

## **DETERMINE PLANTER BOX LOCATION**

**Determine how high on top of cinder blocks (and/or 4x4 blocks of wood) the planter box needs to be off the ground in relation to the stub.**

- Bottom of the planter box needs to be a few inches higher than the stub
- Using a string level, determine planter box bottom height
- Underdrain hole needs to be 1 ¾ inches minimum from the bottom of the box

**Determine planter box orientation and location based upon the following three (3) connections:**

### 1. Diverter Connection

Two diverter options (convey water from the downspout into the top of the planter box):

1. Garden Water Saver – planter box needs to be less than 4 feet from downspout
2. Flexible – planter box needs to be located immediately adjacent to downspout so

### 2. Overflow Assembly

Overflow connection will be located at the back or side of the planter box.

- Overflow hole is located approximately 8 inches from the top of the planter box
- Overflow will convey water either:
  1. Directly (via 1" PVC Schedule 40 (PVC) pipe) to existing stub or
  2. Away from box and house via 1" PVC pipe (with 1 or 2 elbow joints) to a location in the yard away from the home
- Make sure top of overflow is about 2" below top level of box.

### 3. Underdrain Assembly

An overflow connection should be located at the back or side of the box and will convey water either:

1. Directly (via ball valve & garden hose leader) to existing stub or
2. Directed water away from the house via 1" PVC pipe (with an elbow)

