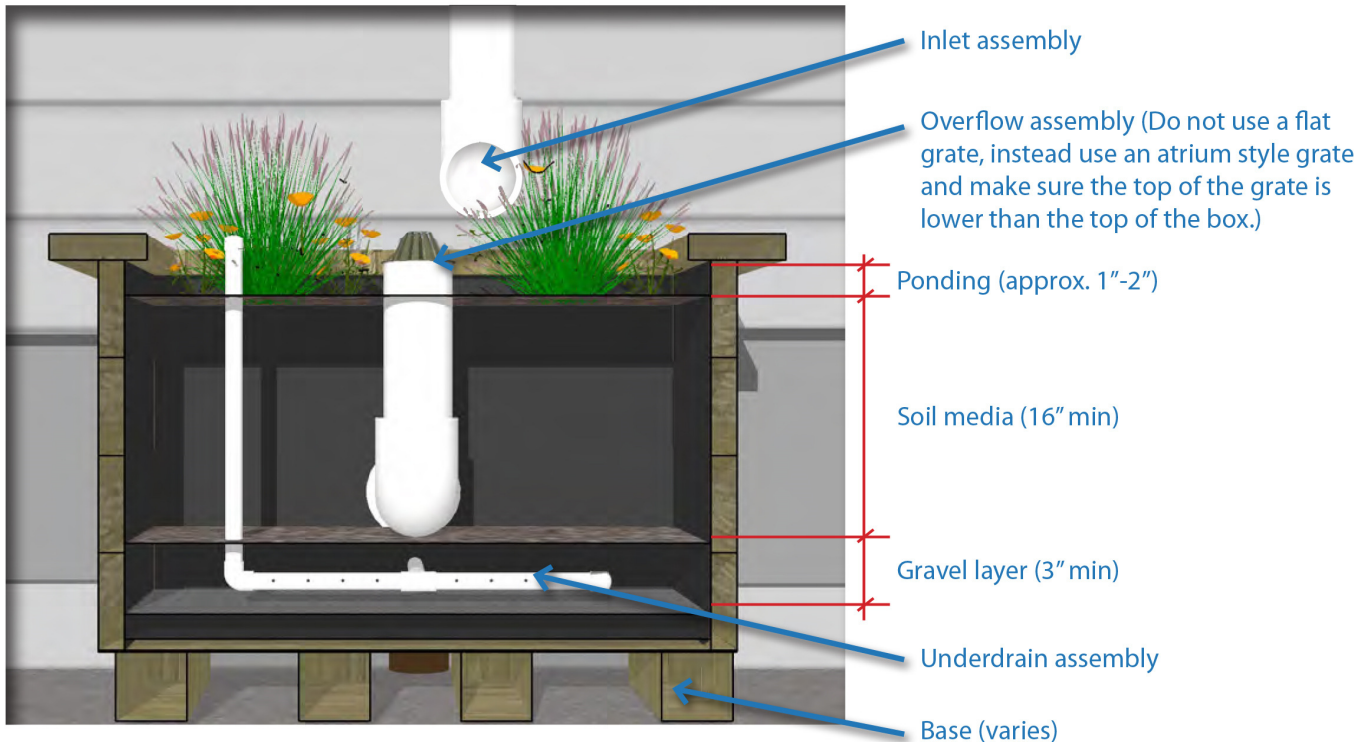
#### Provided by Contractor

- Exterior grade (composite) shims or other leveling material
- 1<sup>5</sup>/<sub>8</sub>" galvanized or stainless steel fasteners (decking screws)
- 1/2" or 5/8" stainless steel screws (white top gutter screws)
- Masonry screws and/or anchors
- 3/4" metal cutting drill bit (for hose)
- Assorted 3" and 4" plumbing pieces (straight, 45° elbow, 90° elbow, coupler, "Wye", cleanout cap, rubber boot, rubber cap, etc.)
- Assorted downspout pieces (3" or 4", round and rectangular, elbows, straights, diverters, braces, fasteners)



The Rain Check Program is funded by the Philadelphia Water Department and managed by the Pennsylvania Horticultural Society in partnership with the Sustainable Business Network.

### Anatomy of a Downspout Planter Box



### Initial Assessment

1. Consult assessment report and confer with participant to confirm location of installation.
2. Take a "Before" photo that includes the downspout.

### Placement

1. Using the nominal measurements of the planter, place CMUs or cinderblocks at ground level to create the base.
3. Place the skirt on the ground, surrounding the base. The 2x2 braces in each corner of the skirt should be situated so that the gap is facing upwards.
4. Place the planter onto the base. Double check that the base is level – this will be the last chance to ensure level. Make sure the skirt will fit around bottom of planter by lifting it straight up. Adjust as necessary.
5. Lift the skirt so that the gap above the 2x2 braces are flush with the base of the planter and secure with 1 $\frac{5}{8}$ " decking screws. The skirt will be elevated above the ground.



2. Use exterior grade composite shims (or other moisture-proof leveling material) to level the base. Shims should be placed to promote a fairly even distribution of weight. The base should be level in all directions.





## Plumbing

1. Cut the downspout at the appropriate height (there must be a slight downward slope from downspout to diverter outlet – at least  $\frac{1}{4}$ " per 4 linear feet). Add additional bracing to downspout, if necessary.



2. Using grinder and/or reciprocating saw, cut sewer riser to appropriate height, if necessary. From planter, all piping should maintain at least  $\frac{1}{4}$ " per every 4 feet of downward pitch for proper drainage. Exact height of riser cut will vary.

3. Connect garden hose to underdrain and connect to appropriate drainage location.
4. Connect overflow to appropriate drainage location using plumbing components. If tying drainage back into riser, install a removable cleanout cap (PVC "Wye" with cap). If riser pipe is being abandoned, install a rubber cap over opening of pipe. Exterior plumbing components should not be glued.



## Plumbing (Continued)

5. Configure downspout to enter planter. Planters located directly underneath or adjacent to downspout may use flexible “accordion-style” diverters as long as the planter is supporting the diverter. Any run of pipe that is not directly supported by the planter must use rigid downspout material. Ensure piping has a slight downward slope (at least  $\frac{1}{4}$ " per 4 linear feet) and is secure at both the downspout and at the outlet (fasten to trim assembly using downspout strapping, if necessary). Downspout should drain to area with splash rock and should not be directed to overflow drain.



## Filling & Planting

1. Make sure the horizontal portion of the underdrain is correctly sloped (towards drainage outlet). Fill the bottom of the planter with a minimum of 3" of clean washed drainage stone (pea gravel) to create a base drainage layer. Use just enough gravel to completely cover the horizontal portion of the underdrain.



2. Place WeedBlock filter fabric over base drainage layer. Tuck ends of fabric between gravel and the planter box liner to secure it.



3. Place soil medium into planter to a height 1-2" below overflow drain inlet (atrium grate).





### Filling & Planting (Continued)

4. Plant vegetation according to planting instructions provided with the plants. Taller species should be planted in the rear with shorter species in front. Grasses may be isolated. Be sure to water plants after planting is completed.



5. Place splash rock underneath the downspout diverter outlet to a depth of approximately 1" and covering around 1/3 of the soil. This will allow stormwater to disperse throughout the planter.



### Completion

1. Attach skirt to planter using 1-5/8" screws. Attach screws from the side (not the front) when possible.
2. Affix Rain Check signage to planter using 1/2" or 5/8" stainless steel fasteners (white top gutter screws preferred). Signage should be facing street or passersby.
3. Take "After" photos.