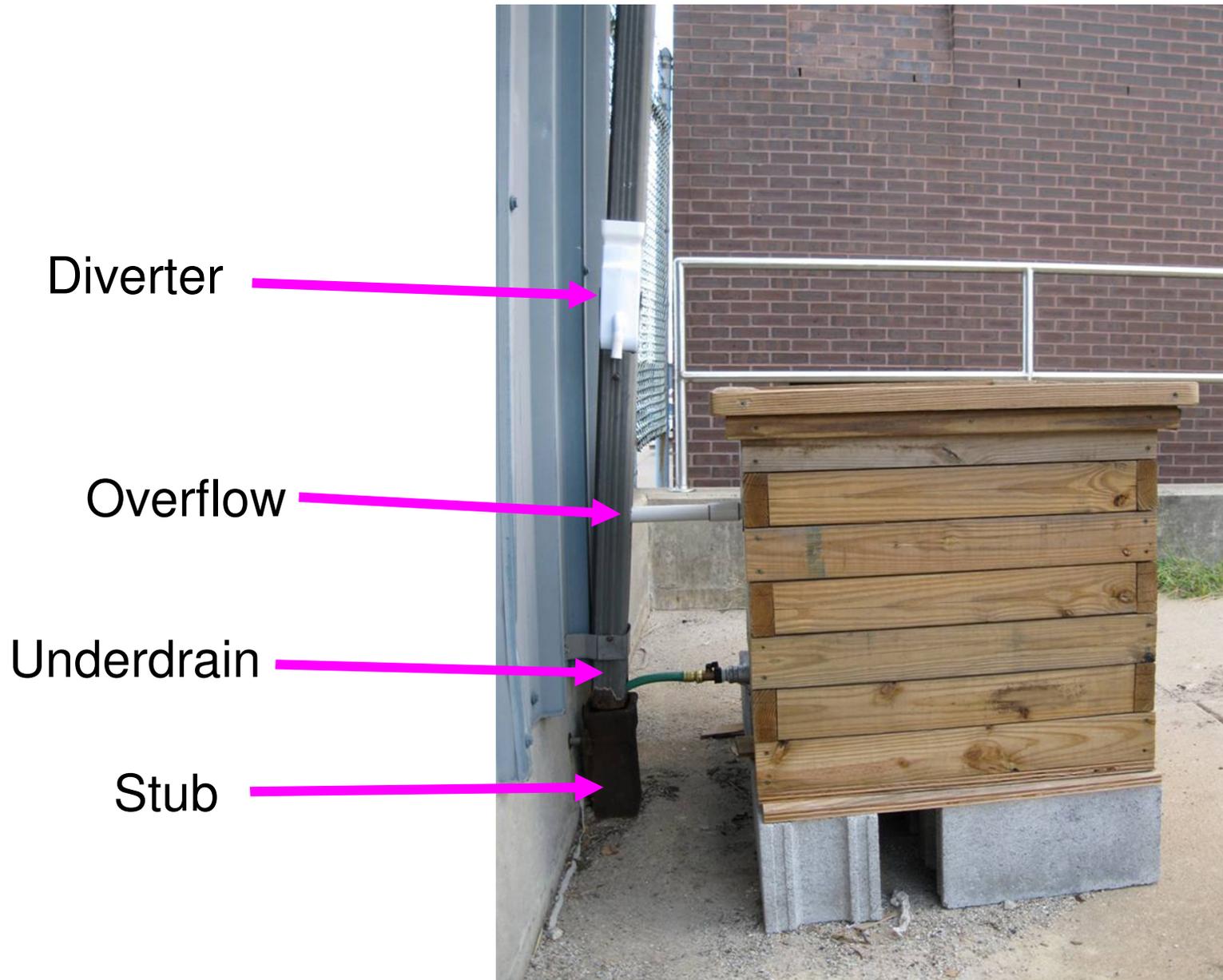
## **INSTALLATION STEPS**

- 1. Have a lead advisor approve the planter box location/orientation & Underdrain Assembly parts/layout.**
- 2. Level the ground below the planter box.**
- 3. Place (5) five cinder blocks (and/or (4) four 4"x 4" wood blocks) in planter box location ensuring under drain pipe will be positioned a few inches higher than stub.**
- 4. Install Underdrain Assembly – parts are delivered dry fitted and need to be glued together with 2-part adhesive provided. Zip tie white filter fabric to cover/enclose perforated section of the underdrain pipe.**
- 5. Have lead advisor approve Underdrain Assembly & approve Overflow Assembly.**
- 6. Install Overflow Assembly.**
- 7. Add (3) three 50-lb bags of gravel to bottom of planter box (covering underdrain pipe).**
- 8. Cover gravel with black filter fabric.**
- 9. Add 12 inches of engineered soil mix by pre-mixing the following in a provided tub:**
  - (8) eight 50-lb bags of all purpose sand**
  - (3) three 5-gallon buckets of compost**
  - (1) one 50-lb bags of top soil**
- 10. Install plants – ask lead advisor for guidance (taller growing species in back, lower growing species in front)**
- 11. Add (1) one 0.5-cubic feet bag of river stone as a top mulch/energy dissipater (Ensure top of stone is 2" below top of overflow)**
- 12. Install Downspout Diverter**

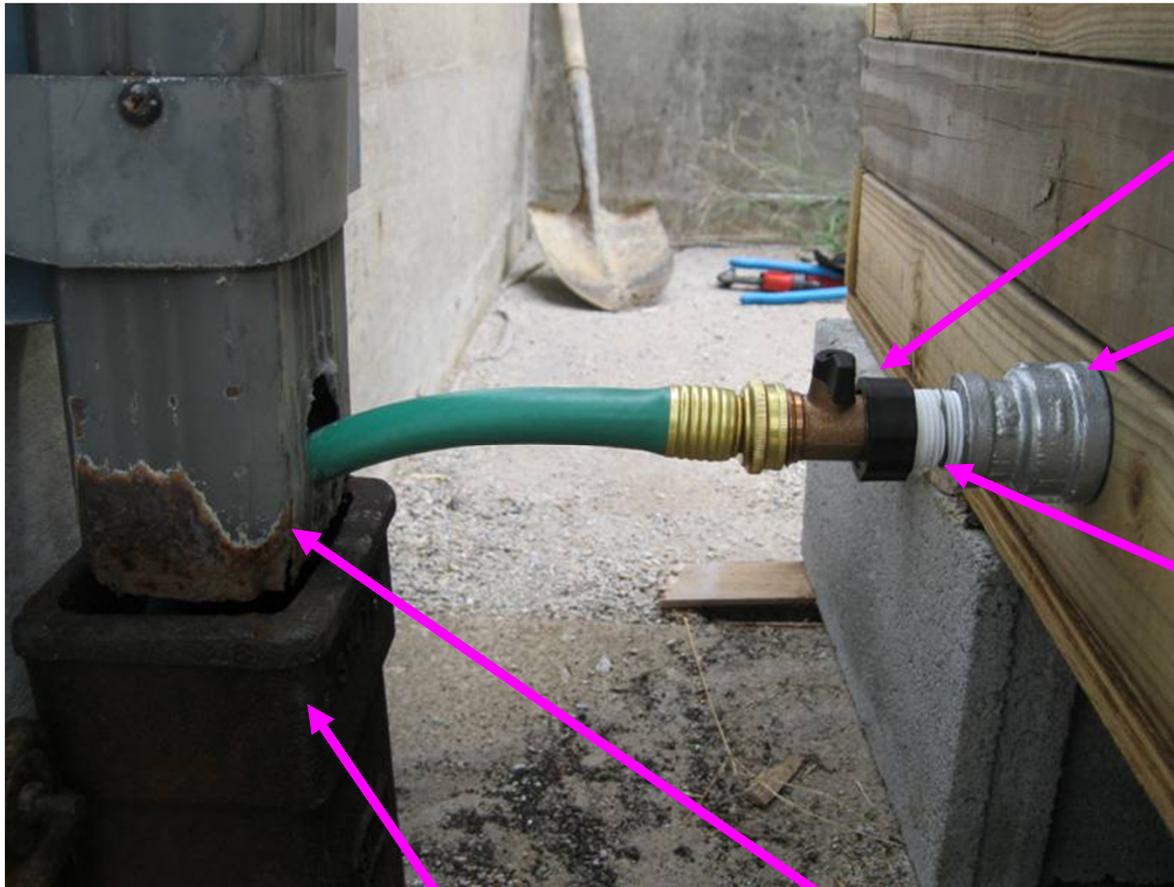
**Tool List:**

- (1) Battery powered electrical drill (with extension cord)  
*Multiple uses (diverter attachments, drill holes in planter box for plumbing, etc.)*
- (1) 1 3/8-inch drill bit  
*To drill out underdrain hole and overflow hole*
- (1) Utility knife  
*To cut 2 holes (1. for underdrain and 1. overflow) in pond liner*
- (2) Channel lock wrenches  
*To tighten plumbing attachments*
- (1) Hack saw (to cut  
*To cut downspout for diverter attachment*
- (1) Tape measure  
*Misc.*
- (1) X foot height ladder  
*Diverter attachment*
- (1) String (twine)  
*Leveling/height determination of planter box in relation to stub height*
- (1) Line level  
*Leveling/height determination of planter box in relation to stub height*
- (1) Survey stake  
*Leveling/height determination of planter box in relation to stub height*
- (3) 5-gallon buckets  
*Transport compost from delivery truck to assembly area*

# Flow Through Planter Box



# Underdrain Assembly



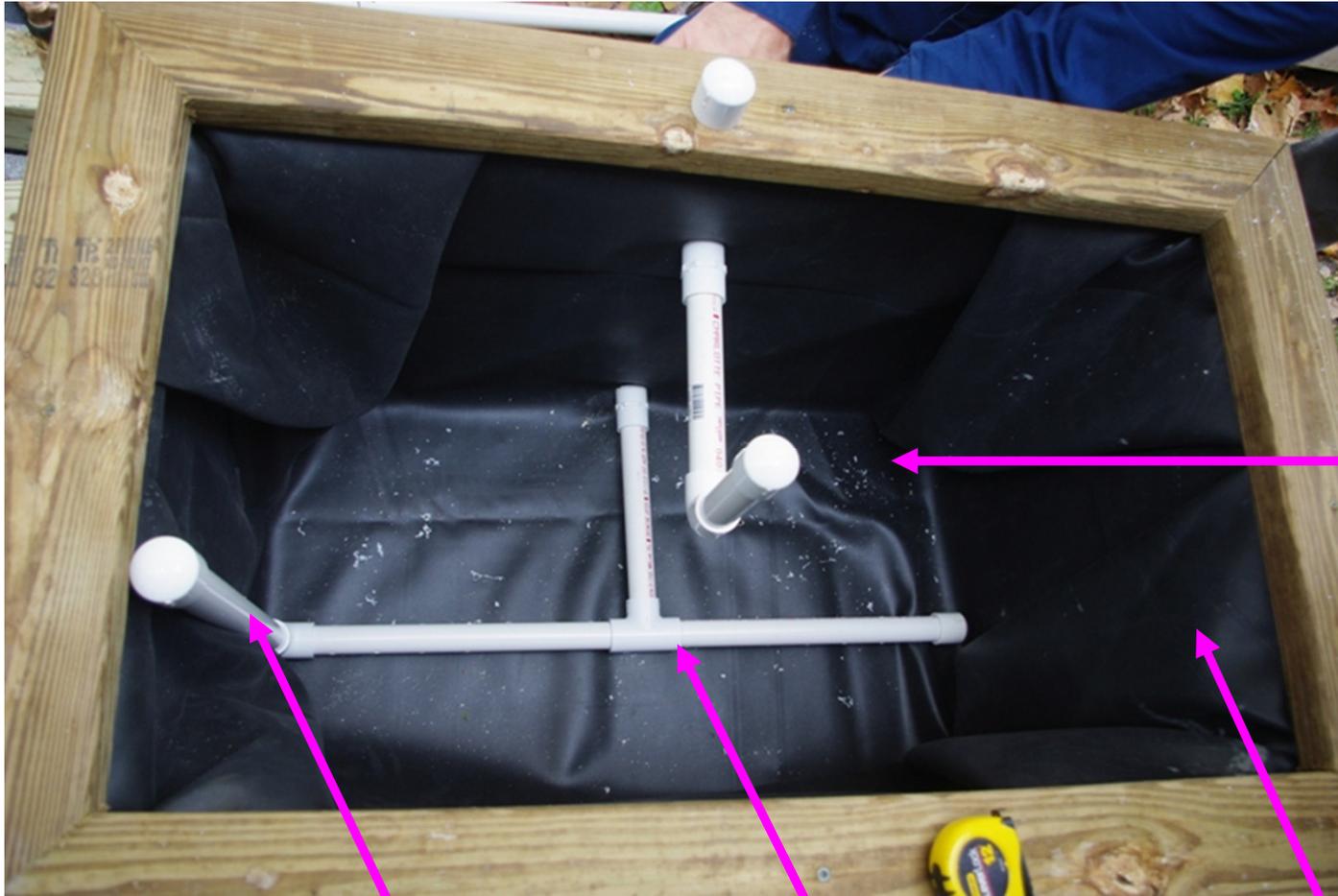
Flow valve

1" to 3/4" brass  
reducer

3/4" nipple

Stub

Downspout



Overflow  
assembly

Cleanout riser for  
underdrain

Underdrain assembly

Pond liner



1. Underdrain (w/fabric) & overflow plumbing installed.



2. Gravel filled to cover underdrain piping.



3. Filter fabric installed overtop gravel.



4. Soil mix (12 inches) installed with space for overflow stick up.